



 Access Control Software
Manual



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1 Hardware Component

With the deepening of modern office automation application, enterprise internal using of "smart IC card" has become a good way for the scientific management of enterprises and institutions to a new level. Card Access Control Attendance Management System, make staff attendance and access control combined organically, achieve personnel access control, attendance management, automate the process of inquiry to statistics and information; strengthened the internal personnel, financial, and material in an orderly management, eliminate the negative factors in attendance management, access control leaves illegal personnel to reduce interference. It creates a safe and comfortable office environment and a good external image for enterprise.

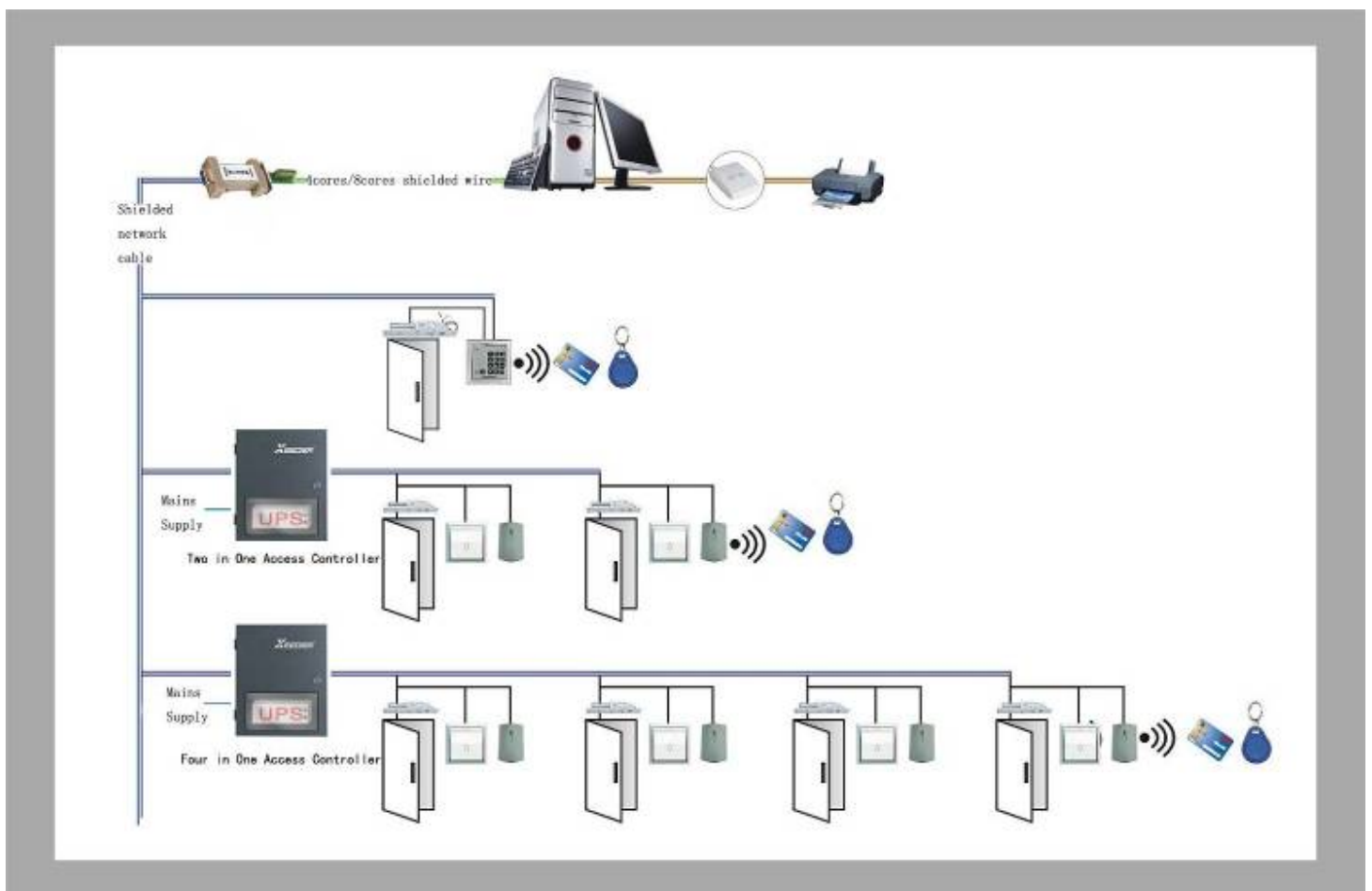
The controller is a high-performance product which is designed for high-end residential, office buildings, banks, enterprises and institutions. From the overall appearance, performance, even the installation of products, all are the embodiment of human nature and specialized design. This is full-featured products, as a result, it can be applied to all areas of need and occasion, can meet different requirements of users.

1.1 System configuration and component

Component	Name	Model	Description
	Two in one Access Control Controller	C3128-TCP	Carry out commands to control access open or close, and memorize the events
	Encoder		Issuing card
	Card reader		Reading card
	Keyboard		Inputting password

	Opening Button		Open the door when press it, usually, it is installed at inside of access.
	Electric Bolt Lock		Mechanical parts of access, powered by controller.

