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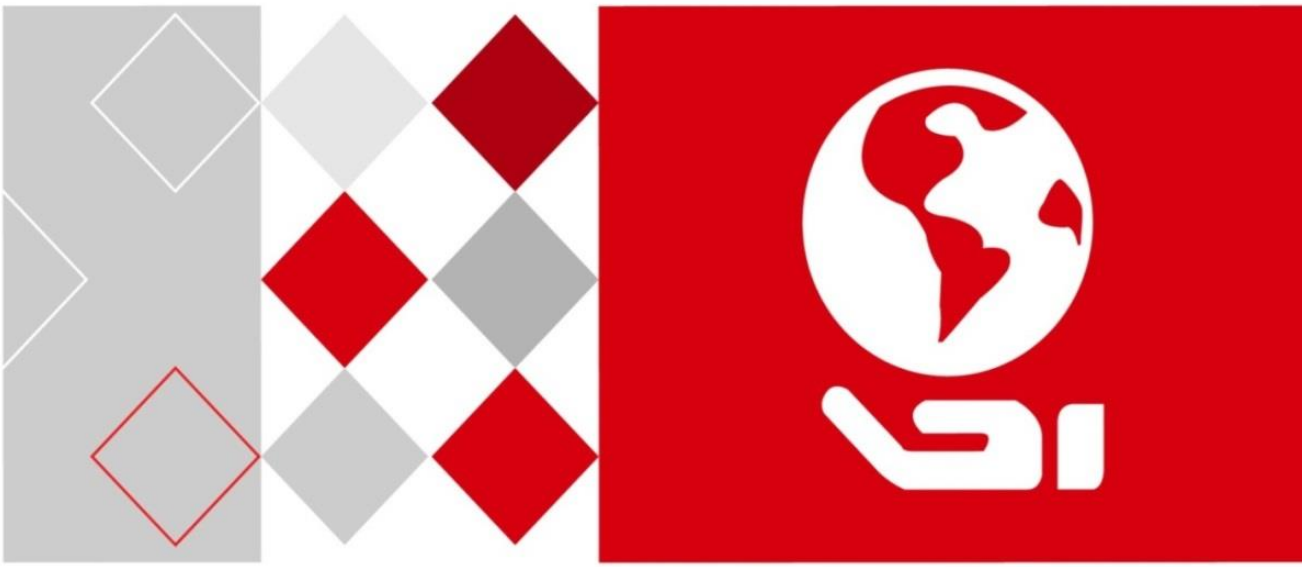

Access Controller

User Manual

V1.0

UD03325

User Manual

About this Manual

This Manual is applicable to Master Access Controller

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (http://overseas.hikvision.com/en/).

Please use this user manual under the guidance of professionals.

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Regulatory Information

FCC statements:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interface, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.

2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, the RoHS Directive

2011/65/EU.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info.

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (B)/NMB-3(B) standards requirements.

Preventive and Cautionary Tips

Before connecting and operating your device, please be advised of the following tips:

- Ensure unit is installed in a well-ventilated, dust-free environment.
- Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.
- Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the unit as a result of dropping it may cause damage to the sensitive electronics within the unit.
- Use the device in conjunction with an UPS if possible.
- Power down the unit before connecting and disconnecting accessories and peripherals.
- A factory recommended HDD should be used for this device.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the manufacturer.

Safety Information

Signs	Description
Warning	Follow these safeguards to prevent serious injury or death.
Notice	Follow these precautions to prevent potential injury or material damage.
Tips	The additional information as a complimentary of the contents.

Warnings:

- Please adopt the power adapter from the legitimate factory which can meet the safety extra low voltage (SELV) standard.
- Do not install, wiring, or uninstall when the power is still on.
- To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture.
- This installation should be made by a qualified service person and should conform to all the local codes.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)

Notice:

- Please do not drop the objects on hard surface, and keep the equipment from the magnetic field. Avoid install the equipment to the vibrated or vulnerable places.
- Please do not install the device in the extreme temperature (higher than 70℃ or lower than -20℃).
- Keep ventilation.
- Do not operate in humid environment.
- Do not operate in explosive environment.
- Keep the device clean and dry.
- Avoid bare electrical wire.

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Table Of Content

1 Overview

1.1 Features

1.1.1 Master Access Controller Features

- Supports TCP/IP communication and self-adapting network speed and the communication data is more safe with a special encryption method.
- Supports double network interface for uplink communication.
- Supports four RS-485 loops for downlink communication which has functions of dead pixel detection and communication redundancy. It also has a specified network interface to increase the communication bandwidth.
- Up to 64 distributed access controllers can be connected to control maximum 128 doors.
- Supports storing 200 thousand legal cards and 600 thousand records of swiping card.
- Supports opening door with 1000 authentication codes directly.
- Supports functions of anti-passing back, door opening by multi cards, first card, super card or super password, online upgrading and remotely opening door.
- Supports alarm functions of card reader tamper-proof, not-closed door, opening door by force, waiting door open timeout, duress card and code, blacklist and reaching attempts limit of swiping illegal card.
- Supports short circuit attempts alarm and open circuit attempts alarm for zones.
- Supports many kinds of cards including normal card, card for disable person, card in blacklist, patrol card, visitor card, duress card and super card, etc.
- Supports many kinds of status indicators.
- Supports three kinds of time synchronization (NTP, manual or auto).
- Supports offline record keeping and insufficient space alarm for storing records.
- Supports backup batteries, watchdog and tamper-proof functions.
- Supports saving data forever when the master access controller is power off.
- Supports event linkage.
- Supports USB port to upgrade devices (the device will be auto upgraded when restarted), import/export configuration parameters or card parameters and export attendance record.

1.1.2 Distributed Access Controller Feature

- Provides high performance and fast speed with 32 bits high speed processer.
- Supports configuring 20 thousand cards via client software, 60 thousand records of swiping card and 20 thousand records of swiping self-learning legal card.
- Provides terminals of door magnetic, door switch and door status detection.
- Supports alarm in and fire alarm in and abnormal circuit (short circuit or open circuit) detection function can be configured.

- Supports alarm functions of card reader tamper-proof, not-closed door, opening door by force, waiting door open timeout, duress card and code, blacklist and reaching attempts limits of swiping illegal card.
- Supports many kinds of cards including normal card, card for disable person, card in blacklist, patrol card, visitor card, duress card and super card, etc.
- Supports event linkage and card linkage functions.
- Supports connecting a card reader via RS-485 or Wiegand interface. For RS-485 interface, it has two interfaces and supports detection of loop power fault and redundant functions. For Wiegand interface, it supports W26 or W34 format to connect a third-party card reader.
- Supports many kinds of status indicators.
- Supports connecting many kinds of card readers including Mifare card reader, ID card reader, CPU card reader, and fingerprint card reader, etc.
- Supports getting status of distributed access controller via remotely operating master access controller in client, including online status, temper-proof status, power supply status, storage battery status and information of whether power storage is in low voltage status, etc.
- Supports offline record keeping and insufficient space alarm for storing records. When the controller is power off, the data can be saved forever.
- Supports backup storage batteries, watchdog and tamper-proof functions.
- Supports many kinds of working mode: online mode, offline mode (configuration mode, self-learning mode and not-support mode).

1.2 Appearance

1.2.3 Front Panel and Indicators Description of Master Access Controller

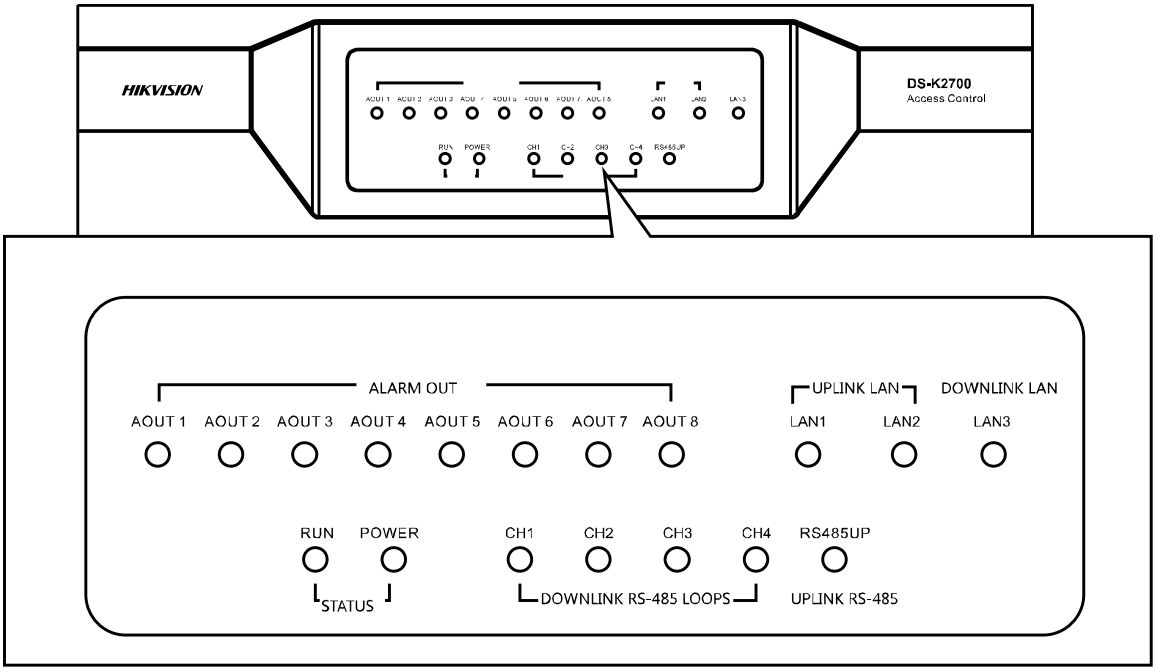
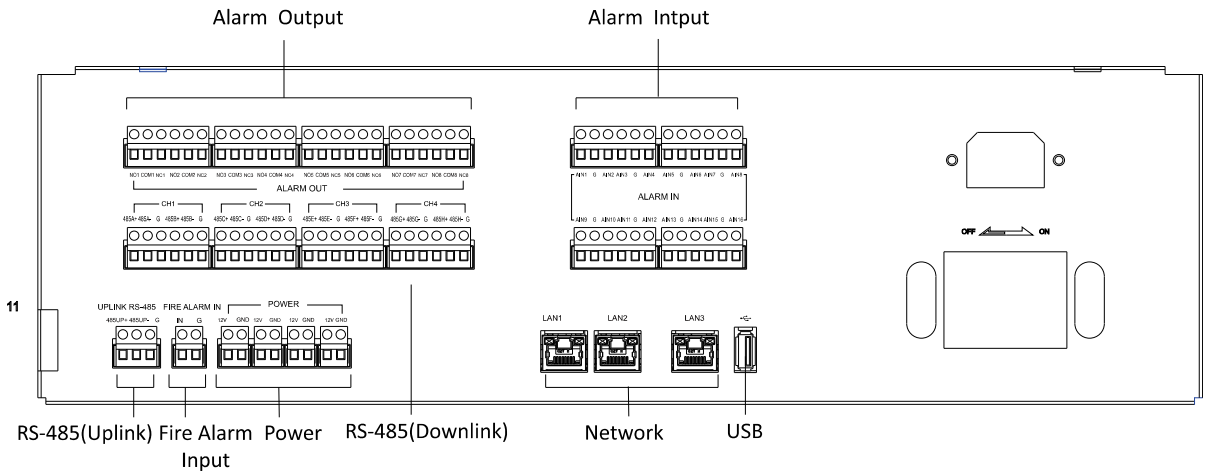


Table 1-1 Indicators Description of Master Access Controller

Indicators	Description	Implication
Alarm Out	Display the status of alarm out	**Off(Red)**: No alarm out **On(Red)**: Alarm out
Uplink Network	Display the working status of uplink network (LAN1/LAN2)	**Off**: Distributed controller network connection exception **On**: Distributed controller network normally connected **Flashing**: Device has armed via the LAN port
Downlink Network	Display the working status of downlink network interface	**Off**: Network connection exception **On**: Network is normally connected **Rapid Flashing**: connected and master access controller can communicates with distributed access controller via LAN3
Run	Display the working status (RUN) and power status (POWER) of master access controller	**Flashing**: Device is normally working
Downlink Serial Port	Display the working status of downlink serial loop (CH1/CH2/CH3/CH4)	**Off**: No device in the loop or loop exception **On**: The loop is normally working with device.
Uplink Serial Port	Display the communication status of uplink RS-485	**Off**: Distributed controller RS-485 Online **On**: Distributed controller RS-485 Offline

1.2.4 Rear Panel and Indicators Description of Master Access Controller



Terminal	Description
Alarm Out	The connection terminal of alarm out.
Alarm In	The connection terminal of alarm in.
RS-485(Uplink)	Connect to the uplink client software (Reserved).
Fire Alarm In	The alarm input terminal of short circuit attempts and open circuit attempts.
RS-485 (Downlink)	Downlink RS-485 serial can be used to build a communication loop with distributed access controller.
Network Interface	LAN1/LAN2 can be used to communicate with the client and LAN3 can be used to communicate with distributed access controller.
USB	USB port can be used to import or export the data and upgrade the device.

1.2.5 Appearance and Indicators Description of Distributed Access Controller

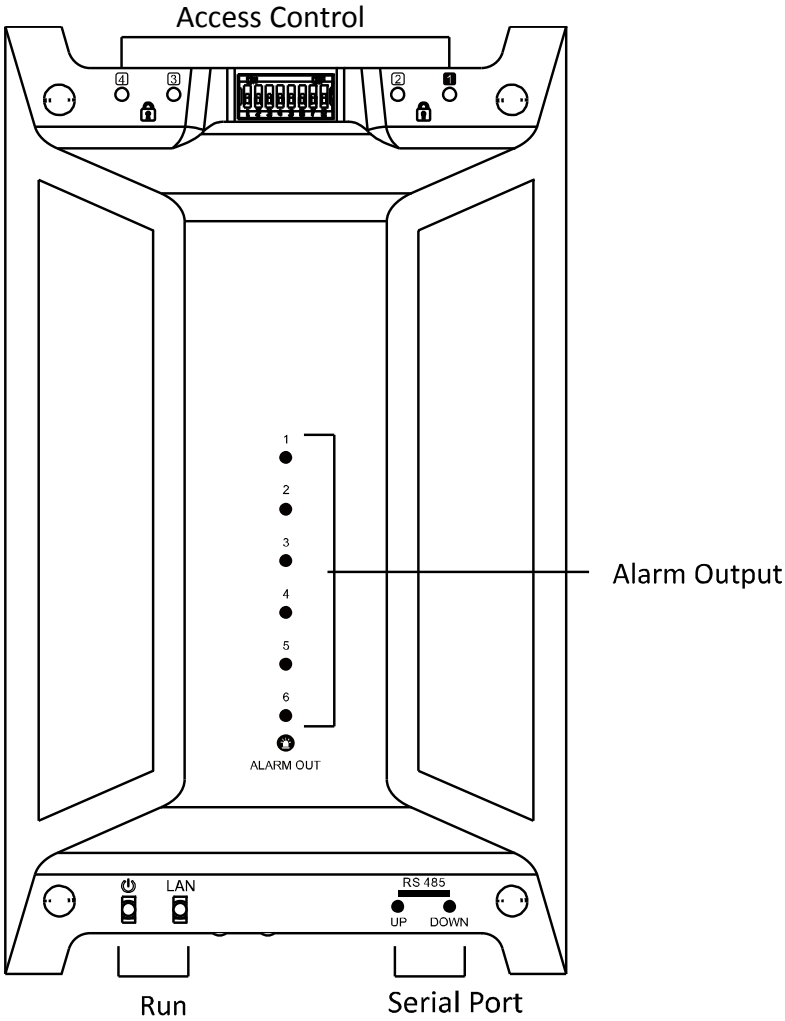


Table 1-1 Indicators Description of Distributed Access Controller

Indicators	Description	
Access Control	Status of access control.	
Alarm Output	Status of alarm out.	
Running Status	⏻: Status of distributed access controller	
	LAN: Status of communicating with master controller via LAN	**On**: Distributed controller and master controller are connected via LAN. **Off**: Distributed controller and master controller are not connected via LAN.
Serial Port	**UP:** Status of communicating with master controller via RS-485	**On**: Distributed controller and master controller are connected via RS-485. **Off**: Distributed controller and master controller are not connected via RS-485.
	DOWN: Status of loop connection	**On:** Loop is connected. **OFF:** Loop is not connected.

1.2.6 Connection Terminal of Distributed Access Controller

Connection Terminal of Single-Door Distributed Access Controller

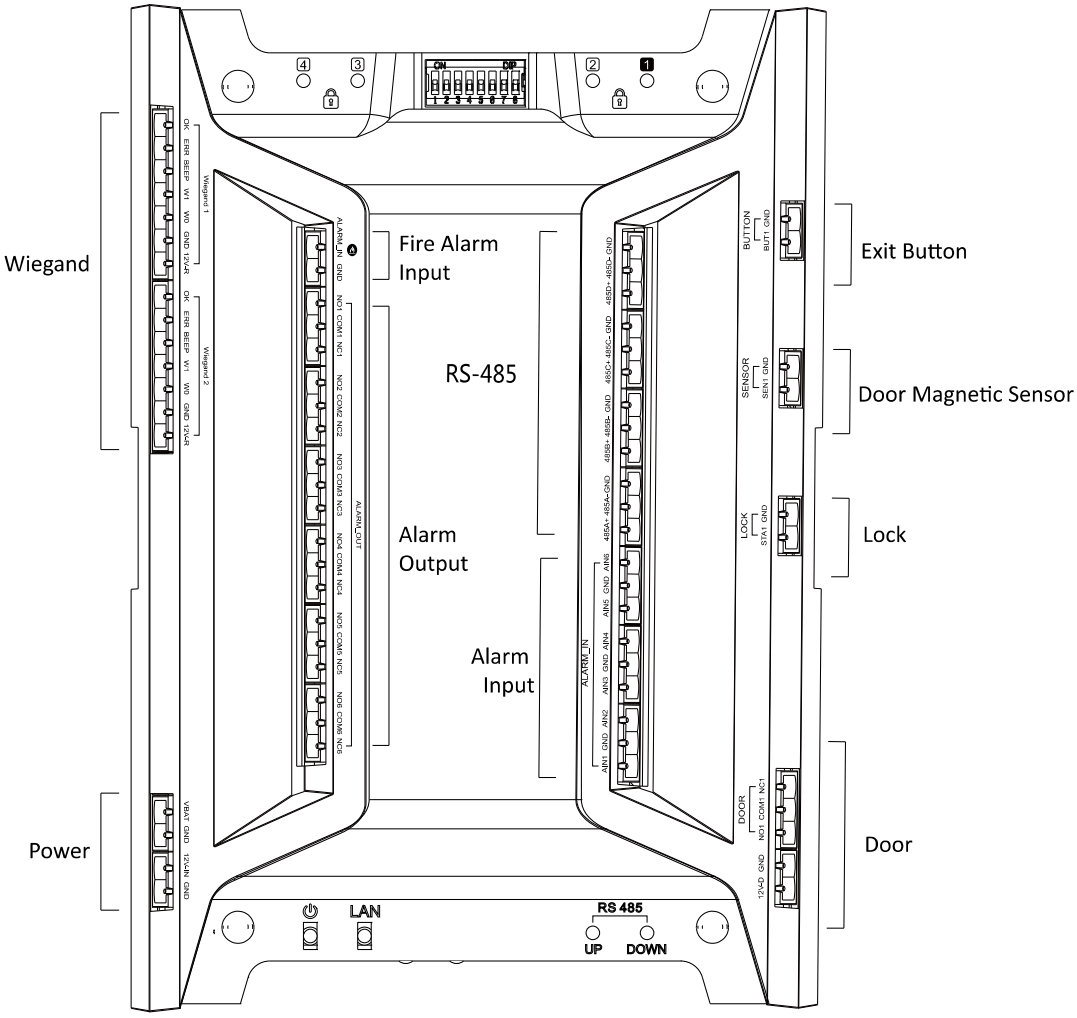


Table 2-1 Description of Connection Terminal

Terminal	Single-Door Distributed Access Controller		
Wiegand	Wiegand Reader 1	OK	Light Control Output (Valid Card)
		ERR	Light Control Output (Invalid Card)
		BZ	Buzzer Control Output
		W1	Wiegand Card Reader Input Data 1
		W0	Wiegand Card Reader Input Data 0
		GND	Grounding
		12V-R	Power Out
	Wiegand Reader 2	OK	Light Control Output (Valid Card)
		ERR	Light Control Output (Invalid Card)

Terminal	Single-Door Distributed Access Controller		
		BZ	Buzzer Control Output
		W1	Wiegand Card Reader Input Data 1
		W0	Wiegand Card Reader Input Data 0
		GND	Grounding
		12V-R	Power Out
Power	Storage Battery	VBAT	Storage Battery Power In
		GND	Grounding
	Power	12V-IN	Power In
		GND	Grounding
Fire Alarm In	Fire Alarm In	ALARM-IN	Fire Alarm In
		GND	Grounding
Alarm Out	Alarm Out 1	NO1	Relay 1 Alarm Out (Dry Contact)
		COM1	
		NC1	
	Alarm Out 2	NO2	Relay 2 Alarm Out (Dry Contact)
		COM2	
		NC2	
	Alarm Out 3	NO3	Relay 3 Alarm Out (Dry Contact)
		COM3	
		NC3	
	Alarm Out 4	NO4	Relay 4 Alarm Out (Dry Contact)
		COM4	
		NC4	
	Alarm Out 5	NO5	Relay 5 Alarm Out (Dry Contact)
		COM5	
		NC5	
	Alarm Out 6	NO6	Relay 6 Alarm Out (Dry Contact)
		COM6	
		NC6	

Terminal	Single-Door Distributed Access Controller		
RS-485	RS-485D (Uplink)	GND	Grounding
		485D-	Master Access Controller RS-485- Output
		485D+	Master Access Controller RS-485+ Output
	RS-485C (Uplink)	GND	Grounding
		485C-	Master Access Controller RS-485- Output
		485C+	Master Access Controller RS-485+ Output
	RS-485B (Downlink)	GND	Grounding
		485B-	Card Reader RS-485- Input
		485B+	Card Reader RS-485+ Input
	RS-485A (Downlink)	GND	Grounding
		485A-	Card Reader RS-485- Input
		485A+	Card Reader RS-485+ Input
Alarm In	ALARM-IN	A6	Alarm In 6
		GND	Grounding
		A5	Alarm In 5
		A4	Alarm In 4
		GND	Grounding
		A3	Alarm In 3
		A2	Alarm In 2
		GND	Grounding
		A1	Alarm In 1
Door Switch Input	BUTTON	GND	Grounding
		BUT1	Door Switch Input of Door 1
Door Magnetic Input	SENSOR	GND	Grounding
		SEN1	Door Magnetic Detection Input of Door 1

Terminal	Single-Door Distributed Access Controller		
Lock Input	LOCK	GND	Grounding
		STA1	Lock Detection Input of Door 1
Relay Output	DOOR	NC1	Lock Relay Output of Door 1 (Dry Contact)
		COM1	
		NO1	
		GND	Grounding
		12V-D	DC12V Positive Pole Output

Connection Terminal of Double-Door Distributed Access Controller

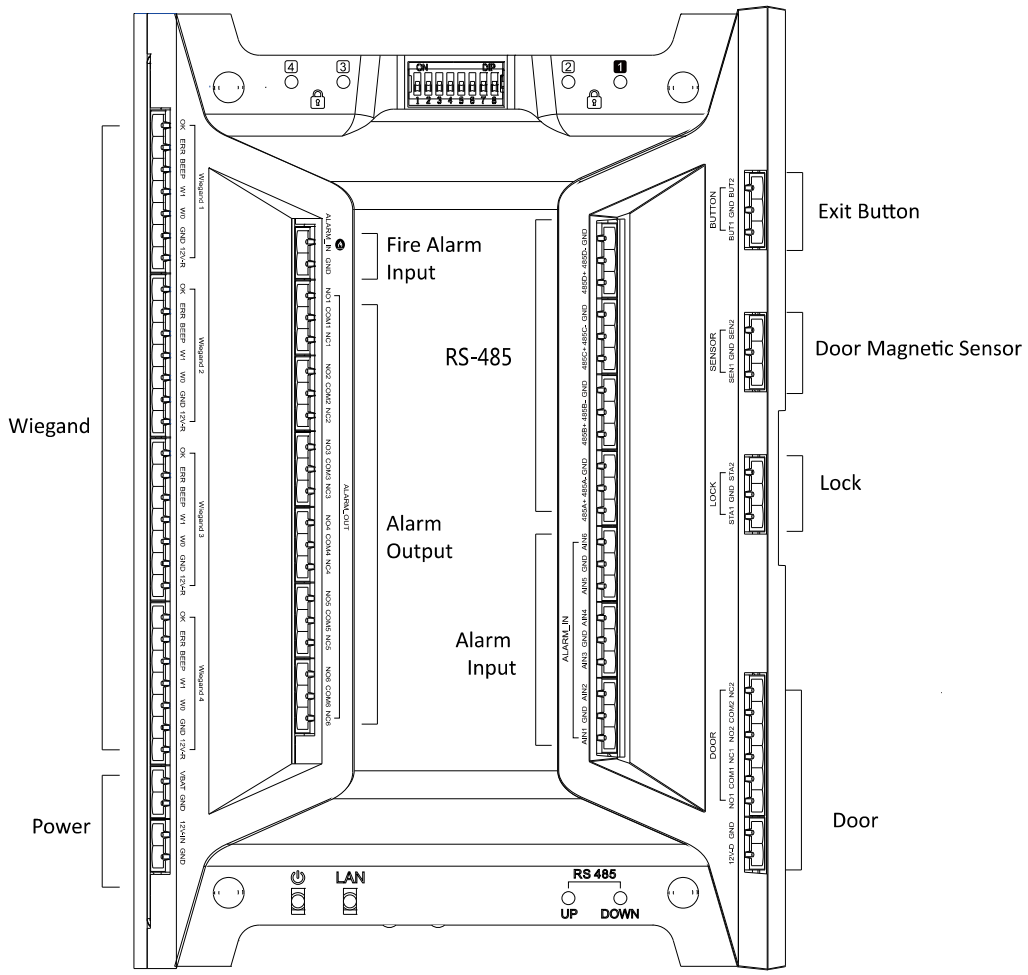


Table 2-2 Description of Connection Terminal

Terminal	Double-Door Distributed Access Controller		
Wiegand	Wiegand Reader 1	OK	Light Control Output (Valid Card)
		ERR	Light Control Output (Invalid Card)

Terminal	Double-Door Distributed Access Controller		
		BZ	Buzzer Control Output
		W1	Wiegand Card Reader Input Data 1
		W0	Wiegand Card Reader Input Data 0
		GND	Grounding
		12V-R	Power Out
	Wiegand Reader 2	OK	Light Control Output (Valid Card)
		ERR	Light Control Output (Invalid Card)
		BZ	Buzzer Control Output
		W1	Wiegand Card Reader Input Data 1
		W0	Wiegand Card Reader Input Data 0
		GND	Grounding
		12V-R	Power Out
	Wiegand Reader 3	OK	Light Control Output (Valid Card)
		ERR	Light Control Output (Invalid Card)
		BZ	Buzzer Control Output
		W1	Wiegand Card Reader Input Data 1
		W0	Wiegand Card Reader Input Data 0
		GND	Grounding
		12V-R	Power Out
	Wiegand Reader 4	OK	Light Control Output (Valid Card)
		ERR	Light Control Output (Invalid Card)
		BZ	Buzzer Control Output
		W1	Wiegand Card Reader Input Data 1
		W0	Wiegand Card Reader Input Data 0
		GND	Grounding
		12V-R	Power Out
Power	Storage Battery	VBAT	Storage Battery Power In
		GND	Grounding
	Power	12V-IN	Power In

Terminal	Double-Door Distributed Access Controller		
		GND	Grounding
Fire Alarm In	Fire Alarm In	ALARM-IN	Fire Alarm In
		GND	Grounding
Alarm Out	Alarm Out 1	NO1	Relay 1 Alarm Out (Dry Contact)
		COM1	
		NC1	
	Alarm Out 2	NO2	Relay 2 Alarm Out (Dry Contact)
		COM2	
		NC2	
	Alarm Out 3	NO3	Relay 3 Alarm Out (Dry Contact)
		COM3	
		NC3	
	Alarm Out 4	NO4	Relay 4 Alarm Out (Dry Contact)
		COM4	
		NC4	
	Alarm Out 5	NO5	Relay 5 Alarm Out (Dry Contact)
		COM5	
		NC5	
	Alarm Out 6	NO6	Relay 6 Alarm Out (Dry Contact)
		COM6	
		NC6	
RS-485	RS-485D (Uplink)	GND	Grounding
		485D-	Master Access Controller RS-485- Output
		485D+	Master Access Controller RS-485+ Output
	RS-485C (Uplink)	GND	Grounding
		485C-	Master Access Controller RS-485- Output
		485C+	Master Access Controller RS-485+ Output
	RS-485B (Downlink)	GND	Grounding
		485B-	Card Reader RS-485- Input

Terminal	Double-Door Distributed Access Controller		
		485B+	Card Reader RS-485+ Input
	RS-485A (Downlink)	GND	Grounding
		485A-	Card Reader RS-485- Input
		485A+	Card Reader RS-485+ Input
Alarm In	ALARM-IN	A6	Alarm In 6
		GND	Grounding
		A5	Alarm In 5
		A4	Alarm In 4
		GND	Grounding
		A3	Alarm In 3
		A2	Alarm In 2
		GND	Grounding
		A1	Alarm In 1
Door Switch Input	BUTTON	BUT2	Door Switch Input of Door 2
		GND	Grounding
		BUT1	Door Switch Input of Door 1
Door Magnetic Input	SENSOR	SEN2	Door Magnetic Detection Input of Door 2
		GND	Grounding
		SEN1	Door Magnetic Detection Input of Door 1
Lock Input	LOCK	STA2	Lock Detection Input of Door 2
		GND	Grounding
		STA1	Lock Detection Input of Door 1
Relay Output	DOOR	NC2	Lock Relay Output of Door 2 (Dry Contact)
		COM2	
		NO2	
		NC1	Lock Relay Output of Door 1 (Dry Contact)
		COM1	
		NO1	
		GND	Grounding

Terminal	Double-Door Distributed Access Controller		
		12V-D	DC12V Positive Pole Output

Connection Terminal of Four-Door Distributed Access Controller

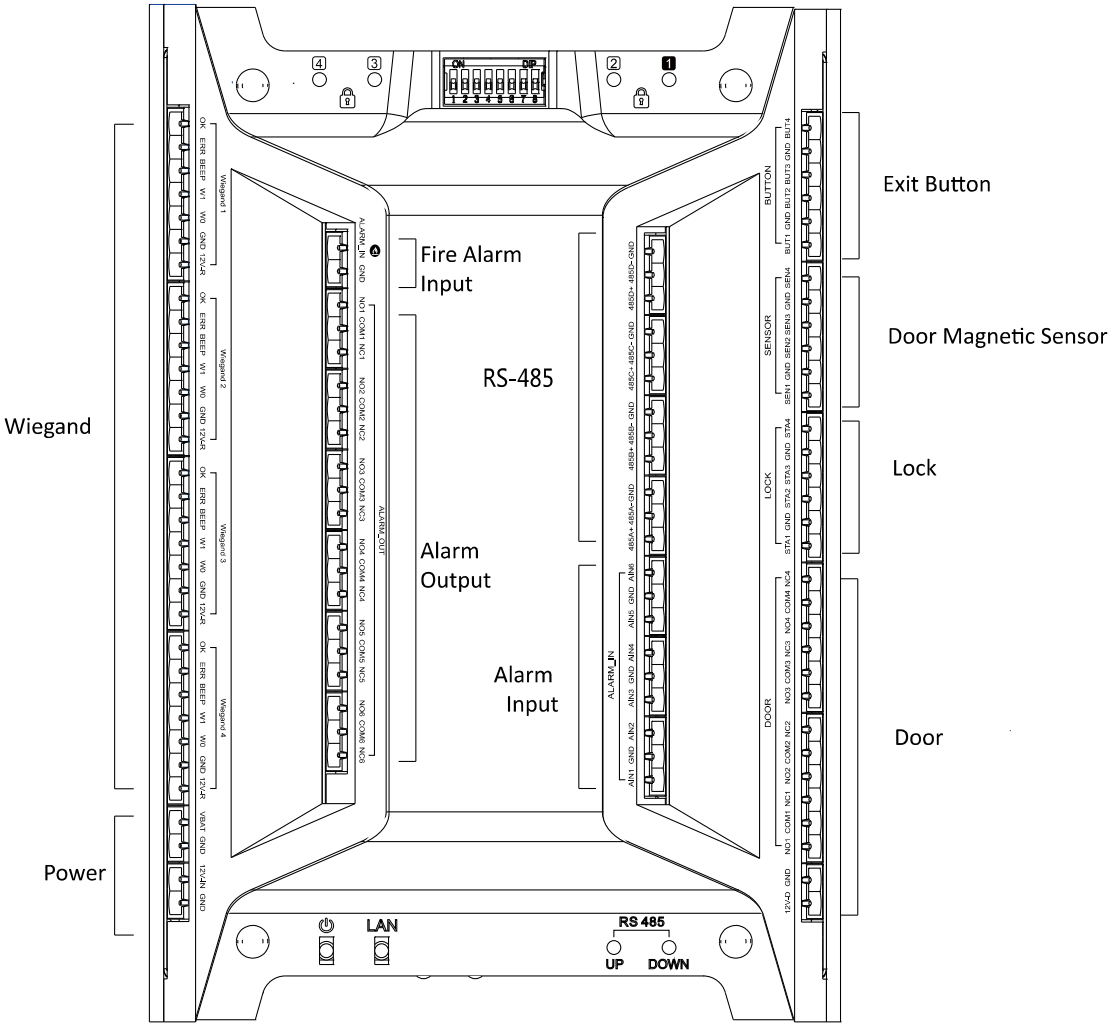


Table 2-3 Description of Connection Terminal

Terminal	Double-Door Distributed Access Controller		
Wiegand	Wiegand Reader 1	OK	Light Control Output (Valid Card)
		ERR	Light Control Output (Invalid Card)
		BZ	Buzzer Control Output
		W1	Wiegand Card Reader Input Data 1
		W0	Wiegand Card Reader Input Data 0
		GND	Grounding
		12V-R	Power Out
	Wiegand	OK	Light Control Output (Valid Card)

Terminal	Double-Door Distributed Access Controller		
	Reader 2	ERR	Light Control Output (Invalid Card)
		BZ	Buzzer Control Output
		W1	Wiegand Card Reader Input Data 1
		W0	Wiegand Card Reader Input Data 0
		GND	Grounding
		12V-R	Power Out
	Wiegand Reader 3	OK	Light Control Output (Valid Card)
		ERR	Light Control Output (Invalid Card)
		BZ	Buzzer Control Output
		W1	Wiegand Card Reader Input Data 1
		W0	Wiegand Card Reader Input Data 0
		GND	Grounding
		12V-R	Power Out
	Wiegand Reader 4	OK	Light Control Output (Valid Card)
		ERR	Light Control Output (Invalid Card)
		BZ	Buzzer Control Output
		W1	Wiegand Card Reader Input Data 1
		W0	Wiegand Card Reader Input Data 0
		GND	Grounding
		12V-R	Power Out
Power	Storage Battery	VBAT	Storage Battery Power In
		GND	Grounding
	Power	12V-IN	Power In
		GND	Grounding
Fire Alarm In	Fire Alarm In	ALARM-IN	Fire Alarm In
		GND	Grounding
Alarm Out	Alarm Out 1	NO1	Relay 1 Alarm Out (Dry Contact)
		COM1	
		NC1	

Terminal	Double-Door Distributed Access Controller		
	Alarm Out 2	NO2	Relay 2 Alarm Out (Dry Contact)
		COM2	
		NC2	
	Alarm Out 3	NO3	Relay 3 Alarm Out (Dry Contact)
		COM3	
		NC3	
	Alarm Out 4	NO4	Relay 4 Alarm Out (Dry Contact)
		COM4	
		NC4	
	Alarm Out 5	NO5	Relay 5 Alarm Out (Dry Contact)
		COM5	
		NC5	
	Alarm Out 6	NO6	Relay 6 Alarm Out (Dry Contact)
		COM6	
		NC6	
RS-485	RS-485D (Uplink)	GND	Grounding
		485D-	Master Access Controller RS-485- Output
		485D+	Master Access Controller RS-485+ Output
	RS-485C (Uplink)	GND	Grounding
		485C-	Master Access Controller RS-485- Output
		485C+	Master Access Controller RS-485+ Output
	RS-485B (Downlink)	GND	Grounding
		485B-	Card Reader RS-485- Input
		485B+	Card Reader RS-485+ Input
	RS-485A (Downlink)	GND	Grounding
		485A-	Card Reader RS-485- Input

Terminal	Double-Door Distributed Access Controller		
		485A+	Card Reader RS-485+ Input
Alarm In	ALARM-IN	A6	Alarm In 6
		GND	Grounding
		A5	Alarm In 5
		A4	Alarm In 4
		GND	Grounding
		A3	Alarm In 3
		A2	Alarm In 2
		GND	Grounding
		A1	Alarm In 1
Door Switch Input	BUTTON	BUT4	Door Switch Input of Door 4
		GND	Grounding
		BUT3	Door Switch Input of Door 3
		BUT2	Door Switch Input of Door 2
		GND	Grounding
		BUT1	Door Switch Input of Door 1
Door Magnetic Input	SENSOR	SEN4	Door Magnetic Detection Input of Door 4
		GND	Grounding
		SEN3	Door Magnetic Detection Input of Door 3
		SEN2	Door Magnetic Detection Input of Door 2
		GND	Grounding
		SEN1	Door Magnetic Detection Input of Door 1
Lock Input	LOCK	STA4	Lock Detection Input of Door 4
		GND	Grounding
		STA3	Lock Detection Input of Door 3
		STA2	Lock Detection Input of Door 2

Terminal	Double-Door Distributed Access Controller		
		GND	Grounding
		STA1	Lock Detection Input of Door 1
Relay Output	DOOR	NC4	Lock Relay Output of Door 4 (Dry Contact)
		COM4	
		NO4	
		NC3	Lock Relay Output of Door 3 (Dry Contact)
		COM3	
		NO3	
		NC2	Lock Relay Output of Door 2 (Dry Contact)
		COM2	
		NO2	
		NC1	Lock Relay Output of Door 1 (Dry Contact)
		COM1	
		NO1	
		GND	Grounding
		12V-D	DC12V Positive Pole Output

NOTE

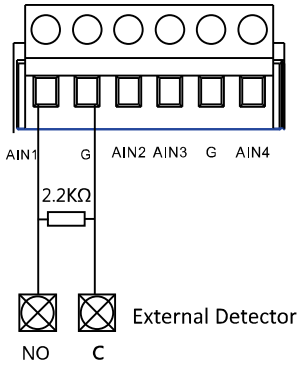
- Please set the ID of RS-485 card readers as 1 to 8. The channel No. of door 1 are 1 (in) and 2 (out). The channel No. of door 2 are 3 (in) and 4 (out). The channel No. of door 3 are 5 (in) and 6 (out). The channel No. of door 4 are 7 (in) and 8 (out).
- For single-door distributed access controller, Wiegand card readers 1/2 correspond to the entering/existing card readers of channel No. 1 respectively.
- For double-door distributed access controller, Wiegand card readers 1/2 correspond to the entering/existing card readers of channel No. 1 respectively and Wiegand card readers 3/4 correspond to the entering/existing card readers of channel No. 2 respectively.
- For four-door distributed access controller, Wiegand card readers 1/2/3/4 correspond to the entering card readers of channel No. 1/2/3/4 respectively.

2 External Device Wiring

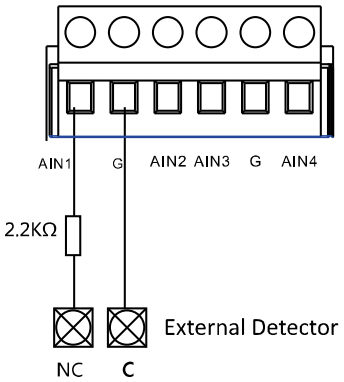
2.1 Master Access Controller External Device Wiring

2.1.1 Zone Alarm Input Wiring

NO Detector Wiring

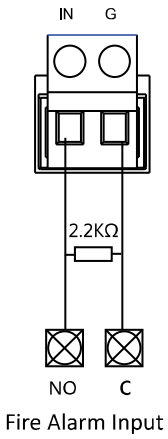


NC Detector Wiring

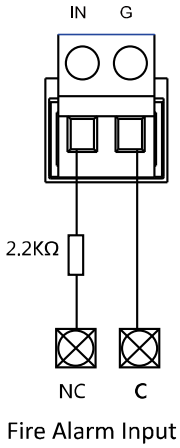


2.1.2 Fire Alarm Input Wiring

NO Alarm Input Wiring



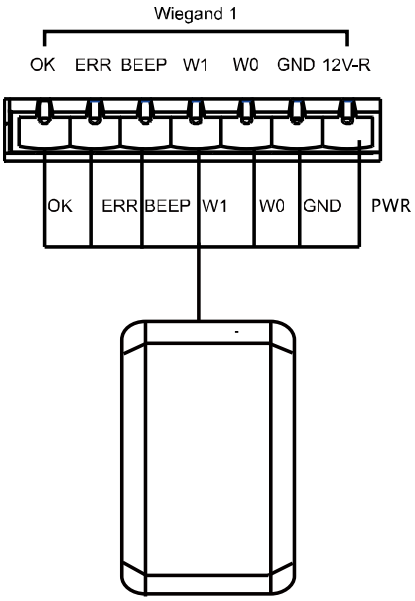
NC Alarm Input Wiring



2.2 Distributed Access Controller External Device Wiring

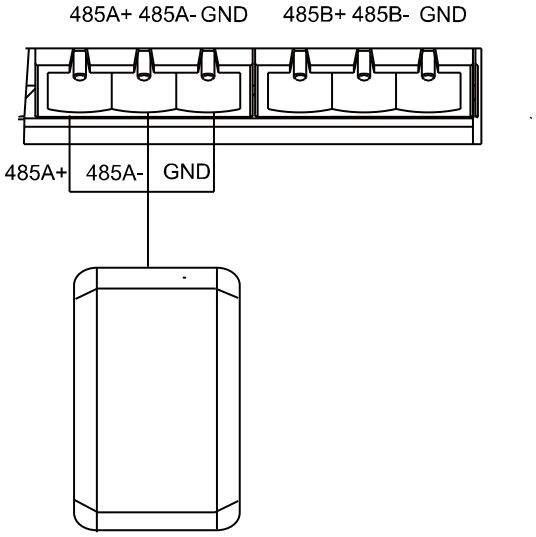
2.2.1 Card Reader Wiring

Wiegand Card Reader Wiring



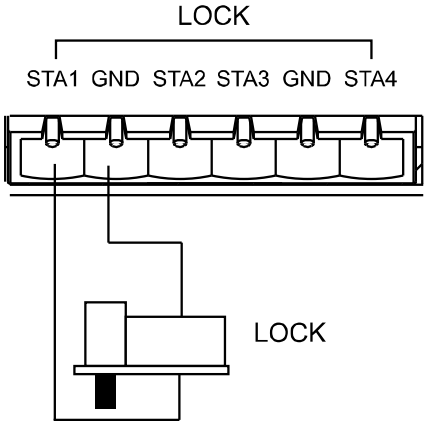
Note: You must connect the OK/ERR/BZ, if using access controller to control the LED and buzzer of the Wiegand card reader.