Structure



1.2 Controller performance

Input power: AC220V ± 10%

Temperature of work environment: -15°C--+65°C

Relative humidity of Working: ≤ 95%

Storage temperature: -25°C ± 3°C--+55°C ± 2°C

Communication interface: RJ-45



The largest distance of communication line: 1200 m

The transportation speed of data: 9600 bps

Max quantity of nodes in RS-485 network: 255 nodes

Output of unlocking: DC15V (<5000MA)

Signal time of unlocking can be loaded through software: 1-25s

Capacity of users: 8000 users

Delay of reading and writing: <0.2s

Capacity of records: 25000 records

Card type supporting: A variety of package ID, M1 card

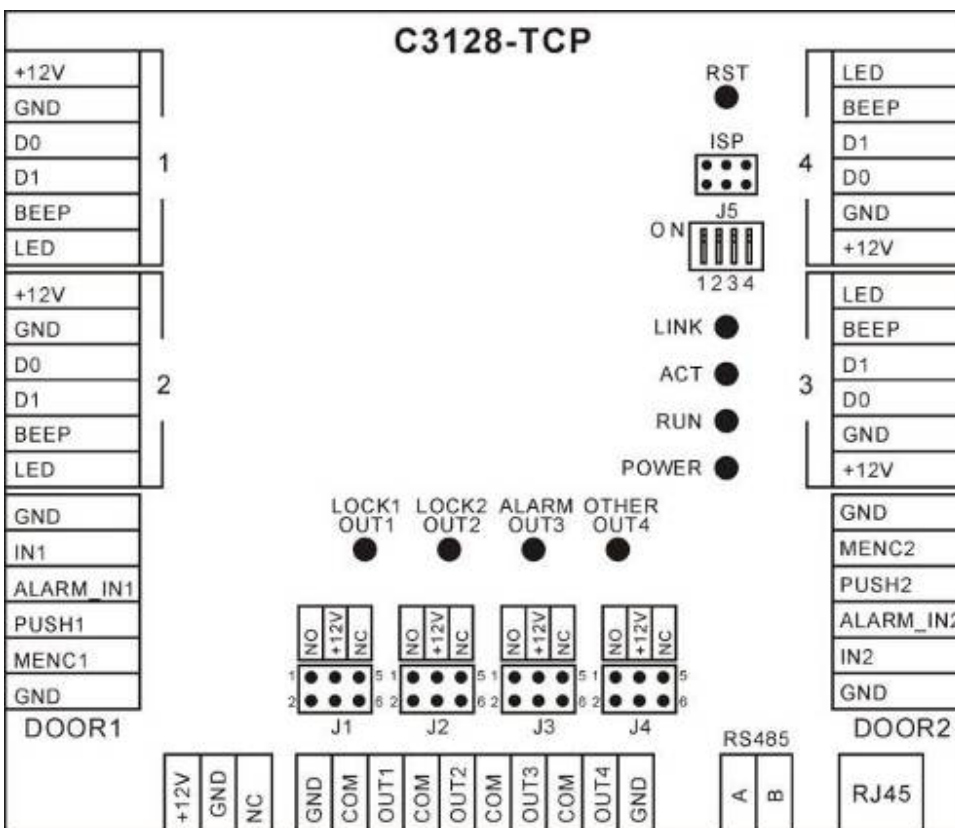
Distance of reading card: 30-60mm

Power TVS surge protection and error of reversing the power positive and negative charges protection.

Relay output: 15V, 3A

Power-down time for data preservation: 10 years

1.3 Description of controller wiring diagram



RST: Hardware reset

ISP: Controller firmware program download port

J1-J4: Relay output setting



If the unlock gets power from master controller, unlock line accesses to the public and GND, that is, the J1 ~ J4 shorted 2, 3, and with other shorted films;

If relay output is powered by external power supply or does not require power to input, this jumper setting is not needed.

If relay input requires to get power supply from the master controller, then setting is as following.

1,2 shorted, relay output with normally open.

That is, normally open is shorted with +12V, this is applied to electronic control lock types, power-lock type.

3,4 shorted, internal +12 V power supply.

That is, host controller provides output +12 V drive voltage to the output, if it is not such shorted, provided by the external voltage.

5,6 shorted, relay output with normally close.

That is, the normally close is shorted with +12V, applied to magnetic power lock, off-power lock type.

J5: Recover machine the factory settings

Normal work switches must be in OFF state.

Dialing code 1 to ON, use the RST reset or power on reset, the setting parameters in machine will return to the state of the factory.

Then dial the code to OFF, use the RST reset or power reset, the default parameters that can be run.

Power input

RS485: A- RS485 communication A B- RS485 communication B

The light of controller:

POWER_LED: light of power supply, always light when powered on,

RUN_LED: light of running, red and blue, when do normal operation, the red light once flashes per second; when reading card, the green light twice flashes.

RXD_LED: light of receiving, yellow, flashes when receiving RS485 signal.

TXD_LED: light of transferring, yellow, flashes when transfer RS485 signal.

OPEN1: light of relay1 output, flashes when do the unlocking operation of door1.

OPEN2: light of relay2 output, flashes when do unlocking operation of door2.

ALARM: light of relay3 output, red light, light when carry out the alarm output, go out when release alarm.

OTHER_OUT: light of realy4 output, red, light when carry out other reserved function.

1.4 Installation and Maintenance of system

Following described with general order of access control system scene installed.

Network Cabling.

Cable is the channel that connects the computer and controller, Access Control System uses the unshielded twisted pair with four-core cable that line-core diameter is same as five twisted-pair calibration, may also use multi-core signal cable with shield. Information exchange between computer and controller has to go through network cable, and information transmission in the network may be have all sorts of interference which cause information transmission errors, read slowly, much worse, even make entire network dead. The cable connection in the arrangement must be done carefully according to certain rules, reduce the impact of interference on the system as much as possible.

In areas prone to lightning strike lightning protection measures must be taken into account.



The following is an effective way to practice:

1. Avoid power cable as much as possible when wiring.(Anti-interference)
2. Avoid the overhead line, high-line when wiring. (Anti-lighting)
3. Use the whole line in root domain as far as possible, do not put together with short-term to reduce the connection point. (Anti-interference).
4. Sub-lines in the interconnection line should be done carefully, particularly the cable shield layer has to be interconnected(anti-interference) and welded firmly, The interconnection rule is that use the same color line as far as possible, each node should be tied up by Insulation adhesive tape after welded. Particularly, attention should be paid to different signal lines can not be short-circuited.
5. Shield lines generally do not take to the ground unless other measures are not working, if network can not be connected in any case, or the system can not work stability, you may consider shield taking to the earth then. But the probability of lightning strikes this system will be greatly increased. So generally can not take shield to the earth.(May be someone do not believe this, but avoiding cause damage to the device, don't try.)

But bearing in mind that if the cable shielding layer of the earth in extreme cases, it only allows that one point is grounded, two points can not be grounded at the same time.

Power supply cabling

If there is no particular difficulty, it is recommended the user cable a independent power cord fabric for access control system all the way, so there is a very important significance in terms of both reliability and easy to manage, and make sure that power lines and communication lines is not too close to each other as much as possible.

Installing of controller

Controller is placed in the ceiling closer to the locks, or hung on the wall inside the room, where is well-ventilated as far as possible. The distance between controller and sensors is best not to over 5 meters, under special circumstances it can be lengthened to 20 m (shielded wire must be used). You'd better to use the power outlet with a switch, it is more convenient to turn off the power if necessary.

Controller is a rectangular aluminum mental box with 178mm * 146mm * 37mm.

Special attention to: Lines, buttons, cable, sensor cable must be used with unshielded twisted pair (four cores) in the first permit conditions, and pay attention to the pairing of the twisted-pair cable when wiring, the general two button lines use of a pair of stranded wire, with particular attention to the wiring for sensor: signal lines and power ground use of a pair of stranded wire, power positive pole wires with any one or two connection of the another pair.

Universal adapter: standard RS232 to RS485 adapter, if the communication distance is too long, can install RS485 repeaters to increase the communication distance.

Installation of Electronic lock

Installation: In the corresponding location, install electric lock in accordance with the instructions and installation drawings.

Definition of electric lock control line: Usually, Electric locking glass doors has more than 5 I/O-lines, but generally only use two of them to power control, and the remaining assistant signal lines help to reflect the state of lock switch, used to monitor, you can leave it out under normal circumstances, but bearing in mind make them insulated with each other.

Generally, red is power positive pole to input, and black is power negative pole to input.



2 Installation

2.1 Access control Server--Xentral

Server PC configuration requirements:

CPU: Pentium II above


EMS: 512M above

Hard disk: 200M spare space

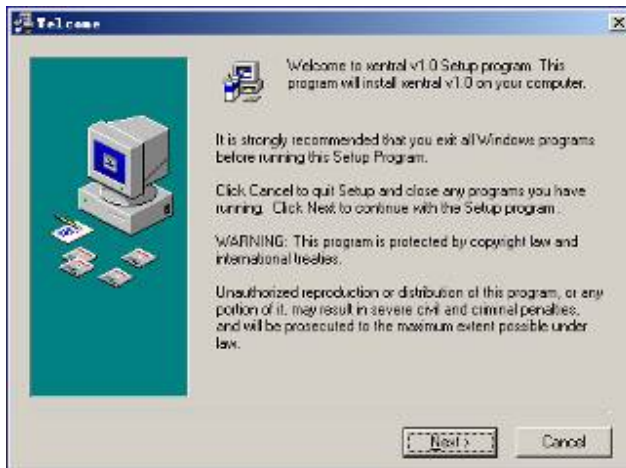
Display: at least 800 X 600 resolution

CD/DVD-ROM: PC own bought

Before installation of xentral, make sure you have installed **SQL server 2000** in your PC, which is a requirement to run the whole access control system.