RS485 Card Reader Wiring

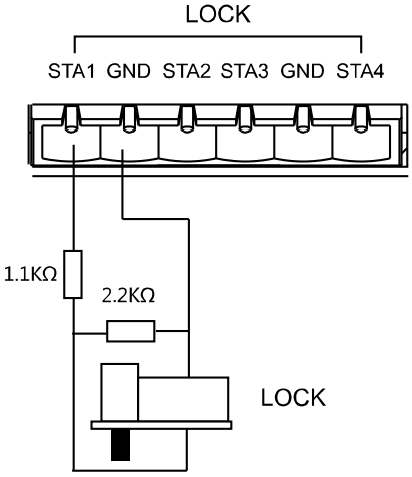


2.2.2 Lock Wiring

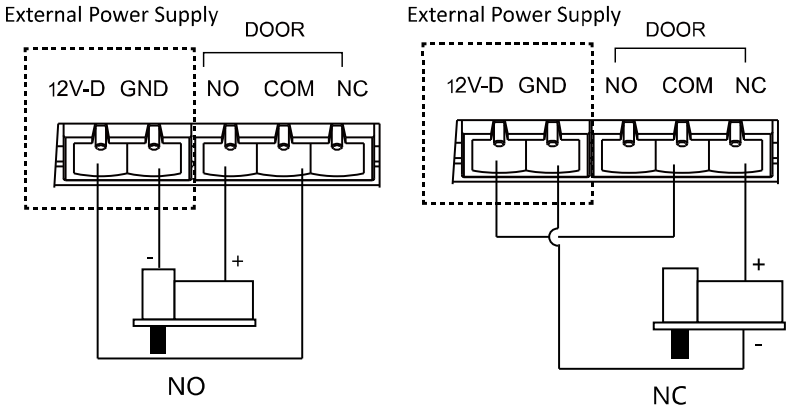
Lock Status Input Wiring



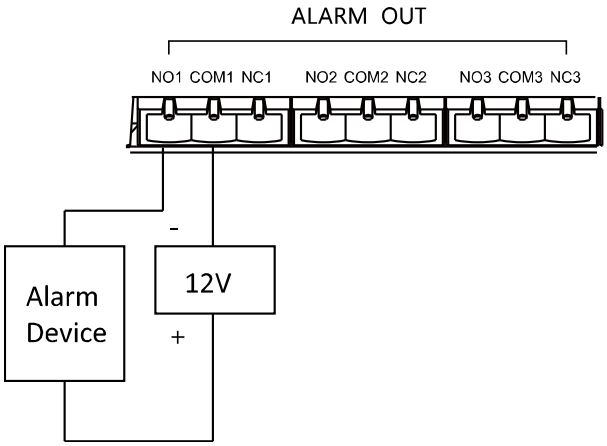
Short/Open Circuit Attempts Alarm Wiring



Lock Relay Output Wiring

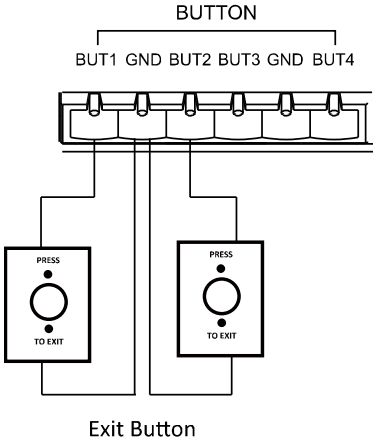


2.2.3 External Alarm Device Wiring

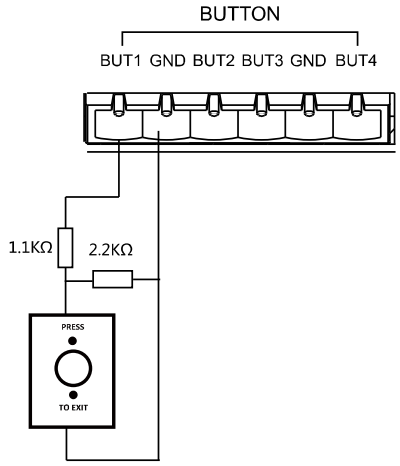


2.2.4 Exit Button Wiring

Exit Button Normal Wiring



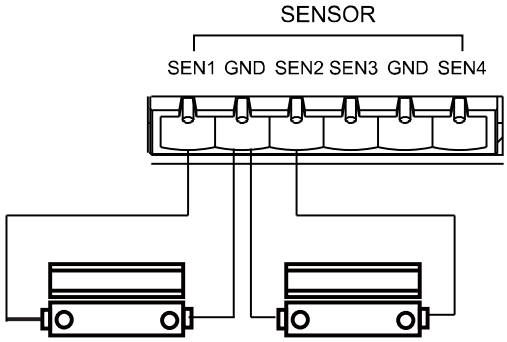
Short/Open Circuit Attempts Alarm Wiring



Exit Button

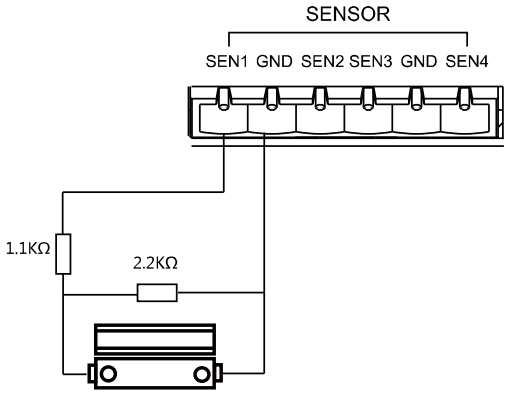
2.2.5 Door Magnetic Sensor Wiring

Door Magnetic Sensor Normal Wiring



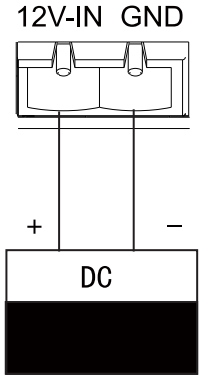
Door Magnetic Sensor 1 Door Magnetic Sensor 2

Short/Open Circuit Attempts Alarm Wiring



Door Magnetic Sensor

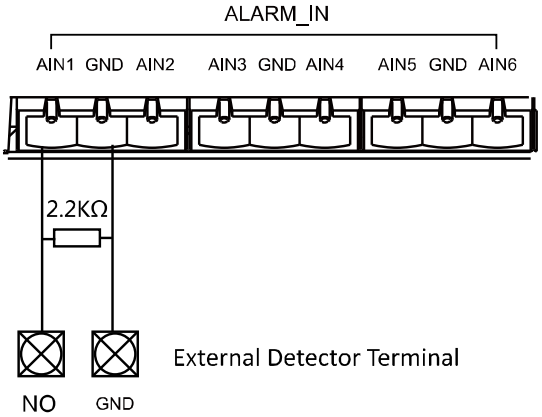
2.2.6 External Power Supply Wiring



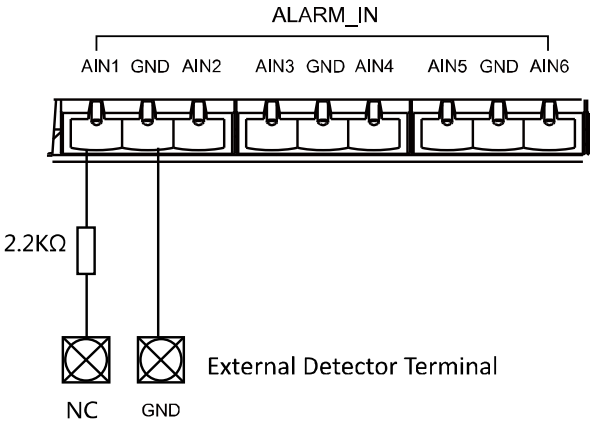
AC-DC Power Supply
Output: DC 12V/1A~

2.2.7 Zone Alarm Input Wiring

NO Detector Wiring

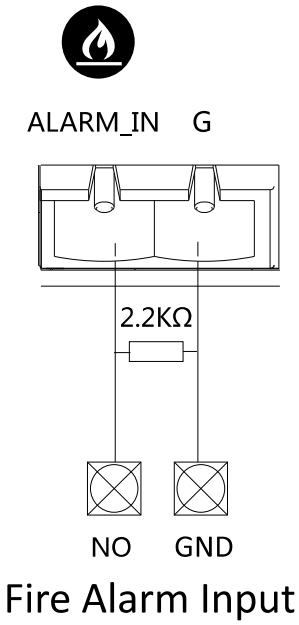


NC Detector Wiring

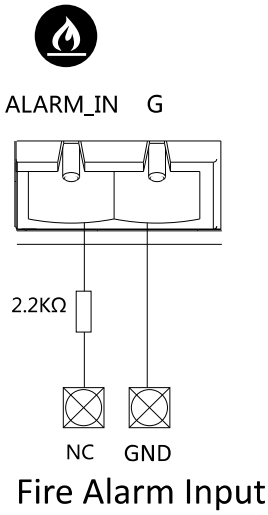


2.2.8 Fire Alarm Input Wiring

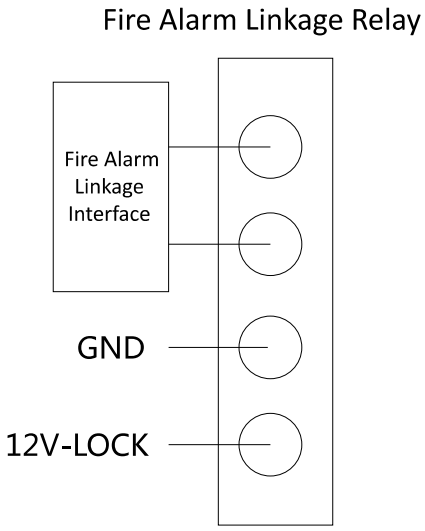
NO Fire Alarm Input Wiring



NC Fire Alarm Input Wiring



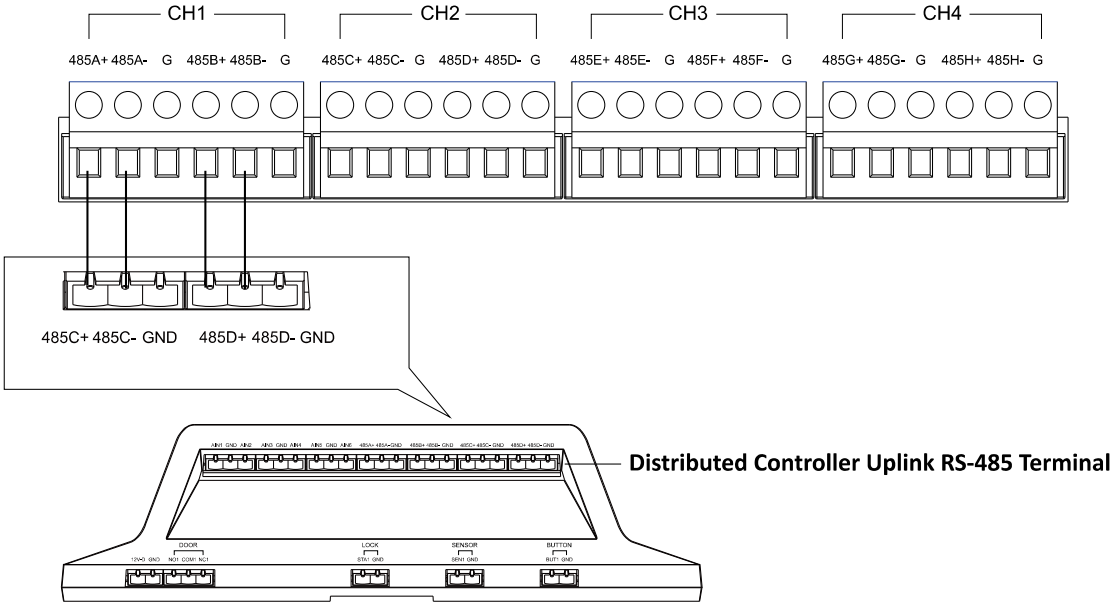
2.2.9 Fire Alarm Linkage Wiring



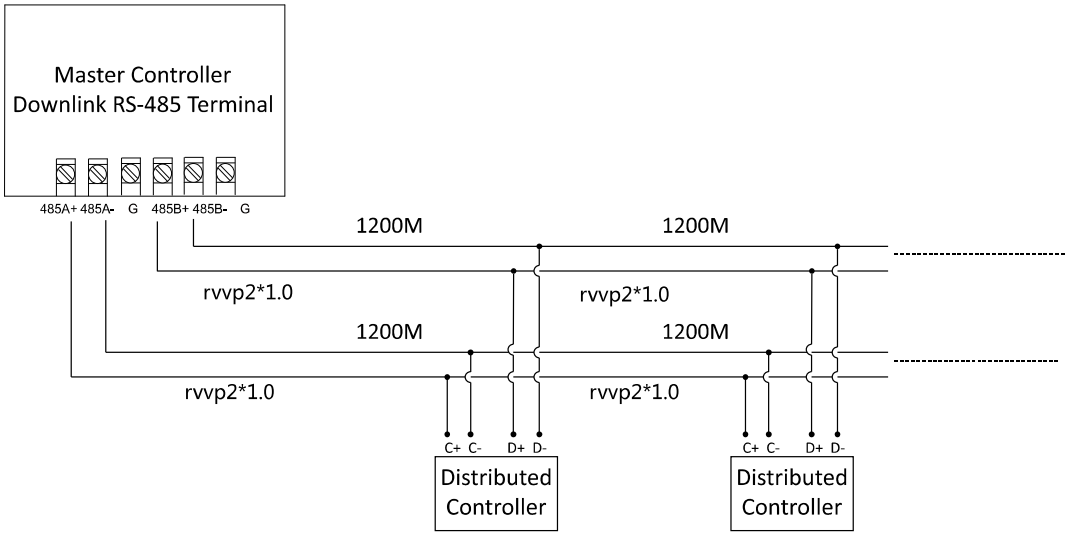
2.3 Master and Distributed Access Controller Wiring

The master access controller connects with the distributed access controller via RS-485. Connect the uplink RS-485C+C-/D+D- terminal of the distributed controller with the downlink RS-485 terminal of the master controller

Max. 64 distributed controllers can be connected to each master controller. For efficient authentication, it should be no more than 16 distributed controllers each loop.



RS-485 Loop 1 Demonstration



Note: It is recommended to use the rvvp2*1.0 cable for wiring. The distance between the master controller and the distributed controller should be less than 1200m.

3 Hardware Settings

3.1 Dial-up Settings

3.1.1 Distributed Access Controller Address Settings

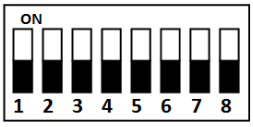
Master access controller can recognize the distributed access controller via dial-up address. The dial-up address can be set to 1 to 224.

The default IP address of distributed access controller is "*192.0.0.64*".

3.1.2 Dial-up Address Settings

From left to right, the dial-up shows the lowest bit to highest bit, which means 1 to 8.

When the black block is at ON, it means 1 (▀), or it means 0 (▄).



For example: the dial-up below shows a binary code: 0000 1100. Transform the binary code to decimal to get the dial-up address: Address = 12.

Notes:

- The default downlink network interface IP address of master access controller is *192.0.0.254*.
- For uplink network communication, the device needs to be activated via SADP software or 4200 client.
- The distributed access controller has three types: single-door (legal address is 1 to 128), double-door (legal address is 129 to 192 and the dial-up 8 must be up) and four-door (legal address is 193 to 224 and dial-up 7 and 8 must be up). When those kinds of controllers are fully loaded, the total number of doors is 128, or the total number of distributed controller is 64. If the address is beyond the legal address range, adding device to the client will be failed.
- The order of doors.
  - For single-door access controller, the door number is one-to-one corresponding to the address of distributed access control.
  - For double-door access controller, the relationship is: Door Number = (Address of Distributed Access Controller-129)*2+Channel No. of the door.
  - For four-door access controller, the relationship is: Door Number = (Address of Distributed Access Controller-193)*4+Channel No. of the door.

Examples:

- Door 1 can be the single-door distributed access controller with address 1, channel No. 1 of double-door distributed access controller with address 129 or channel No.1 of four-door distributed access controller with address 193.
- Door 5 can be single-door distributed access controller with address 5, channel No.1 of double-door distributed access controller with address 131 or channel No.1 of four-door distributed access controller with address 194.

- The order of card readers.

The number of card readers corresponds to the address of distributed access controller.

3.2 Hardware Initialization Settings

The hardware initialization settings are only supported by the distributed access controller.

Steps:

1. Short connect the JP8 terminal.
2. Cut off the power and restart the device, the buzzer of controller begins continuous beeping.
3. After the buzzer stop beeping, disconnect JP8.
4. Cut off the power and restart again to finish the initialization.

Note: Hardware initialization will restore all the parameters to default and clear the device events.

4 Activating the Control Panel

Purpose:

You are required to activate the control panel first before you can use the control panel.

Activation via SADP, and Activation via client software are supported.

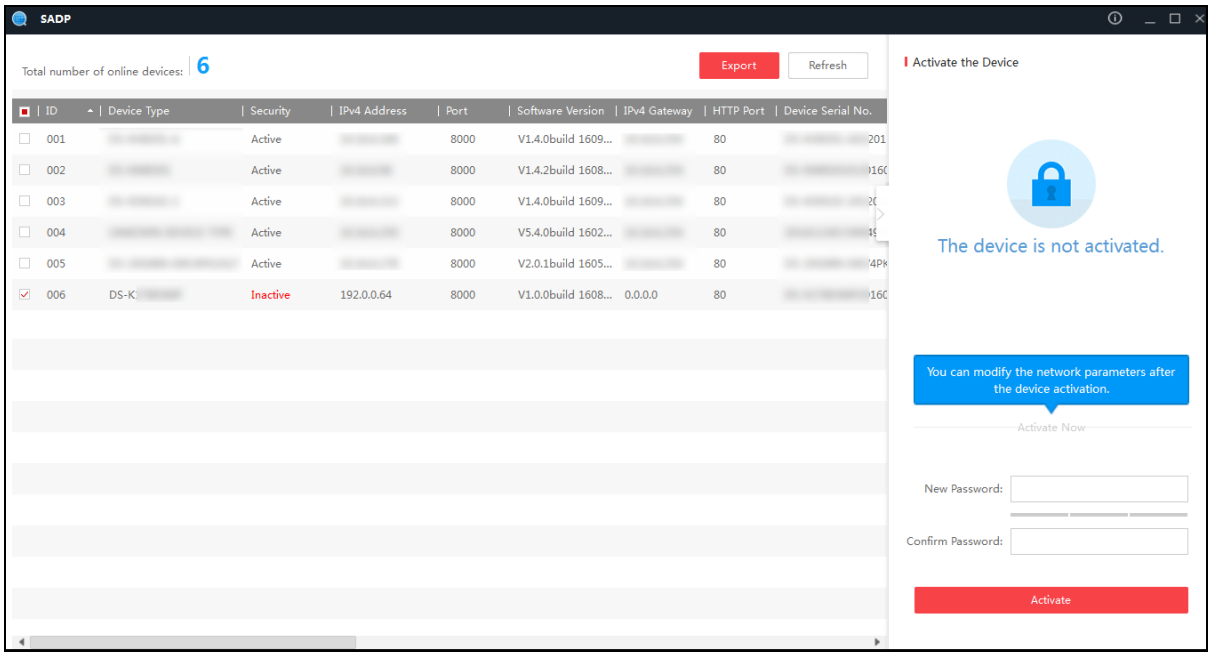
4.1 Activation via SADP Software

SADP software is used for detecting the online device, activating the device, and resetting the password.

Get the SADP software from the supplied disk or the official website, and install the SADP according to the prompts. Follow the steps to activate the control panel.

Steps:

1. Run the SADP software to search the online devices.
2. Check the device status from the device list, and select an inactive device.

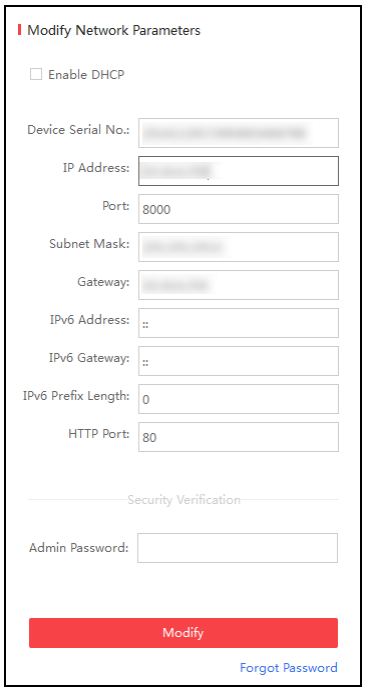


3. Create a new password and confirm the password in the password field.

<u>STRONG PASSWORD RECOMMENDED</u>– *We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.*

4. Click **Activate** to activate the device.

5. Check the activated device. You can change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking the checkbox of Enable DHCP.



6. Input the password and click the **Modify** button to save the settings.

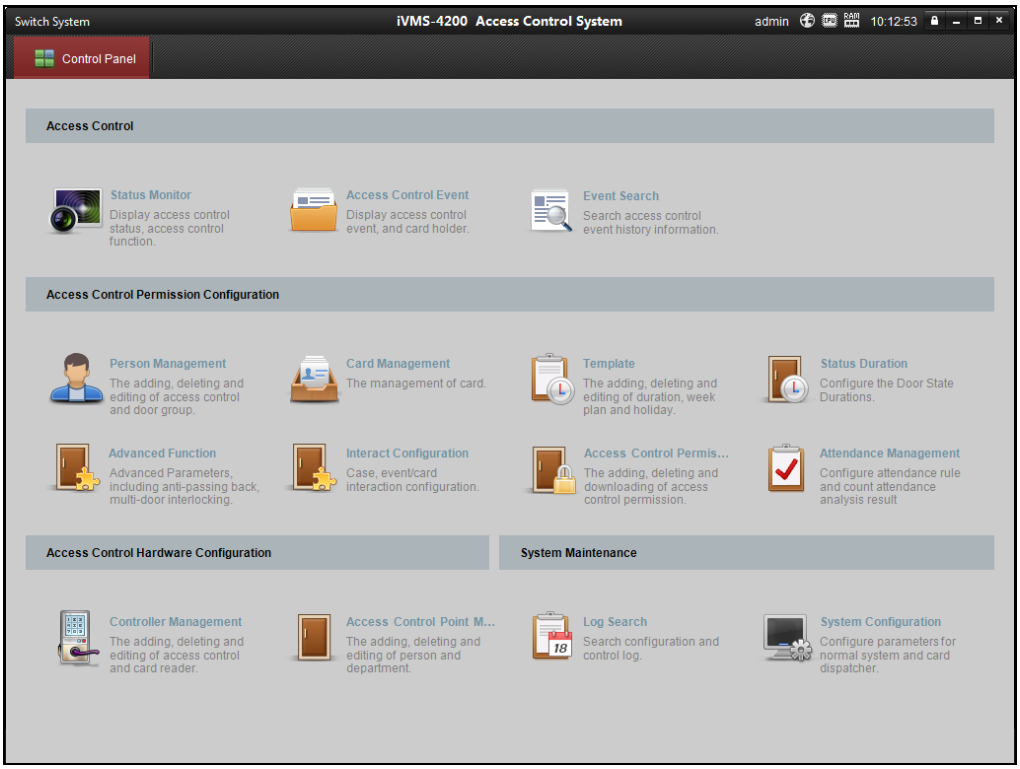
4.2 Activation via Client Software

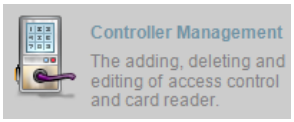
The client software is versatile video management software for multiple kinds of devices.

Get the client software from the supplied disk or the official website, and install the software according to the prompts. Follow the steps to activate the control panel.

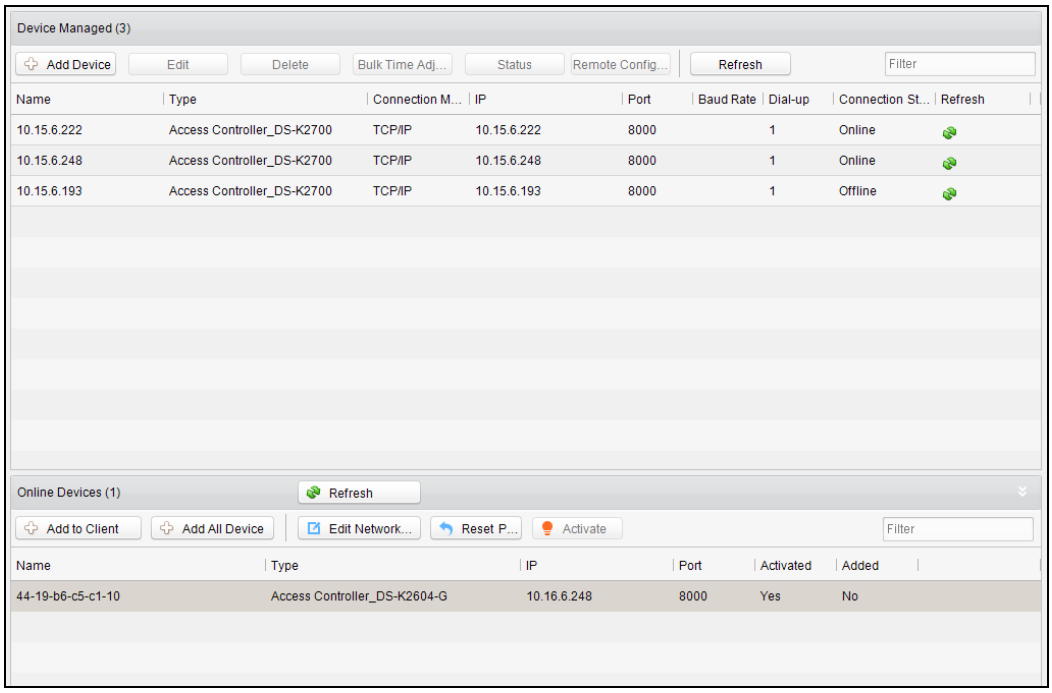
Steps:

1. Run the client software and the control panel of the software pops up, as shown in the figure below.
2. Click **Switch System**-> **Access Control System** on the menu bar to enter the Access Control System.

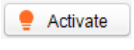


3. Click 

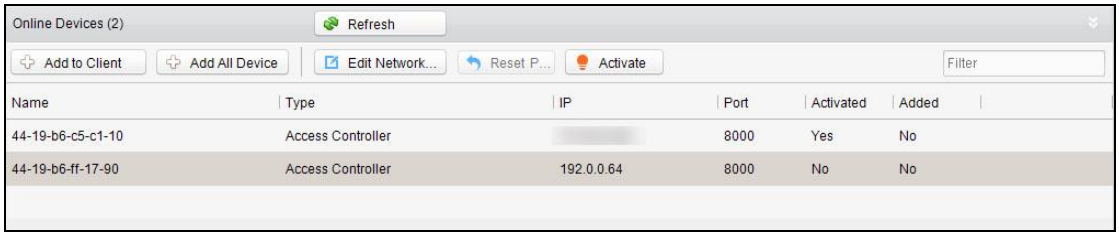
to enter the Controller Management interface, as shown in the figure below.



4. Check the device status from the device list, and select an inactive device.

5. Click 

to pop up the Activation interface.



6. Create a password and input the password in the password field, and confirm the password.

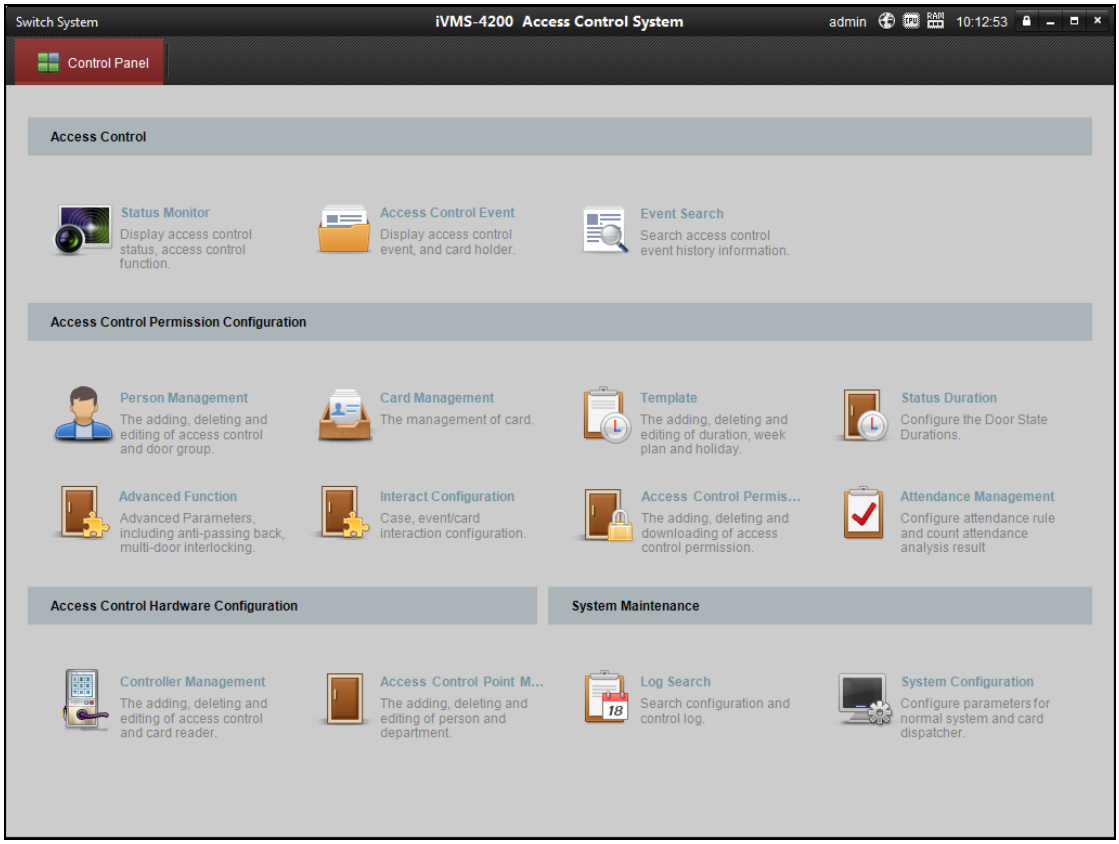
<u>STRONG PASSWORD RECOMMENDED</u>– *We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters and maximum of 16 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.*

7. Click OK to start activation.
8. Click the Edit Network... button to pop up the Network Parameter Modification interface.
9. Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking the checkbox of Enable DHCP.

   Input the password to activate your IP address modification.

5 Overview of Access Control System

Click **Switch System**-> **Access Control System** on the menu bar to enter the Access Control System.



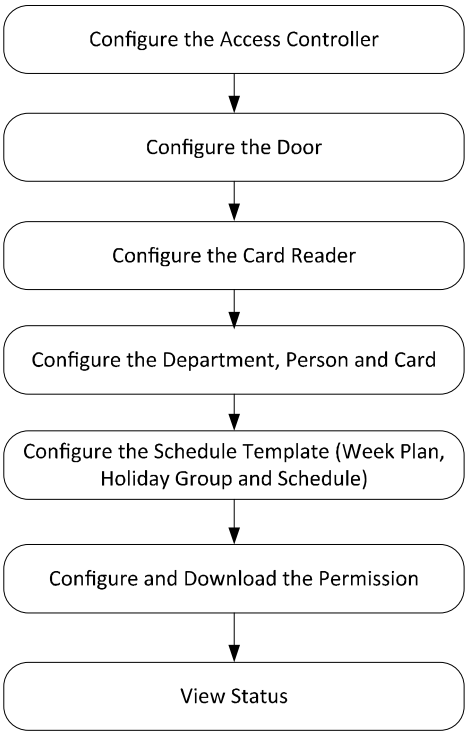
5.1 Description

The Access Control System is a client of configuring permission of door access. It provides multiple functionalities, including access controller management, person/card management, permission configuration, door status management, attendance management, event search, etc.

This user manual describes the function, configuration and operation steps of Access Control Client. To ensure the properness of usage and stability of the client, please refer to the contents below and read the manual carefully before installation and operation.

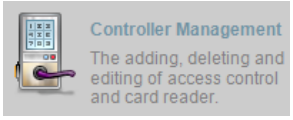
5.2 Configuration Flow

Refer to the following flow chart for the configuration order.

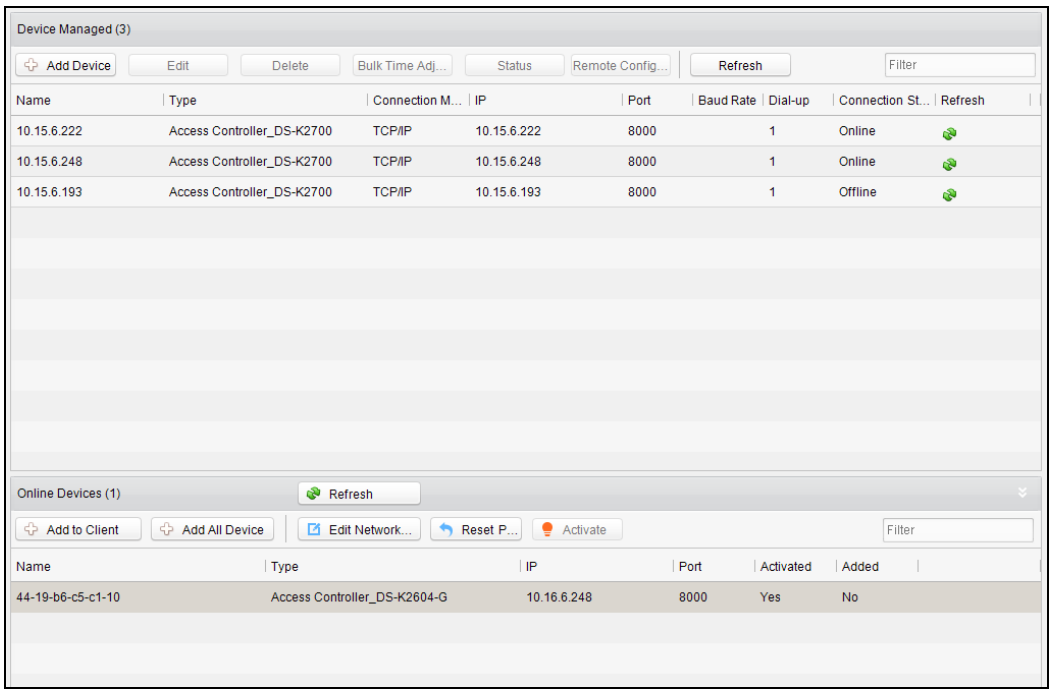

Configure the Access Controller
Configure the Door
Configure the Card Reader
Configure the Department, Person and Card
Configure the Schedule Template (Week Plan, Holiday Group and Schedule)
Configure and Download the Permission
View Status

6 Device Management

6.1 Controller Management

Click the 

icon to enter the controller management interface.



The interface is divided into 2 parts: device management and online device detection.

Device Management:

Manage the access control devices, including adding, editing, deleting, and batch time synchronizing functions.

Online Device Detection:

Automatically detect online devices in the same subnet with the access control server, and the detected devices can be added to the server in an easy way.

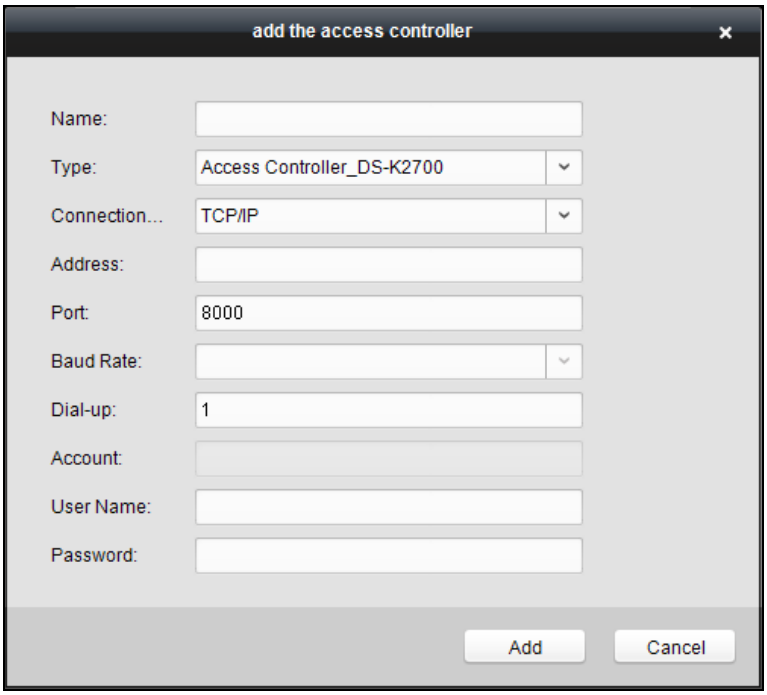
Note: The control client can manage up to 16 access controllers

6.1.1 Device Management

Adding Controller

Steps:

1. Click the Add Device to enter the add access controller interface.



2. Input the device name.
3. Select the access controller type in the dropdown list.
4. Select the connection mode in the dropdown list: TCP/IP, or COM port.
   TCP/IP: Connect the device via the network.
5. Set the parameters of connecting the device.
   If you choose to connect the device via network, you should input the IP address and port No. of the device, and set the Dial-up value to 1.
6. Click the Add button to finish adding.

   Notes:

   - Up to 1 access control point and up to 2 card readers can be added to each access control terminal.
   - Add the access control point and the card reader to the DS-K2700 Access Controller after registering the DS-K27M01, DS-K27M02 or DS-K27M04 Distributed Access Controller.
   - Ehome is not supported.

   Or you are able to select the detected online device in the Online Devices list and click Add to Client. Input the device user name and the password to add the device to the Device Managed list.

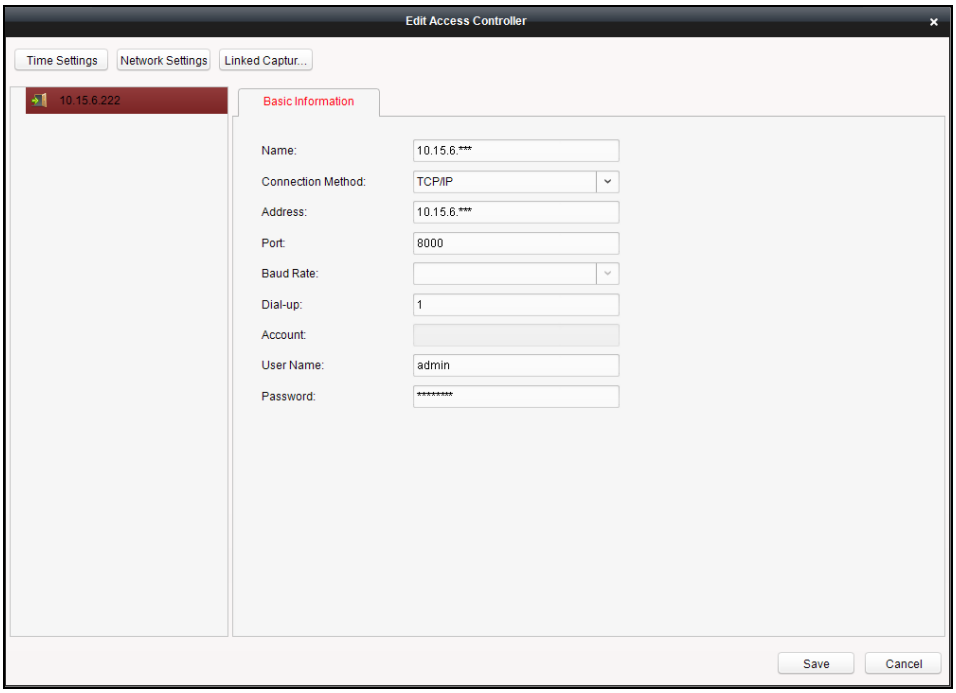
Editing Device (Basic Information)

Purpose:

After adding the device, some advanced parameters can be configured in the editing device interface, e.g. downloading hardware parameters, reading hardware parameters, time synchronizing, configuring access point, etc.

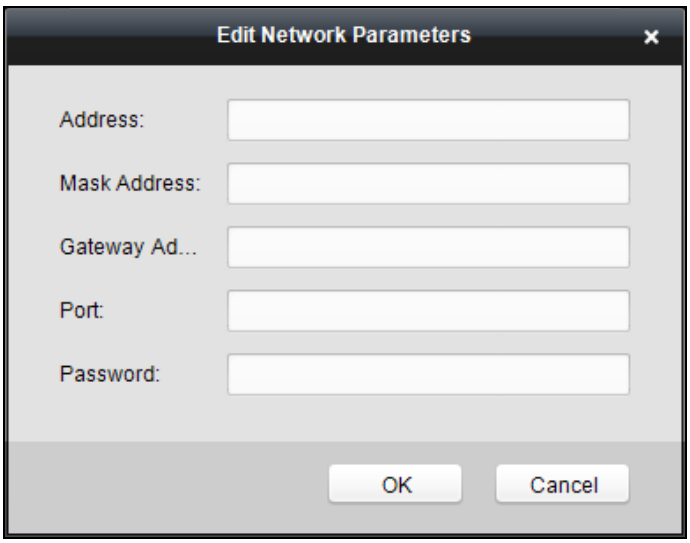
Steps:

1. In the device list, select a device and click Edit to edit the device information.



2. Edit the basic parameters of the device on your demand, which are the same as the ones when adding the device.
3. Click Save to finish editing.

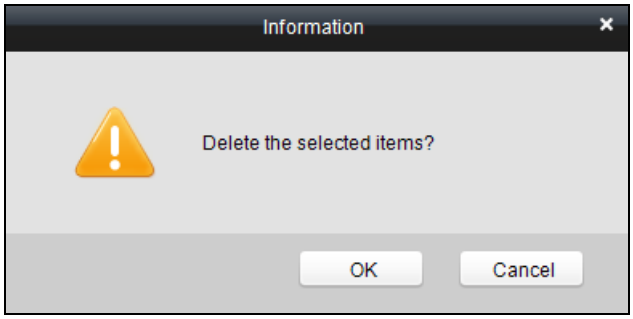
   Or in the Online Devices list, select a device and click Edit Network... to edit the device IP Address, Mask Address, Gateway Address, Port No. Input the device password and click OK to finish eliding.



Deleting Device

Steps:

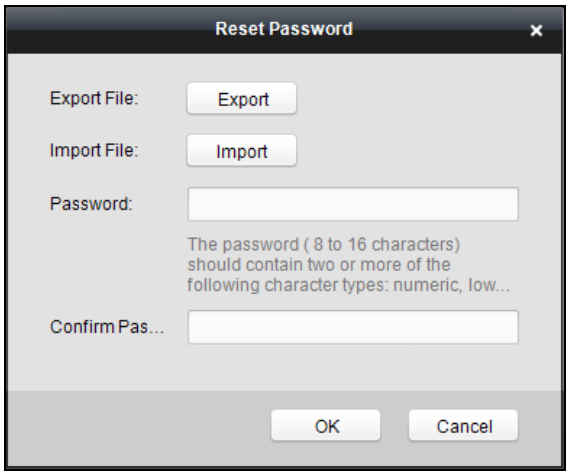
1. In the Device Managed list, select a device by clicking it, or select multiple devices by pressing Ctrl button on your keyboard and clicking them one by one.
2. Click Delete to delete the selected device(s).
3. Click OK in the popup confirmation dialog to finish deleting.



Resetting Password

Steps:

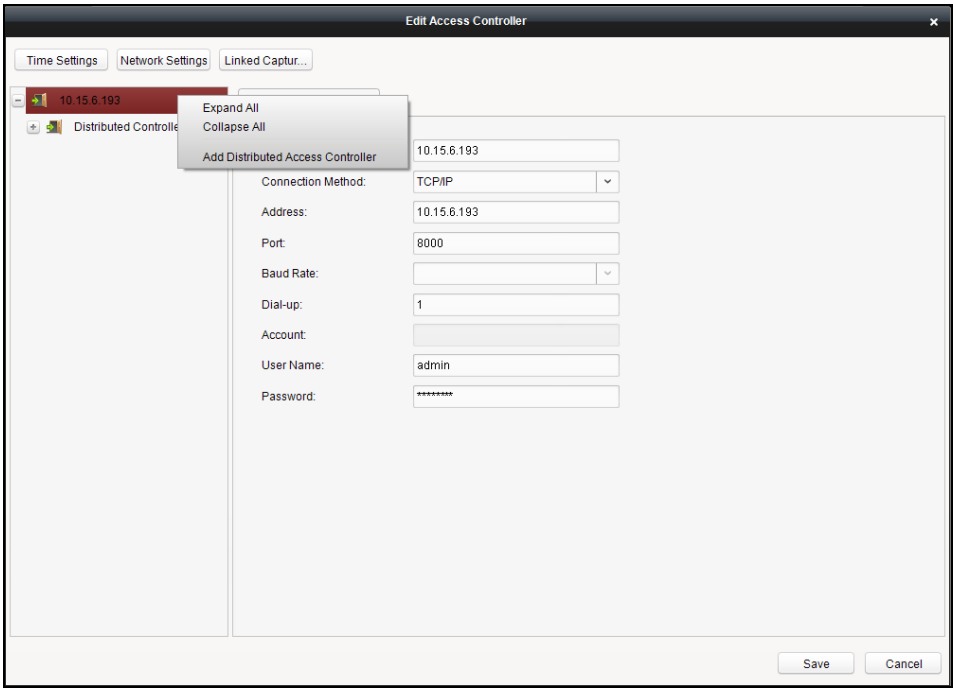
1. In the Online Devices list, select an online device and click Reset P...
2. Click Export in the pop-up window to export the device security code.
3. Send the security code to our technical supporters to get the encrypted security code of the device.
4. Click Import to import the encrypted security code.
5. Click OK to finishing resetting.