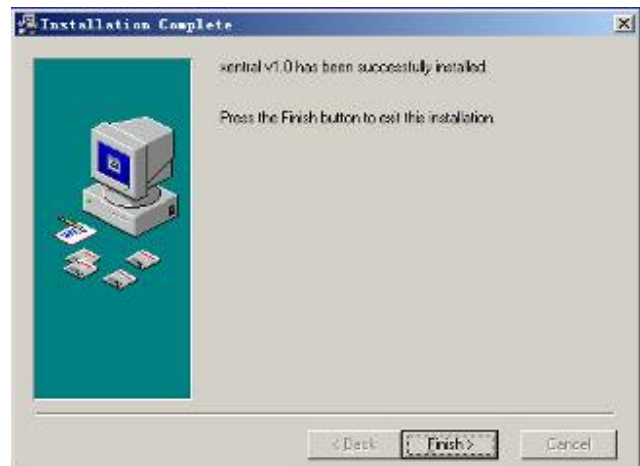
1. Open the CD, double click the icon 

2. Choose a suitable path, and click **Next** to continue



3. Continue


4. Finish



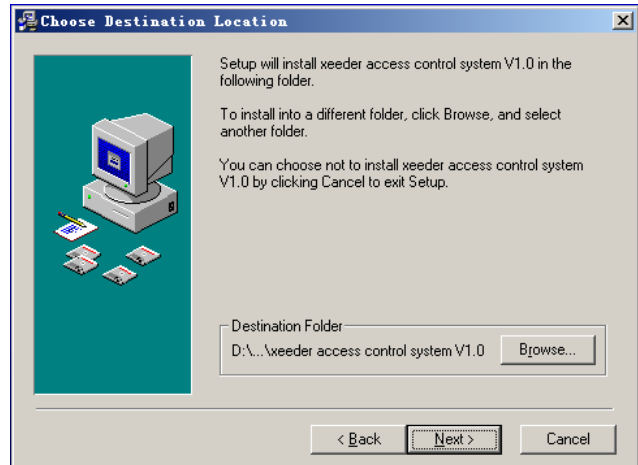
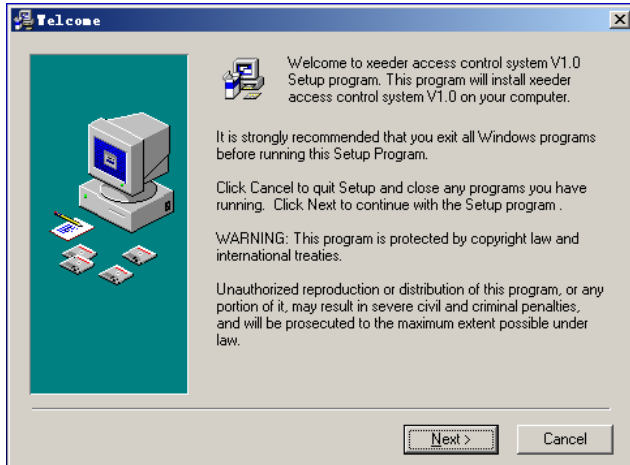


2.2 Access control Client--XAS

XAS is a system window to operate the access control such as setting information, issuing card. Usually, it is installed in a same PC with the server, you can also install it in a independent PC run as client in a same LAN.

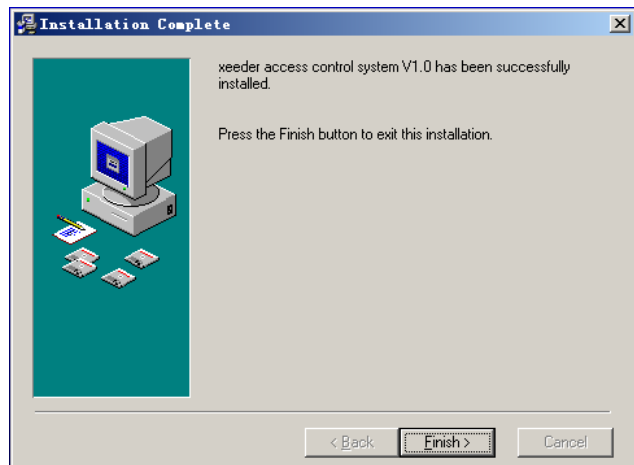
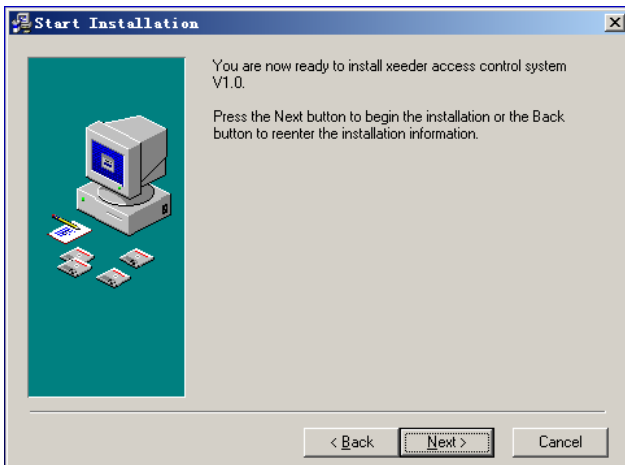
1. Open the CD, double click the icon  to open.