Manually Registering Distributed Access Controller

Steps:

1. In the Device Managed list, double click an online device, or select an online device and click Edit to enter the Edit Access Controller interface.
2. Right click a target access controller in the device list to open the right-click menu.
3. Click **Add Distributed Access Controller**.



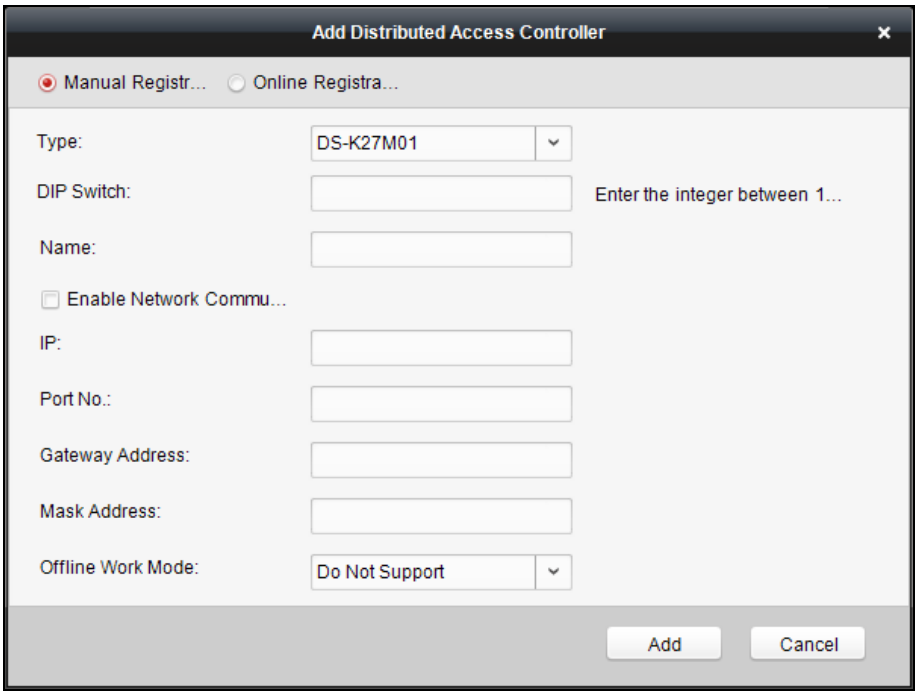
4. Select Manual Registration in the Add Distributed Access Controller window, and configure the distributed controller type, the DIP switch and the name.

   If you do not check **Enable Network Communication**, only configure the type, the DIP switch and the name to add the distributed controller.

5. Click Add and click OK in the pop-up window. The registered

distributed access controller will be displayed in the device list in the Edit Access Controller interface.

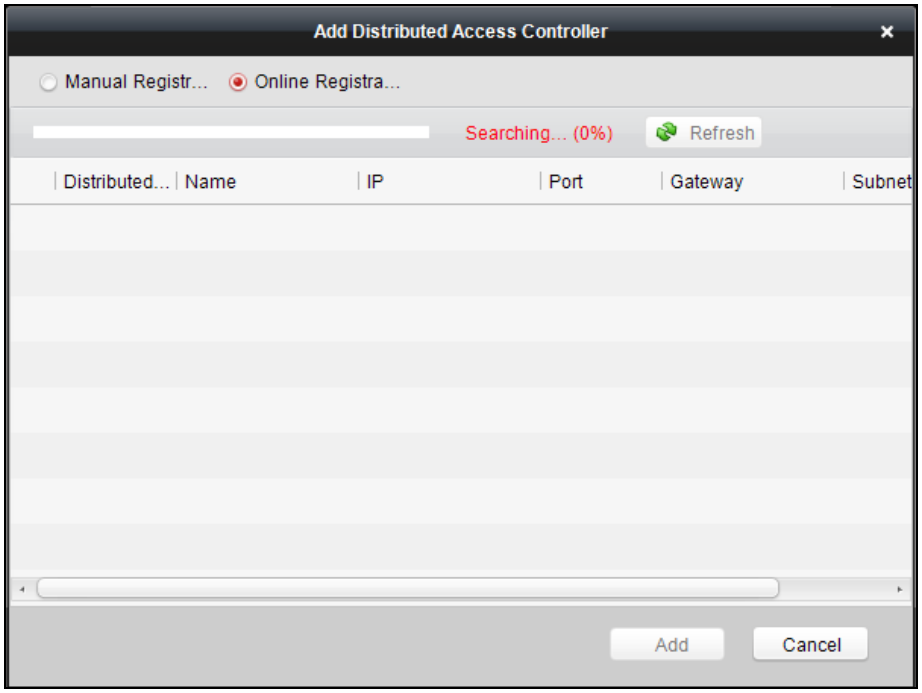
6. Click the Hardware Par... (Hardware Parameters Downloading) button to download information to the device.



Registering Distributed Access Controller Online

Steps:

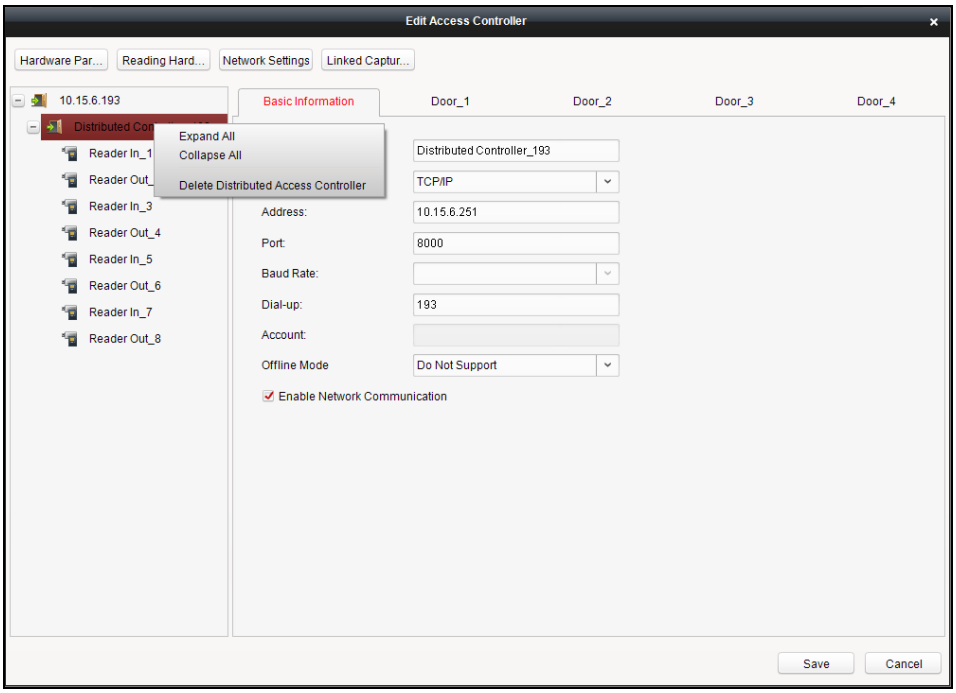
1. In the Registration of Distributed Access Controller window, click Refresh. The software will search the online distributed access controller. The result will be displayed in the list, including the device No., name, IP address, gateway and subnet mask.
2. Select a distributed access controller and click Add. Click OK in the pop-up window. The distributed access controller will be registered to the access controller.
3. Click the Hardware Par... (Hardware Parameters Downloading) button to download information to the device.



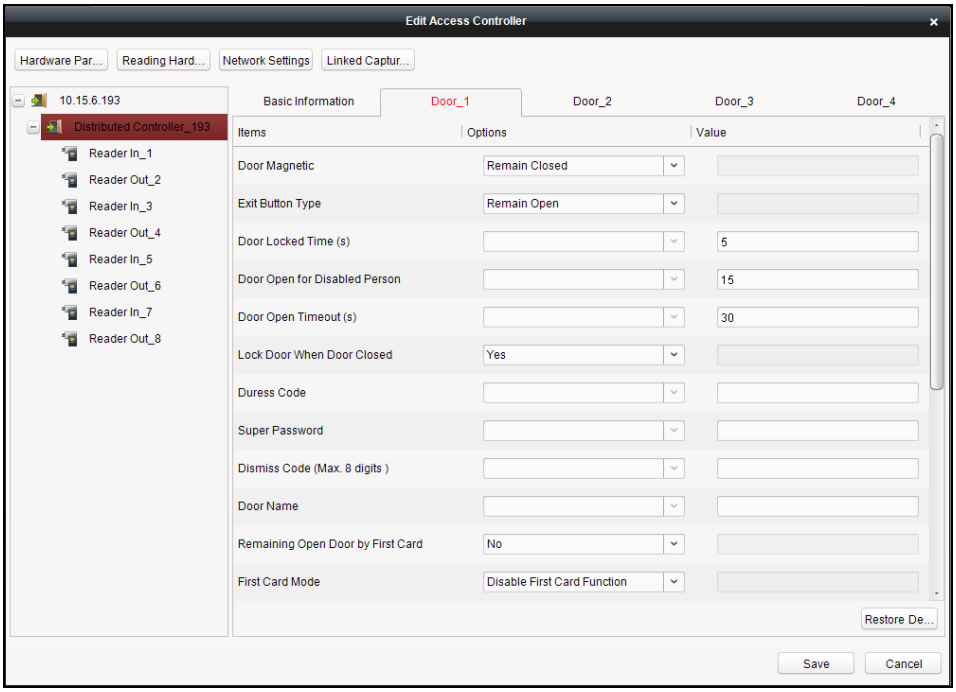
Logout Distributed Access Controller

Steps:

1. In the Edit Access Controller interface, right click a target distributed assess controller in the device list to open the right-click menu.
2. Click **Delete Distributed Access Controller**.
3. Click OK in the pop-up window to confirm deleting. All related information of the distributed access controller will be also deleted.
4. Click the Hardware Par... (Hardware Parameters Downloading) button to download information to the device.



Editing Distributed Access Controller (Door Information)



Steps:

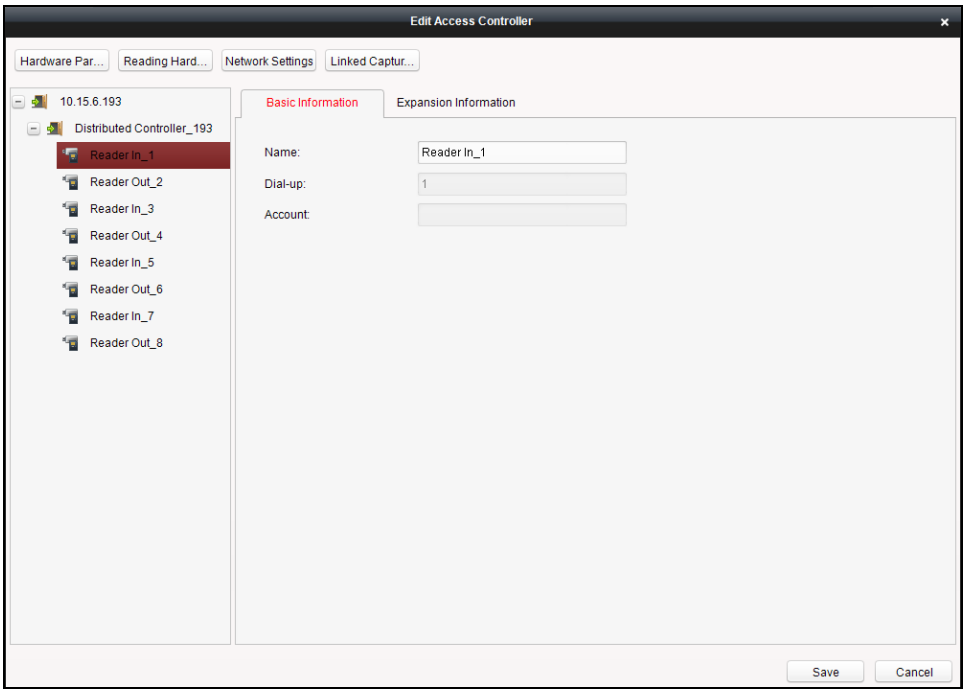
1. In the editing interface, select a distributed access controller and click **Door_1/Door_2/…** to edit the information of the selected door.
   1) **Door Magnetic**: The Door Magnetic is in the status of **Remain Closed** (excluding special conditions).
   2) **Exit Button Type**: The Exit Button Type is in the status of **Remain Open** (excluding special conditions).
   3) **Door Locked Time(s)**: After swiping the normal card and relay action, the

timer for locking the door starts working.

4) **Door Open for Disabled Person:** The door magnetic can be enabled with appropriate delay after disabled person swipes the card.
5) **Door Open Timeout(s)**: The alarm can be triggered if the door has not been close
6) **Enable Lock Door when Door Close**: This function has not been supported yet.
7) **Duress Code**: The door can open by inputting the duress code when there is a duress. At the same time, the access system can report the duress event.
8) **Super Password:** The specific person can open the door by inputting the super password.
9) **Dismiss Code (Max. 8 digits):** The alarm can be dismissed by entering the configured dismiss code.
10) **Door Name:** You are able to edit the door name.
11) **Remaining Open Door by First Card:** Select Yes or No.
12) **First Card Mode:** Select the first card mode, including Disable First Card Function, Remain Open by First Card Mode and First Card Authorization Mode.
13) **Remaining Open Duration Time (Minute):** Configure the remaining open duration for the first card.
14) **Connected to Distributed Controller:** Connect the door to the distributed access controller or not.
15) **Distributed Controller No.:** Configure the distributed access controller No.
16) **Distributed Controller Door No.:** Configure the distributed access controller door No.
17) **Distributed Controller Network Status:** Configure the distributed access controller status.
18) **Lock Input Detection:** Select enable or disable the function.
19) **Lock Input Type:** Select to remaining open or close the door.
20) **Door Control Terminal Work Mode:** Select Open/Short Circuit Attempts Alarm or Normal mode.
21) **Exit Button:** Select to enable or disable the exit button.

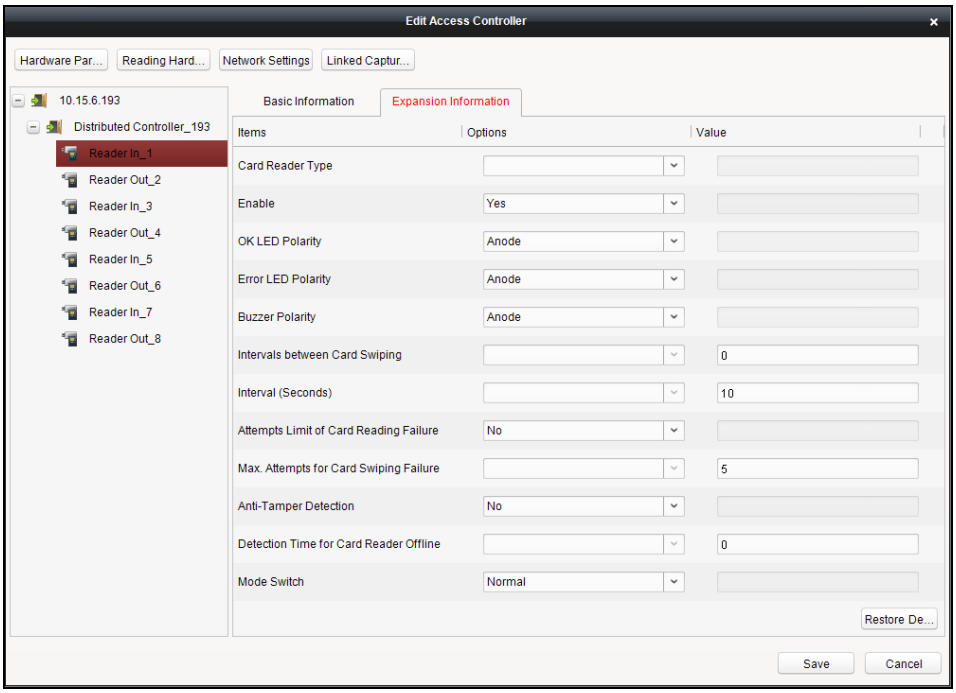
2. Click the **Restore Default Value** to restore all parameters into default settings.
3. Click the Save button to save parameters.
4. Click the Hardware Par... (Hardware Parameters Downloading) button to download information to the device.

Editing Distributed Access Controller (Card Reader Information)



Steps:

1. In the device list, select a card reader name to enter into the card reader basic information editing interface.
2. Click **Basic Information** to edit the basic information about the card reader.
3. Click **Expansion Information** to edit the expansion information of the card reader.



The Expansion Information includes:

1) **Card Reader Type:** You cannot select the card reader type. Viewing the card reader type is available.
2) **Enable: Yes** refers to card swiping is available on the card reader. No
3) **OK LED Polarity:** Select the polarity.

4) **Error LED Polarity:** Select the polarity.
5) **Buzzer Polarity:** Select the buzzer polarity.
6) **Intervals between Card Swiping:** It is invalid to swipe the same card again in the configured time duration. Available configured time duration is from 0 to 255s. (If set the time duration to 0, the function is not enabled.)
7) **Interval (Seconds):** The maximum interval between entering two characters of the password. After inputting a character, if you do not enter the next character in the configured interval, all characters will be cleared.
8) **Attempts Limit of Card Reading Failure:** If select "Yes", when the operation of card reading failed exceeds the configured attempts, the controller will generate an alarm event.
9) **Max. Attempts for Card Swiping Failure:** The maximum attempts for card swiping failed.
10) **Anti-Tamper Detection:** If select "Yes", when the card reader is tampered or removed, the controller will generate an alarm.
11) **Detection Time for Card Reader Offline:** If the card reader does not respond to the controller in the configured time duration, the card reader will be in the offline mode.
12) **Mode Switch:** Switch the card reader mode. Support the normal mode and the Card Enrollment mode.

4. Click the Save button to save parameters.

5. Click the Hardware Par... (Hardware Parameters Downloading) button to download information to the device.

Bulk Time synchronization

Steps:

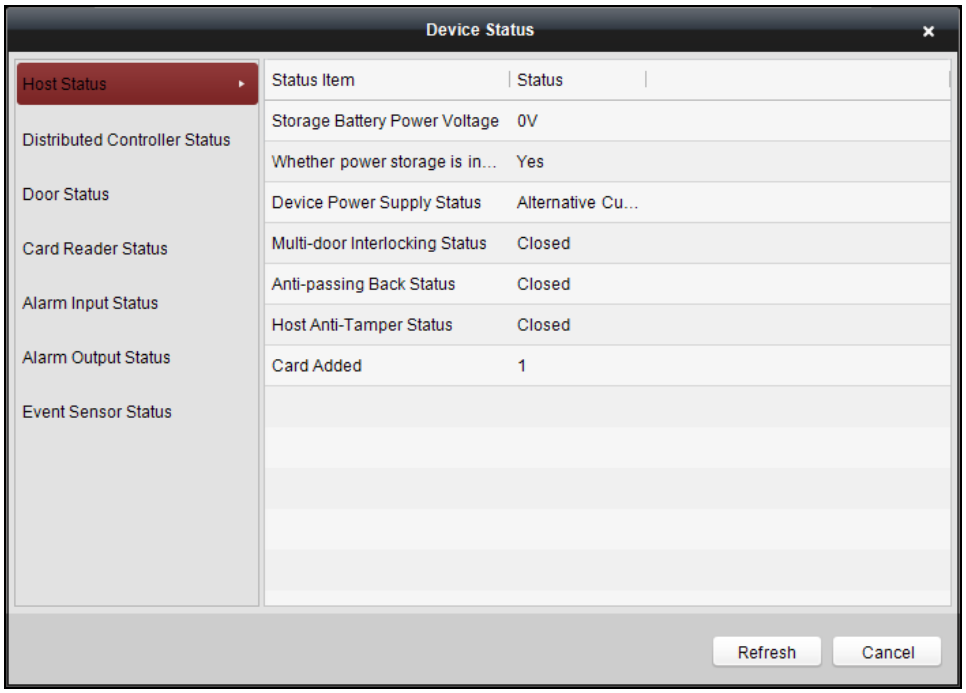
1. In the device list, select a device by clicking it, or select multiple devices by pressing **Ctrl** button on your keyboard and clicking them one by one.

2. Click the Bulk Time Adj... button to start time synchronization.

   A message box will pop up on the lower-right corner of the screen when the time synchronization is compeleted.

Status

In the device list, you can click Status button to enter view the status.



1) **Host Status**: The status of the host, including Storage Battery Power Voltage, Whether power storage is in low voltage status, Device Power Supply Status, Multi-door Interlocking Status, Anti-passing Back Status, Host Anti-Tamper Status and Card Added.

2) **Distributed Controller Status:** Display the distributed access controller status, including the distributed access controller No., offline status, tampering status, device power supply status, fire alarm, storage battery power voltage, Whether power storage is in low voltage status and Serial No.

3) **Door Status**: The status of the connected door. The door status includes Normal Status, Remain Closed and Remain Open.

Note: Normal Status refers to the default value. You are able to configure Remain Closed and Remain Open via the remote open settings and the schedule template setting.

4) **Card Reader Status**: The status of card reader.

5) **Alarm Input Status**: The alarm input status of each port.

6) **Alarm Output Status**: The alarm output status of each port.

7) **Event Sensor Status**: The event status of each port.

Remote Configuration

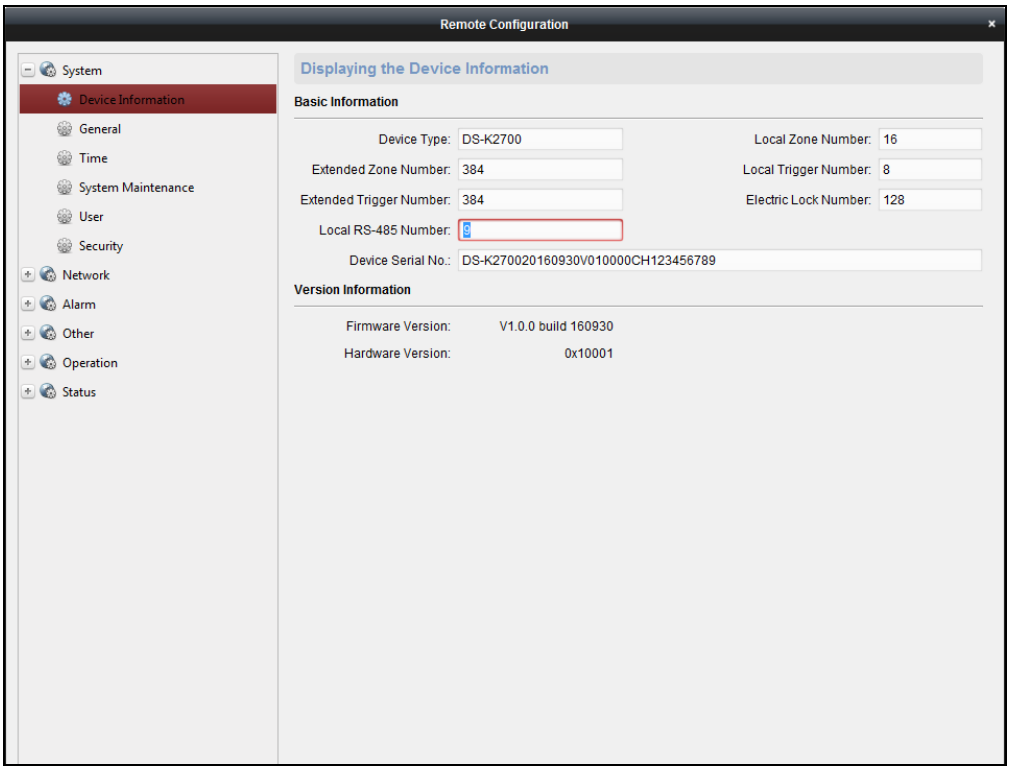
Purpose:

In this this interface, you can set the access control parameters, remotely reboot device, restore the device parameters, remotely update the access controller and the distributed access controller, remotely configure the alarm zone parameters, remotely configure alarm.

➢ Checking Device Information

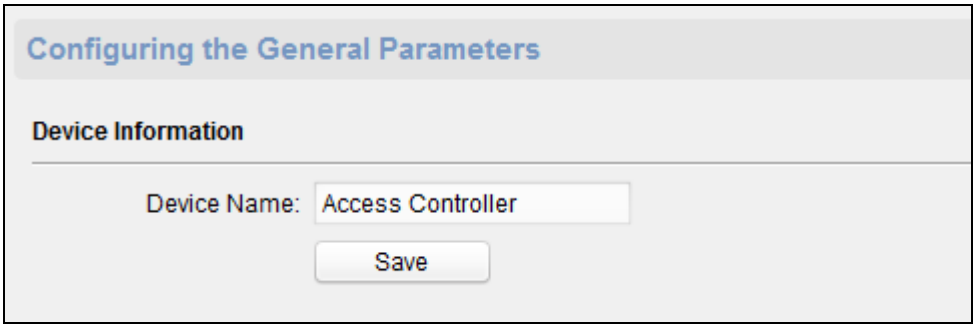
Steps:

1. In the device list, you can click Remote Config... to enter the remote configuration interface.
2. Click **System** -> **Device Information** to check the device basic information and the device version information.



➢ Editing Device Name

In the Remote Configuration interface, click **System** -> **General** to configure the device name. Click Save to save the settings.



➢ Editing Time

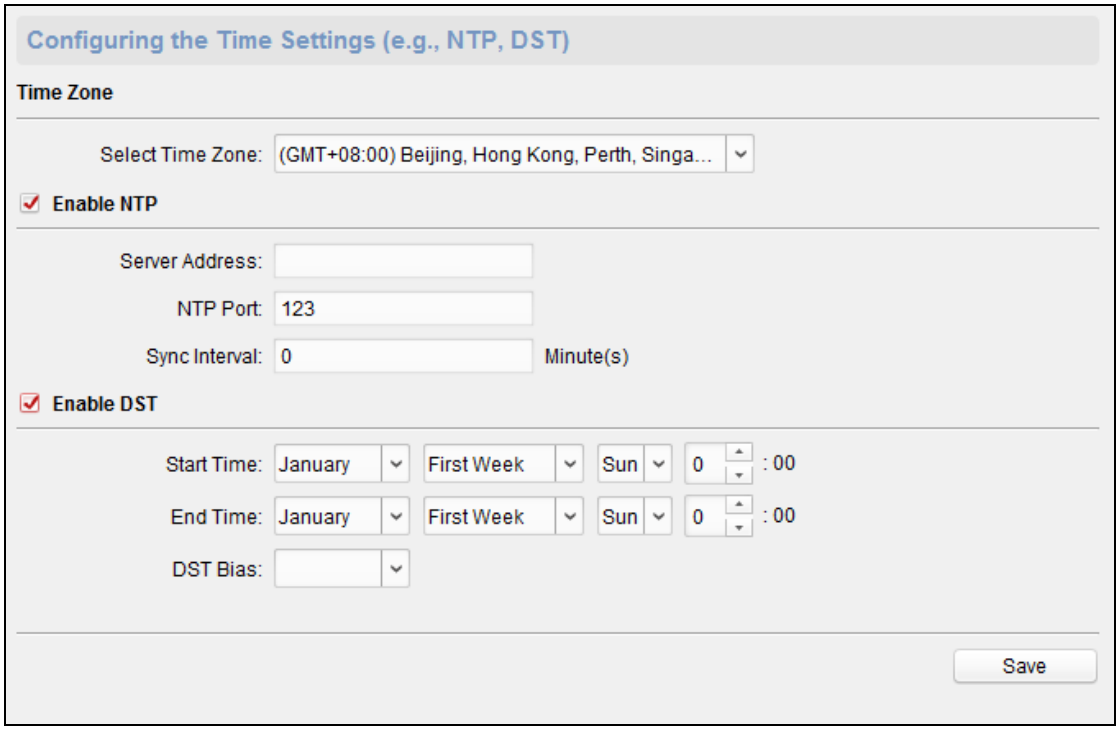
Steps:

1. In the Remote Configuration interface, click **System** -> **Time** to configure the time zone.
2. (Optional) Check **Enable NTP** and configure the NTP server address, the NTP port,

and the synchronization interval.

3. (Optional) Check **Enable DST** and configure the DST star time, end time and the bias.

4. Click Save to save the settings.



➢ **System Maintainance Settings**

Steps:

1. In the Remote Configuration interface, click **System** -> **System Maintenance**.

2. Click Reboot to reboot the device.

   Or click Restore Default Settings to restore the device settings to the default ones, excluding the IP address.

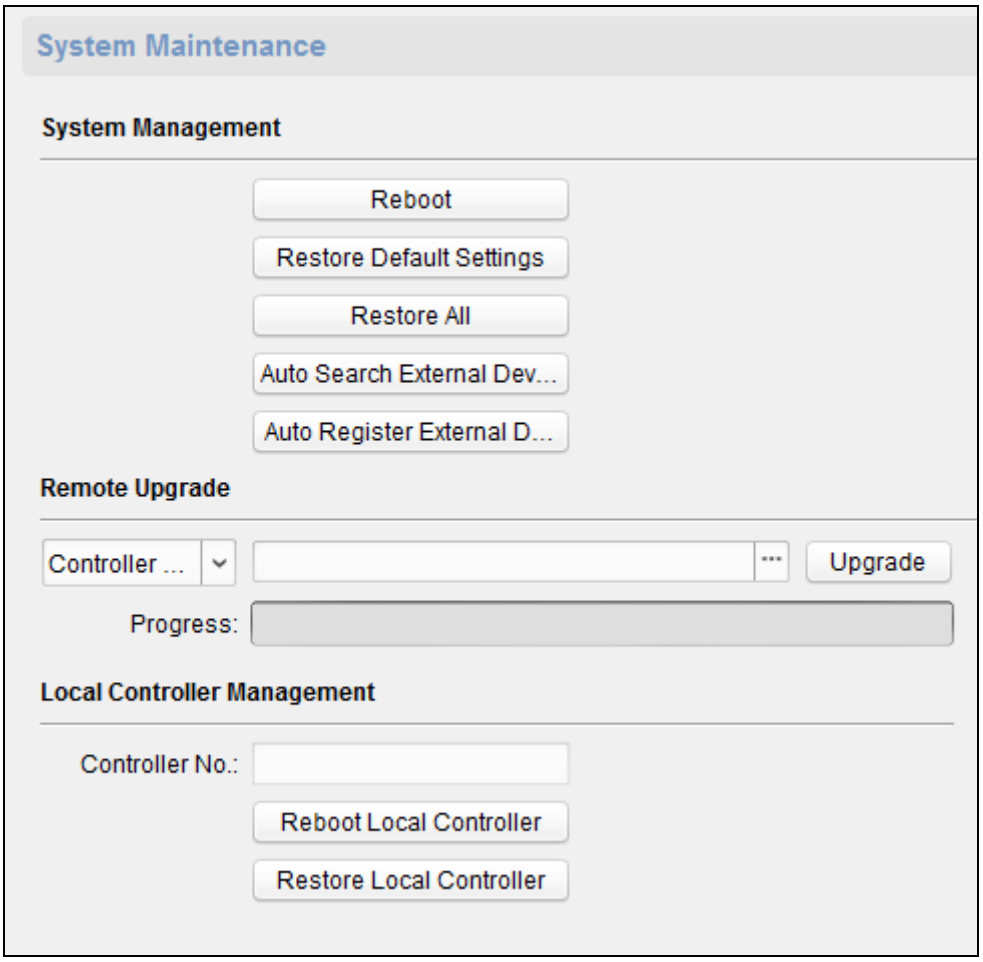
   Or click Restore All to restore the device parameters to the default ones. The device should be activated after restoring.

   Or click Auto Search External Dev... to search the unlinked alarm output and alarm input of the distributed access controller. The alarm input and output will be queued after the linked ones.

   Or click Auto Register External D... to queue all alarm input and output of the registered distributed access controller by ID. It will also delete the linked distributed access controller.

   Note: You are able to check the queue in **Alarm** -> **Trigger**.

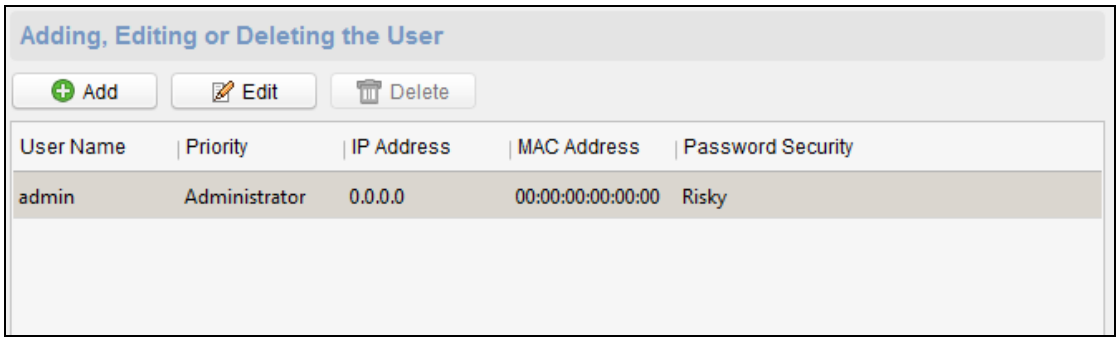
3. In the Remote Upgrade part, select a upgrade file type in the dropdown list. Click ··· to select the upgrade file. Click Upgrade to start upgrading.
4. You can configure the local controller in the Local Controller Management (Distributed Controller) part. Configure the controller No. Click Reboot Local Controller or Restore Local Controller to reboot the local controller (Distributed Controller) or restore the local controller (Distributed Controller) parameters.



➢ **Managing User**

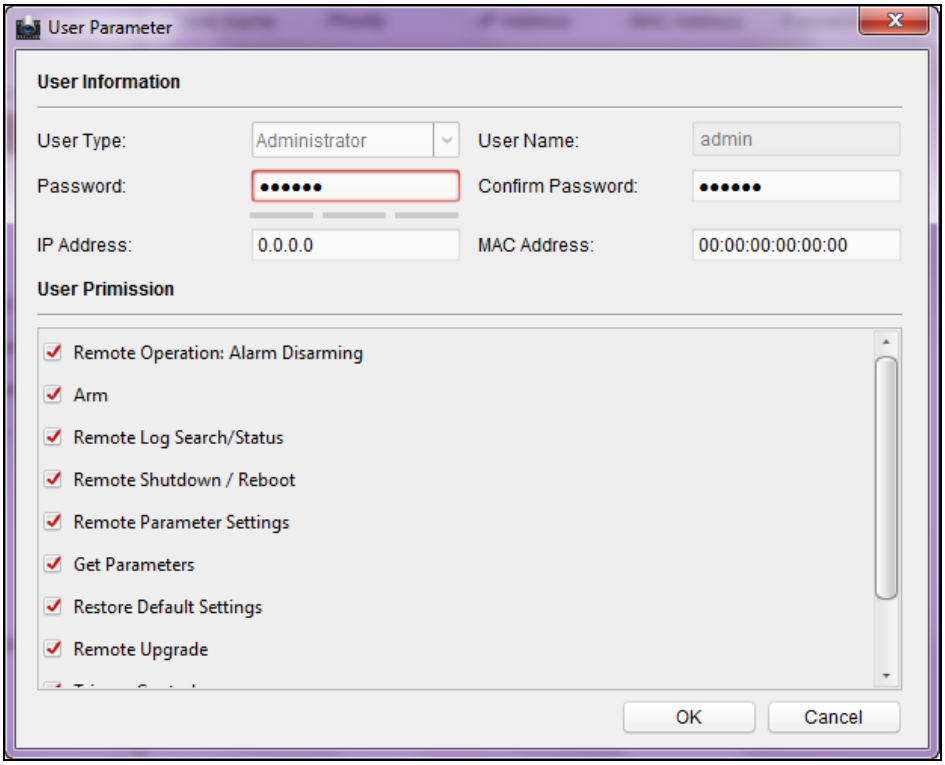
Steps:

1. In the Remote Configuration interface, click **System** -> **User**.



2. Click Add to add the user (Do not Support).

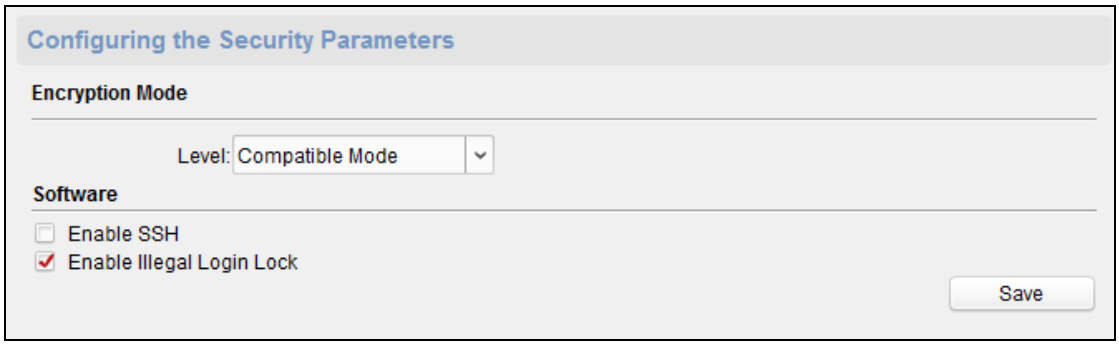
   Or select a user in the user list and click Edit to edit the user. You are able to edit the user password, the IP address, the MAC address. Cilck OK to confirm editing.



➢ **Setting Security**

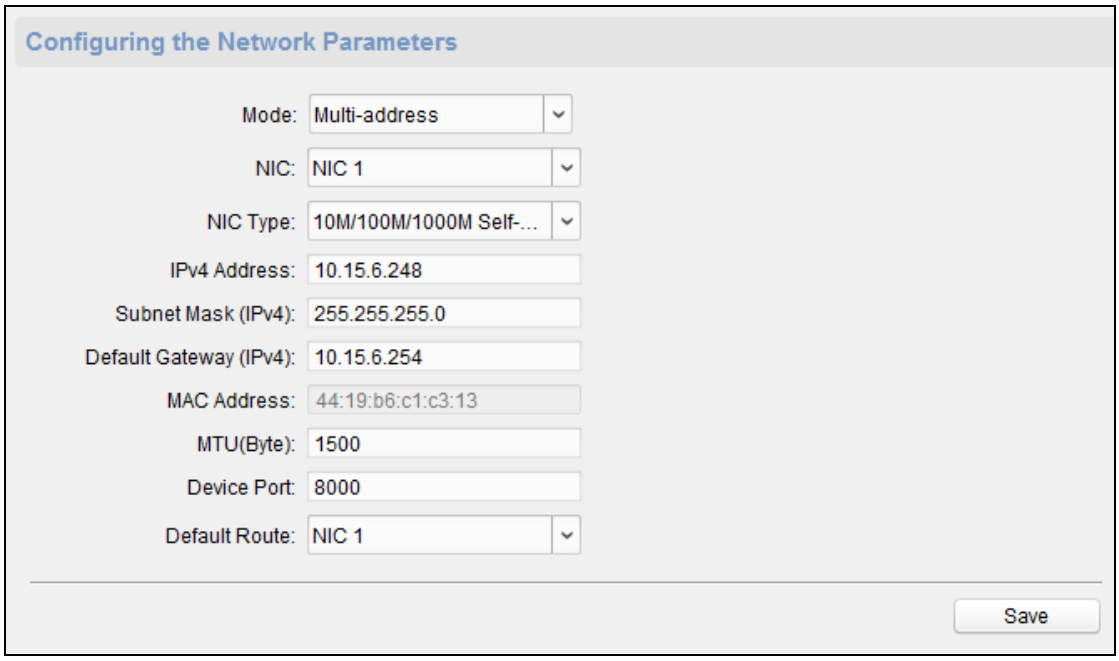
Steps:

1. Click **System** -> **Security**.
2. Select the encryption mode in the dropdown list. You are able to select Compatible Mode or Encryption Mode.
3. (Optional) You can check **Enable SSH** or **Enable Illegal Login Lock** in the Software part.
4. Click Save to save the settings.



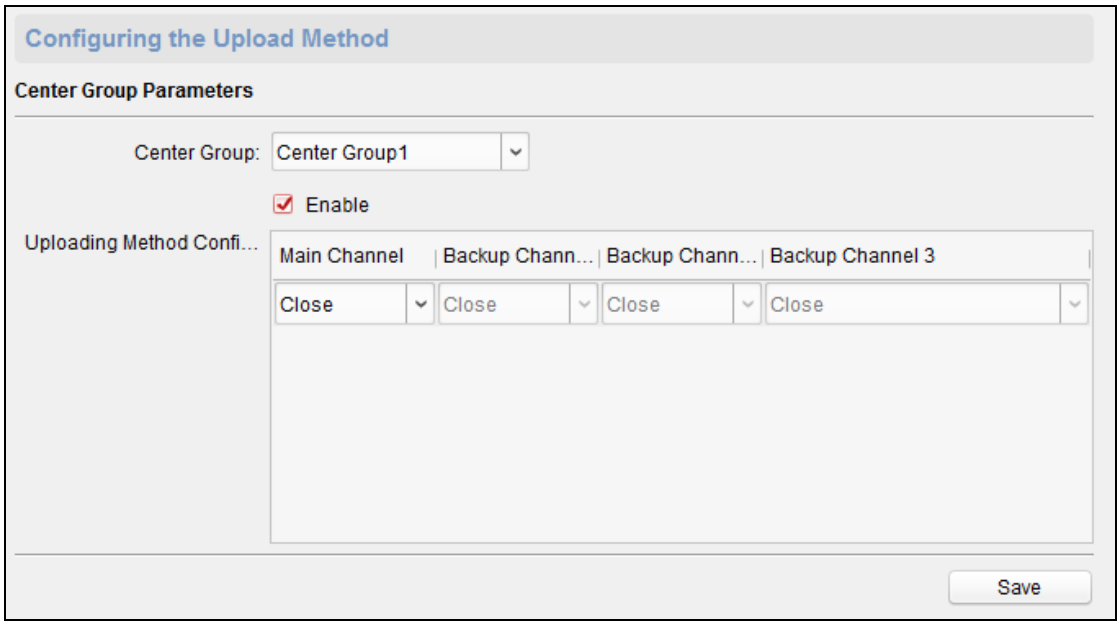
➢ Configuring Network Parameters

Click **Network** -> **General**. You can configure the network mode, NIC, the NIC type, the IPv4 address, the subnet mask (IPv4), the default gateway (IPv4), MTU, the device port and the default route. Click Save to save the settings.



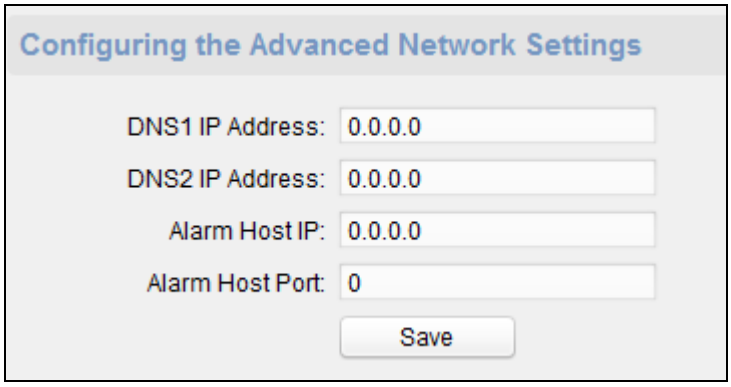
➢ Configuring Upload Method

Click **Network** -> **Uploading Method Configuration**. You can configure the cener group parameters. Select the center group in the dropdwon list. Check **Enable** and configure the uploading method channel. Click Save to save the settings.



➢ Configuring Advanced Network

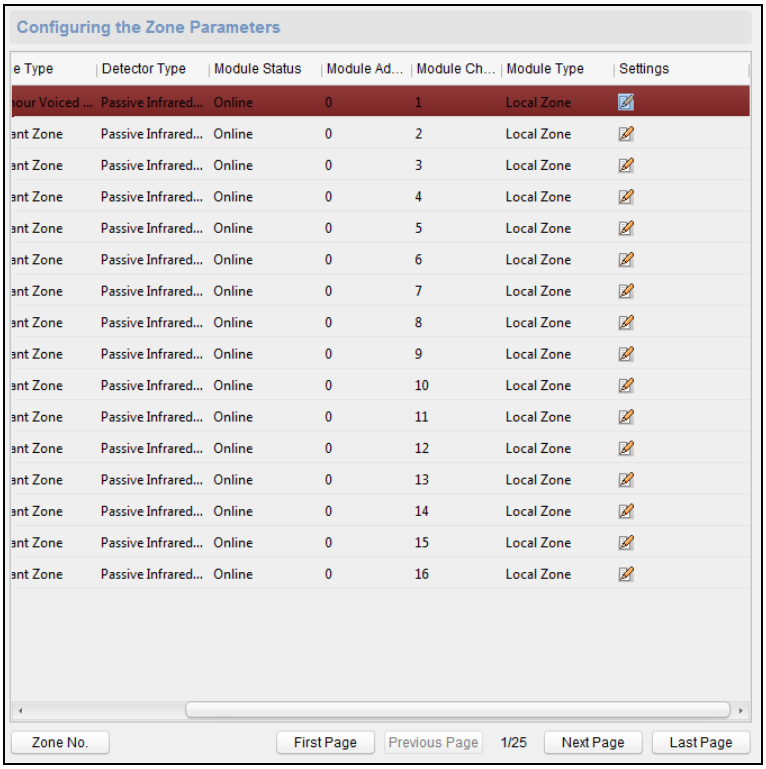
Click **Network** -> **Advanced Settings**. You can configure the DNS1 IP address, the DNS2 IP address, the alarm host IP and the alarm host port. Click Save to save the settings.



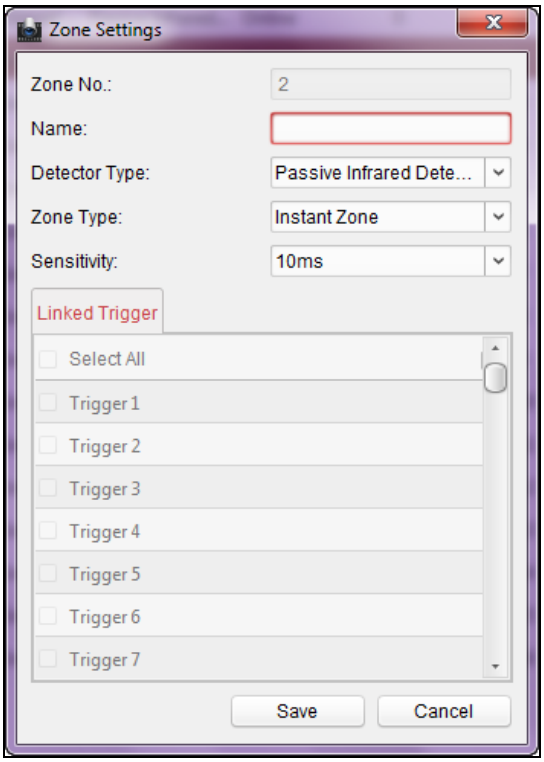
➢ **Configuring Alarm Zone Parameters**

Steps:

1. In the Remote Configuration interface, click **Alarm** -> **Zone**. You can check the zone parameters.



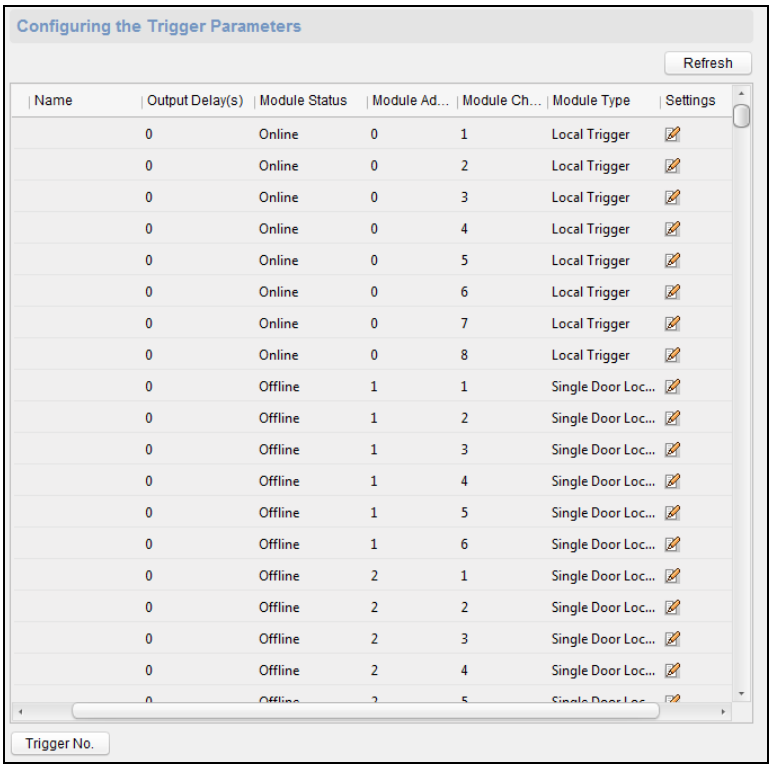
2. Click the icon to enter the Zone Settings window. You can configure the zone name the detector type, the zone type, and the sensitivity.
3. Click Save to save the settings.



➢ **Configuring Trigger Parameters**

Steps:

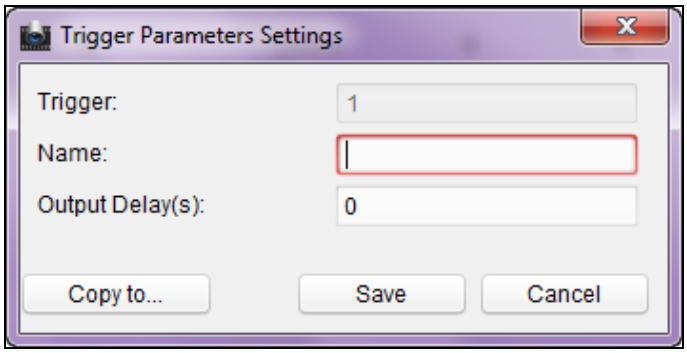
1. Click **Alarm** -> **Trigger**. You can check the trigger parameters.



2. Click the icon to enter the Trigger Parameters Settings window. You can configure the trigger name.

3. Click Save to save the paramters.

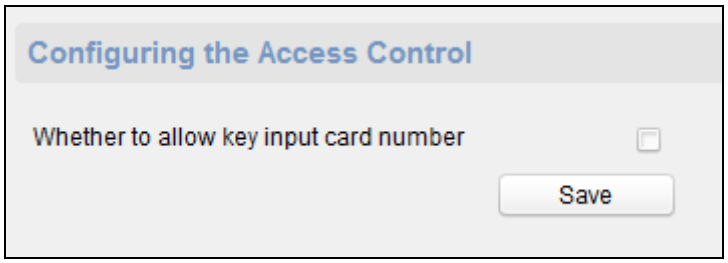
   Or click Copy to... to copy the trigger information to other triggers.



➢ **Configuring Access Control**

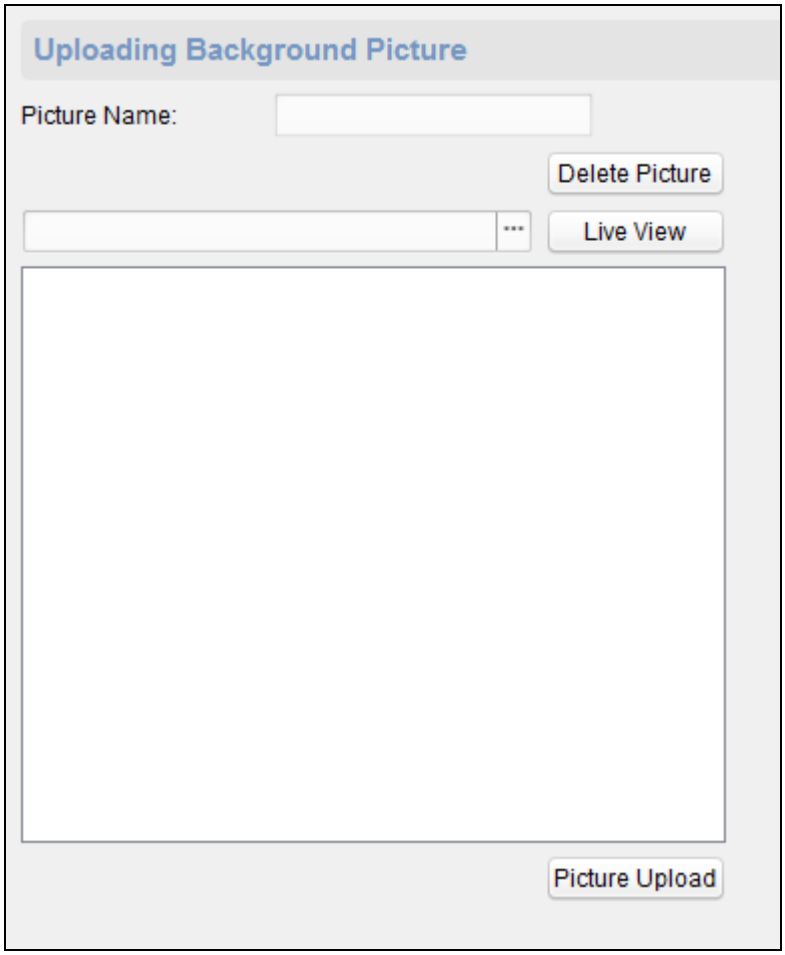
In the Remote Configuration interface, click **Other** -> **Access Control Parameters**.

Check Whether to allow key input card number. Click Save to save the settings.



➢ **Uploading Background Picture**

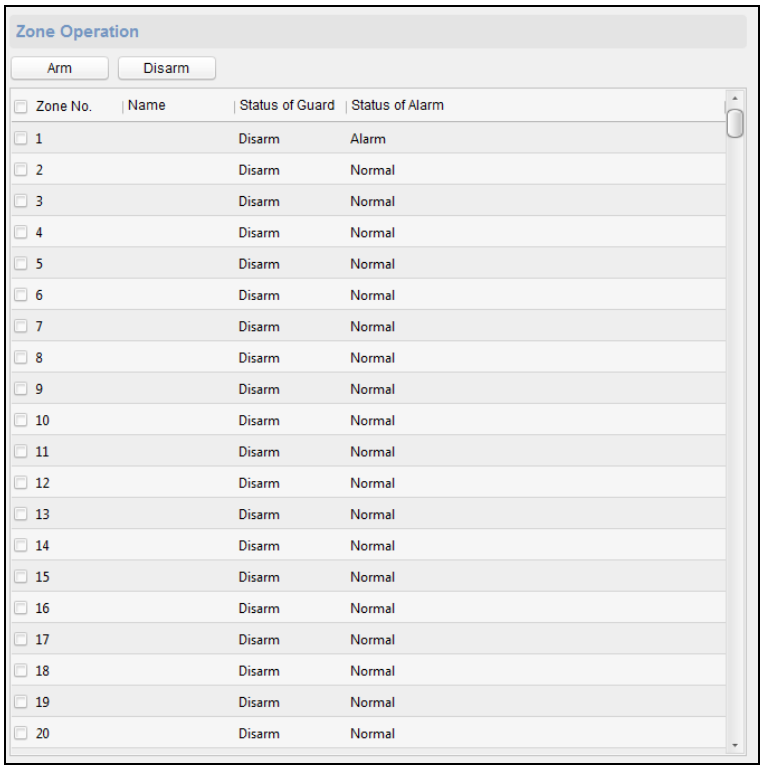
Click **Other** -> **Picture Upload**. Click ... to select the picture from the local. You can click Live View to preview the picture. Click Picture Upload to upload the picture.



➢ **Operating Zone**

Steps:

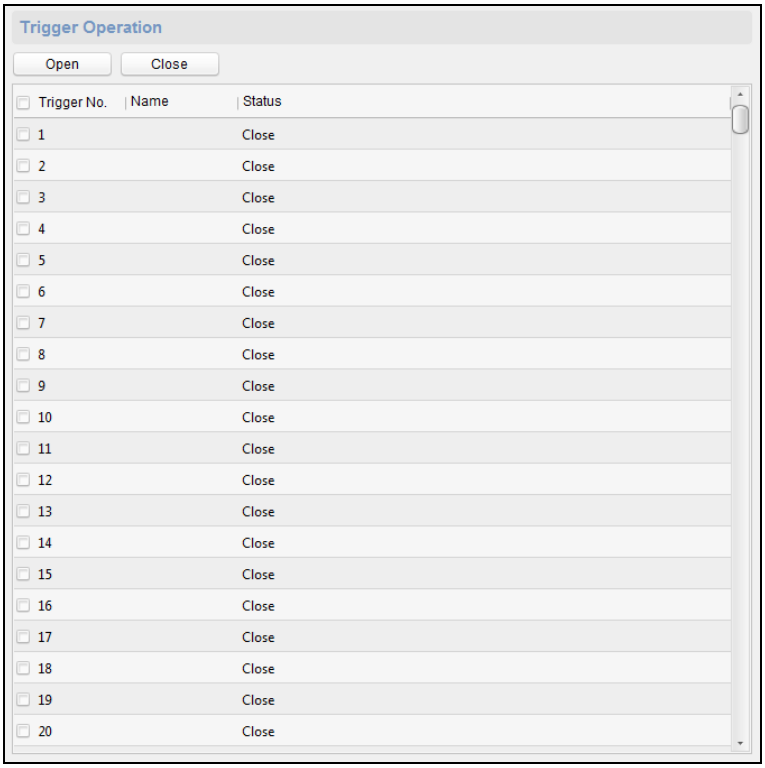
1. Click **Operation** -> **Zone**. You are able to check the zone status.
2. Check the zone and click Arm or Disarm to arm/disarm the zone.



➢ Operating Trigger

Steps:

1. Click **Operation** -> **Trigger**. You can check the trigger status.
2. Check the trigger and click Open or Close to open/close the trigger.



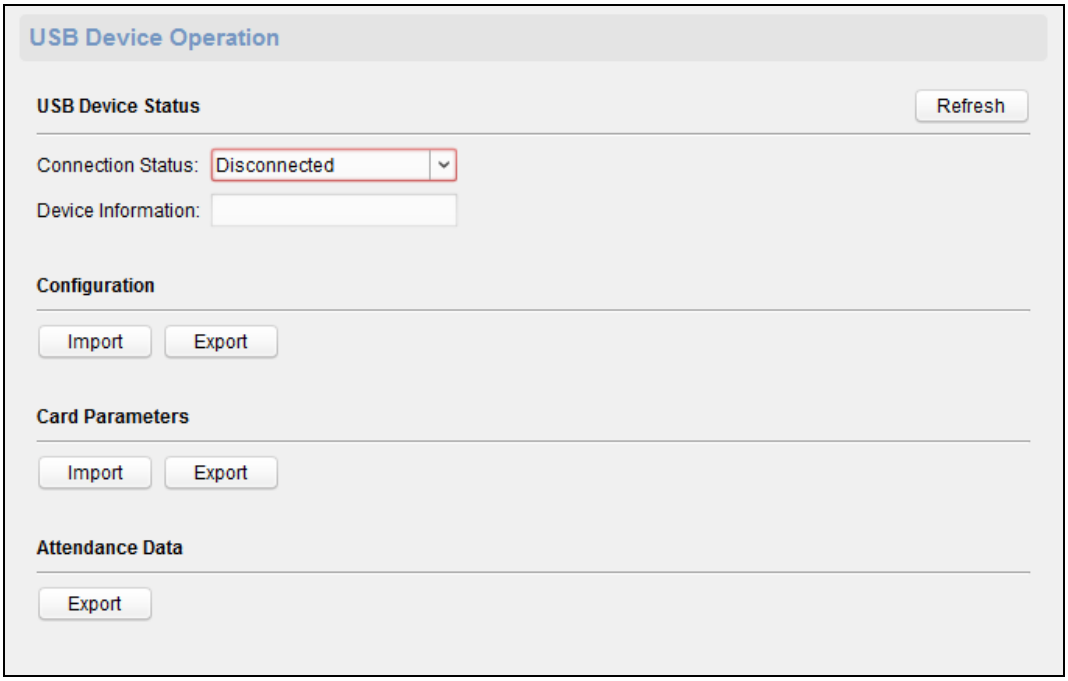
➢ Operating USB Device

Before you start:

Insert a USB device to the device.

Steps:

1. Click **Operation** -> **USB Device**.



2. You can select the USB connection status in the dropdown list. The USB device information will be displayed in the Device Information box.
3. Click Import or Export to import/export the configuration, the card paramters from/to the USB device.

   Or click Export to export the attendance data.

➢ **Checking Status**

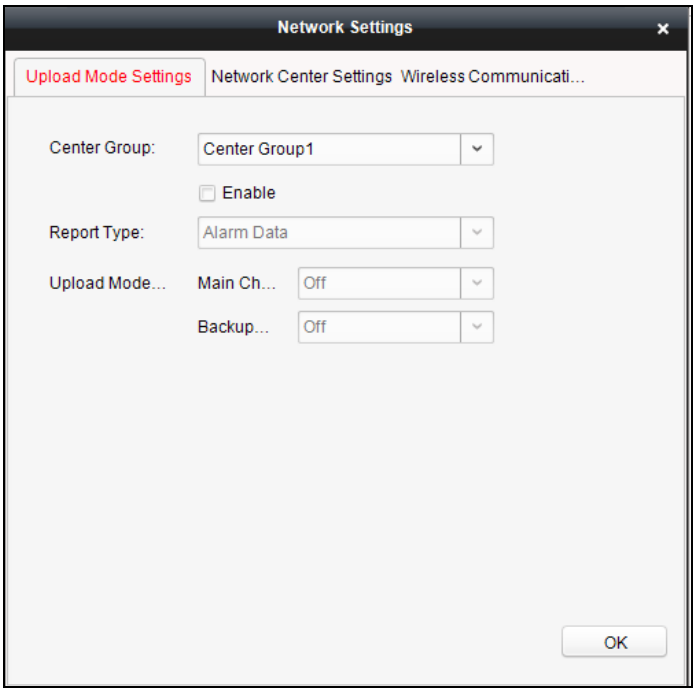
Click **Status** -> **Alarm** or **Status** -> **Trigger** to check the zone status and the trigger status.

6.1.2 Network Settings

Purpose:

In the network settings interface, the network settings of the device can be uploaded and reported.

Uploading Mode Settings



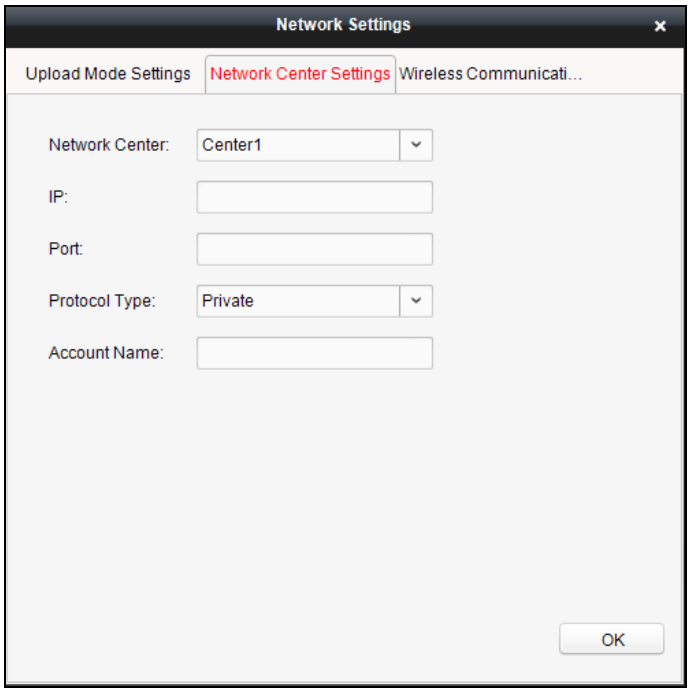
Steps:

1. In the access controller editing interface, click Network Settings button to enter the network settings interface.
2. Click **Uploading Mode Settings**.
3. Select the center group in the dropdown list.
4. Tick the **Enable** to enable the selected center group.
5. Select the report type in the dropdown list.
6. Select the uploading mode in the dropdown list. You can enable N1/G1 for the main channel and the backup channel, or select off to disable the main channel or the backup channel.

Note: The main channel and the backup channel cannot enable N1 or G1 at the same time.

7. Click the **OK** button to save parameters.

Network Center Settings



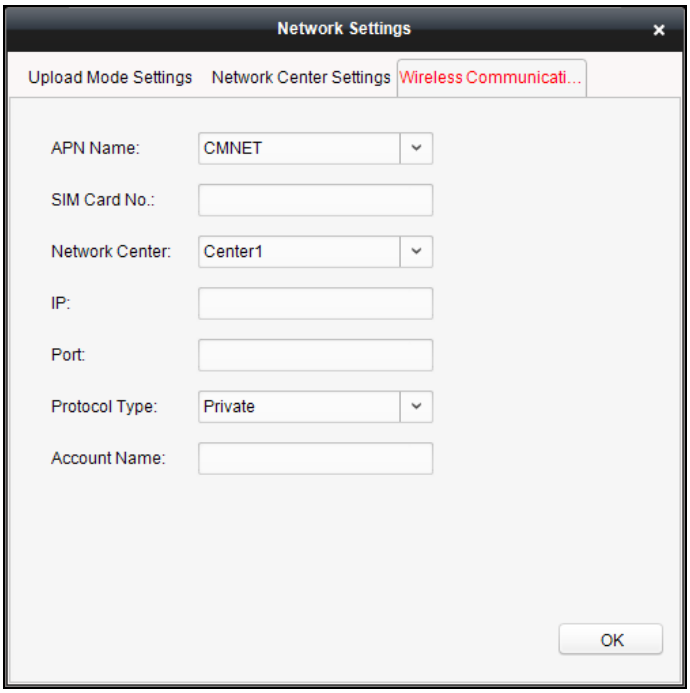
Steps:

1. In the access controller editing interface, click Network Settings button to enter the network settings interface.
2. Click **Network Center Settings**.
3. Select the network center in the dropdown list.
4. Input IP address.
5. Input port number.
6. Select the protocol type: Private, NAL2300.
   Note: Ehome is not supported.
7. Set an account name for the network center. A consistent account should be used in one platform.
8. Click the **OK** button to save parameters.

Wireless Communication Center Setting

Steps:

1. In the access controller editing interface, click Network Settings button to enter the network settings interface.
2. Click **Wireless Communication Center Setting** to configure the report uploading type.
3. Configure the APN name, the SIM card center, the IP address, the port, the protocol type and the account name.
   Note: The protocol type of DS-K2700 Access Controller, DS-K27M01, DS-K27M02 or DS-K27M04 Distributed Access Controller does not support ehome.
4. Click the **OK** button to save the parameters.



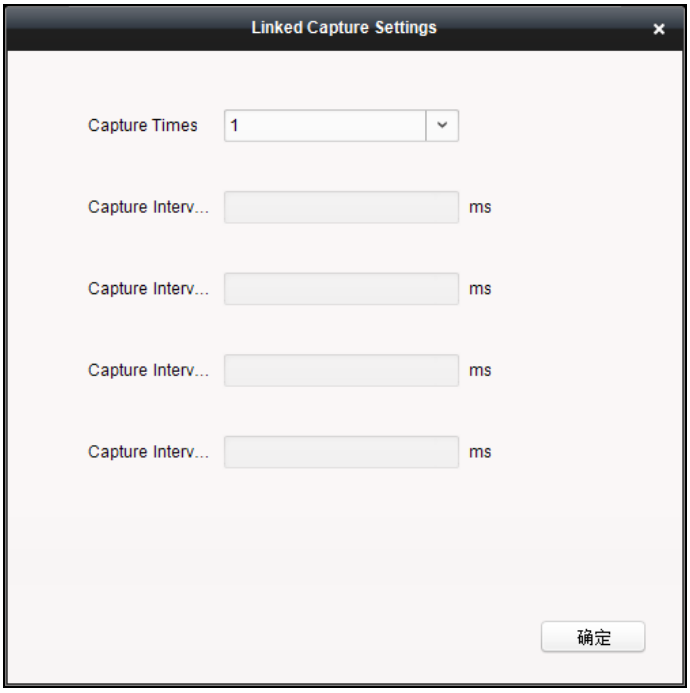
6.1.3 Linked Capture Settings (Do Not Support)

Purpose:

Configure the size and the quality of the linked capture picture, the linked capture times, and the capture interval.

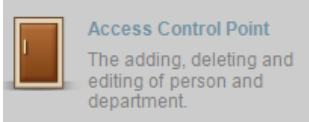
Steps:

1. In the Edit Access Controller interface, click the button Linked Captur... .
2. In the pop-up window, configure the capture times and the interval.
3. Click the **OK** button to save the parameters.

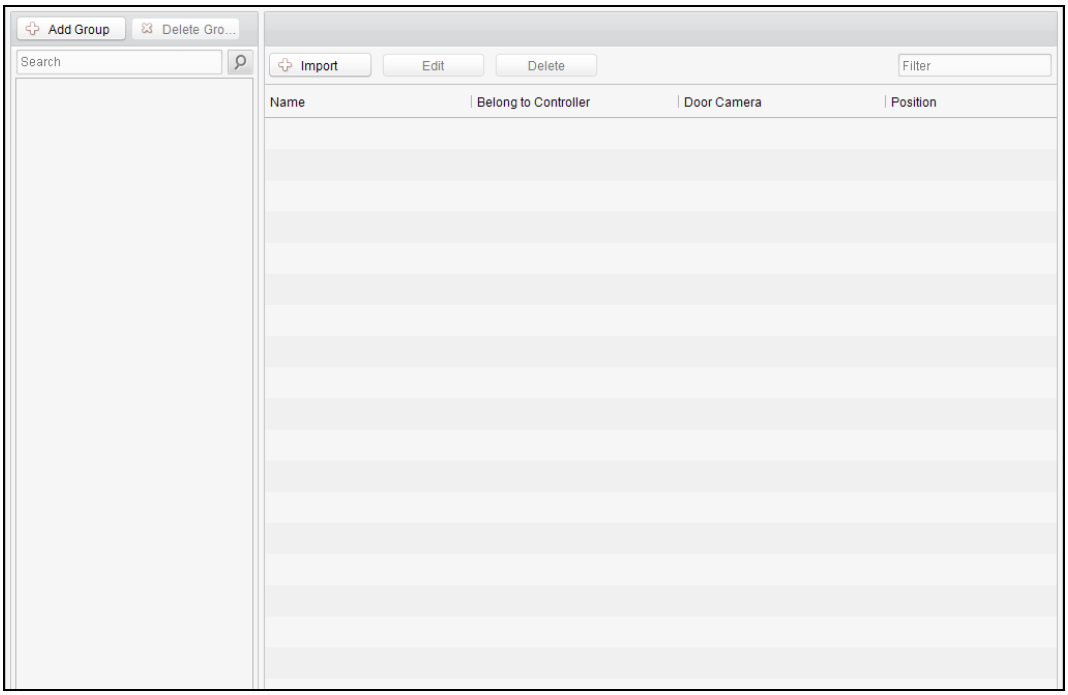


Note: Getting the linked capturing parameters from the device is available.

6.2 Access Control Point Management

Click the 

icon on the control panel to enter the door management interface.



Group Management

The doors can be added to different groups to realize the centralized management.

Door Management

Manage the specific door under the door group, including importing, editing and deleting door.

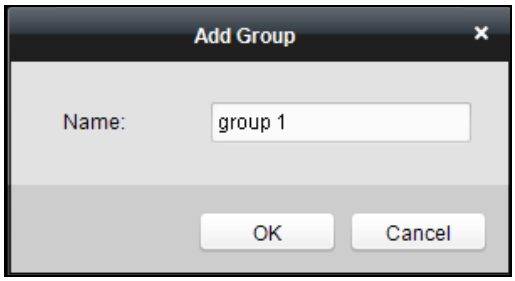
6.2.1 Group Management

Adding Group

Steps:

1. Click the 

button to pop up the Add Group dialog.



2. Input the group name in the text field and click the OK button to finish adding.

Note: Multi-level groups are not supported yet.

Editing Group

Steps:

Double-click the group or right-click the group and select Edit in the right-click menu.

Deleting Group

To delete a group, three ways are supported.

- Click to select a group and click the Delete Group button.
- Right-click a group and select Delete in the popup menu.
- Move the mouse onto the group and click icon of it.

And then click the OK button in the popup window.

6.2.2 Access Control Point Management

Purpose:

Access control points under the group can also be edited, refer to the following instructions.

Importing Access Control Point

Steps:

1. Click the Import button to pop up the access control point importing interface.
2. Select a access control point to import by clicking it.
3. Click to select a group in the right side bar to import to.
4. Click Import button to import the selected access control points or click Import All to import all the available access control points.

Notes:

- You can click button on the upper-right corner of the window to create a new group.
- Up to 64 access control points can be added.

Editing Access Control Point

Steps:

1. Click to select a access control point in the list and click the Edit button to edit the access control point.
2. Edit the Door Name and Position.
3. Click OK button to finish editing.

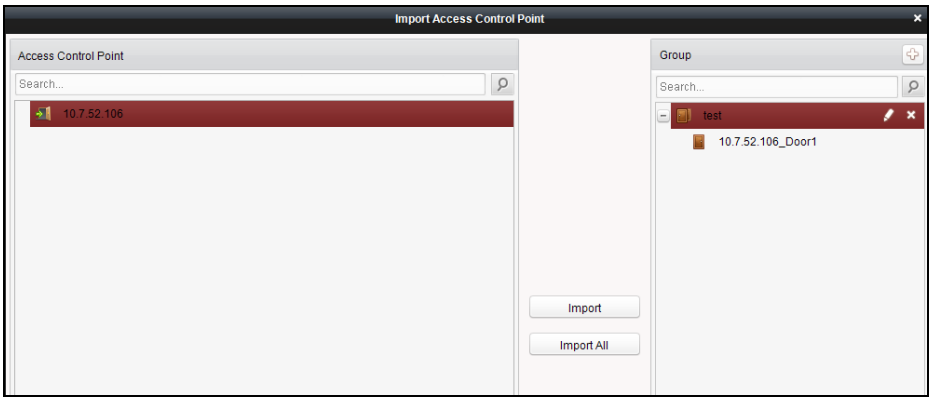
Note: you can also enter the Edit interface by double clicking the door from the list.

Deleting Access Control Point

Several ways are supported to delete the access control point, as shown below.

- Click to select a group in the group list, select door(s) under it, and click Delete button.
- Click to select a group in the group list, and click Delete button to delete all access control points under the group.
- Move the mouse onto a group in the group list, and click button to delete all access control points under the group.

Note: you can also edit/delete a door on the Import Access Control Point panel.

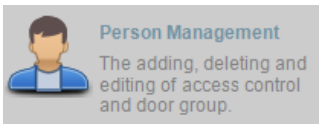


Steps:

1. Select a control point on the **Group** panel.
2. Click the / icon to enter the **Edit Access Control Point** panel or to delete the control point.

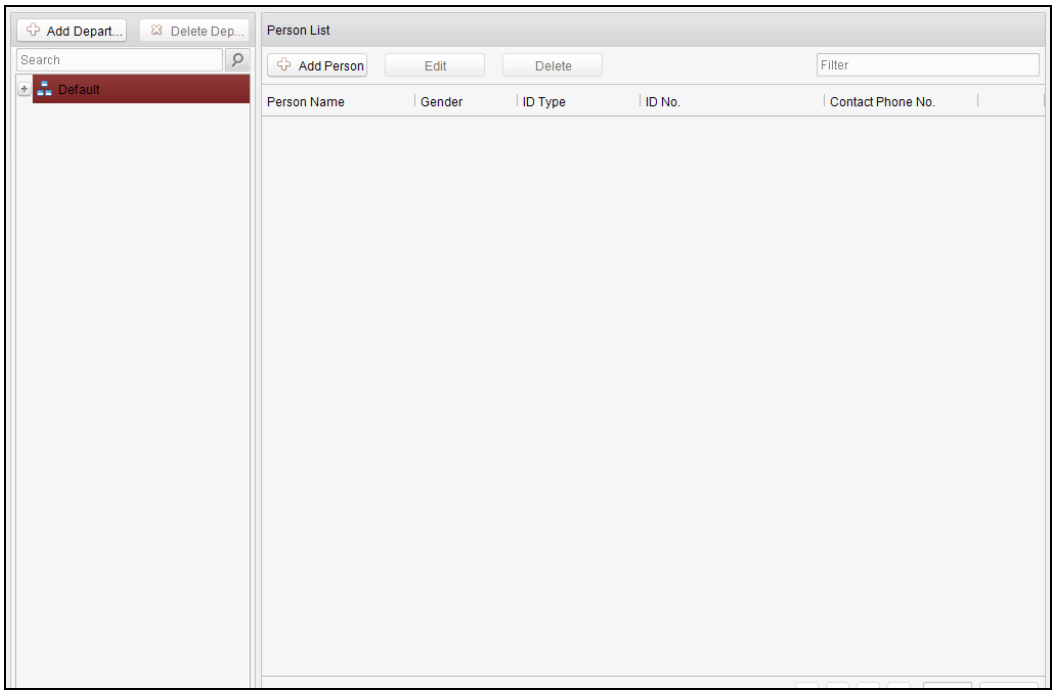
7 Permission Management

7.1 Person Management

Click the 

icon on the control panel of the software.

Adding, editing, deleting and filtering of the department and person are supported in this interface.

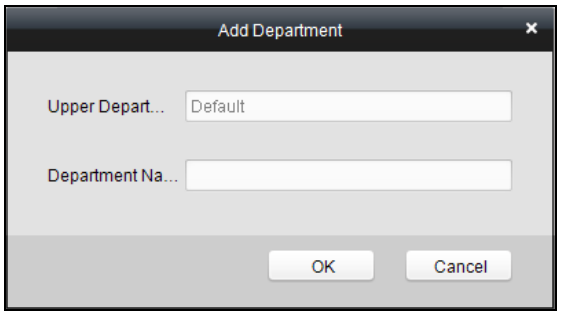


7.1.1 Department Management

Steps:

1. In the department list, click 

button to pop up the adding department interface.



Notes:

- Multi-level department system can be created. Click a department as the

upper-level deparment and click Add Depart... button, and then the added department will be the sub-department of it.

- Up to 10 levels can be created.

2. You can double-click an added department to edit its name.
3. You can click to select a department, and click the Delete Depa... button to delete it.

Notes:

- The lower-level departments will be deleted as well if you delete a department.
- Make sure there is no person added under the department, or the department cannot be deleted.

7.1.2 Person Management

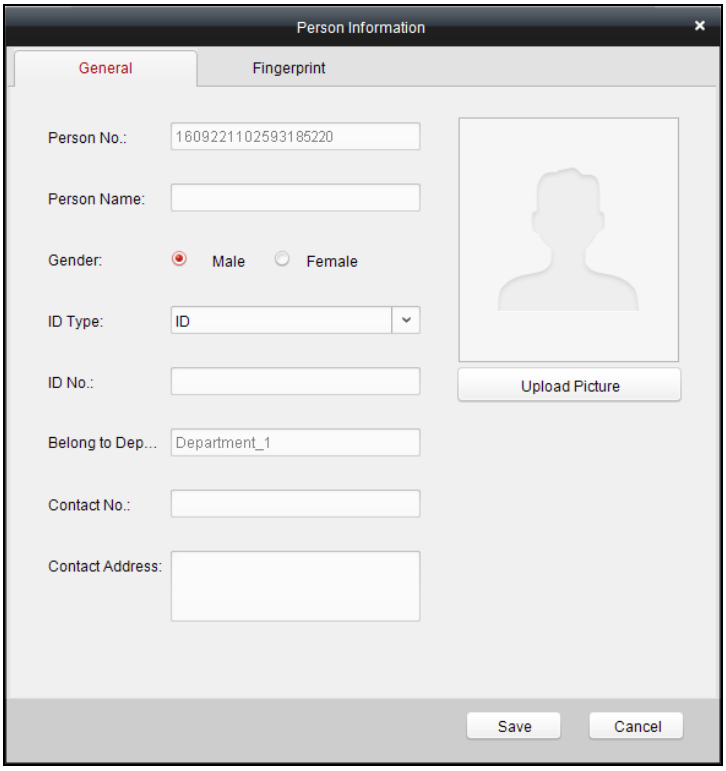
Notes:

- In the person management interface, double-click the person name or click the **Edit** button to edit the person informationt
- In the person management interface, click the **Delete** button to delete the person.
- Up to 2000 persons ban be added.

- **Inputting General Information**

Steps:

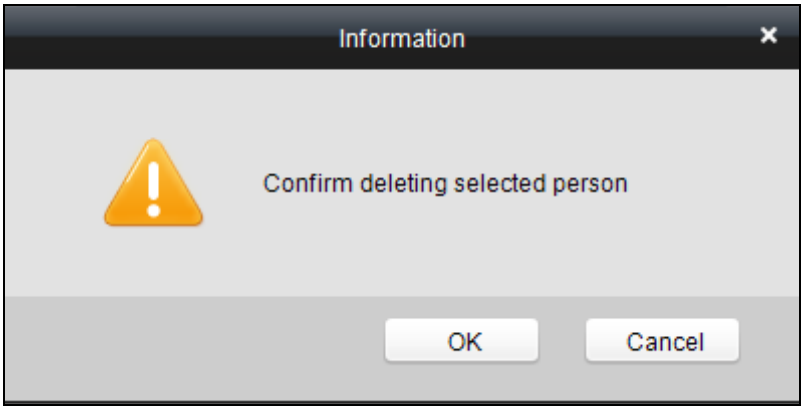
1. Select a department in the list and click the Add Person in the person infoarmation list to pop up the adding person interface.



2. Input the Person Name (required), Gender, ID Card, etc., upload the photo of the person and click the Save icon to finish adding.

   Note: The format of the photo should be .jpg, or .jpeg.

3. You can double-click an added person to edit its information.
4. You can click to select a person, and click the Delete button to delete it.

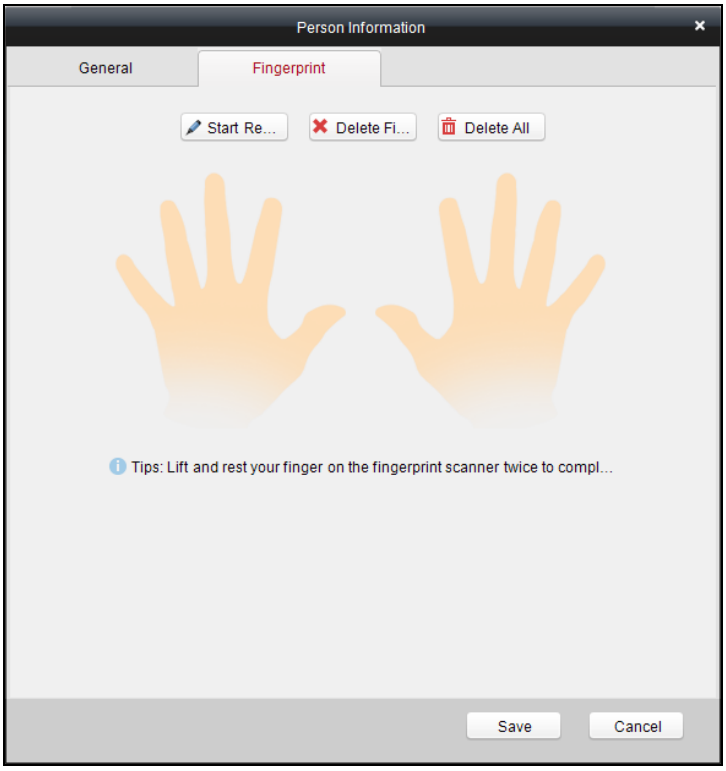


If a card is associated with the current person, the association will be invalid after the person is deleted.

- **Inputting Fingerprint**

Steps:

1. In the personal information interface, click the **Fingerprint** button.



2. Click the **Start Register** button, and select the fingerprint to be input. . For details about inputting fingerprint, see *Chapter 11 Appendix: Tips for Scanning Fingerprint*.
3. Click the **Save** button to save the parameter.

Notes:

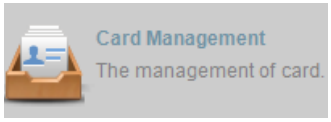
- Click the **Delete Fingerprint** button to delete the fingerprint.
- Click the **Delete All** button to clear all fingerprints input.

- **Editing Person Information**

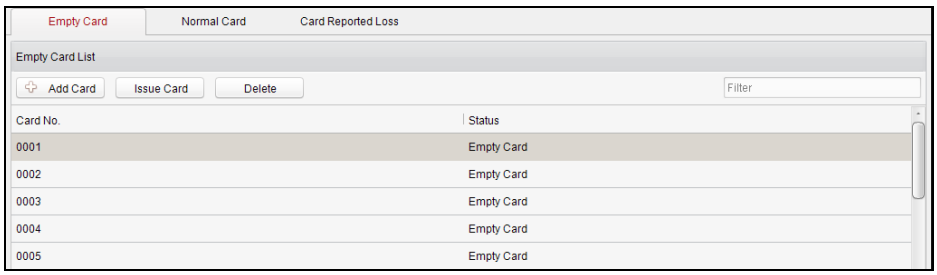
Steps:

1. In the Person List in the Person Management interface, select a person.
2. Click Edit to enter the Person Information interface.
3. Edit the parameters.
   If possible, click Fingerprint to enter the fingerprints.
4. Click **Save** to save the parameters.

7.2 Card Management

Click 

on the control panel of the software to enter the card management interface.



The cards are divided into 3 types: Empty Card, Normal Card, and Lost Card.

Empty Card: A card has not been issued with a person.

Normal Card: A card is issued with a person and is under normal using.

Lost Card: A card is issued with a person and is reported as lost.

7.2.1 Empty Card

- **Adding Card**

Before you start:

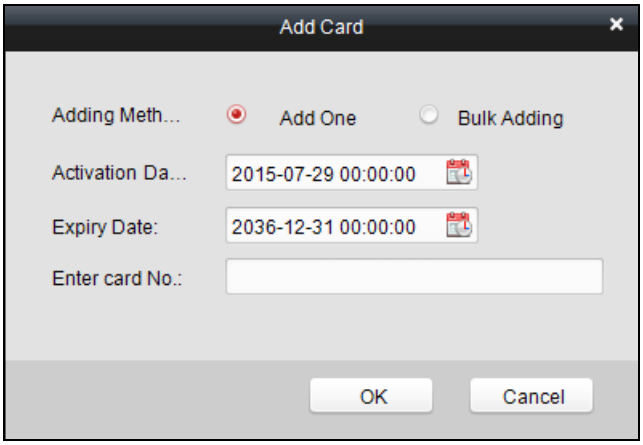
Make sure a card dispenser is connected to the PC and is configured already. Refer to Section *10.2.4 Card Dispenser Configuration* for details.

Steps:

1. Click the Add Card button to add cards.
2. Two modes of adding cards are supported.

   Adding Single Card

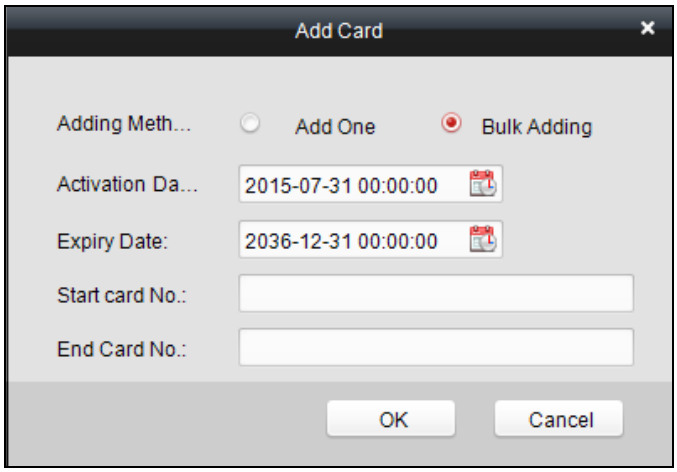
   Choose the Single Add as the adding mode by clicking the to and input the Start Date, Expiring Date and Card No. in the text field.



   Batch Adding Cards

   Choose the **Bulking Adding** as the adding mode by clicking the to and input the activation date, expiry date, start card No. and last card No. in the corresponding text fields.