2. Choose a suitable path to continue.



3. Continue

4. Finish

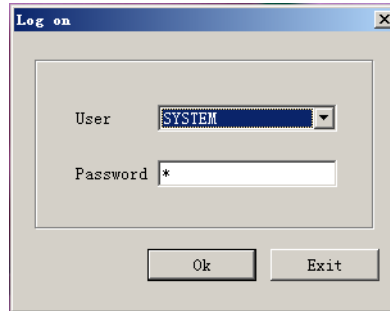




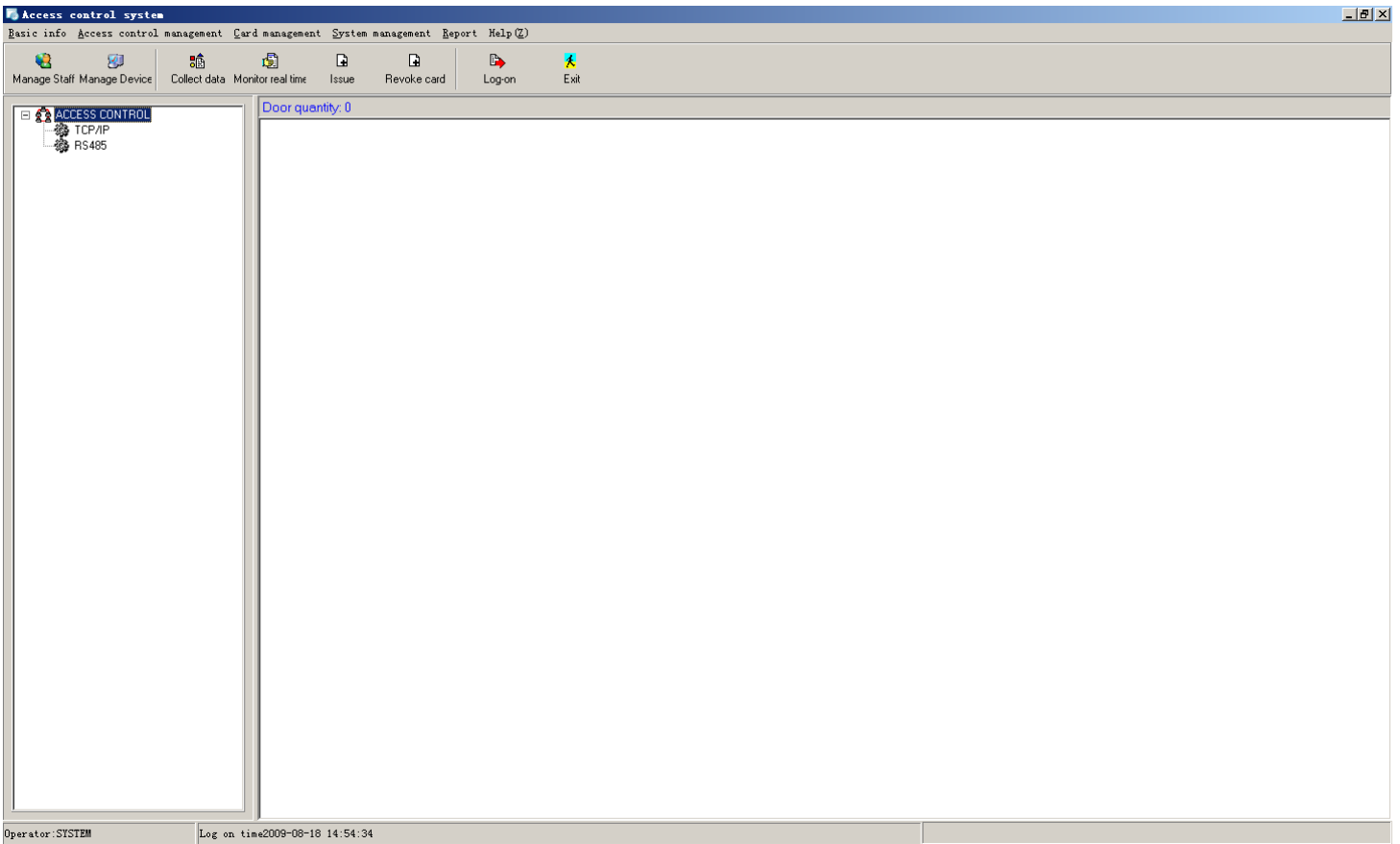
3 Interface

3.1 Logging

Double click the shortcut on desktop , fill in password 0 to log on system.

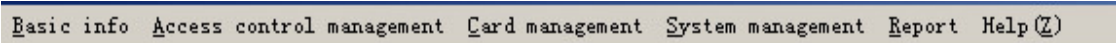


the software system window as following.



Note: Each time before running client software, make sure to start up the Xentral server.

3.2 Menu





Basic info-

Dept. management
Staff management
Sgt basic info
System setting
Close

Dep. management- Add/ edit/delete department information.
Staff management-Add/edit/delete staff's personal information
Set basic info- Choosing card type
System setting-Fill in the server's IP, and company information
Close- Exit the software.

Access control management-

Device management
Initialize device
Set device IP add
Reload card
Monitor real time
Collect data
Time zone management
Holiday management

Device management-Add/edit/delete controller information, and test IP connection.
Initialize device- Recover controller's information to factory status.
Set device IP add- Confirm the controller's IP connection status is *ok* or *failed*
Reload card- Download card NO. into the controller
Monitor real time- Monitor the events of reading card and door's status through computer.
Collect data-Collect data about reading card/unlocking door and other events.
Time zone management- Set different department working time and valid time period of card
Holiday management- Set one or several days as holiday, and during this period, door is locked, reading card is invalid.

Card management-

Issue card
Batch issue card
Revoke card
Loss-report
Unloss-report
Change card

Issue card- Issue a card can unlock appointed door.
Batch issue card- Quickly issue batch card.
Revoke card- Clear a card content and make it into a blank card.
Loss-report- When a card has been lost, make it invalid.
Unloss-report- If a loss-reported card is been fund, you can recover it to be valid again.
Change card- Issue a new card to replace the loss-reported.

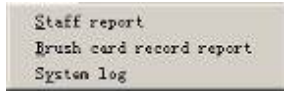
System management-

Operator management
Change password
Popedom management
Language option

Operator management- Add/delete operator, and set password and right level
Change password- Change current user's password
Popedom management-Set user's operation right.
Language option- Switch language type.

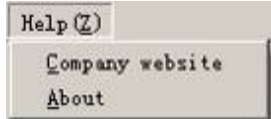


Report-



Staff report- Record information of issued staff card
Brush card record report- Collect reading card record
System log- Collect record of logging the software system

Help-



Company website- Enter into xeeder website
About- See the help file

3.3 Shortcut



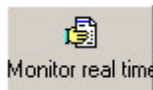
Manage staff personal information, same function as staff management



Manage controller information, same function as device management.



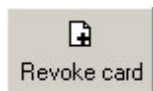
Collect reading card events and unlocking events.



Real time monitor door's reading and unlocking events.



Issue a card can open certain door.



Make a card blank.



4 Instructions

4.1 Initialization

4.1.1 System setting

Basic info->**System setting**, fill in the server's IP (the IP of PC which installed with **Xentral server**) to connect to the server. And **Company info** is to fill in your company name and telephone, the default is information of Xeeder.

System setting dialog box, Connect setting tab. The Server IP field contains 127.0.0.1. A message at the bottom reads "Please set right server IP add".

System setting dialog box, Company info tab. The Name field contains "Xeeder Technology Co., Ltd. Shenzhen" and the Tel field contains "075588888888".

Click **ok** and close it.

4.1.2 Dept. management

Add/delete/edit department information in your company, **System setting**-> **Dept management**.

Dept. management dialog box, Edit dept. tab. The Dept. name field contains "sales".


Dept. management dialog box, Main tab. A table lists departments:

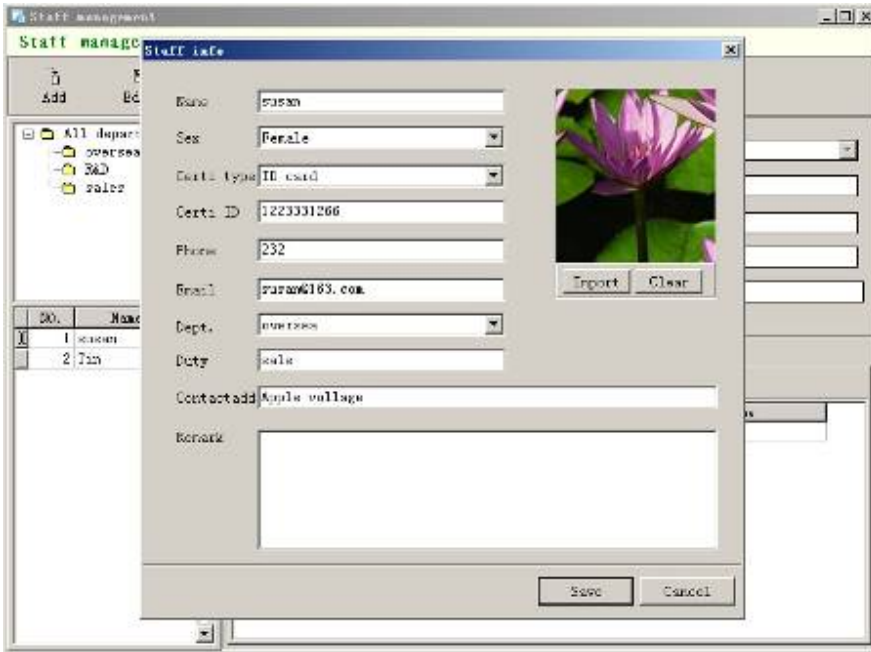
No.	Dept. name
1	oversea
2	R&D
3	sales

Total: 3

Input department name and **save** it, can be edit again each time if you want.

4.1.3 Staff management

Add staff's personal information to department, **System setting**->**Staff management** or click  Then you can see all the departments you have set before, and select one to add staff, such as oversea.



Add- Add new staff and information.

Edit- Select one staff to Edit the information.

Search- Input staff's name and department to check the information.

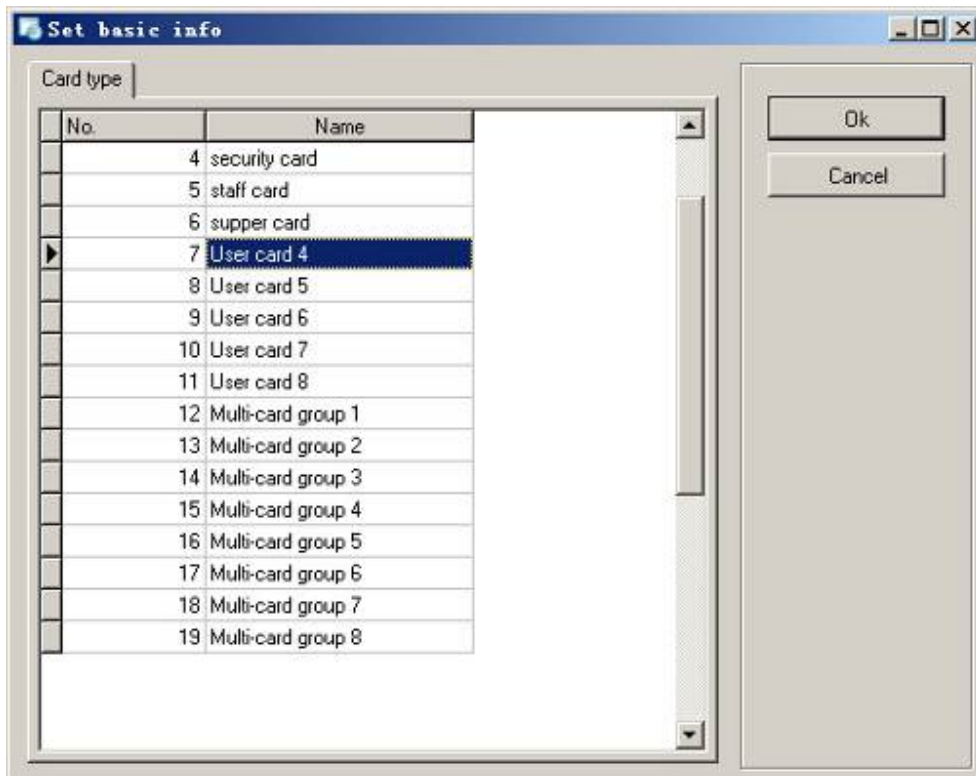


Close- close this window.