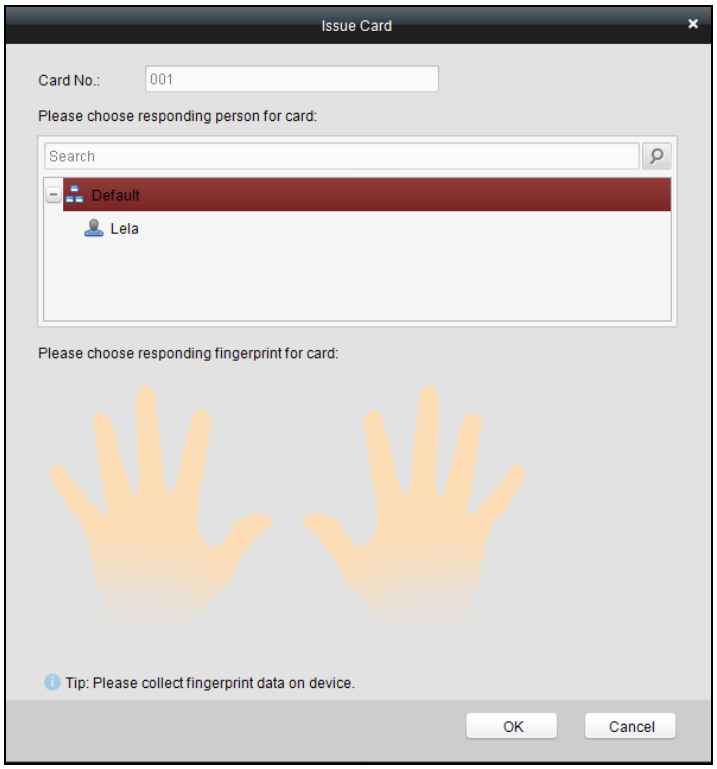
Note: The start card No. and the last card No. should be the with same length. E.g., the last card No. is 234, then the start card No. should be like 028



3. Click the OK button to finish adding.

4. Click an added empty card in the list and click Issue Card button to issue the card with a person.

   Note: you can double click the empty card in the card list to enter the **Issue Card** Page.



5. Click to choose a person on your demand in the popup dialog box, select a fingerprint, and click OK to finish.

Notes:

- The issued card will disappear from the Empty Card list, you can check the card information in the Normal Card list.
- Up to 2000 cards can be added.
- Each card can link up to 10 fingerprints.

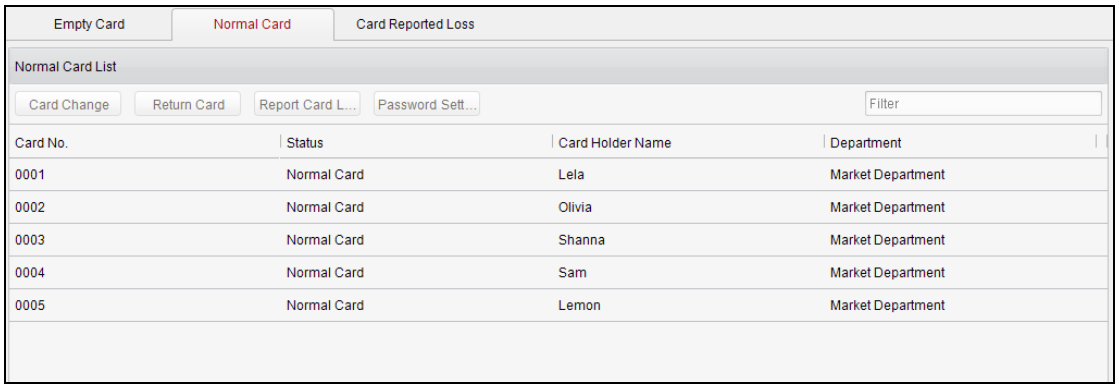
- **Deleting Card**

You can click an added empty card in the list and click Delete button to delete the selected card.

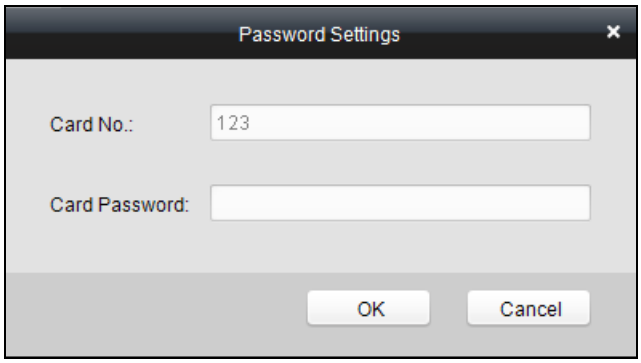
7.2.2 Normal Card

Purpose:

Click the Normal Card tab in the card managemet interface to show the Normal Card list. You can view all the issued card information, including card No., card holder, and the department of the card holder.



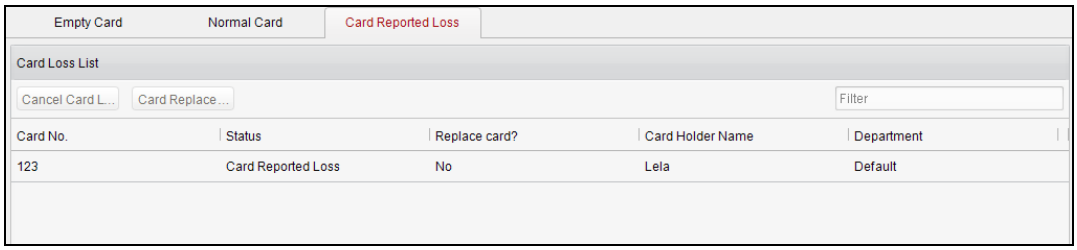
- Click to select a card and click Card Change button to change the associated card for card holder. Select another card in the popup window to replace the current card. The old card will turn to the empty card. You should configure the permission to the card again.
- Click to select an issued card and click Return Card to cancel the assotiation of the card, then the card will disappear from the Normal Card list, which you can find it in the Empty Card list. You should configure the permission to the card again.
- Click to select an issued card and click Report Card L... (Report Card Loss) to set the card as the Lost Card, that is, an invalid card.
- Click to select an issued card and click Password Sett... (Password Settings) to set the password for the card, set the password in the text filed and click the **OK** button to finish setting.



Note: The password will be required when the card holder swiping the card to get enter to or exit from the door if you enable the card&password authentication on the advanced configuration page.

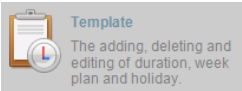
7.2.3 Lost Card

Click the Card Reported Loss tab in the card managemet interface to show the Lost Card list. You can view all the lost card information, including card No., card holder, and the department of the card holder.

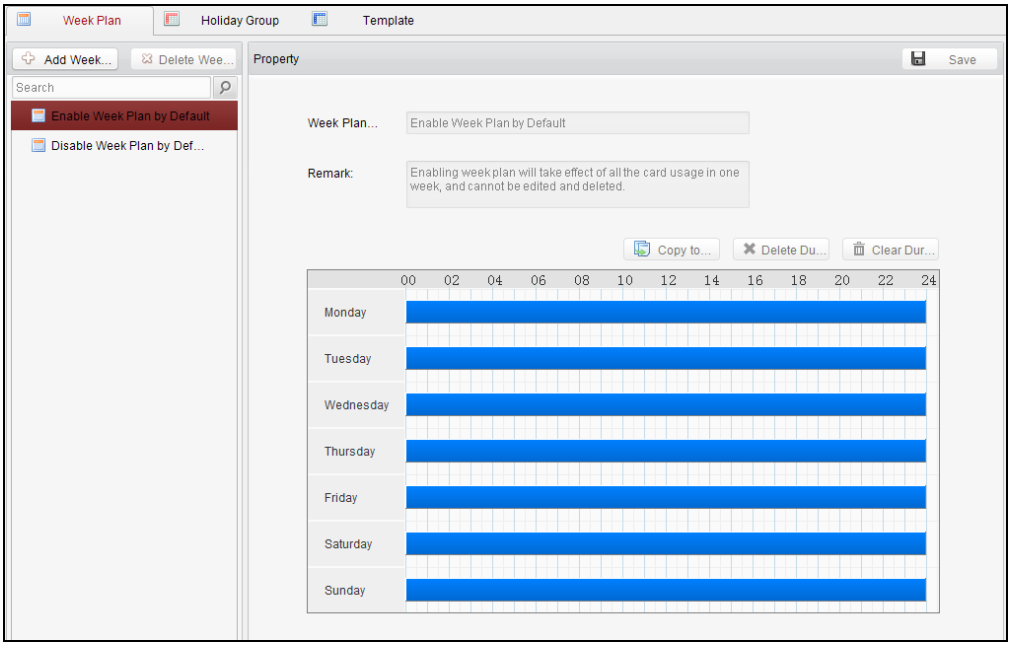


- Click the **Cancel Card Loss** button to resume the card to the normal card. You should configure the permission to the card again.
- Click the **Card Replacement** button to issue a new card to the card holder replacing for the lost card. Select another card in the popup window as the new card and the predefined permissions of the lost card will be copied to the new one automatically.

7.3 Schedule Template

Click 

on the control panel of the software to enter the schedule template interface.



There are 3 settings in this interface: Week Plan, Holiday Group, and Template.

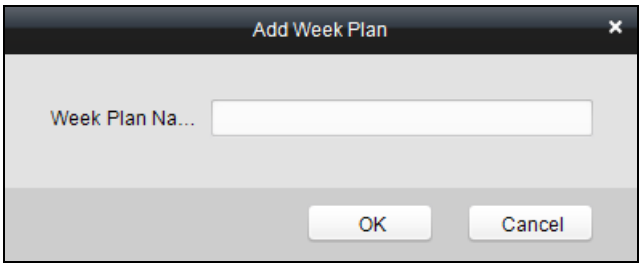
7.3.1 Setting Week Plan

- **Adding Week Plan**

System defines 2 kinds of week plan by default, Enable Week Plan by Default and Disable Week Plan by Default. You can define custom plans on your demand.

Steps:

1. Click the **Add Week Plan** button to pop up the adding plan interface.



2. Input the name of week plan and click the **OK** button to add the week plan.
3. Select a week plan in the plan list on the left-side of the window to edit.
4. Click and drag your mouse on a day to draw a blue bar on the schedule, which means in that period of time, the cofigured permission is activated.
5. Repeat the above step to configure other time periods.

   Or you can select a configured day and click the **Copy to Week** button to copy the same settings to the whole week.

   Note: Up to 8 time periods can be added in one day.

- **Deleting Week Plan**
  - Click to select a configured duration and click the **Delete Duration** button to delete it.

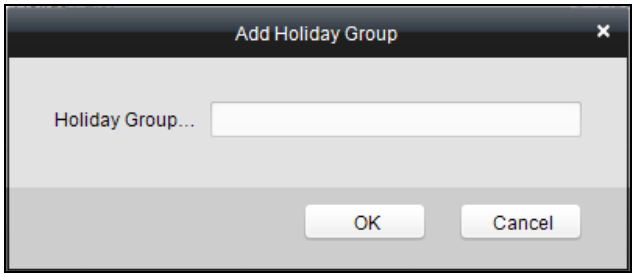
- Click the **Clear Duration** button to clear all the configured durations, while the week plan still exists.
- Click the **Delete Week Plan** button to delete the week plan directly.

7.3.2 Setting Holiday Group

- **Adding Holiday Group**

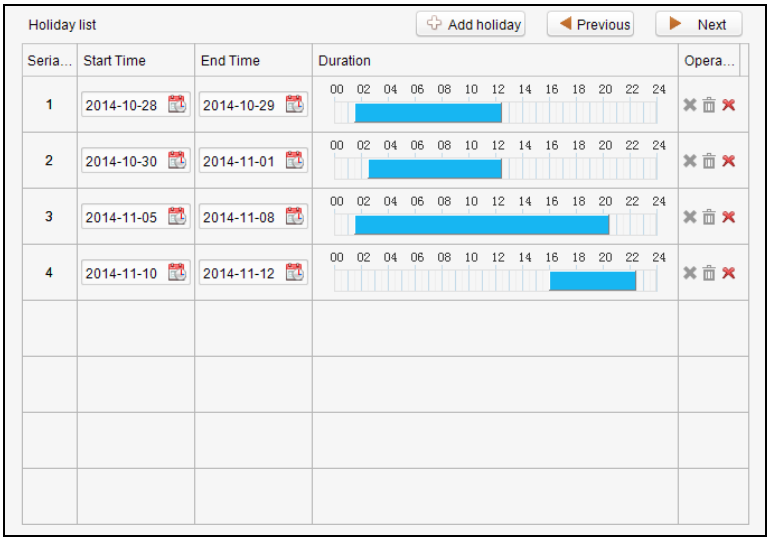
Steps:

1. Click the **Add Holiday Group** button to pop up the adding holiday group interface.



2. Input the name of holiday group in the text filed and click the OK button to add the holiday group.
3. Click the Add holiday icon to add a holiday in the holiday list and configure the duration of the holiday.

   Note:At most 16 holiday periods can be added.



   1) Click and drag your mouse on a day to draw a blue bar on the schedule, which means in that duration, the cofigured permission is activated.
   2) Click to select a configured duration and click the ✖ to delete it.
   3) Click the 🗑 to clear all the configured durations, while the holiday still exists.
   4) Click the ✖ to delete the holiday directly.
4. Click the Save button to save the settings.

Note: The holidays cannot be overlapped with each other.

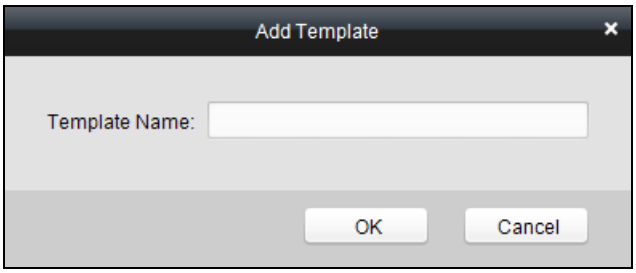
7.3.3 Setting Schedule Template

The schedule consists of week plan and holiday group; you can only choose which plan and group to enable in the schedule template configuration interface. Configure the week plan and holiday group before configuring the schedule template.

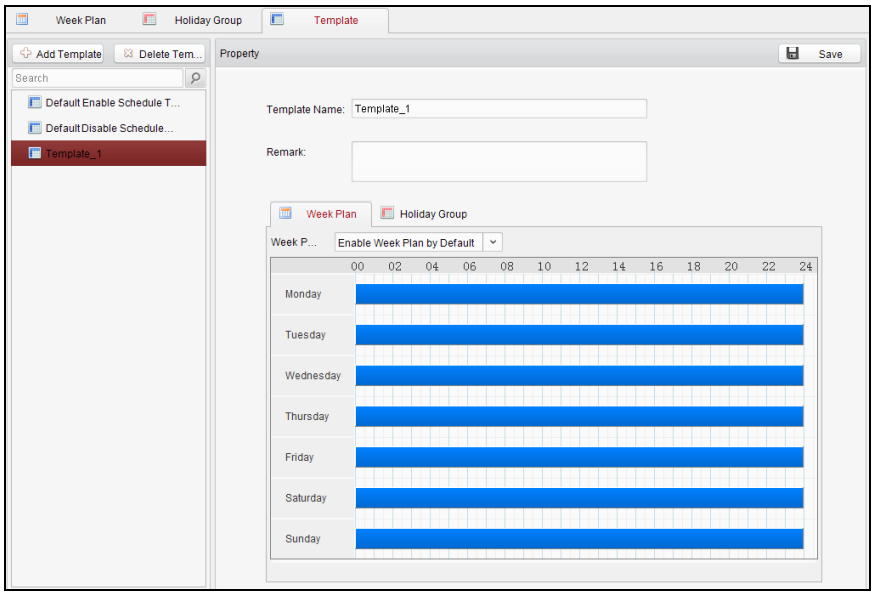
Note: The priority of holiday group schedule is higher than the week plan.

Steps:

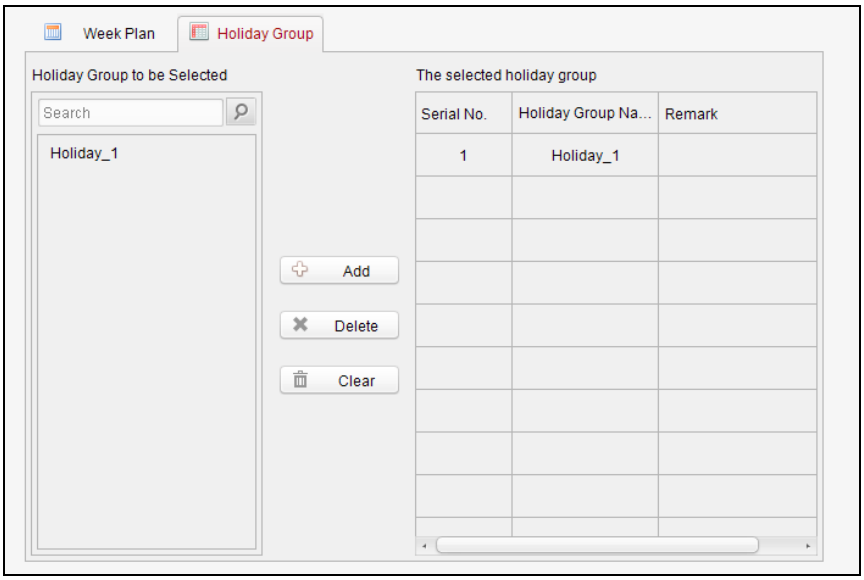
1. Click the Add schedul... to pop up the adding schedule interface.



2. Input the name of schedule in the text filed and click the OK button to add the schedule.
3. Select a week plan you want to apply to the schedule.
   Click the Week Plan tab and select a plan in the dropdown list.



4. Select holiday groups you want to apply to the schedule.
   Note:At most 4 holiday groups can be added.



- Click to select a holiday group in the left-side list and click the Add to add it.
- Click to select an added holiday group in the right-side list and click the Delete to delete the it.
- Click the Clear to delete all the added holiday groups.

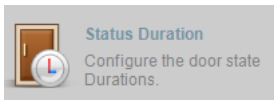
5. Click the Save button to save the settings.

Note: Up to 4 schedule templates can be added.

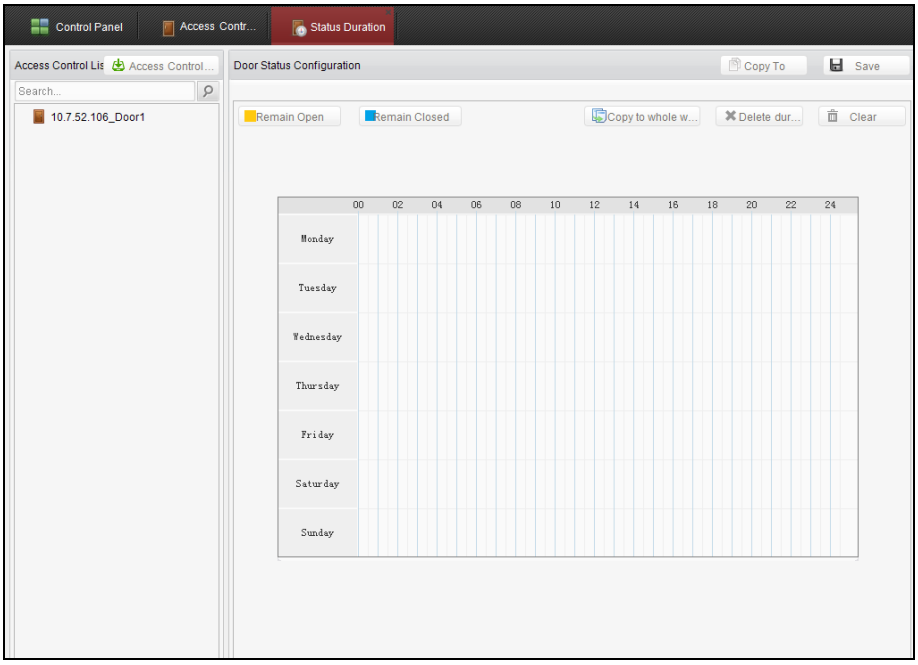
7.4 Door Status Management

Purpose:

The function of **Door Status Management** allows you to schedule weekly time periods for a door to remain open or closed.

Click the 

icon on the control panel to enter the interface.



Steps:

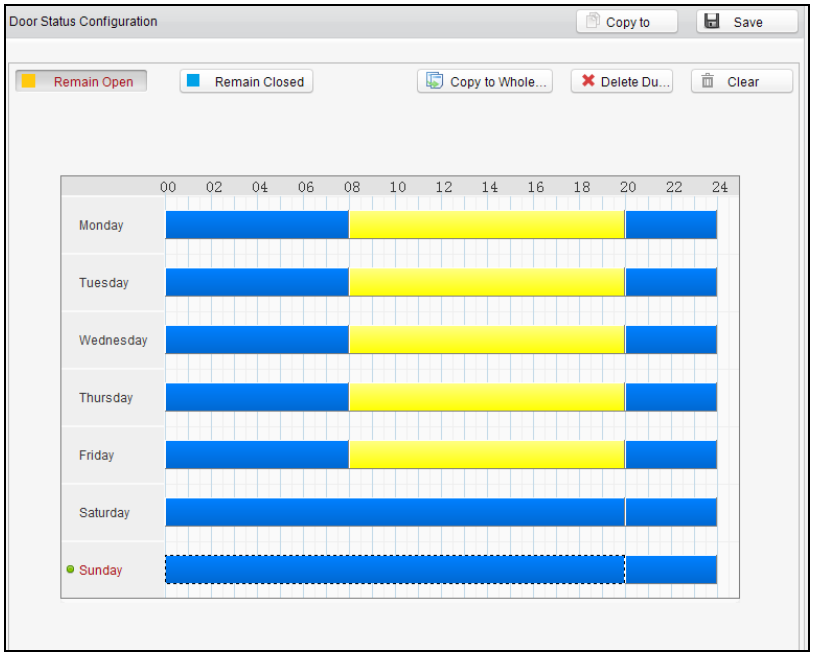
1. Enter the Door Status Management page.
2. Click and select a door from the door list on the left side of the page.
3. Draw a schedule map.

   1) Select a door status brush Remain Open / Remain Closed on the upper-left side of the **Door Status Settings** panel.

      Remain open: the door will keep open during the configured time period. The brush is marked as yellow.

      Remain Closed: the door will keep closed during the configured duration. The brush is marked as blue.

   2) Click and drag the mouse to draw a color bar on the schedule map to set the duration.



Notes

- The min. segment of the schedule is 30min.
- You can copy the configured time periods of a day to the whole week.

Steps:

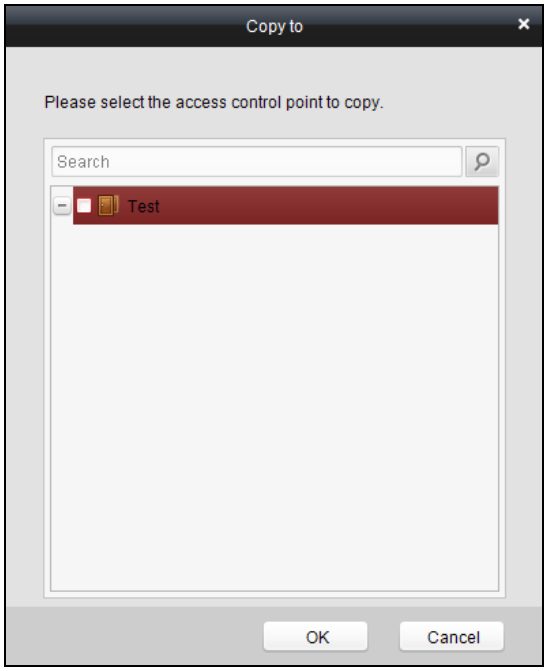
1. Select a day which has already been configured.
2. Click on Copy to whole w... to copy the time periods to the whole week.
3. Edit the schedule map.
   - **Edit Duration:**

     Click and drag the color bar on the schedule map and you can move the bar on the time track.

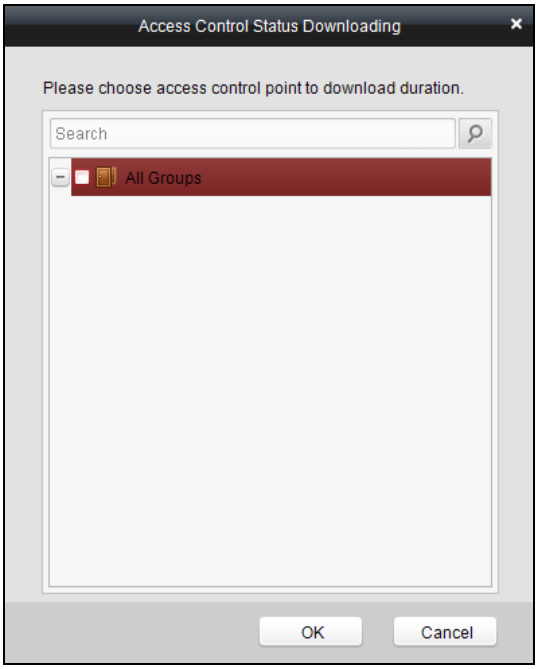
     Click and drag the mouse on the ends of the color bar and you can adjust the length of the bar.
   - **Delete a Duration:**

     Click and select a color bar and click Delete dur... to delete the time period.
   - **Clear All Durations:**

     Click Clear to clear all configured durations on the schedule map.
4. Click on Save to save the settings.
5. You can copy the schedule to other doors by clicking on Copy To and select the required doors.

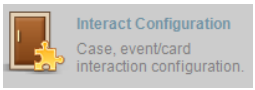


6. Click on Access Control... to enter the Download Door State page.



7. Select a control point and click **OK** to download the settings to the system.

7.5 Interact Configuration

Click 

on the control panel of the software to enter the interact configuration interface.

In this interface, you can set alarm linkage modes of the access host, including the event card interact, and the client interact.

7.5.1 Event Card Interact

In the Interact Configuration interface, click the **Event Card Interact** button to enter the settings interface.

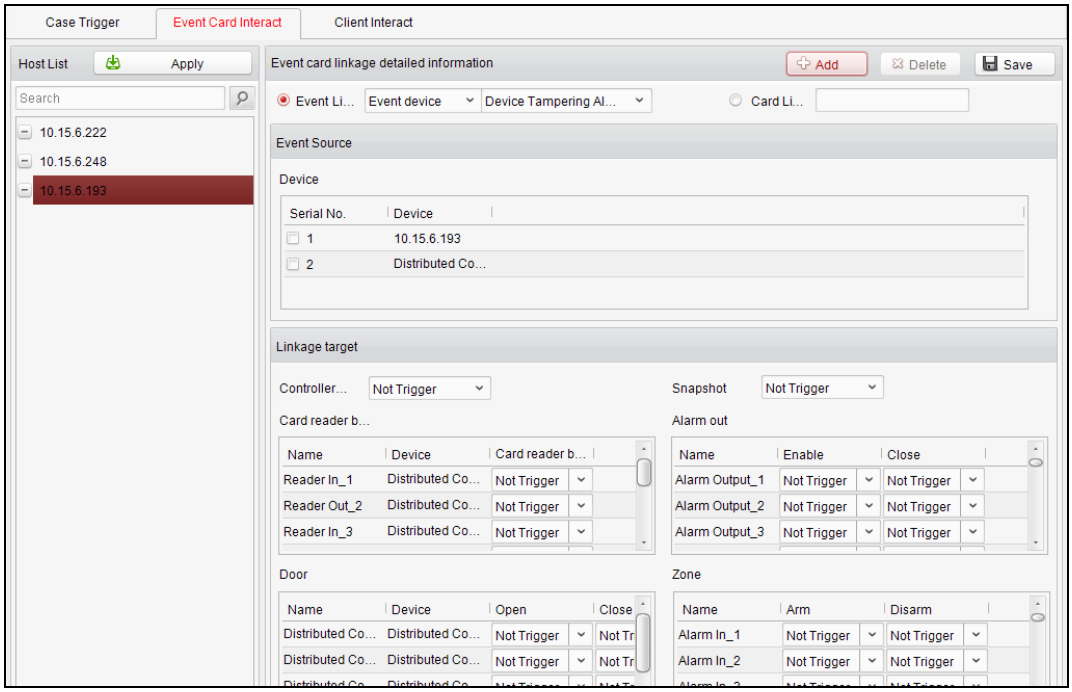
Note: Do not support the Case Trigger function.

- **Event Linkage**

In the Event Interact interface, the linkage alarm action, after triggering alarm event, can be set. The alarm event can be divided into four types: event device, event input alarm, door event, and card reader event.

Steps:

1. Click the Event Card Interact tab to enter the event card interface.
2. Select the host to be set from the host list.
3. Click Add to start setting the event linkage.



4. Click the radio button of the event linkage, and select the event type from the dropdown list.
5. Set the linkage target, and set the property as **Trigger** to enable this function.

   Controller Buzzer: The audible warning of controller will be triggered.

   Snapshot: Select Trigger in the dropdown list. The connected device real-time capture will be triggered.

   Card Reader Buzzer: The audible warning of card reader will be triggered.

   Alarm Output: The alarm output will be triggered for notification.

   Door: The door status of open, close, normally open, and normally close will be triggered.

   Zone: The zone status of arm or disarm.

6. Click Save to save parameters.

7. Click Apply to apply the updated parameters to the local memory of the device.

Notes:

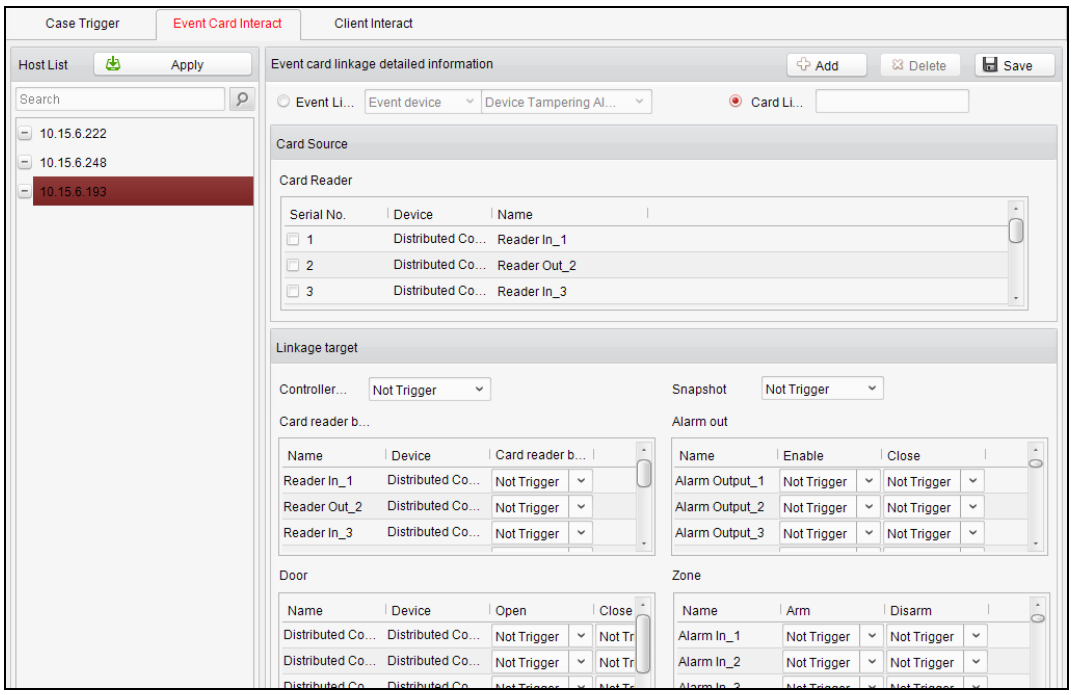
- The door status of open, close, normally open, and normally close cannot be triggered at the same time.
- The normal access controller can configure up to 50 event linkages and card linkages. The device of DS-K2700 can configure up to 500 event linkages and card linkages.

- **Card Linkage**

In the Event Interact interface, the linkage alarm action, after triggering the card number, can be set.

Steps:

1. Click the Event Card Interact tab to enter the event card interact interface.
2. Select the host to be set from the host list.
3. Click Add to start setting the event linkage.



4. Click the radio button of card linkage, and input the card number.
5. Select the event source, and check the checkbox of the card reader's serial number.
6. Set the linkage target, and set the property as **Trigger** to enable this function.

   Controller Buzzer: The audible warning of controller will be triggered.

   Snapshot: Select Trigger in the dropdown list. The connected device real-time capture will be triggered.

Card Reader Buzzer: The audible warning of card reader will be triggered.

Alarm Output: The alarm output will be triggered for notification.

Door: The door status of open, close, normally open, and normally close will be triggered.

Zone: The zone status of arm or disarm.

7. Click the Save button to save parameters.

8. Click Apply to apply the updated parameters to the local memory of the device.

Notes:

- The door status of open, close, normally open, and normally close cannot be triggered at the same time.
- The normal access controller can configure up to 50 event linkages and card linkages. The device of DS-K2700, can configure up to 500 event linkages and card linkages.

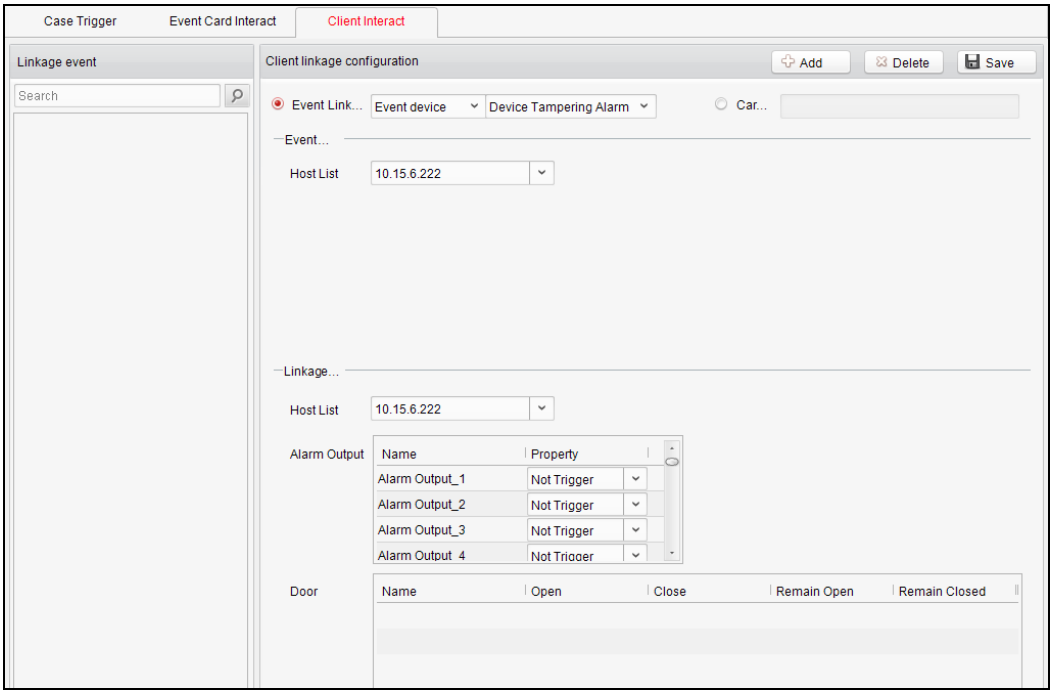
7.5.2 Client Interact

Purpose:

The alarm event will be sent to the client software to trigger other devices operation.

Steps:

1. Click **Client Interact** to enter the Client Interact tab.



2. Click Add.

3. Select an event linkage main type and the corresponding minor type in the dropdown list.

4. Select a host in the Host List dropdown list.

   If you do not select the alarm input event, in the main type dropdown list, you should check an alarm input.

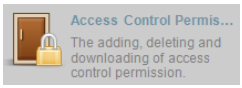
5. Configure the Linkage Target parameters. You are able to link the event to the alarm output and the door status. Select Trigger in the Property dropdown list to link the alarm output to the event.

   Or click Card Linkage, input the card No., check a card reader and the configure the linkage target.

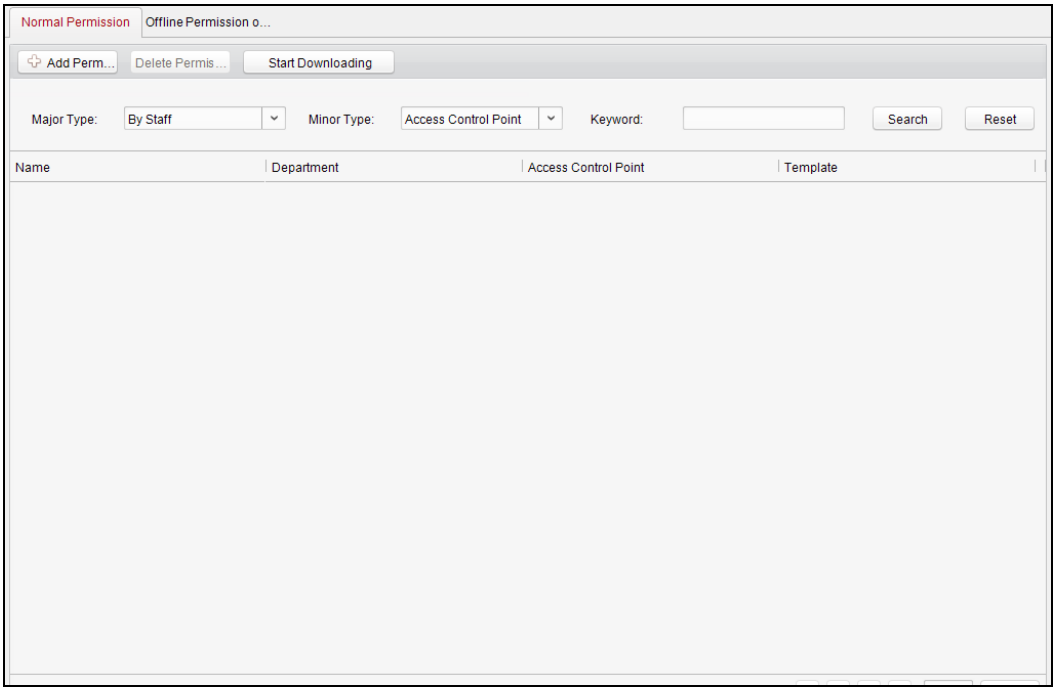
6. Click Save to save the parameters. The saved event will be displayed in the linkage event list.

   Or select an event in the Linkage event list and click Delete to delete the event.

7.6 Access Permission Configuration

Click the 

icon on the control panel to enter the interface.



7.6.3 Access Permission Settings

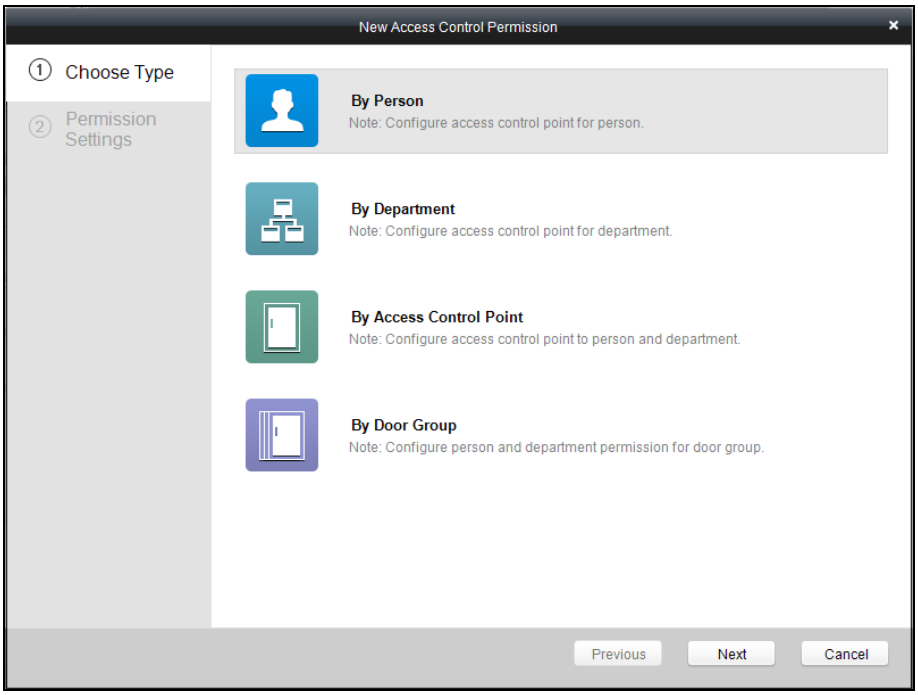
Purpose:

You can allocate permission for people/department to enter/exist the control points (doors) and the offline permission of the distributed access controller in this section.

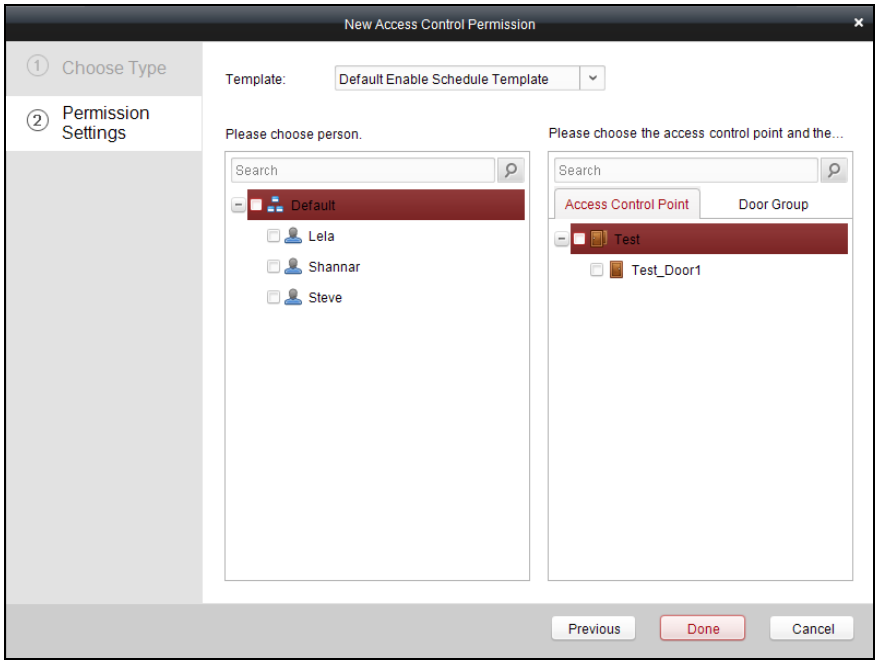
Normal Permission Settings

Steps:

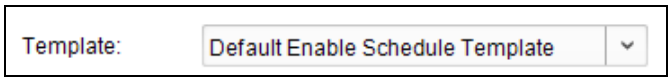
1. Enter the Access Control Permission page.
2. Click Normal Permission to enter the Normal Permission tab.
3. Click Add Permi... (Add Permission) on the upper-left side of the page to enter the Add Permission window.



4. Select an adding type in the **Select Type** interface.
   - **By Person:** you can select people from the list to enter/exit the door. The following steps will take By Person as an example.
   - **By Department:** You can select departments from the list to enter/exit the door. Once the permission is allocated, all the people in this department will have the permission to access the door.
   - **By Access Control Point:** You can select doors from the door list for people to enter/exit.
   - **By Door Group:** You can select groups from the door list for people to enter/exit. The permission will take effect on the door in this group.
5. Click **Next** to enter the **Permission Settings** interface.

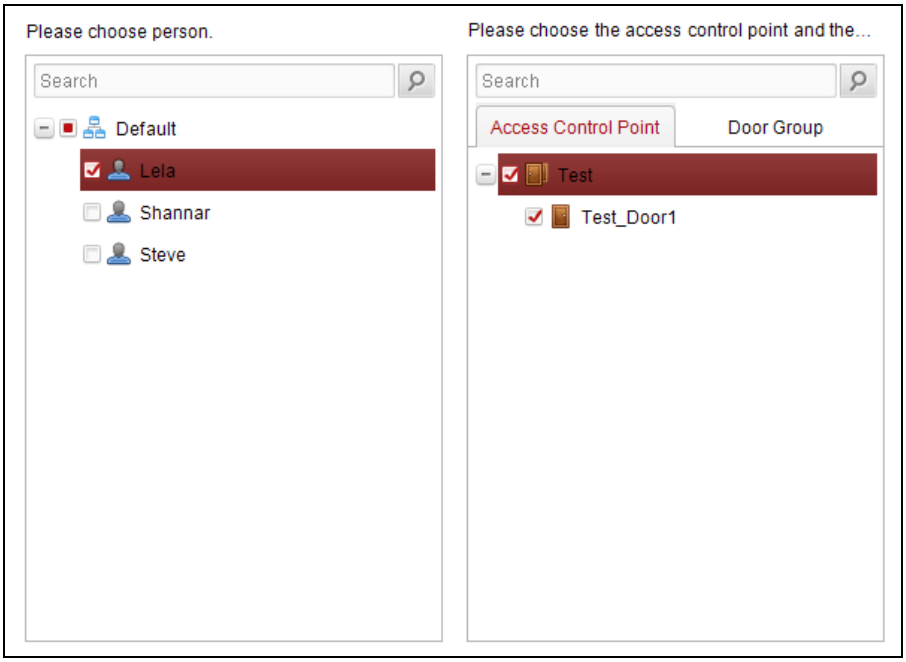


6. Click on the dropdown menu to select a schedule template for the permission.



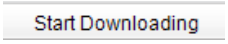
Note: The schedule template must be configured before any permission settings. Refer to *Section 7.3 Schedule Template* for detailed configuration guide.