Fill in staff's **name, sex, Identity Card No.**, which department he is belong to, and so on. And you can import staff's personal photo. Finish and save, add next.

4.1.4 Set basic info.

System setting->Set basic info. It is used to modify card type, such as security card/staff card/supper card Here you modify them, information in issue card will update synchronously.

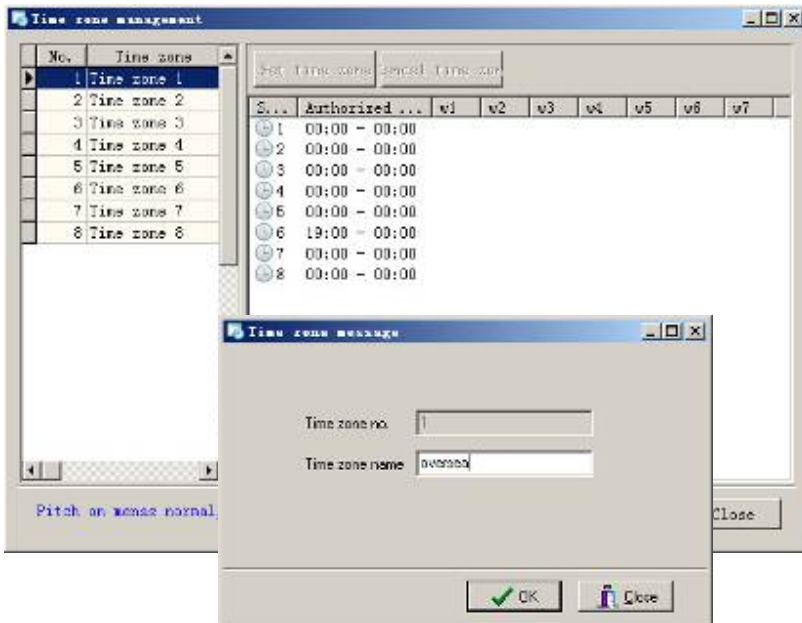


4.1.5 Time zone management

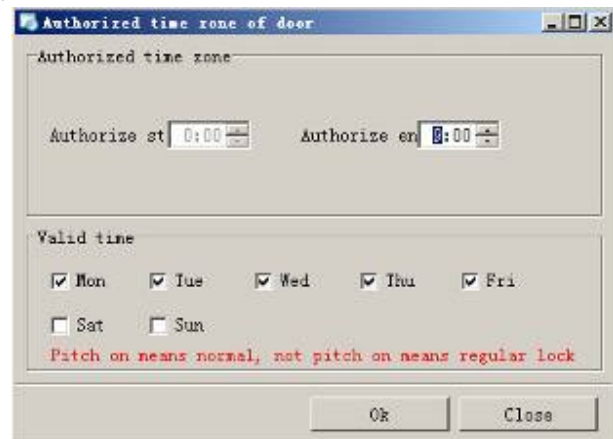
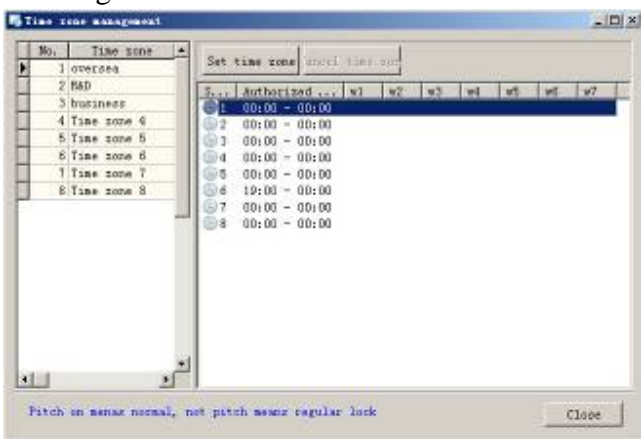
It is used to set card's valid period. Usually, different department has different work date and work time, company can use this function to make card for staff to manage easily. Just in authorized period, reading card can unlock door, if in any other unauthorized time, reading card is invalid.

Access control management-> Time zone management. There are 8 time zones(8 departments), and each zone can be defined 8 time periods, that is one day can be set into 8 periods, you can define according to actual situation.

1. Select a Time zone, double click it, you can modify its name, such as oversea, R&D...



2. Select time period ,double click it to choose the first valid time: **Mon, Tue,** E.G. Oversea Dept. work start time is 9:00AM from Monday to Friday, so fill in time 9:00 and choose **Mon to Sat**. But from 9:00Am to 12:00AM oversea staffs can not open the door, so don't select **valid time**. That is to say, from 0:00AM to 9:00AM, reading card is valid. Click ok and close . Then set next.