7. Select people/ department and corresponding doors/door groups from the appropriate lists.

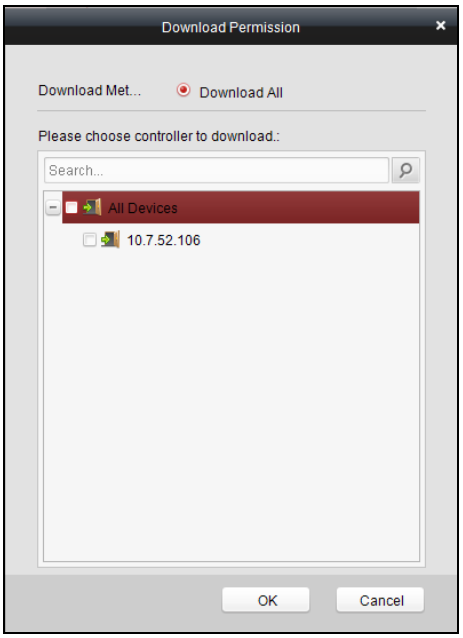


Note: The lower-level of department will also be selected if the highest-level of department is selected,

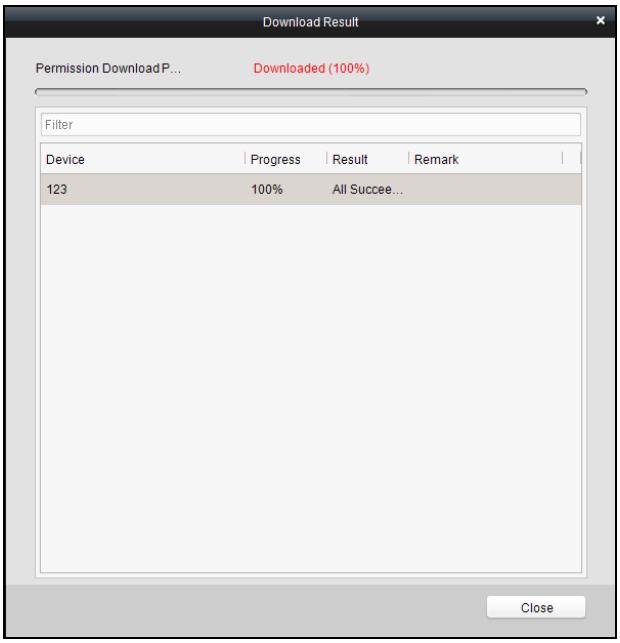
8. Click the **Done** button to complete the permission adding.

9. Click 

to enter the **Download Permission** page.



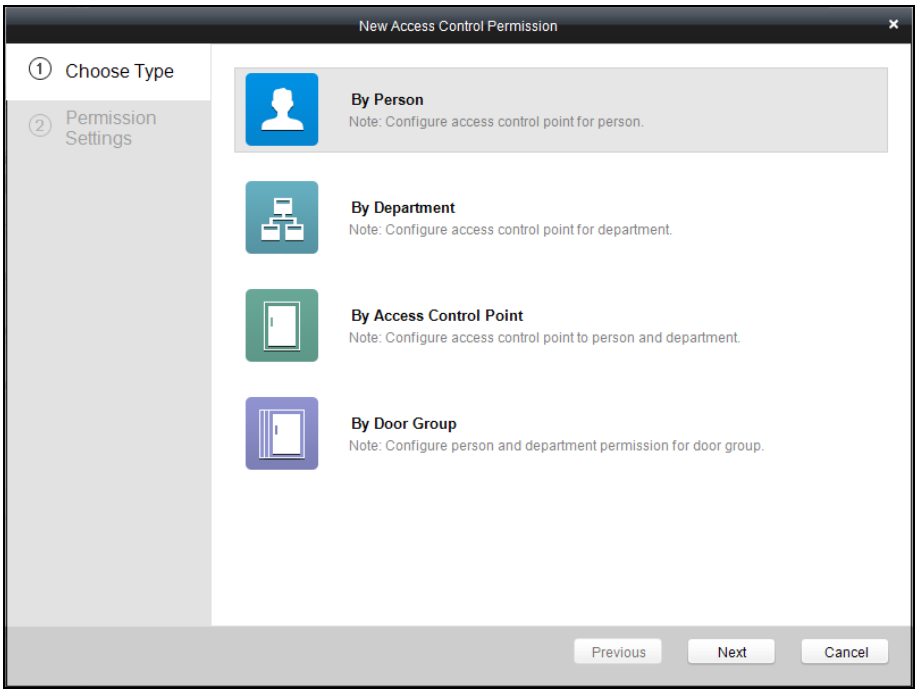
10. Select the control point and click the **OK** button, to enter the download result interface, to download the permission to the device.



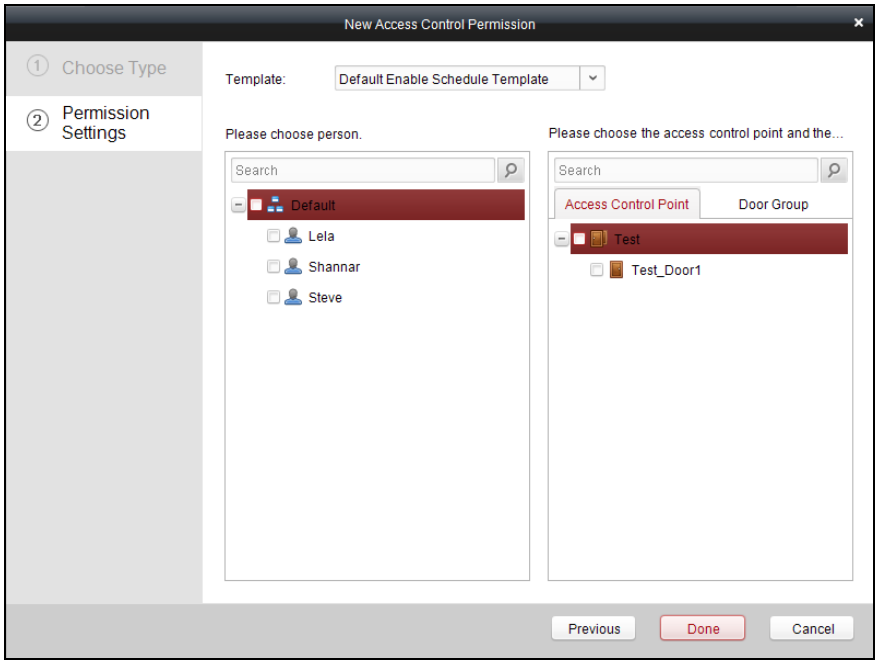
Offline Permission of Distributed Controller Settings

Steps:

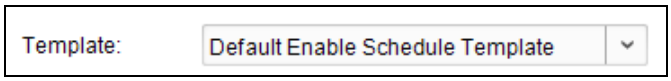
1. Enter the Access Control Permission page.
2. Click Offline Permission of Distributed Controller to enter the Offline Permission of Distributed Controller tab.
3. Click Add Permi... (Add Permission) on the upper-left side of the page to enter the Add Permission window.



4. Select an adding type in the **Select Type** interface.
   - **By Person:** you can select people from the list to enter/exit the door. The following steps will take By Person as an example.
   - **By Department:** You can select departments from the list to enter/exit the door. Once the permission is allocated, all the people in this department will have the permission to access the door.
   - **By Access Control Point:** You can select doors from the door list for people to enter/exit.
   - **By Door Group:** You can select groups from the door list for people to enter/exit. The permission will take effect on the door in this group.
5. Click **Next** to enter the **Permission Settings** interface.

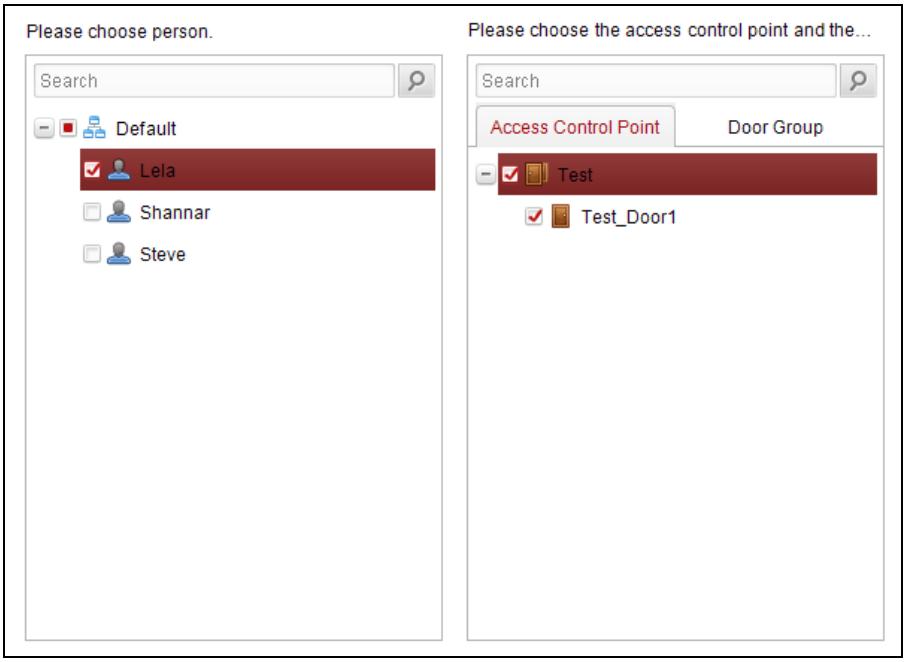


6. Click on the dropdown menu to select a schedule template for the permission.



Note: The schedule template must be configured before any permission settings. Refer to *Section 7.3 Schedule Template* for detailed configuration guide.

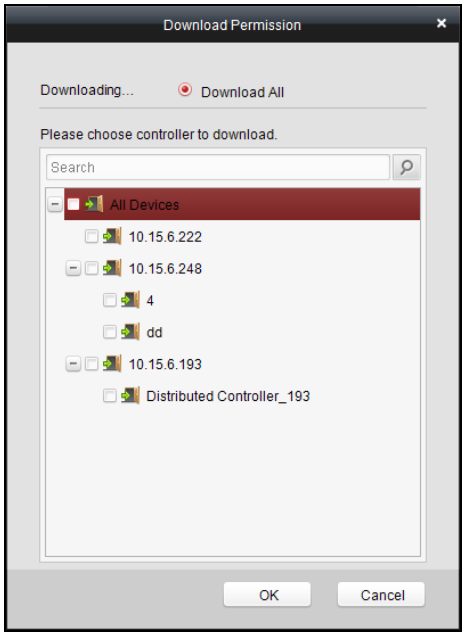
7. Select people/ department and corresponding doors/door groups from the appropriate lists.



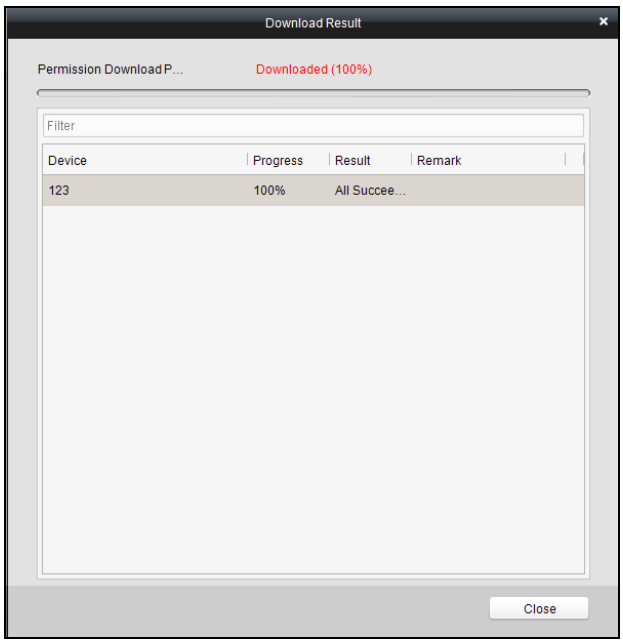
Note: The lower-level of department will also be selected if the highest-level of department is selected.

8. Click the **Done** button to complete the permission adding.

9. Click Start Downloading to enter the **Download Permission** page.



10. Select the distributed controller and click the **OK** button, to enter the download result interface, to download the permission to the device.



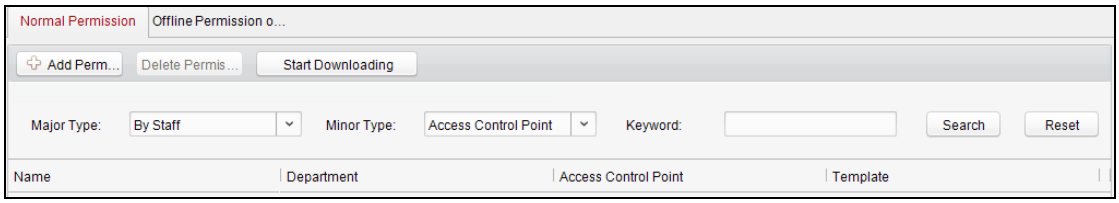
7.6.4 Access Permission Searching

Purpose:

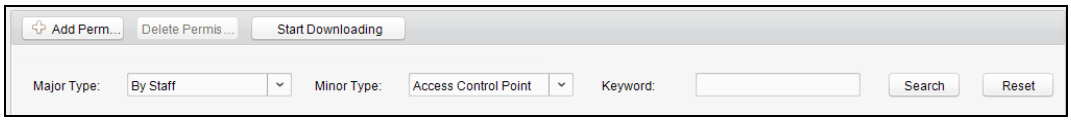
After the permission settings being completed, you can search and view permission assigning condition on the searching interface.

Steps:

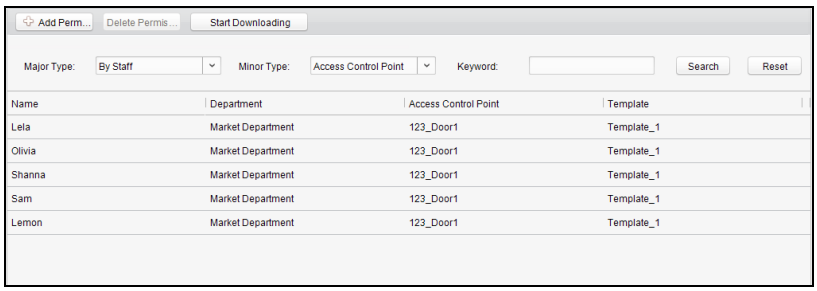
1. In the Access Control Permission page, select the Normal Permission tab or the Offline Permission of Distributed Controller tab.



2. Enter the search criteria (main type/minor type/Keyword).



3. Click **Search** to get the search results.

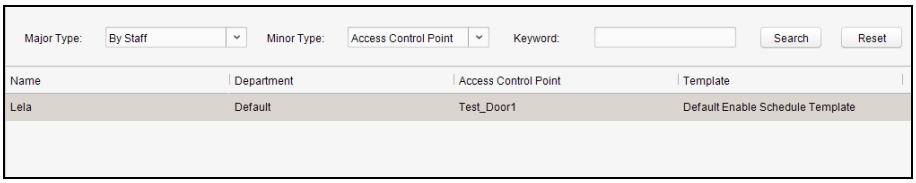


Note: You can click **Reset** on the search criteria panel to clear all the displayed search results.

7.6.5 Permission Deleting

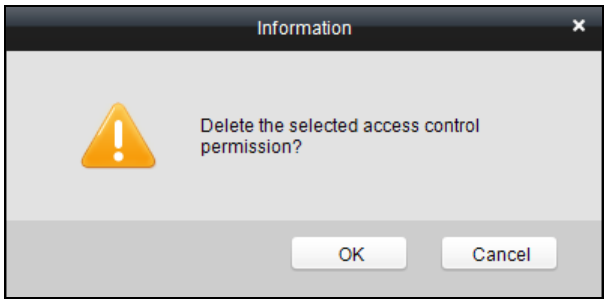
Steps:

1. Follow steps 1-3 in the Permission Searching section to search for the permission needs to be deleted.
2. Select the permission from the results list.

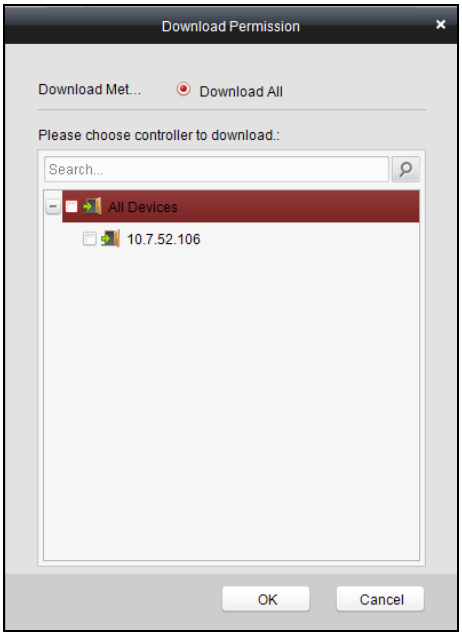


Note: you can press the Ctrl or Shift key on the keyboard,

3. Click the **Delete Permission** button to delete the permission.



4. Click Start Downloading to enter the **Download Permission** page.

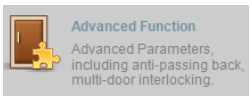


5. Select a control point and click the **OK** button to download the deletion operation to the device.

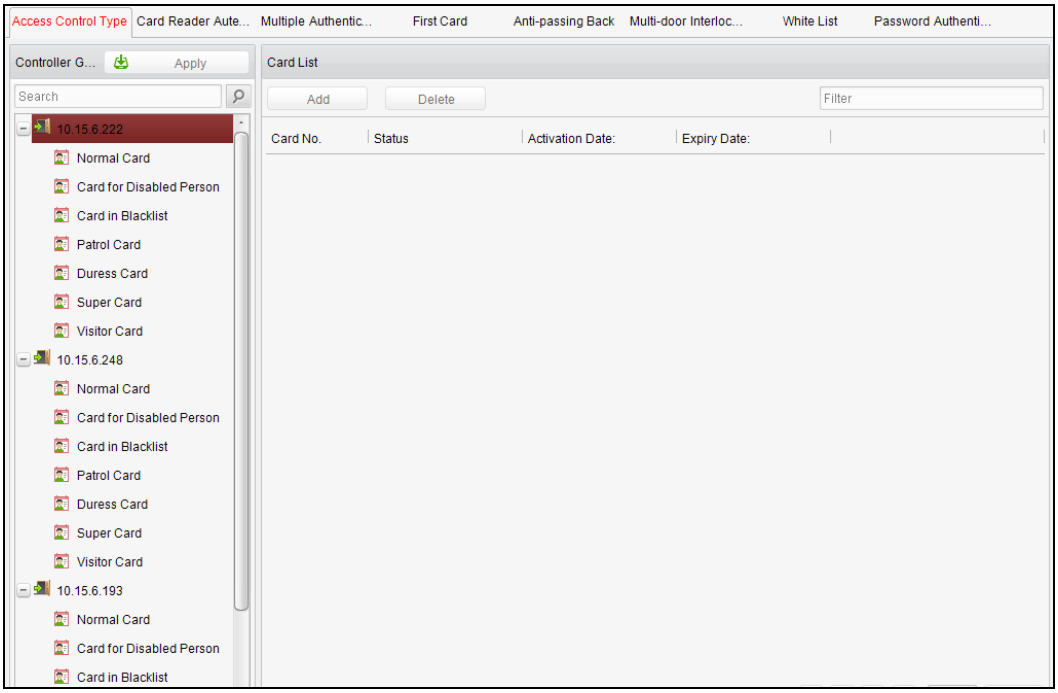
7.7 Advanced Functions

Purpose:

The advanced functions of the access control system can be configured, such as access control type, password authentication and first card.

Click the 

icon on the control panel to enter the interface.



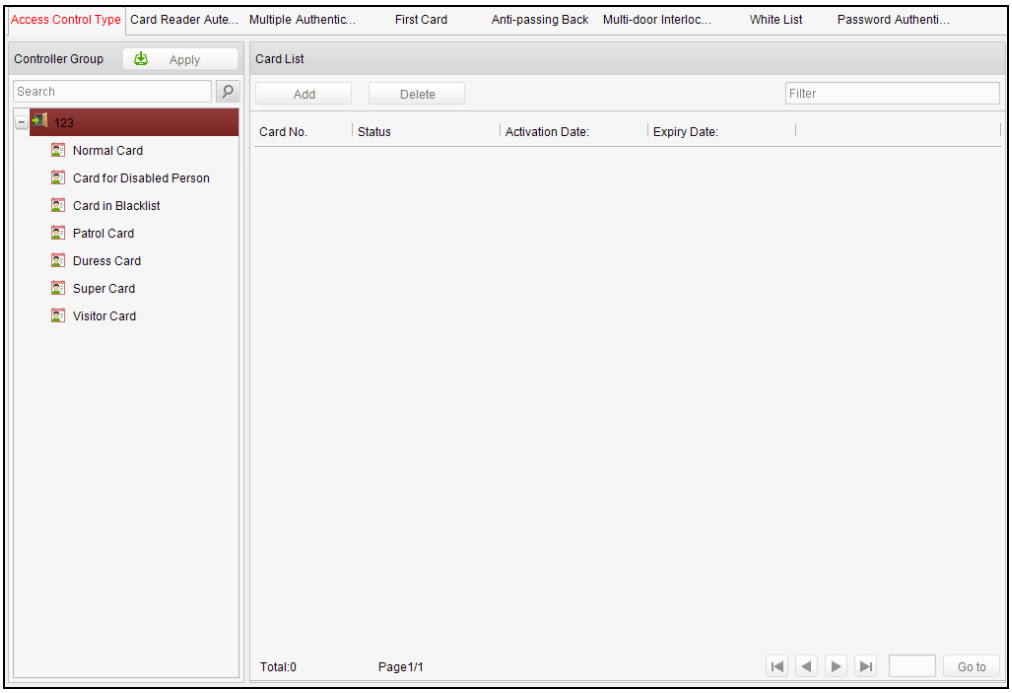
7.7.6 Access Control Type

Purpose:

The added cards can be assigned with different card type for the corresponding usage.

Steps:

1. Click the Access Control Type tab and select a card type.



Normal Card: By default, the card is set as normal card.

Card for Disabled Person: The door will remain open for the configured time period for the cardholder.

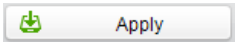
Card in Blacklist: The card swiping action will be uploaded and the door cannot be opened.

Patrol Card: The card swiping action can used for checking the working status of the inspection staff. The access permission of the inspection staff is configurable.

Duress Card: The card swiping action will be uploaded.

Super Card: The card is valid for all the doors of the controller during the configured schedule.

Visitor Card: The card is assigned for visitors. Double click to edit the

2. Click **Add** and select the available card.
3. Click **OK** to confirm assigning the card(s) to the selected card type.
4. Click 

to take effect of the new settings.

Notes:

- You can click **Delete** to remove the card from the card type and the card can be available for being re-assigned.
- Double click the added card in the card list of Visitor Card to edit the maximum card swipe time.

7.7.7 Card Reader Authentication

Purpose:

You can only open the door by both swiping card and entering the password during the set time periods.

Notes:

- For this authentication mode, the card swiping operation cannot be replaced by entering the card No..
- For password settings, please refer to *Section 21.2.2 Normal Card*.

Steps:

1. Click the Card Reader Authentication tab and select a card reader.
2. Select a card reader authentication type from the dropdown list.

   Fingerprint: The door can open by only inputting the fingerprint.

   Swipe Card: The door can open by only swiping the card.

   Fingerprint/Swipe Card: The door can open by inputting the fingerprint or swiping the card.

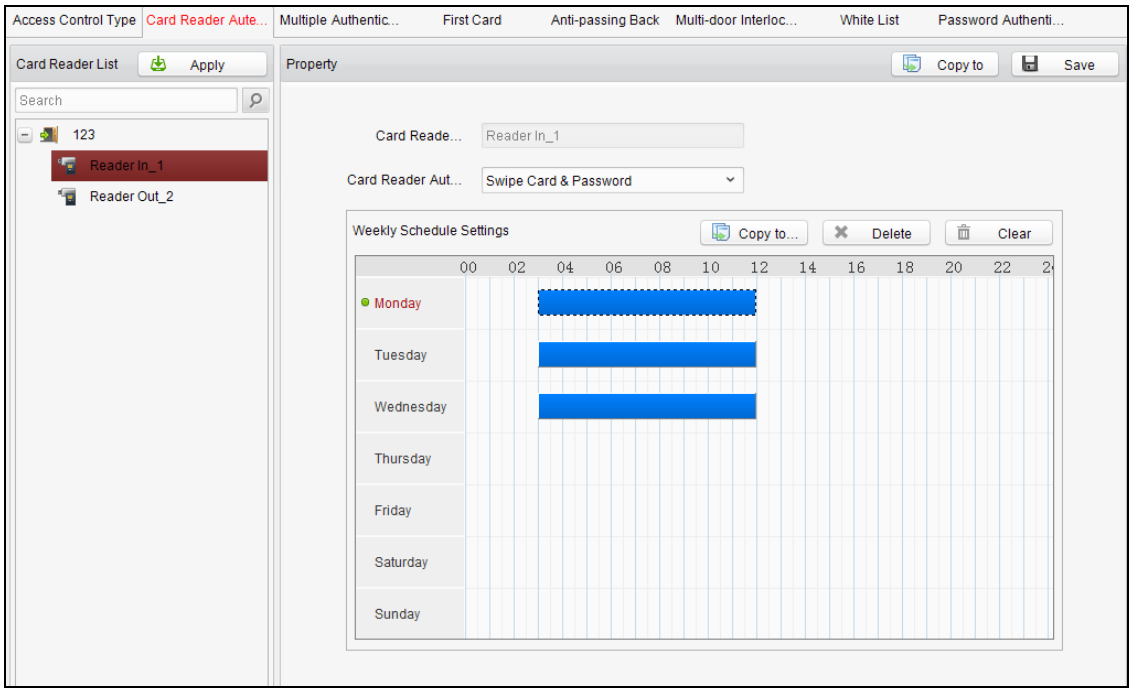
   Swipe Card/Password: The door can open by inputting the password or swiping the card.

   Fingerprint and Password: The door can open by both inputting the password and inputting the fingerprint.

   Swipe Card and Password: The door can open by both inputting the password and swiping the card.

   Fingerprint and Swipe Card: The door can open by both inputting the fingerprint and swiping the card.

   Fingerprint and Swipe Card and Password: The door can open by inputting the fingerprint, inputting the password, and swiping the card.
3. Click and drag your mouse on a day to draw a blue bar on the schedule, which means in that period of time, the password authentication is valid.



4. Repeat the above step to set other time periods.

   Or you can select a configured day and click the **Copy to Week** button to copy the same settings to the whole week.

You can click the **Delete** button to delete the selected time period or click the **Clear** button to delete all the configured time periods.

5. (Optional) Click the **Copy to** button to copy the settings to other card readers.
6. Click the **Save** button to save parameters.
7. Click the Apply button to take effect of the new settings.

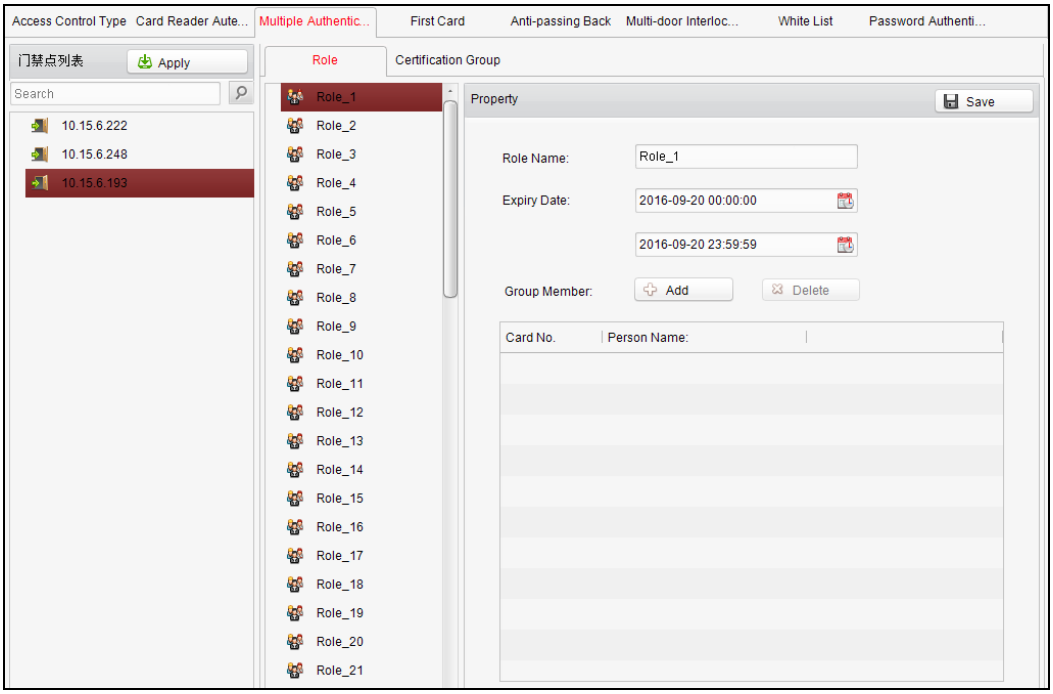
7.7.8 Multiple Authentication

Purpose:

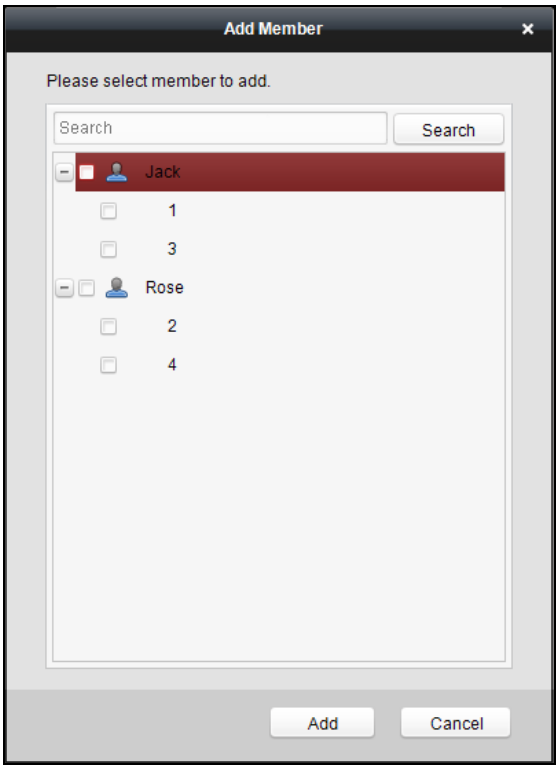
You can manage the cards by group and set the authentication for multiple cards for one access controller.

Steps:

1. Click the Multiple Authentication tab and select a group in the access controller from the list on the left.
2. Click Role to enter the Role tab. Select a role in the role list and edit the role name and the expiry date.
3. Click Add to add the group members.

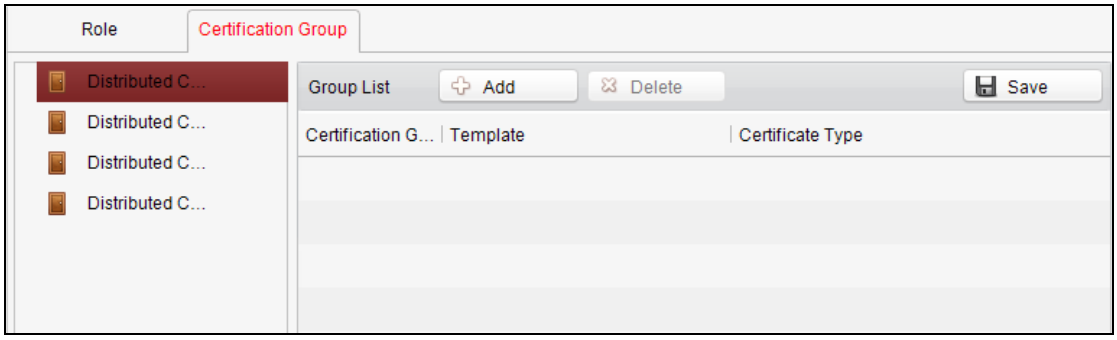


4. Check the target card No. and click Add to add the selected member with the corresponding card. The added members will be displayed in the group member list.



Or select the member in the group member list and click Delete to delete the member.

5. Click Save to save the configuration.
6. Click Certification Group to enter the Certification Group tab.
7. Select a distributed access controller and click Add.

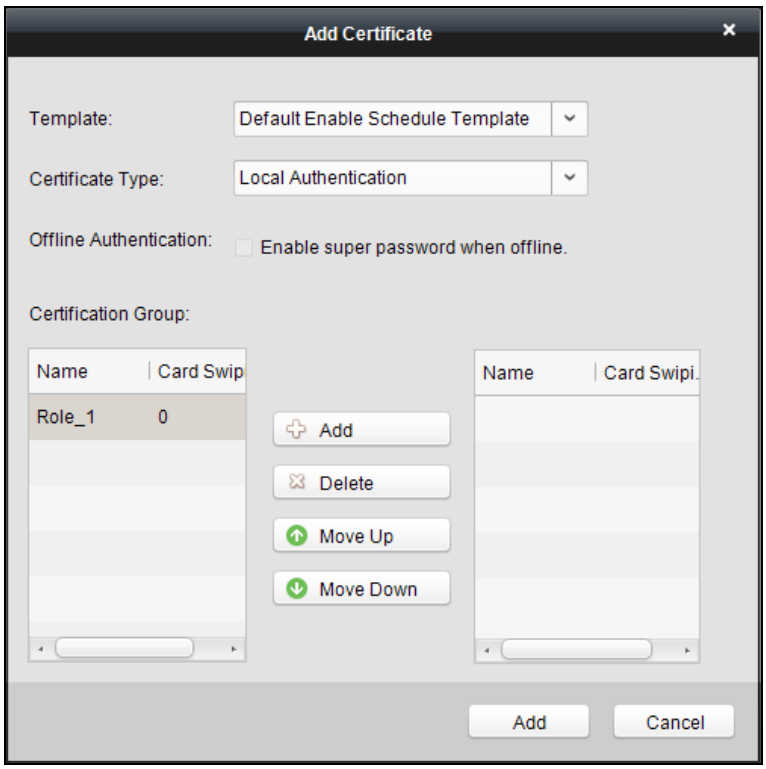


8. Configure the template, the certificate type, the offline authentication and the certification group. And click Add in the middle to add the role from the left list to the right one.

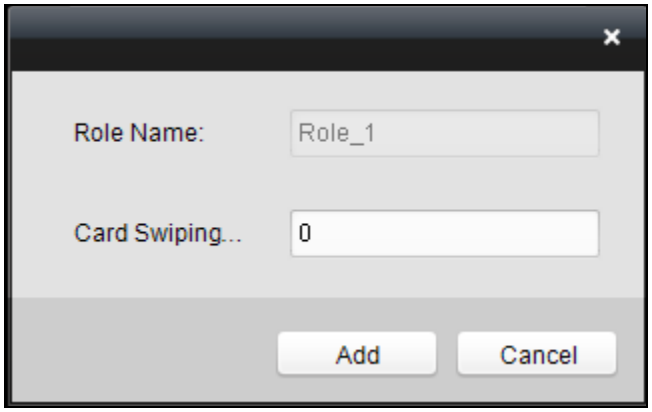
   Note: If the certificate type is Local Authentication, you can add up to 8 certificate groups. If the certificate type is not Local Authentication, you can add up to 7 certificate groups.

Or select the target role in the right list and click Delete to delete the selected role.

Or select the target role and click Move Up or Move Down to change the role swiping card order.



9. Double click the Card Swiping Times and edit the card swiping times.
10. Click Add.



11. Click Add at the bottom to add the configured the authentication group to the group list. And click Save to save the configuration.

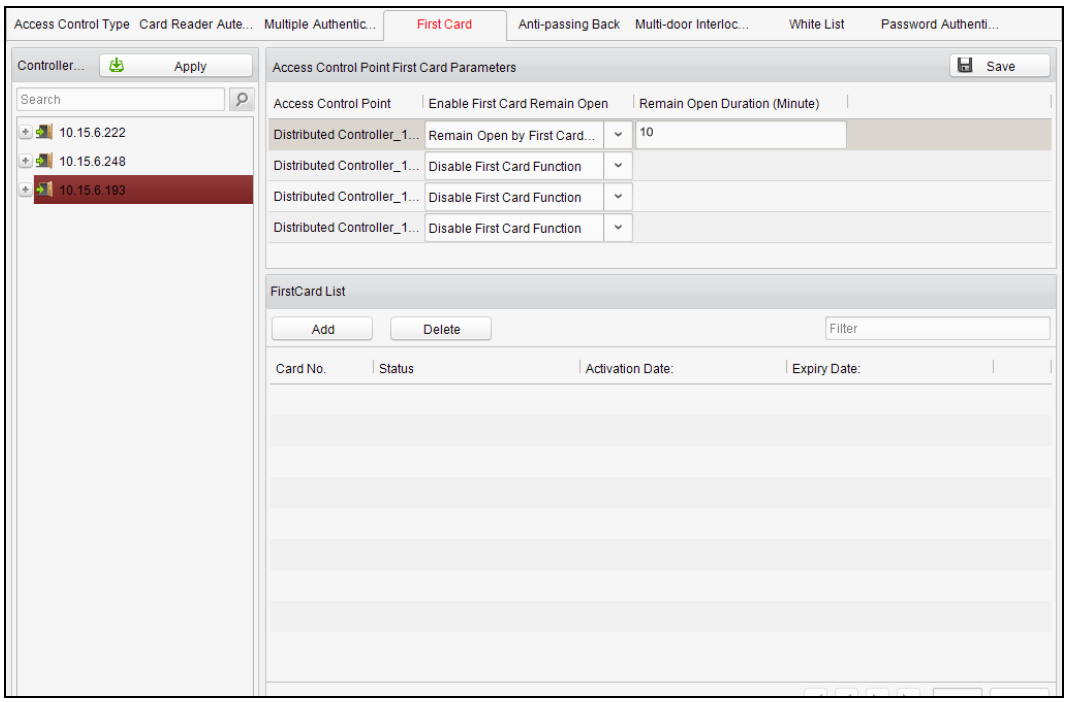
Notes:

- Click Apply on the upper-left to take effect of the new settings.
- The card swiping time should be more then 0.

7.7.9 First Card

Purpose:

The door remains open for the configured time duration after the first card swiping.



Steps:

1. Click the First Card tab and select an access control point.
2. Select in **Enable First Card Remain Open**. You are able to select Disable First Card Function, Remain Open by First Card Mode and First Card Authorization Mode.

Remain Open by First Card Mode:	If you select Remain Open by First Card Mode, you should input the time duration for remaining open the door. The door will open for the configured time duration for people accessing the door.
First Card Authorization Mode:	Swipe the authorized first card before other cards swiping. Swipe the first card again to dismiss other cards accessing authorization. After 24:00 every day, you should authorize the first card again.

3. Click Add and select the cards to add as first card for the door and click the **OK** button.
4. Click Save and then click the Apply button to take effect of the new settings.

7.7.10 Anti-Passing Back

Purpose:

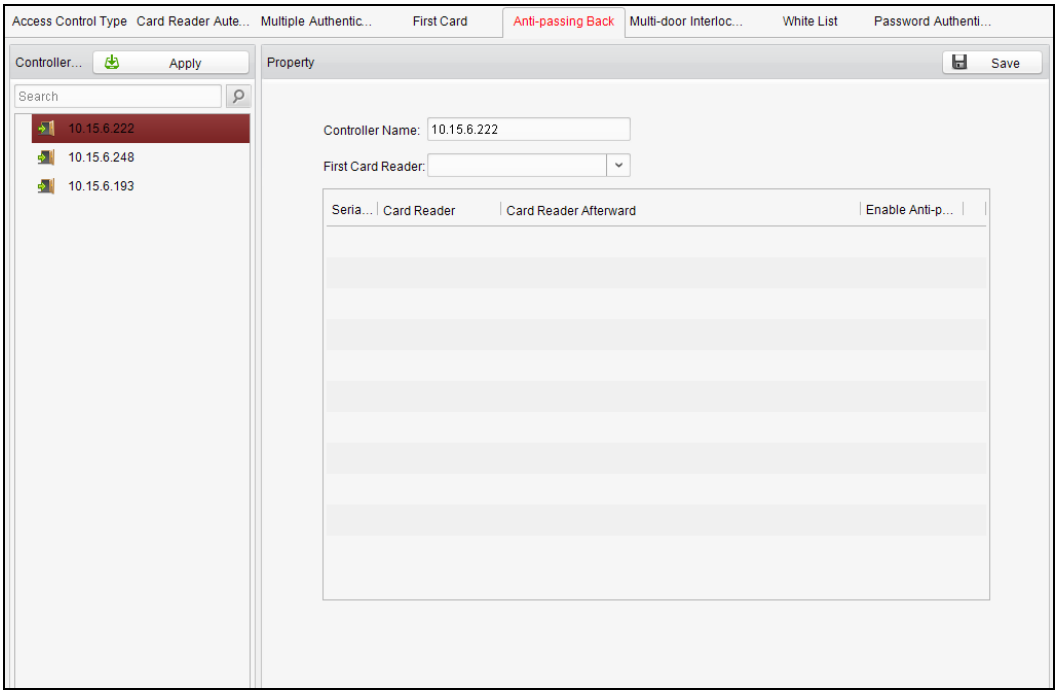
In this mode, you can only pass the access control system according to the specified path.

Note: Either the anti-passing back or multi-door interlocking can be configured for an access controller at the same time.

Setting the Path of Swiping Card (Card Reader Order)

Steps:

1. Click the Anti-passing Back tab and select an access control point.



2. You can set the name for the controller and select the card reader as the beginning of the path.
3. In the list, click the text filed of **Card Reader Afterward** and select the linked card readers.

   Example: If you select Reader In_01 as the beginning, and select Reader In_02, Reader Out_04 as the linked card readers. Then you can only get through the access control system by swiping the card in the order as Reader In_01, Reader In_02 and Reader Out_04.
4. Check the checkbox of **Enable Anti-Passing back**.
5. Click Save and then click the Apply button to take effect of the new settings.

7.7.11 Multi-door Interlocked (Do Not Support)

Purpose:

You can set the multi-door interlocking between multiple doors of the same access controller. To open one of the doors, other doors must keep closed. That means in

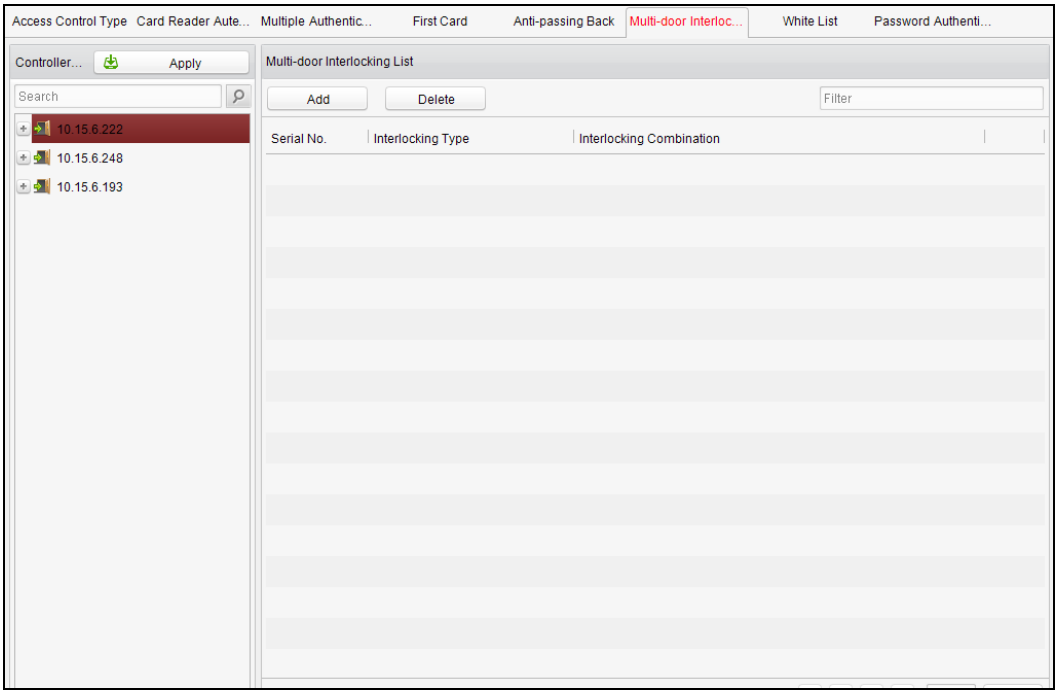
the interlocking combined door group, up to one door can be opened at the same time.

Notes:

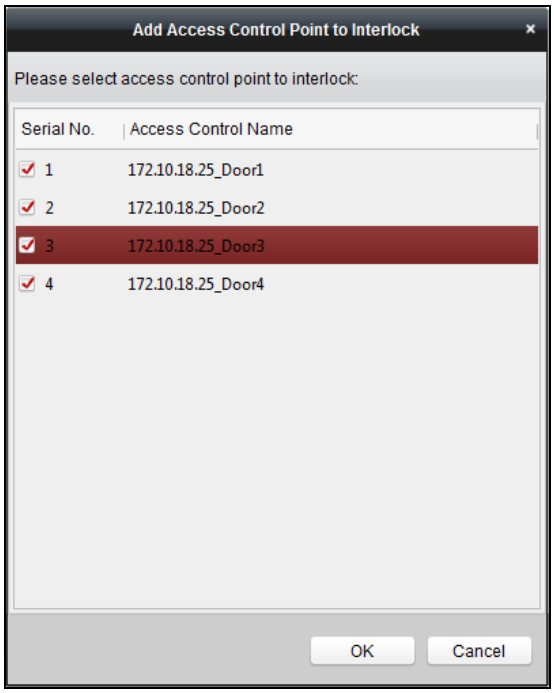
- The Multi-door Interlocking function is only supported by the access controller which has more than one access control points (doors).
- Either the anti-passing back or multi-door interlocking function can be configured for an access controller at the same time.

Steps:

1. Click Multi-door Interlocking tab and select an access controller from the list.



2. Click Add to pop up the Add Access Control Point window.



3. Select the access control point (door) from the list.

   Note: Up to four doors can be added in one multi-door interlocking combination.

4. Click OK to save the adding.

5. (Optional) After adding the multi-door interlocking combination, you can select it from the list and click Delete to delete the combination.

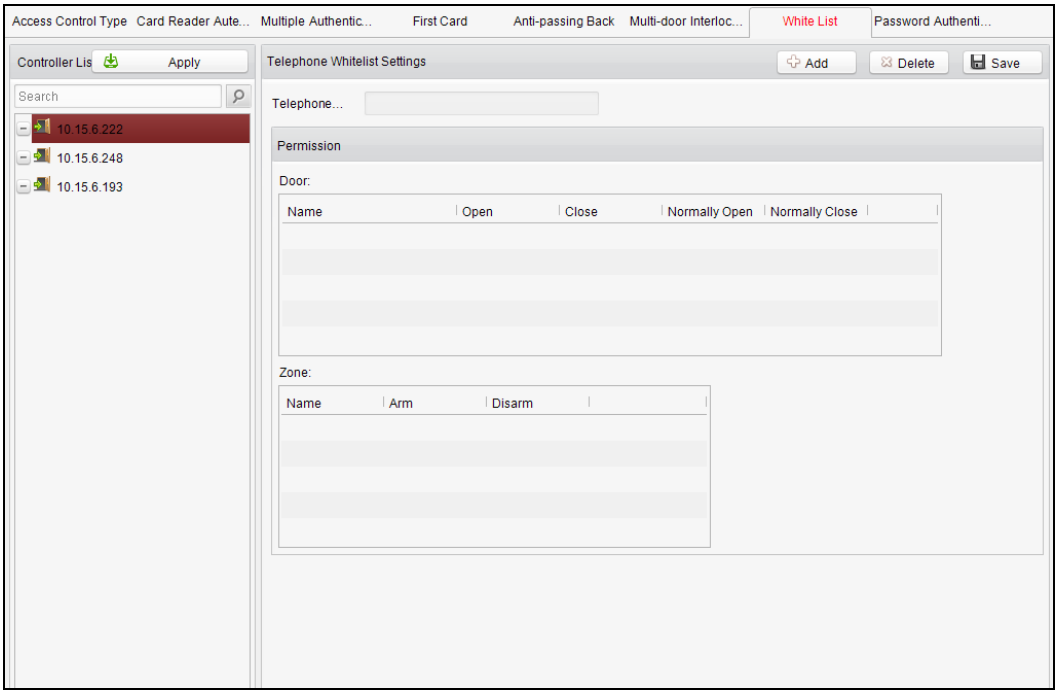
Notes:

- Click Apply button to take effect of the new settings.
- The normal access controller can add up to 4 multi-door interlocks. The device of DS-K2700, DS-K27M01, DS-K27M02 and DS-K27M04 can add up to 8 multi-door interlocks.

7.7.12 White List (Do Not Support)

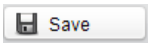
Steps:

1. Click the White List tab to enter into the white list interface.



2. Select the access control point, and click  .
3. Input the mobile number.
4. Select the settings of control permission, and set the property as **Allow** to enable this function.

   Door: The mobile can control the door (open, closed, normally open, or normally closed).

   Zone: The mobile can arm and disarm the arming channels.
5. Click  to save parameters.
6. Click  to take effect of the new settings.

Notes:

- The mobile can control the door and the arming region by sending SMS control instructions.
- The SMS control instruction is composed of Command, Operation Range, and Operation Object.
- Each access controller can add up to 8 mobile phone numbers.

Instruction Content	Digit	Description	Format
Command	3	010-Open, 011-Closed, 020-Normally open, 021-Normally Closed, 120-Disarm, 121-Arm	
Operation Range	1	1-all objects with permission, 2-single operation	Command#1#

Operation Object	3	Starts from 1 (corresponding to different doors or arming regions according to commands)	Command#2#Operation Object#

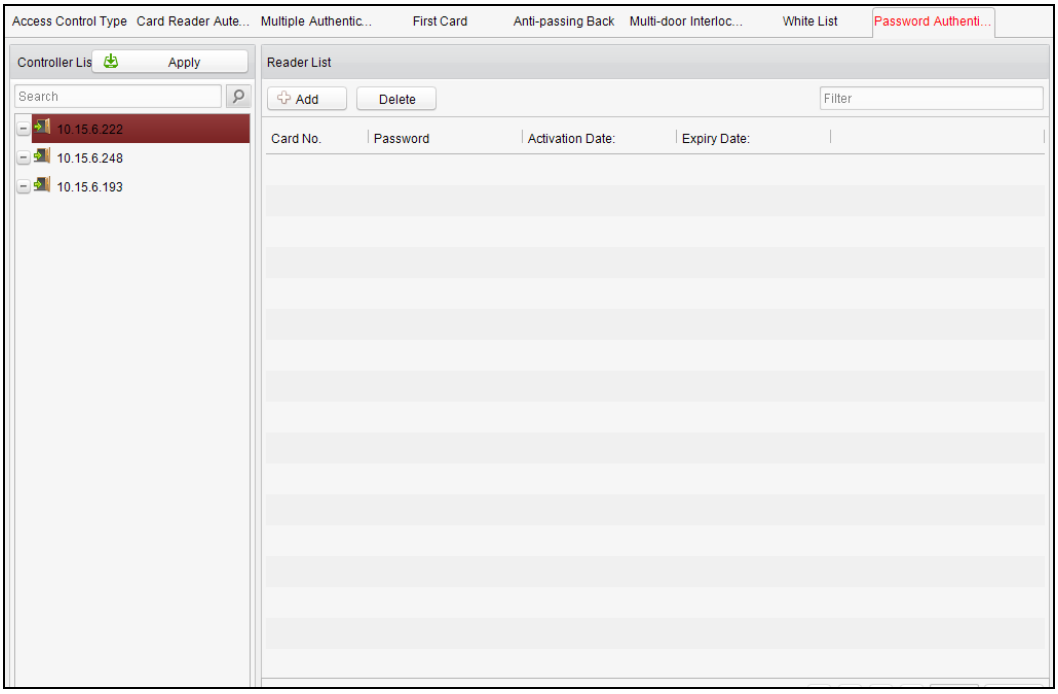
7.7.13 Password Authentication

Purpose:

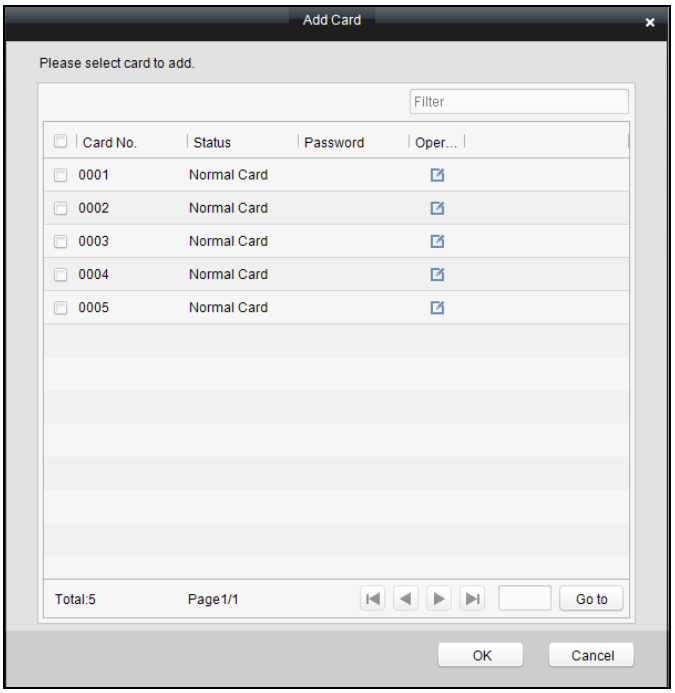
You can open the door by inputting the password only after finishing the operation of password authentication.

Steps:

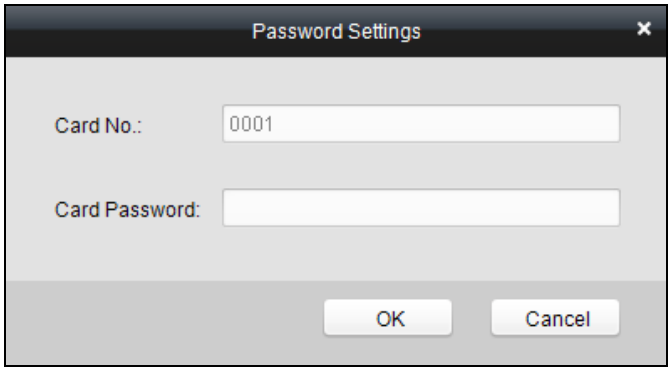
1. Click **Password Authentication** tab and select a host.



2. Click  to enter the Add Card window.



3. Check the checkbox of the corresponding card, and click the button to pop up the password setting dialogue box.



4. Input the card password.
5. Click OK to finish adding the card.
6. Click Apply to take effect of the new settings.

Notes:

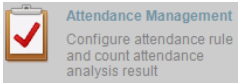
- The card, which has added the password, will be displayed in the card list.
- You can select the card in the card list, and click Delete to delete the password authentication of the selected card.
- The normal access controller supports up to 500 cards to open door via password. The 500 cards' password should not be duplicated.
- The device of DS-K2700 supports up to 1000 card to open door via password.

8 Attendance Management (Do Not Support)

Purpose:

After adding the device and person, you can set the person shift, set the holiday, manage the person attendance and view the card swiping log.

8.1 Attendance Configuration

Click 

icon on the control panel to enter the Attendance Configuration interface.

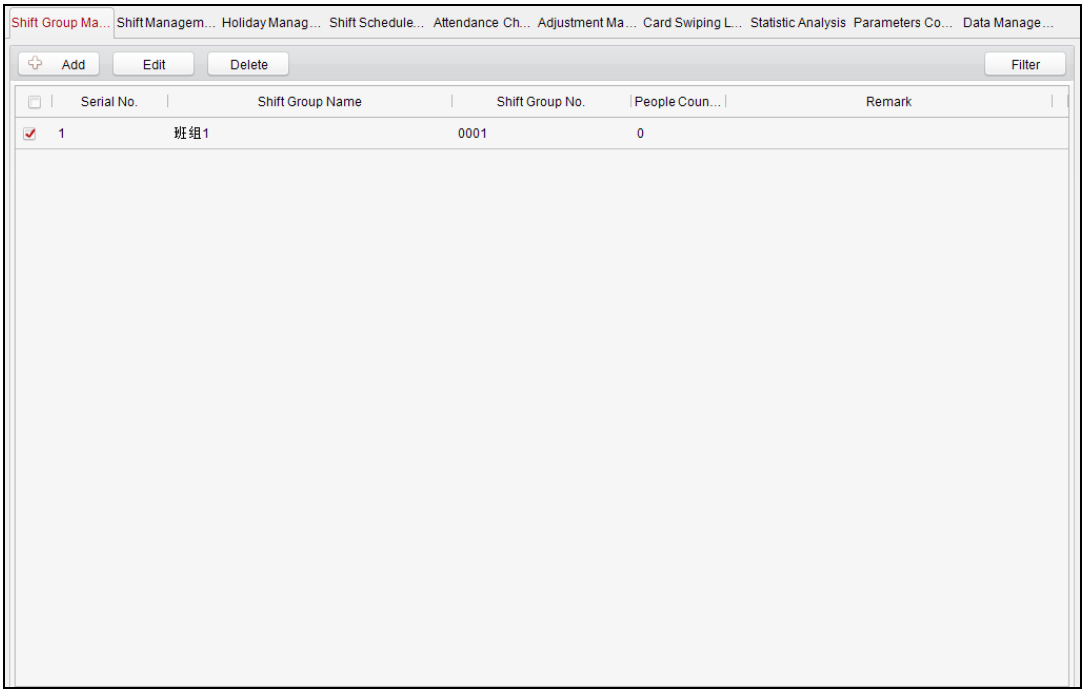
8.1.1 Shift Group Management

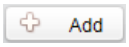
Purpose:

On the shift group management interface, you can add, edit, and delete shift groups for attendance management.

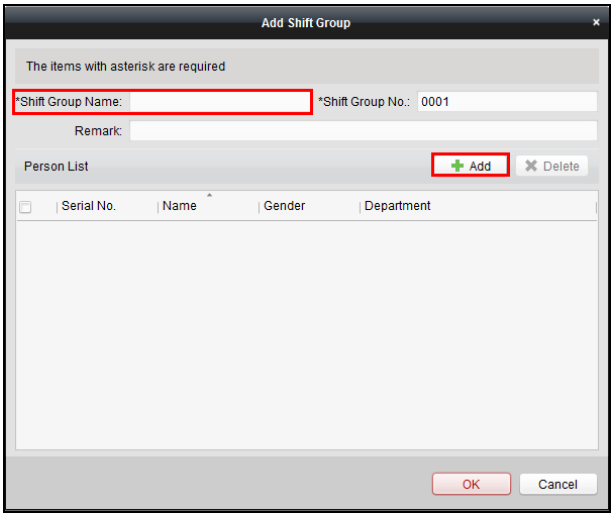
Steps:

1. Click the Shift Group Management tab to enter the following page.

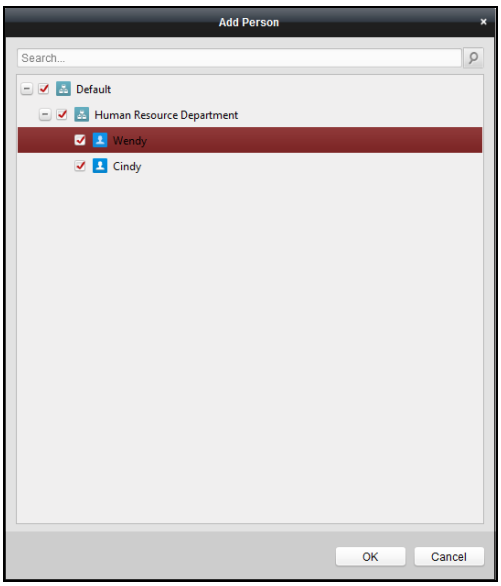


2. Click 

to pop up the Shift Group window.



3. Enter the shift group name, and click Add on the person list area to pop up the Add Person window.



4. Check the checkbox to select the person and click **OK** button and return to the shift group settings interface.

   To delete the added person, check the person from the person list, and click Delete.

5. Click **OK** button to complete the operation.

6. You can edit or delete the added shift groups by clicking Edit or Delete.

Notes:

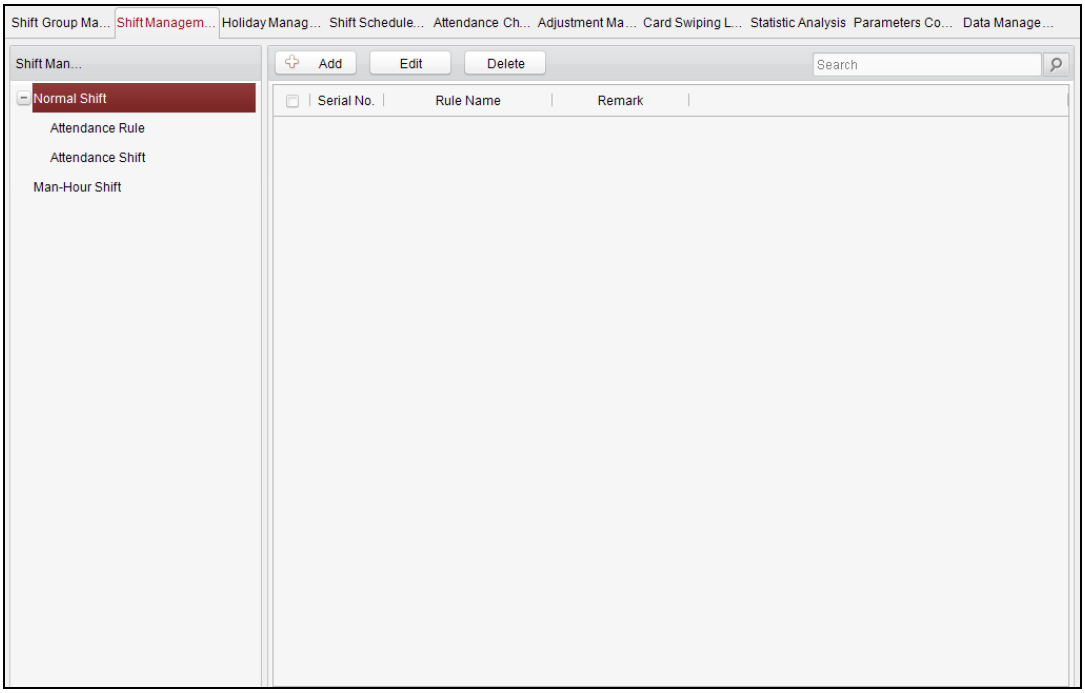
- After deleting the shift group, the shift schedule of the shift group will be deleted as well. For details about shift schedule, refer to *Chapter 22.1.4 Shift Schedule Management.*
- If the person has been added to one shift group, he/she cannot be added to

other shift groups.

- No person amount limit when adding the person.

8.1.2 Shift Management

Click the Shift Management tab to enter the shift management interface.

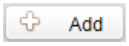


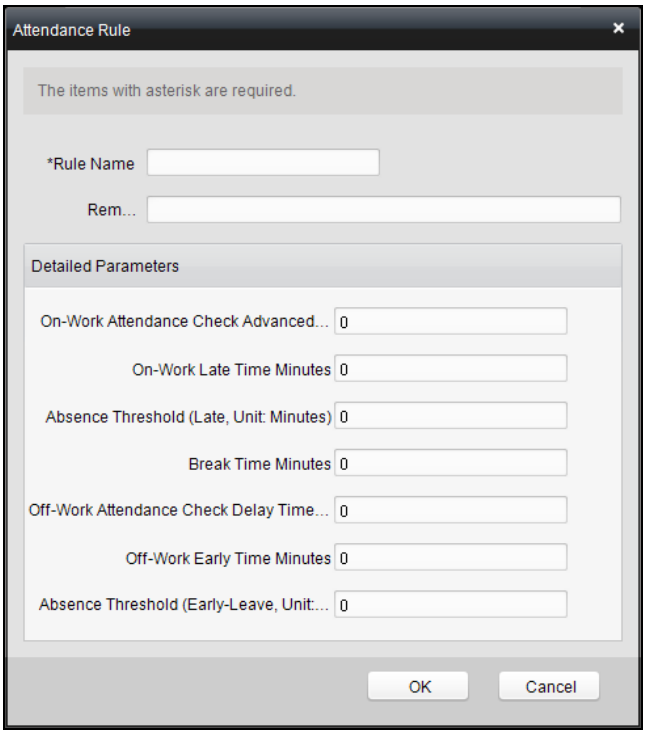
There are two kinds of shifts in this interface: **Normal Shift**, and **Man-Hour Shift**.

Normal Shift

✧ Setting Attendance Rule

Steps:

1. Click **Attendance Rule** to set the rule for the attendance management.
2. Click  to pop up the Attendance Rule window.



3. Set a rule name.
4. Set detailed parameters for the attendance rule according to actual needs.
5. Click OK to save the rule.
6. (Optional) You can edit or delete the rule by clicking Edit or Delete button.

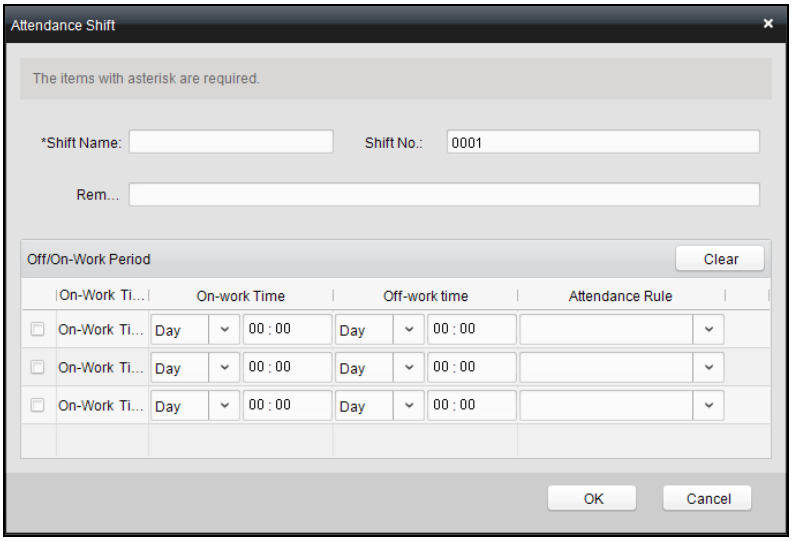
   Notes:

   - After deleting the rule, the normal attendance shift which has enabled the rule will be deleted as well.
   - If the shift which has enabled the rule has already set the shift schedule, the shift will not be deleted.

✧ **Setting Attendance Shift**

Steps:

1. Click **Attendance Shift** to set the normal attendance shift.
2. Click Add to pop up the attendance shift setting window.



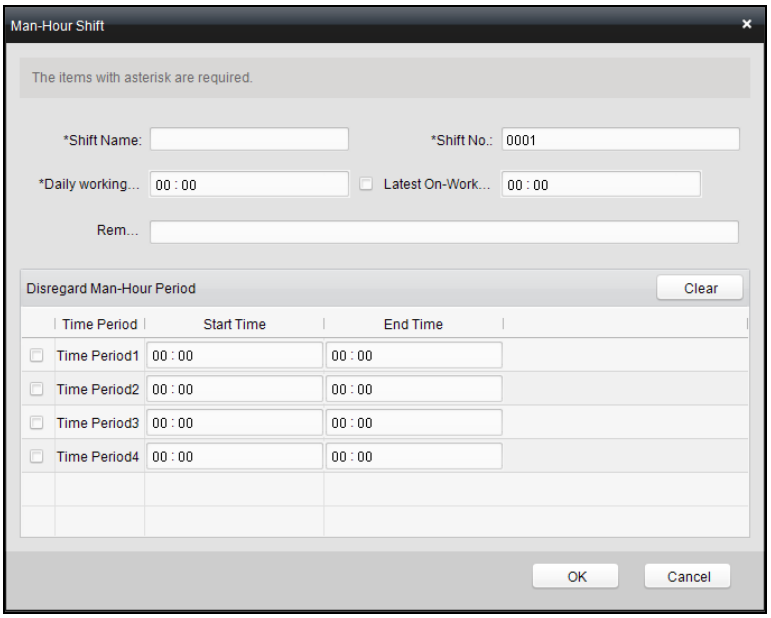
3. Set a shift name.
4. Set on-work duration for the shift, and select the attendance rule from the dropdown list.
5. Click OK to complete the operation.
6. (Optional) You can edit or delete the shift by clicking Edit or Delete.

   Note: After deleting the shift, its shift schedule will be deleted as well. For details about shift schedule, refer to *Section 8.1.4 Shift Schedule Management.*

Man-Hour Shift

Steps:

1. Click **Man-Hour Shift** to set the man-hour shift details.
2. Click Add to pop up the Man-hour Shift window.



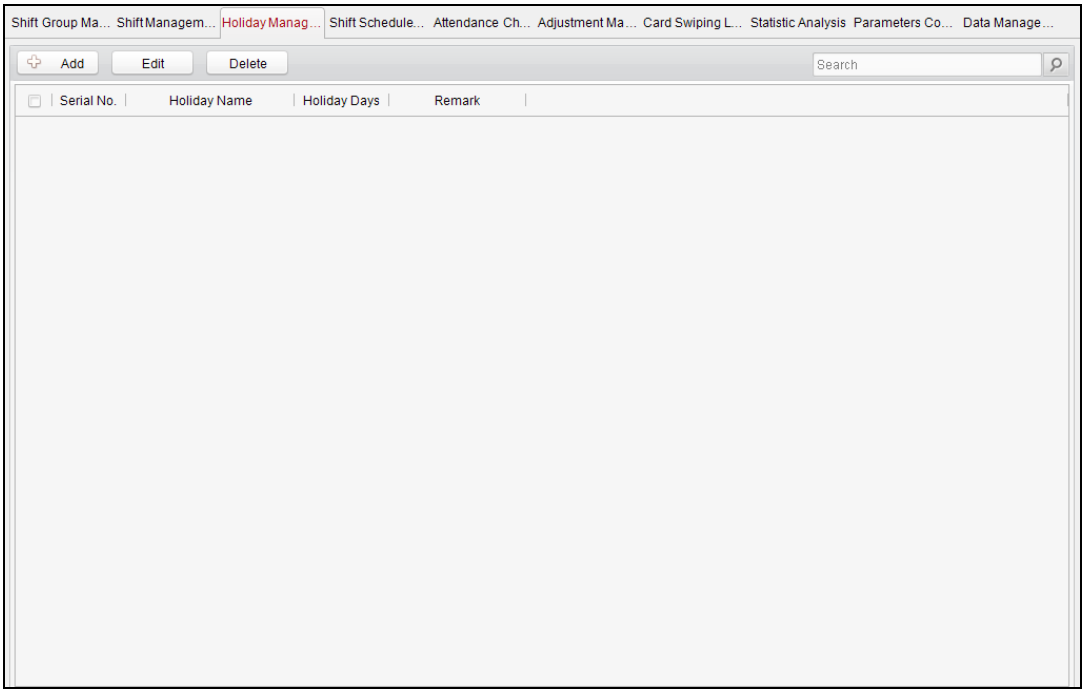
3. Set a shift name, and daily work duration.
4. (Optional) Check the checkbox of latest on-work time, and set the latest on-work time.
5. (Optional) Set the durations excluded from man-hour duration.
6. Click **OK** button to complete the operation.
7. (Optional) You can edit or delete the shift by clicking Edit or Delete.

   Note: After deleting the shift, its shift schedule will be deleted as well. For details about shift schedule, refer to *Section 8.1.4 Shift Schedule Management.*

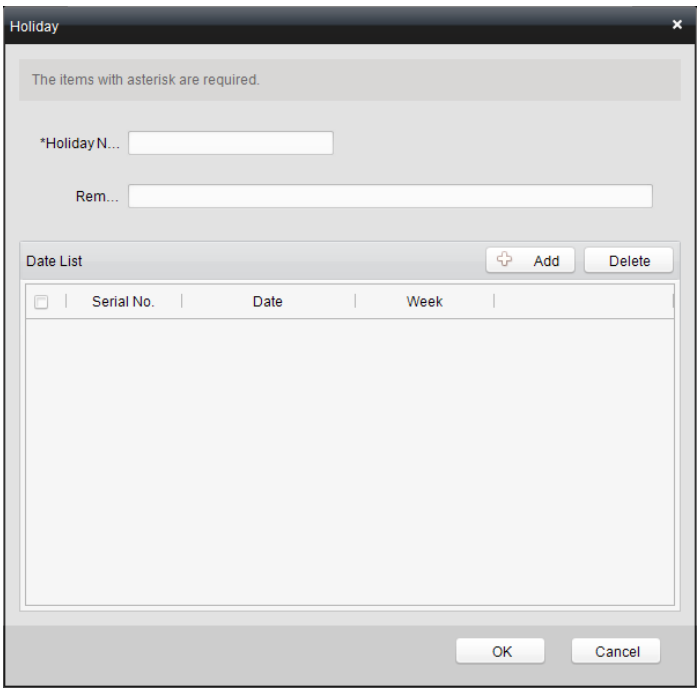
8.1.3 Holiday Management

Steps:

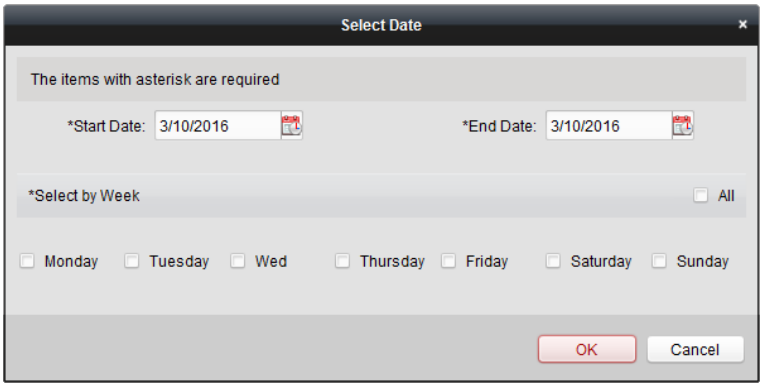
1. Click the Holiday Management tab to enter the holiday management interface.



2. Click Add to pop up the Holiday window.



3. Click Add button to pop-up holiday adding window.



4. Set the start date and end date, select the date of week, and click OK.

5. Click OK to save the settings.

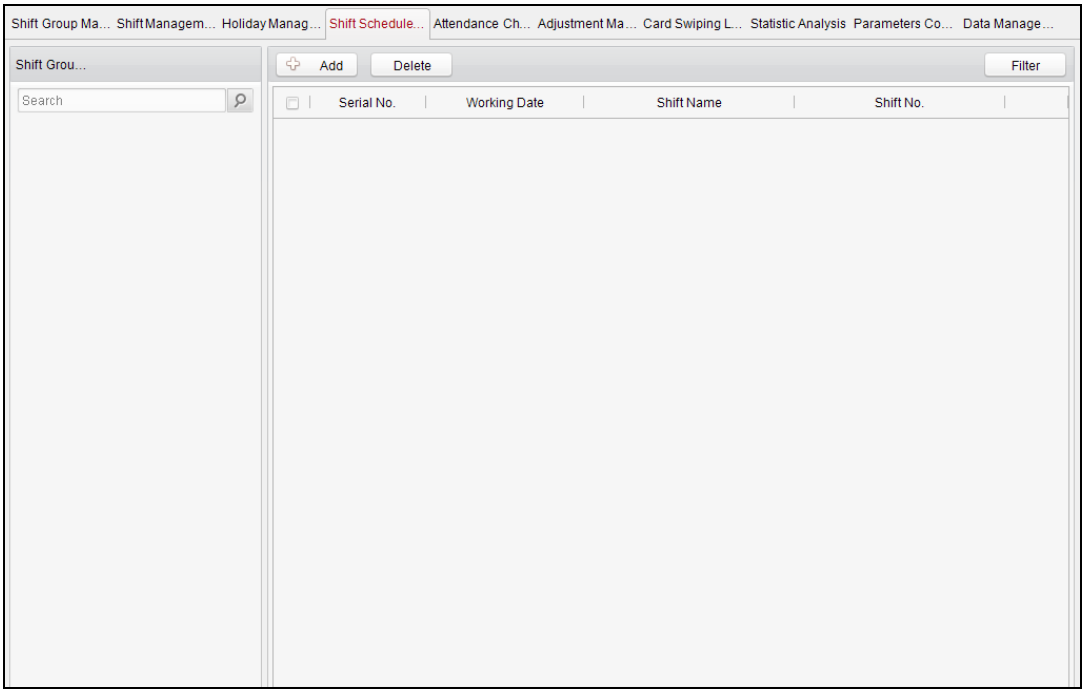
8.1.4 Shift Schedule Management

Purpose:

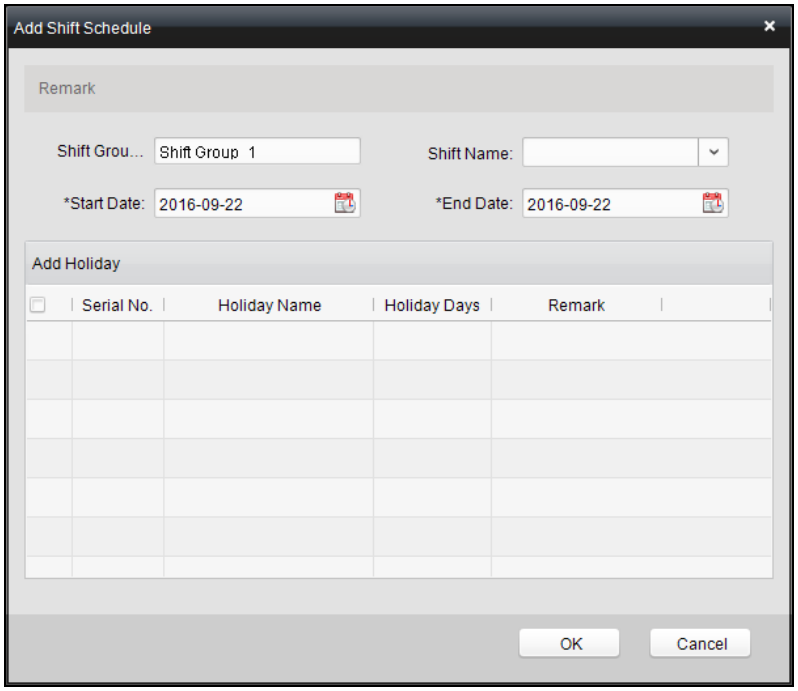
After setting the shift group and the corresponding shift and shift rule, you can set the shift schedule for the shifts.

Steps:

1. Click the Shift Schedule Management tab to enter the shift schedule management interface.



2. Select the shift group from the list on the left.
3. Click Add to pop up the shift schedule settings window.



4. Select the shift name from the drop-down list and set the start data and end data.

   (Optional) You can check the checkbox of holiday to add the holiday shift.

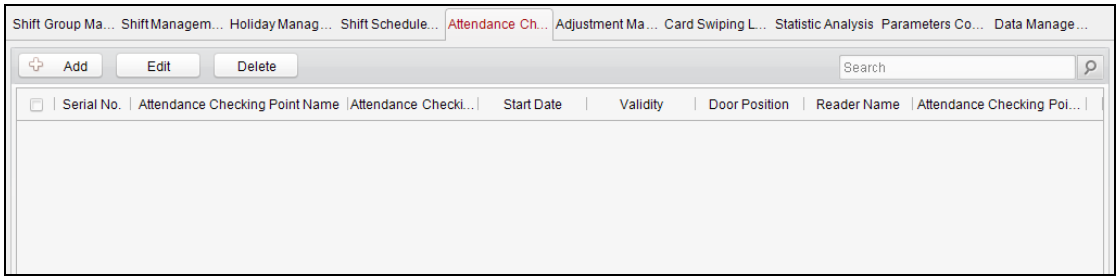
   Click OK to complete the operation.

5. Click OK to save the settings.

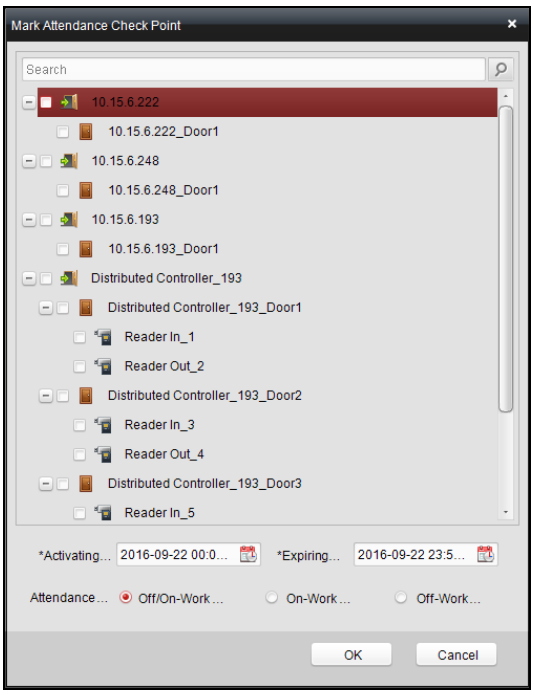
8.1.5 Attendance Check Point Management

Steps:

1. Click the Attendance Check Point Management tab to enter the Attendance Check Point Management interface.



2. Click Add to pop up the Mark Attendance Check Point window.



   Check the select the card reader of the access control point and set the start date and end date.

   Select the check point type.

   Click OK to save the adding.

   The added check points will be displayed in the attendance check point list.

3. You can check the checkbox of a check point, and click Edit to pop up the attendance check point editing window.

   You can edit the attendance check point name, start date, end date, and check point type, controller name, door position, and card reader name.

   Click OK to complete the operation.

4. You can check the checkbox of a check point and click Delete to delete the added check point.

8.1.6 Adjustment Management

Click the Adjustment Management tab to enter the adjustment management interface.

In this module, **Reason Management** and **List Management** can be realized.

Reason Management

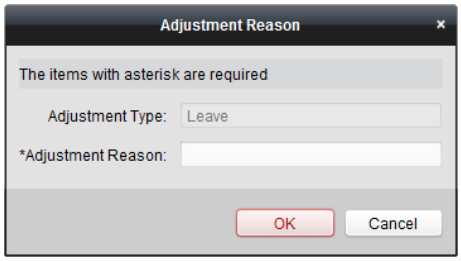
✧ **Leave**

You can add, edit, and delete reasons for leave on the leave interface.

Steps:

1. Click **Leave** to enter the leave interface.

2. Click Add to pop up the Adjustment Reason adding dialog box.



3. Enter the adjustment reason, and click OK to save the adding.

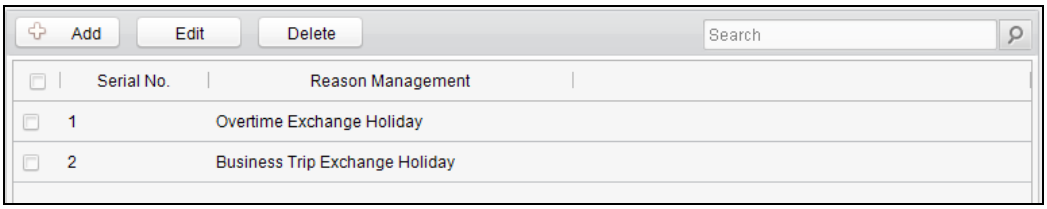
Notes:

- The default adjustment reasons include leave for personal affairs, sick leave, marriage leave, funeral leave, home leave, annual leave, maternity leave, and paternity leave.
- You can check the checkbox of a reason and click Edit to edit the reason, and click Delete to delete the reason.

✧ **Leave in Lieu**

Steps:

1. Click **Leave in Lieu** to enter the leave-in-lieu interface.



2. Click Add to pop up the Adjustment Reason adding dialog box.

3. Enter the adjustment reason, and click OK.

Notes:

- The default adjustment reasons for leave in lieu include overtime, and business trip.
- You can check the checkbox of a reason and click Edit to edit the reason, and click Delete to delete the reason.

✧ **Overtime**

Steps:

1. Click **Overtime** to enter the overtime interface.

2. Click Add button to pop up the adjustment reason adding dialog box.

3. Enter the adjustment reason, and click OK.

Notes:

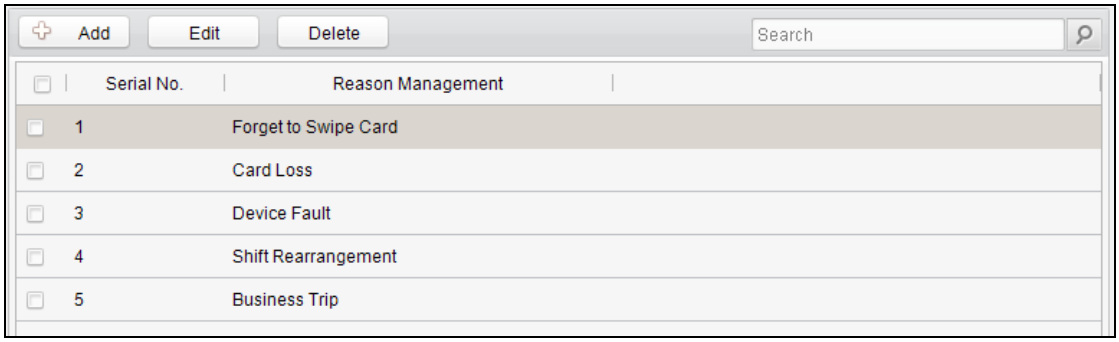
- The default adjustment reasons for overtime include work requirement, working day overtime, rest day overtime, and holiday overtime.

- You can check the checkbox of a reason and click Edit to edit the reason, and click Delete to delete the reason.

✧ **Replace Card**

Steps:

1. Click **Replace Card** to enter the following interface.



2. Click Add button to pop up the adjustment reason adding dialog box.
3. Enter the adjustment reason, and click OK.

Notes:

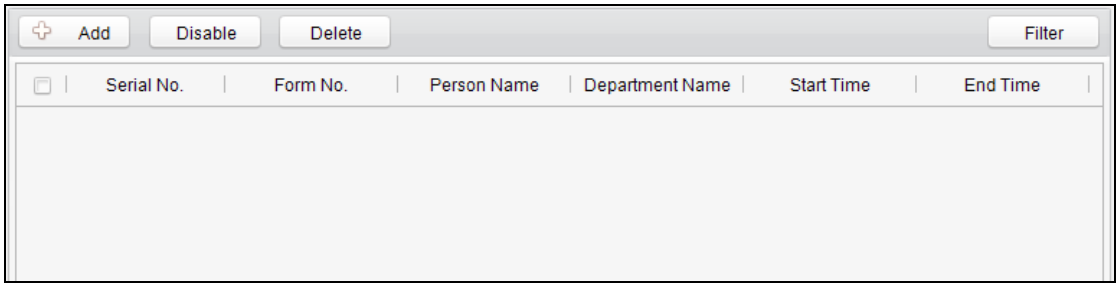
- The default adjustment reasons for card replacing include forget to swipe card, attendance card lost, device fault, shift adjustment, and business trip.
- You can check the checkbox of a reason and click Edit to edit the reason, and click Delete to delete the reason.

List Management

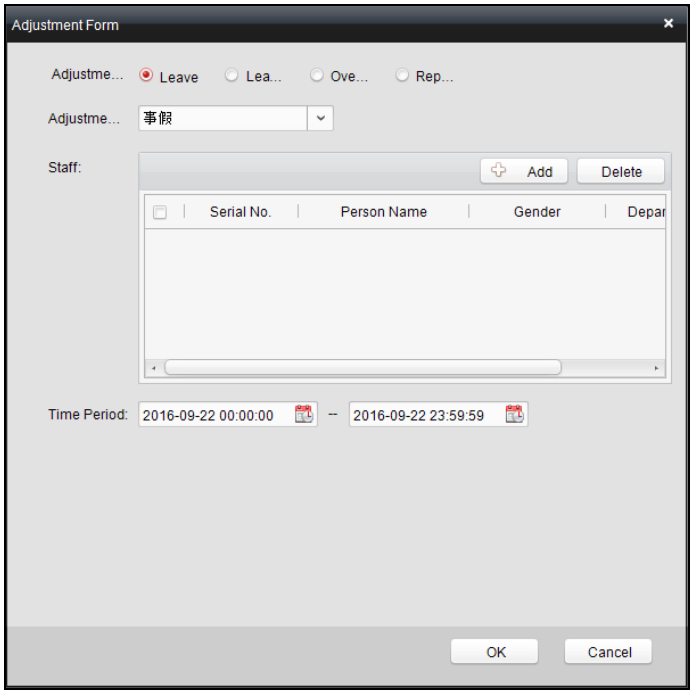
✧ **Enabled List**

Steps:

1. Click **Enabled** to enter the enabled list interface.



2. Click Add to add an attendance management form.

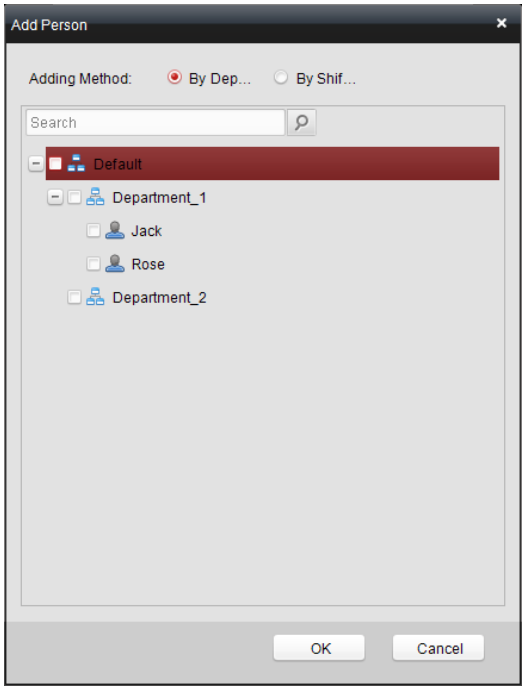


3. Select the adjustment type: leave, leave in lieu, overtime, and card replacement.

   Leave, Leave in Lieu, and Overtime

   1) Select the adjustment reason from the drop-down list.

   2) Click Add to pop up the Add Person window.



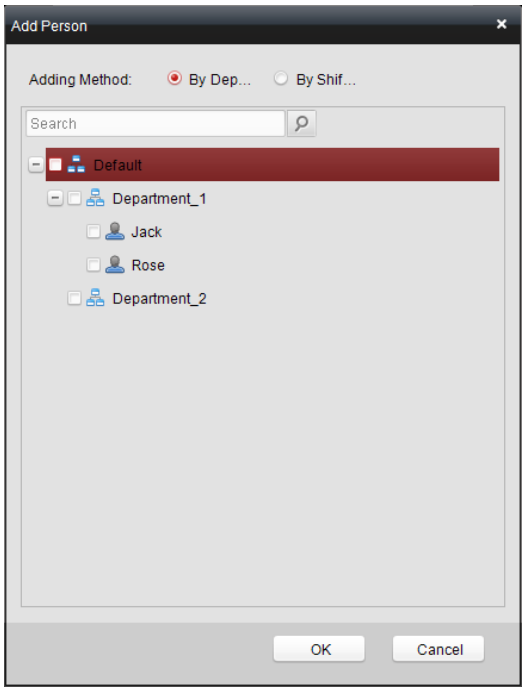
   3) Select the adding type as by department or by shift group. Select the person and click OK.

   4) Set the time duration.

Replace Card

1) Select the adjustment reason from the drop-down list.

2) Click Add to pop up the Add Person window.



3) Select the adding type as by department or by shift group. Select the person and click OK.

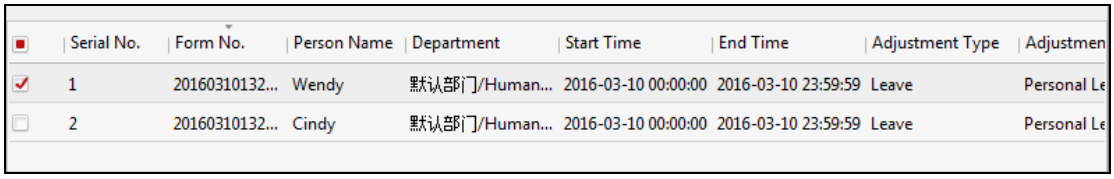
4) Set the date, attendance shift type, and card replacing time.

4. Click OK to complete the operation.

✧ **Disabled List**

Steps:

1. In the Enabled List interface, check the checkbox of a piece of enabled list and click Disable button to disable the list.
2. Click **Disabled** and the disabled list will be listed on the disabled interface.

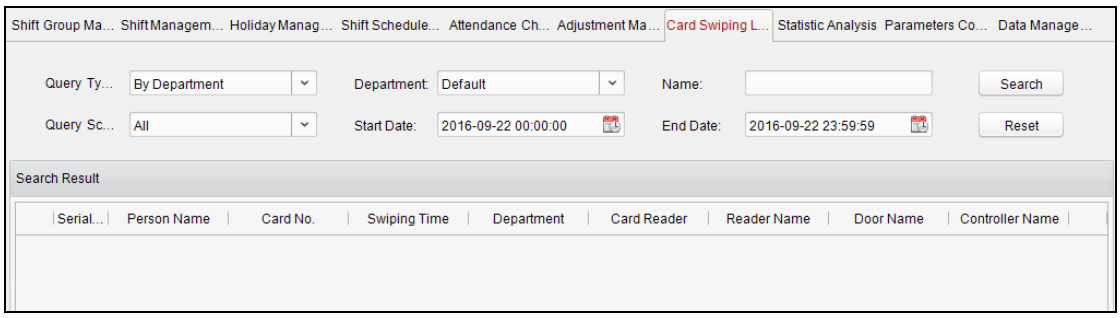


Serial No.	Form No.	Person Name	Department	Start Time	End Time	Adjustment Type	Adjustmen
1	20160310132...	Wendy	默认部门/Human...	2016-03-10 00:00:00	2016-03-10 23:59:59	Leave	Personal Le
2	20160310132...	Cindy	默认部门/Human...	2016-03-10 00:00:00	2016-03-10 23:59:59	Leave	Personal Le

3. You can check the checkbox and click Delete to delete the disabled list.

8.1.7 Card Swiping Log Query

Click **Swiping Log** tab to enter the card swiping log searching and viewing interface.



You can search the card swiping log by two query types: **By Shift Group**, and **By Department**.

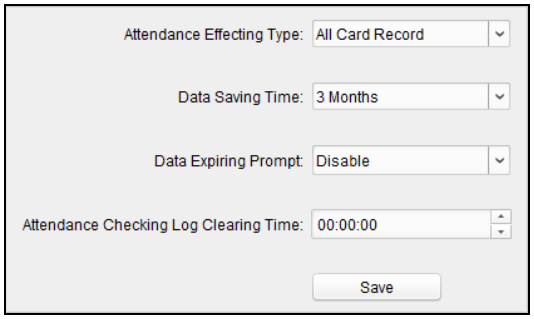
Input other search conditions and click Search to start query the card swiping log.

Or click Reset to reset the search conditions.

8.1.8 Parameters Configuration

Steps:

1. Click the Parameters Configuration tab to enter the parameters configuration interface.

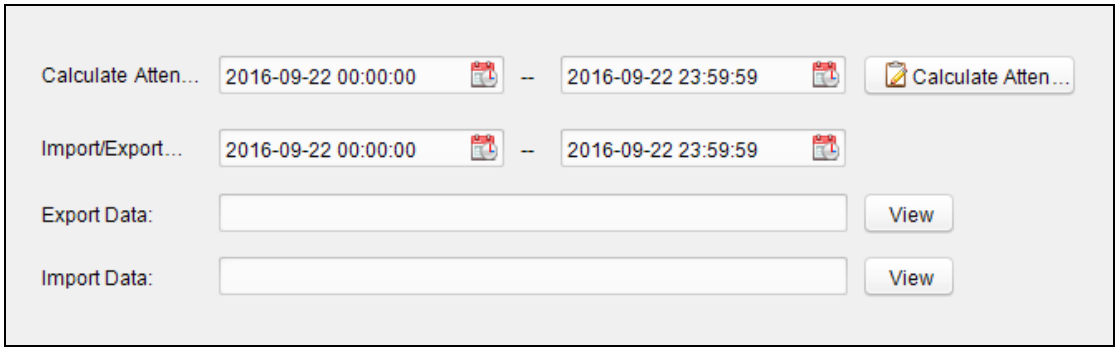


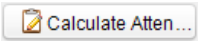
2. Select the attendance effecting type, data saving time, data expiring prompt.
3. Set the attendance checking log clearing time.
4. Click Save to save the parameters.

8.1.9 Data Management

Steps:

1. Click **Data Management** tab to enter the data management interface.



2. Select the date and time period for calculation and click 

(Calculate Attendance Data) to start calculating the attendance data.
3. After calculation, you can also export and import the attendance data.

8.2 Attendance Statistic

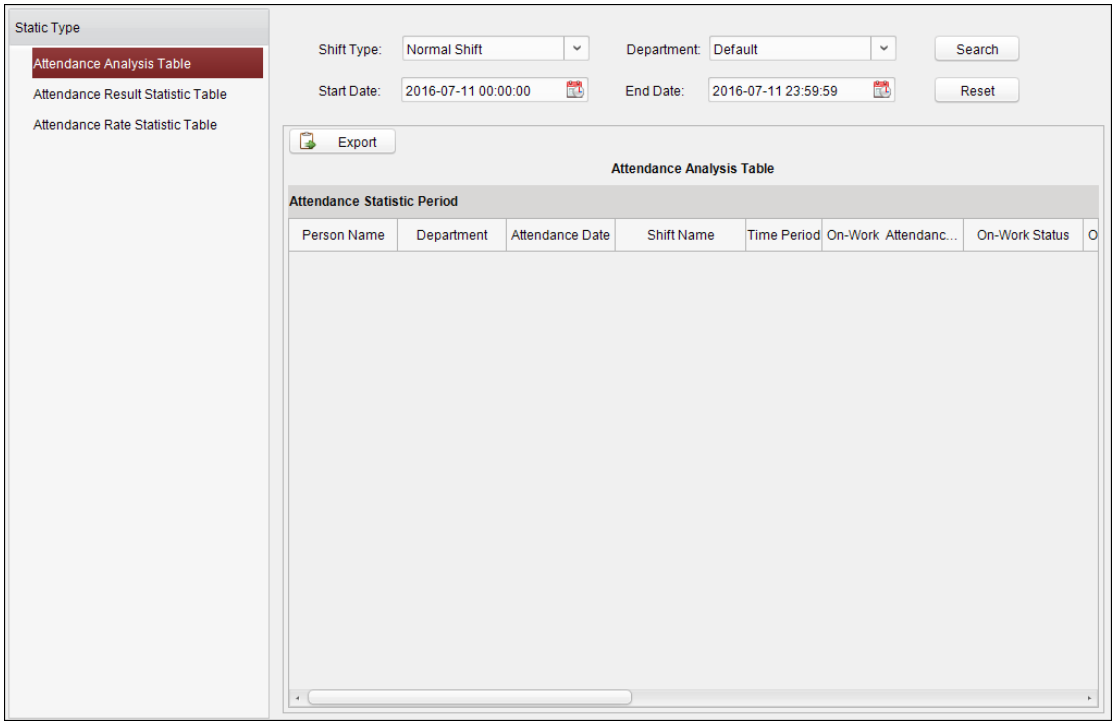
Click the Attendance Statistics tab to enter the Attendance Statistics interface.

On the Attendance Statistics interface, you can search the attendance statistic, attendance result statistics, and attendance rate statistics.

You can input the search condition including shift type, department, start date, and end date, and click Search button to search the attendance data.

You can click Reset to reset the search condition to the default value.

After searching, you can click **Export** to export the searching report to the local PC.



9 Checking Status and Event

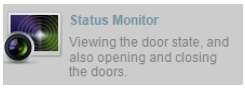
Purpose:

In this section, you are able to anti-control the status of the door and to check the event report of the control point.

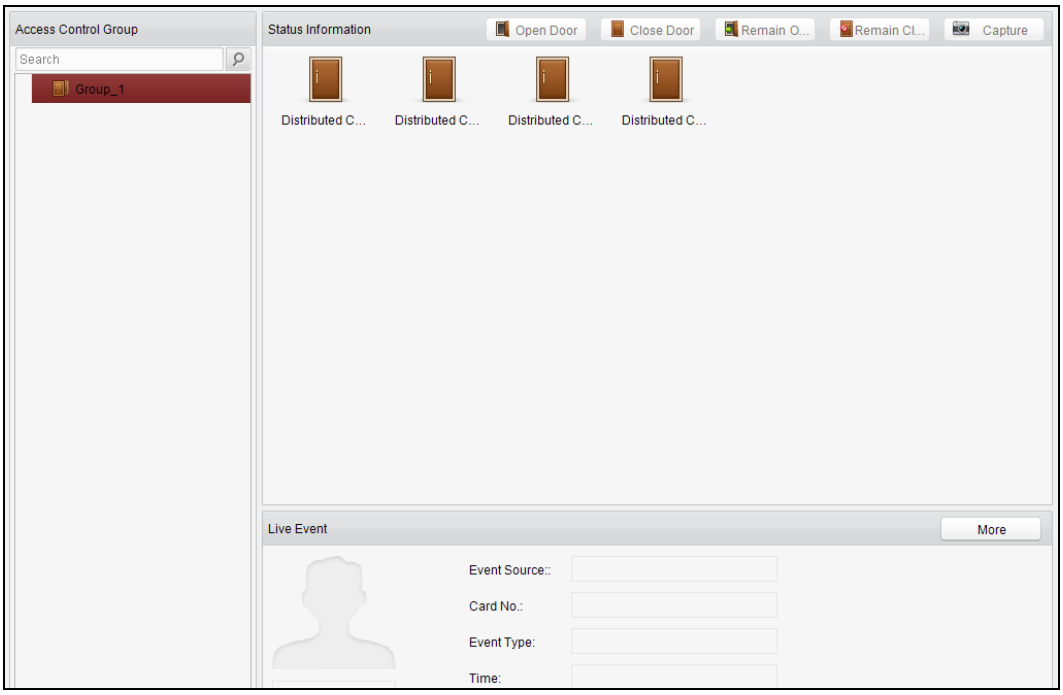
9.1 Status Monitor

Purpose:

You can anti-control the door status and check the real-time access event information for the control point.

Click the 

icon on the control panel to enter the interface.



Note: The door status will be displayed according to the door magnetic or the lock.

9.1.1 Access Anti-control

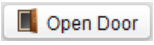
Door Anti-control

Purpose:

You can control the status for a single control point (a door) in this section.

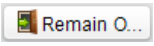
Steps:

1. Enter the status monitor page.
2. Click on the icon  on the **Status Information** panel to select a door.
3. Click on the button listed on the upper-left side of the **Status Information** panel to select a door status for the door.

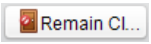


: Click the button to open the door once.

: Click the button to close the door once.



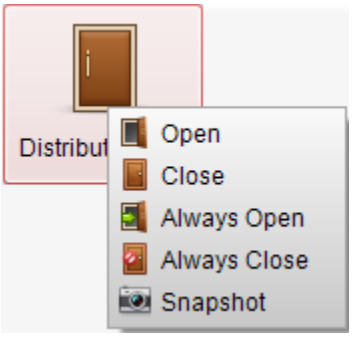
: (Remain Open) Click the button to keep the door open.



: (Remain Closed) Click the button to keep the door closed.

: Click on the button to capture the picture.

4. You can also right click the icon  and to select a status for the door.



Notes:

- If the status is selected as **Remain Open/Remain Closed**, the door will keep open/ closed until a new anti-control command being made.
- The function of picture capturing cannot be realized until the storage server is installed.

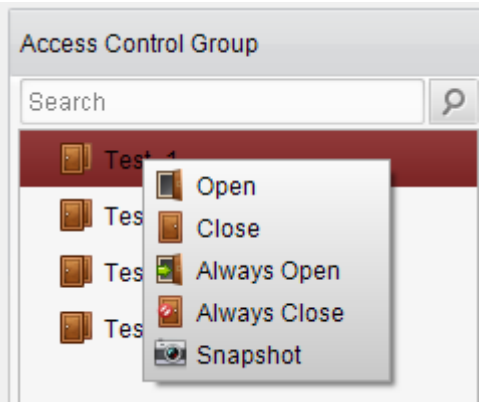
Group Anti-control

Purpose:

You can control the status for a group of control points (doors) in this section.

Steps:

1. Enter the status monitor page.
2. Right click on a group in the **Group** list and to select a door status for the group.



Notes:

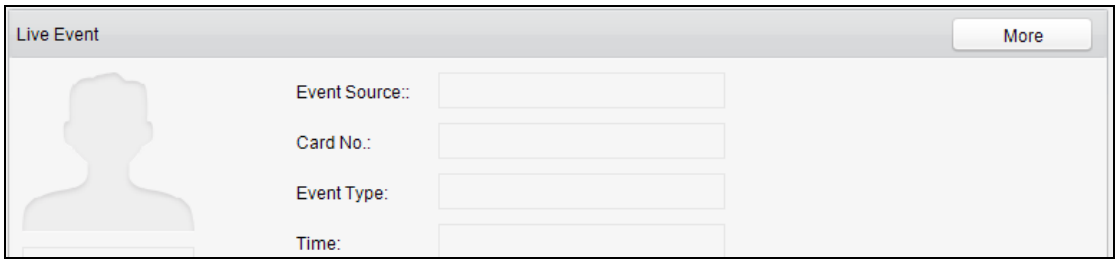
- If the status is selected as **Remain Open/Remain Closed**, all the doors in the group will keep open/ closed until a new anti-control command being made.
- The function of picture capturing cannot be realized until the storage server is installed.

9.1.2 Access Status

The door status will be represented instantly by the change of icon on the **Access Information** panel if the access event is triggered or an anti-control command is made.

9.1.3 Real-Time Event

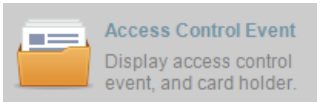
You can check the Real-time information of the access event on this panel. Click **More** to enter the Access Event page to view more event information.



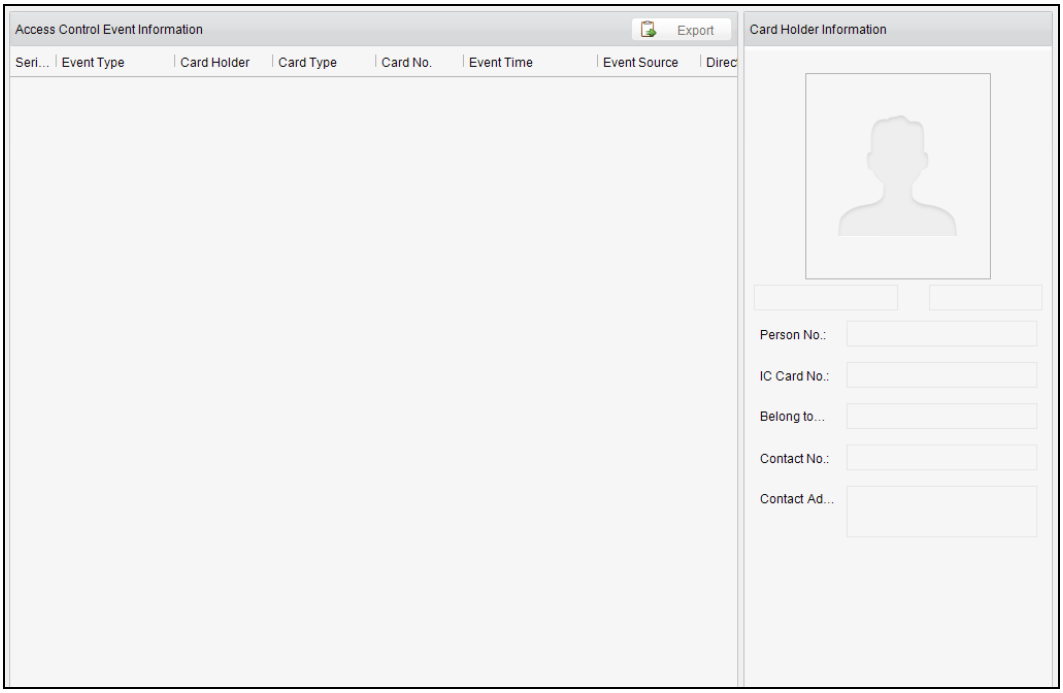
9.2 Access Control Event

Purpose:

You can view real-time access event (such as swiping to open the door, unrecognized card number, duration group error, etc.) information in this section.

Click the 

icon on the control panel to enter the interface.



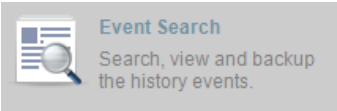
Steps:

1. Enter the access event page.
2. View the event information in the event list.
3. Click on an event to view the information of the card holder on the **Person Information** panel on the left side of the page.

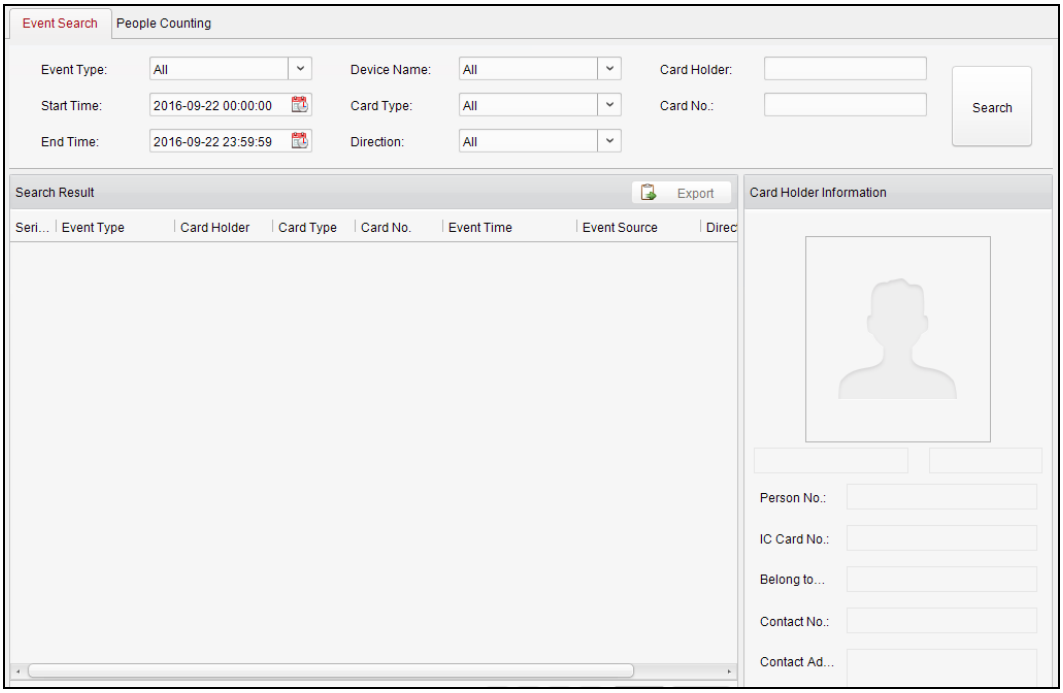
9.3 Event Search

Purpose:

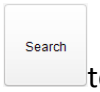
You can search historical access event according to the search criteria (such as event type, name of the person, card No. or start/end time) in this section.

Click the 

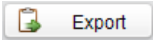
icon on the control panel to enter the interface.



Steps:

1. Enter the event search page.
2. Enter the search criteria (event type/ person name/ card No/ start &end time).
3. Click 

to get the search results.
4. View the event information in the event list.
5. Click an event to view the information of the card holder on the **Person Information** panel on the left side of the page.

   Or click 

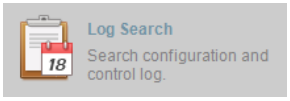
to export the result.

10 System Maintenance

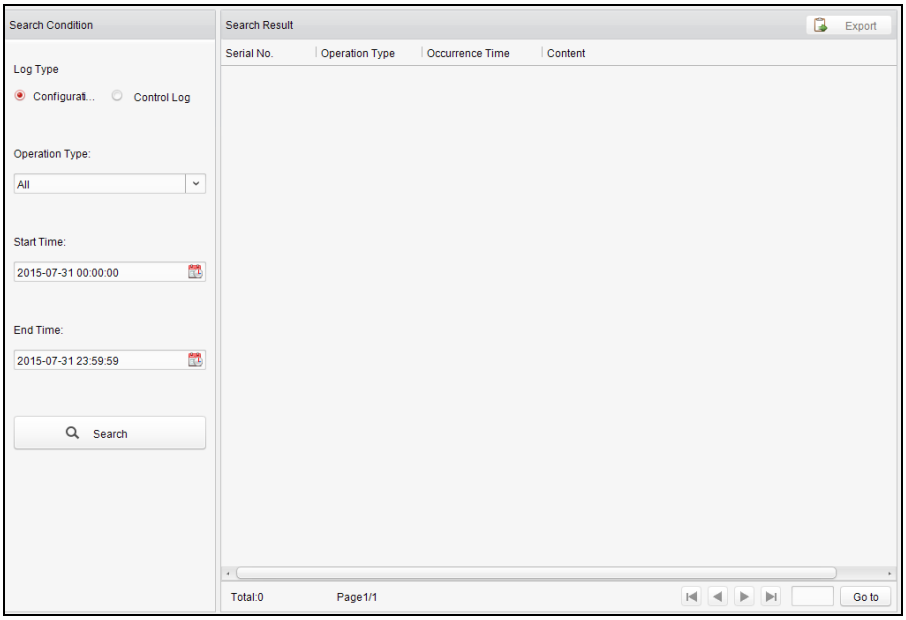
10.1 Log Management

Purpose:

The log files of the Access Control System and the devices that connected to the Access Control System can be searched for checking.

Click the 

icon on the control panel to open the Log Search page.

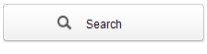


Configuration Logs Searching

Purpose:

The Configuration Log files of the Access Control System can be searched by time ,including One-card Configuration, Access Control Configuration, Downloading Permission and System Configuration.

Steps:

1. Open the Log Search page.
2. Select the radio button of Configuration Logs.
3. Select the Operation Type of log files.
4. Click the icon  to specify the start time and end time.
5. Click 

. The matched log files will display on the list.

   You can check the operation time, log type and other information of the logs.

Note: Please narrow the search condition if there are too many log files.

Control Logs Searching

Purpose:

The Control Log files of the Access Control System can be searched by time ,including Access Control and Log Search.

Steps:

1. Open the Log Search page.
2. Select the radio button of Control Logs.
3. Select the Operation Type of log files.
4. Click the icon to specify the start time and end time.
5. Click Search. The matched log files will display on the list.

   You can check the operation time, log type and other information of the logs.

Note: Please narrow the search condition if there are too many log files.

10.1.1 Searching Configuration Log

Searching One-card Configuration Logs

Purpose:

The One-card Configuration Log files include departments, persons and cards log files. One-card Configuration of the Access Control System can be operated as adding ,modifying and deleting logs.

Steps:

1. Open the Log Search page.
2. Select the radio button of Configuration Logs.
3. Select the operation type as One-card Configuration.
4. Click the icon to specify the start time and end time.
5. Click Search. The matched log files will display on the list.

   You can check the operation time, log type and other information of the logs.

Note: Please narrow the search condition if there are too many log files.

Searching Access Control Configuration Logs

Purpose:

The Access Control Configuration Log files include Access Control devices log files. Access Control Configuration of the Access Control System can be operated as adding, modifying and deleting door groups or doors and access control device permission operations.

Steps:

1. Open the Log Search page.
2. Select the radio button of Configuration Logs.
3. Select the operation type as Access Control Configuration.
4. Click the icon to specify the start time and end time.
5. Click Search. The matched log files will display on the list.

You can check the operation time, log type and other information of the logs.

Note: Please narrow the search condition if there are too many log files.

Searching Downloading Permission Logs

Purpose:

The Downloading Permission Log files include downloading permission log files, and no record for downloading permission failure log files.

Steps:

1. Open the Log Search page.
2. Select the radio button of Configuration Logs.
3. Select the operation type as Downloading Permission.
4. Click the icon to specify the start time and end time.
5. Click Search. The matched log files will display on the list.

You can check the operation time, log type and other information of the logs.

Note: Please narrow the search condition if there are too many log files.

Searching System Configuration Logs

Purpose:

The System Configuration Log files of the Access Control System can be searched as system configuration interface log files.

Steps:

1. Open the Log Search page.
2. Select the radio button of Configuration Logs.
3. Select the operation type as System Configuration Logs.
4. Click the icon to specify the start time and end time.
5. Click Search. The matched log files will display on the list.

You can check the operation time, log type and other information of the logs.

Note: Please narrow the search condition if there are too many log files.

10.1.2 Searching Control Log

Searching Access Control Logs

Purpose:

The Access Control Log files of the Access Control System include door groups and doors access control logs and door on/off control log files.

Steps:

1. Open the Log Search page.
2. Select the radio button of Control Logs.

3. Select the operation type as Access Control Logs.
4. Click the icon to specify the start time and end time.
5. Click Search. The matched log files will display on the list.

You can check the operation time, log type and other information of the logs.

Note: Please narrow the search condition if there are too many log files.

Log Search

Purpose:

The Log Search of the Access Control System include informations for configuration log files and control log files.

Steps:

1. Open the Log Search page.
2. Select the radio button of Control Logs.
3. Select the operation type as Log Search.
4. Click the icon to specify the start time and end time.
5. Click Search. The matched log files will display on the list.

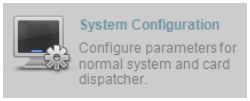
You can check the operation time, log type and other information of the logs.

Note: Please narrow the search condition if there are too many log files.

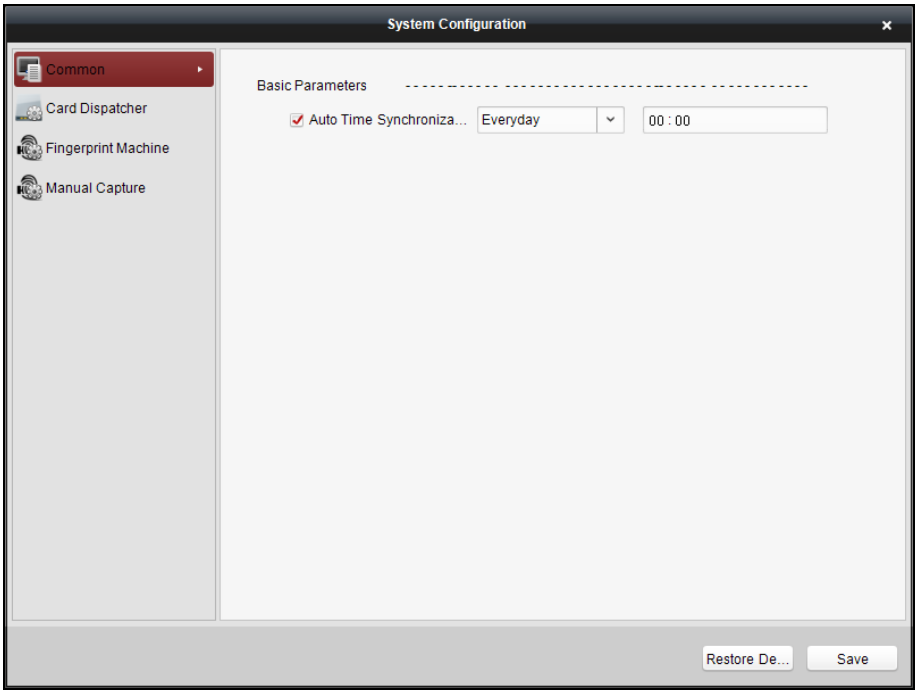
10.2 System Configuration

Purpose:

The general parameters, Auto Time Adjustment and Card Reader of the Access Control System can be configured.

Click the 

icon on the control panel to open the System Configuration page.



Auto Time Synchronization

The Auto Time Synchronization of the Access Control System can operate auto time adjustment to all access control devices of the Access Control System according to specified period and time.

Card Reader Configuration

The Card Reader Configuration is for Access Control System to read the card by setting Card Reader parameters. For now DS-K1F100-D8、DS-K1F100-M、DS-K1F100-D8E card reader types are supported.

Fingerprint Machine

The Fingerprint Machine is for Access Control system to collect fingerprints.

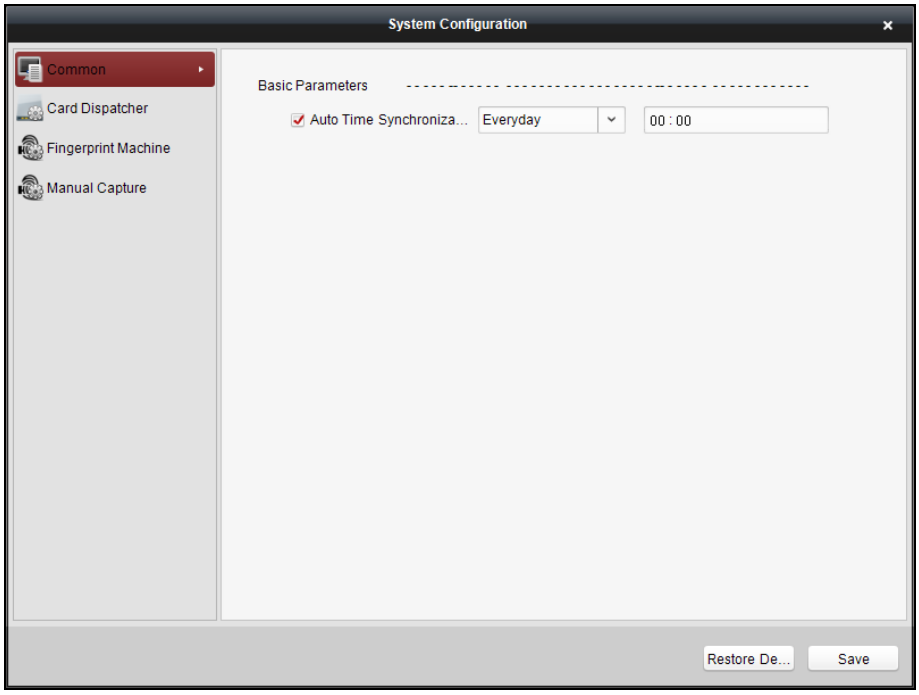
Manual Capture Configuration

The Manual Capture Configuration is for Access Control system to take photos remotely.

10.2.3 Auto Time Synchronization

Steps:

1. Open the System Configuration page.
2. Click the **Common** tab to enter the Common Settings interface.



3. Tick the checkbox to enable Auto Time Synchronization.
4. Select the matched day and input the time to operate the time adjustment.
5. Click Save to save the settings.

Note: You can click the Restore De... (Restore Default Value) to restore the defaults of all the local configurations.

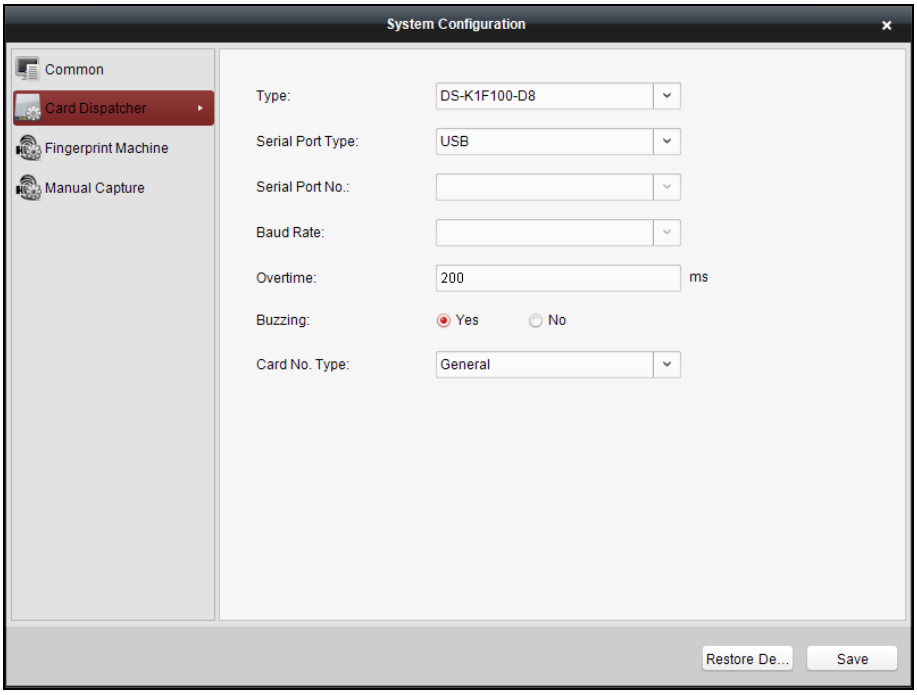
10.2.4 Card Dispenser Configuration

Purpose:

The Card Reader Configuration of the Access Control System can configure device type, connection mode, serial port, baud rate and other parameters of the Card Reader Configuration.

Steps:

1. Click **Card Dispatcher** on the System Configuration interface to open the Card Dispatcher Configuration page.



2. Select the device type, serial port type, serial port, baud rate, and other parameters of the Card Dispatcher.
3. Click the save button to save the settings.

Notes:

- Configuration Instruction

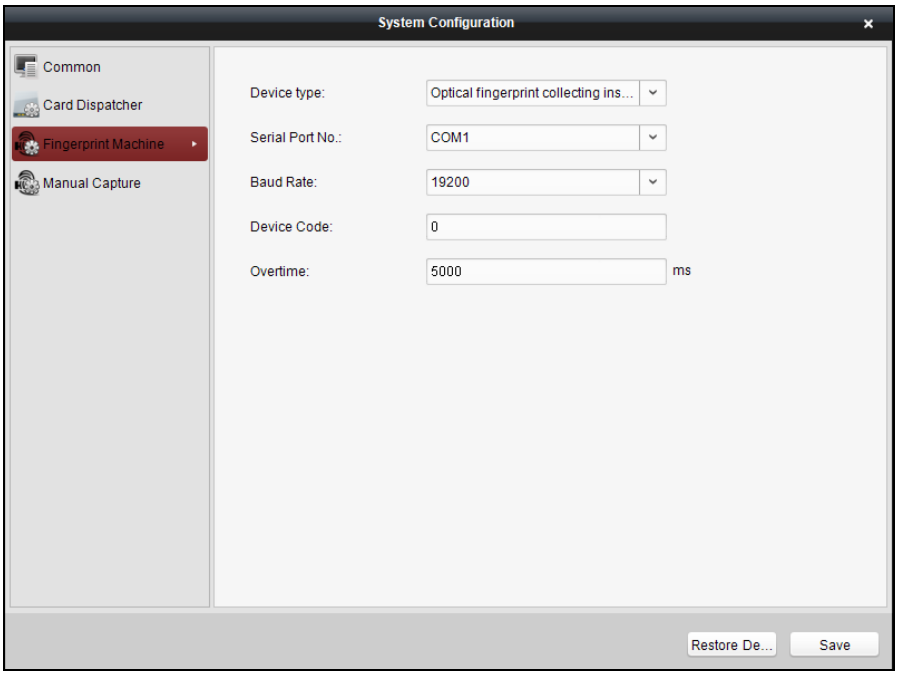
  DS-K1F100-M: select Serial Port Mode as accessing mode (currently only support serial port mode), the serial port No. is the COM port No. of the computer. Set other parameters as default.

  DS-K1F100-D8E and **DS-K1F100-D8E:** select USB Mode as accessing mode (currently only support USB mode). Set other parameters as default.
- It is supported using card type as regular and Wiegand.
- When the Buzzing is selected as "YES", the audio will be off when you click Save. If the Card Reader Configuration is set wrong; the audio will be on when you click Save and when you insert the card reader if the configuration is set correct.
- You can click Restore De... (Restore Default Value) to restore all of the local configuration to the defaults.

10.2.5 Fingerprint Machine Configuration

Steps:

1. Click **Fingerprint Machine** on the System Configuration interface to open the Fingerprint Machine Configuration page.



2. Select the device type, serial port number, baud rate, device code, and overtime parameters of the fingerprint machine.

3. Click Save to save the settings.

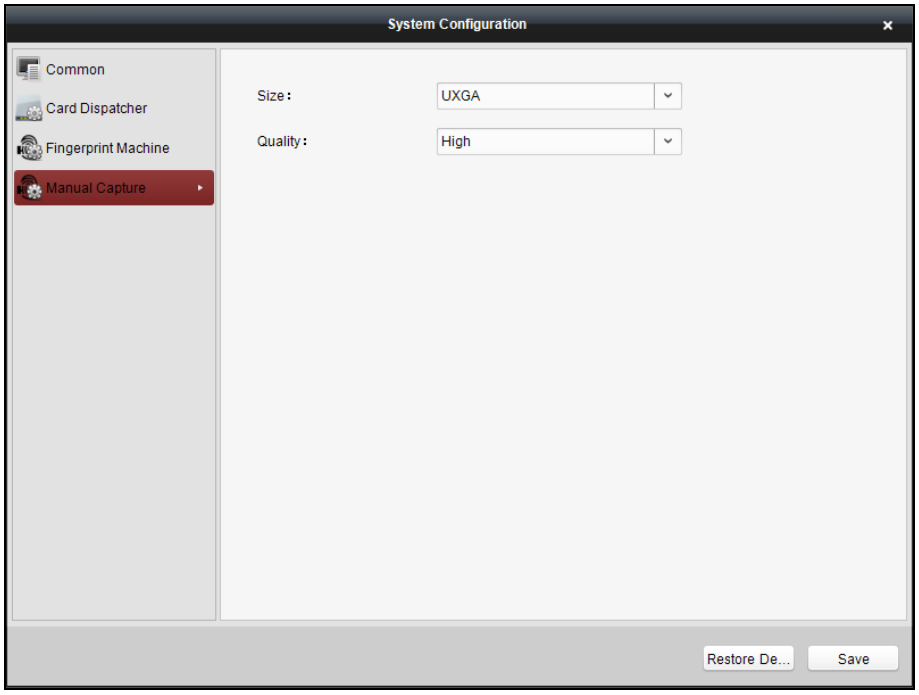
Notes:

- It is supported using device type as Optical Fingerprint Collecting Instrument and Capacitive Fingerprint Collecting Instrument.
- The serial port number should correspond to the serial port number of PC.
- The baud rate should be called according to the external fingerprint card dispatcher. The default value is 19200.
- Overtime refers to the valid fingerprint collecting time. If the user does not input a fingerprint or inputs a fingerprint unsuccessfully, the device will indicate that the fingerprint collecting is over.
- You can click the Restore De... button to restore the defaults of all local settings.

10.2.6 Manual Capture Configuration

Steps:

1. Click **Manual Capture** on the System Configuration interface to open the Manual Capture Configuration page.



2. Select the picture size from the dropdown list
3. Select the picture quality from the dropdown list.

Notes:

- It is supported using the picture size as CIF, QCIF, 4CIF/D1, SVGA, HD720P, VGA, WD1, and AUTO.
- It is supported using the picture quality as High, Medium and Low.

You can click Restore De... (Restore Default Value) to restore all of the local settings the defaults.

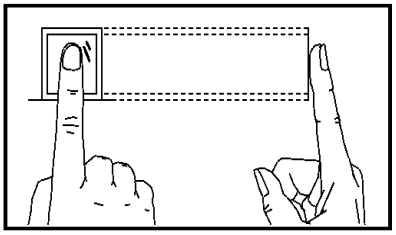
11 Appendix: Tips for Scanning Fingerprint

Recommended Finger

Forefinger, middle finger or the third finger.

Correct Scanning

The figure displayed below is the correct way to scan your finger:

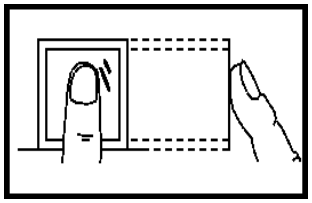


You should press your finger on the scanner horizontally. The center of your scanned finger should align with the scanner center.

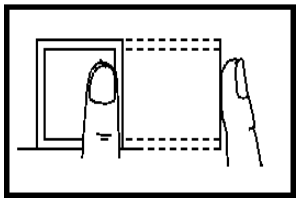
Incorrect Scanning

The figures of scanning fingerprint displayed below are wrong:

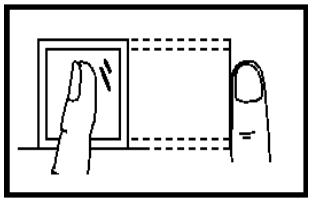
Vertical



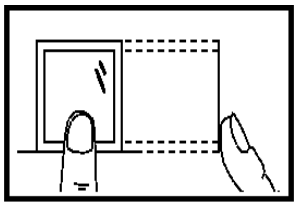
Edge I



Side



Edge II



Environment

The scanner should avoid direct high light, high temperature, humid conditions and rain.

When it is dry, the scanner may not recognize your fingerprint successfully. You can blow your finger and scan again after drying the finger.

Others

If your fingerprint is shallow, or it is hard to scan your fingerprint, we recommend you to use other authentication methods.

If you have injuries on the scanned finger, the scanner may not recognize. You can change another finger and try again.


First Choice for Security Professionals