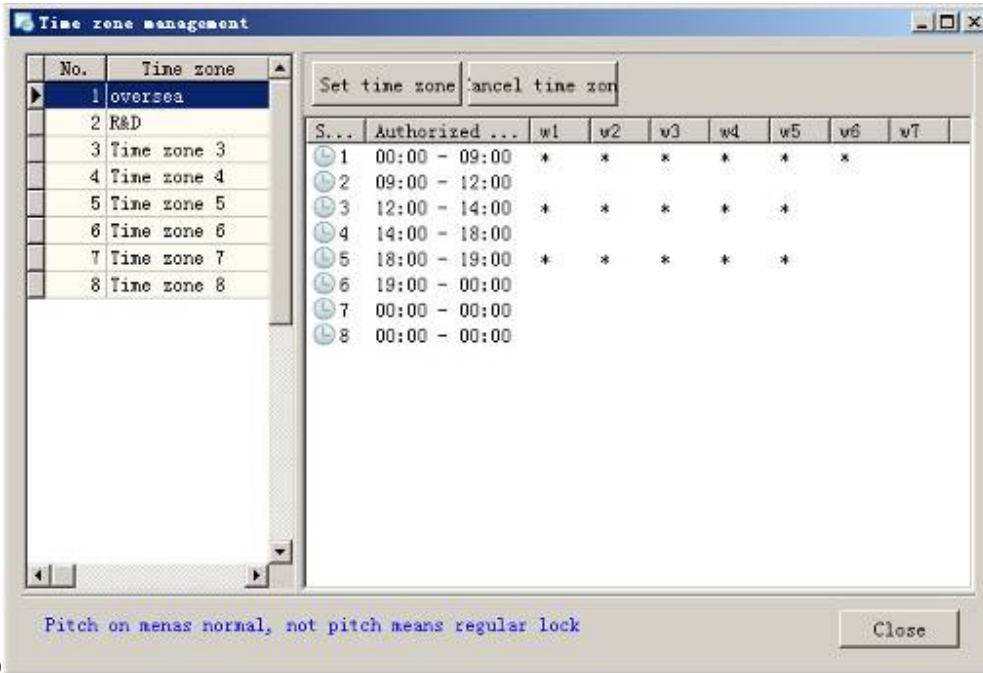


Authorized time zone- Invalid time in a day, authorize end time is set by company.

Valid time- In a week, on which days the Authorized time zone is valid.



Because on Saturday, staffs only on duty from **9:00 to 12:00 AM**, period in the afternoon is off work, so in period of **12:00-14:00,14:00-18:00,18:00-19:00**, not select Saturday. During **0:00 to 9:00 AM from Mon to Sat, 12:00 to 14:00, 18:00 to 19:00 from Mon to Fri**, reading card can open the door, but in other periods reading card is invalid.

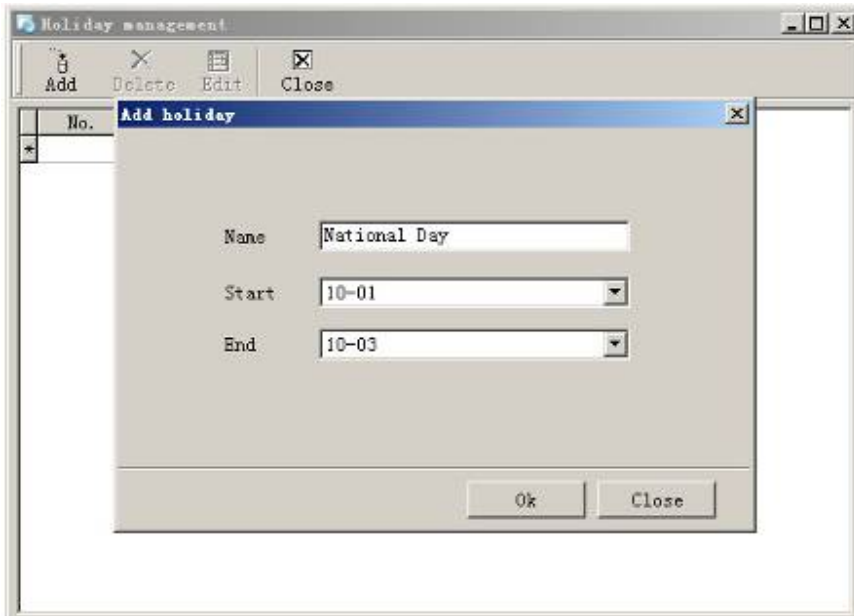


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4.1.6 Holiday management

You can define one day or several days as holiday, in holiday, access control is locked, reading card is invalid.

Access control management-> Holiday management



Input holiday name, start date and end date, click ok to save and add next. Also, you can edit and delete.

4.1.7 Device management

Device management is used to add controller and set IP, and download all setting parameters to controller, make the controller connect with computer.

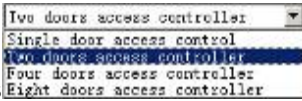


Access control management->Device management, or click shortcut , then add.

1.Basic info.

Device name-Input controller name, usually, it is access controller name.

MAC- Fill in the access controller's MAC address which is one and only.

Device type- Select controller's type, there are 4 types , you should choose the second one, that is this controller can control 2 doors.

Message mode- There are 2 mode to communicate , this controller is TCP/IP.

IP add: The controller is TCP/IP mode, so all controllers need an IP address for communication. Add a IP for the controller, it is unique as MAC. E.G. My PC'IP which is stalled in system software is **192.168.1.5**, then I can add IP **192.168.1.X** (X is one figure from 1 to 254)

Run two doors lock- Selected, two doors in controller can not be unlocked at a same time, any time only one of them can be unlocked.

Door state is unlocking when alarm- In special condition, door will alarm, but it is unlocking status.

Run anti-open- Reading card to open the door is valid only one time, if you read card to get in, when you go out, you should read card again.

Device password

It is used at keyboard which need to enter password to open door.

Supper password: The high level password, usually, it is set for manager and supervisor



Universal password: Common staff use to open the door

Intimidate password: When enter this password, the door will alarm.

Save data mode

Record full will cover- if records in controller has been full, it will be covered by the new.

Record full will alarm- When records is full, controller will alarm until you deal with it.

2. Door info.

Door number	Door name	Unlock delay	Check door magnetism status
1	Back door	4	<input type="checkbox"/>
2	Front door	4	<input checked="" type="checkbox"/>

There are two doors: **door1**, **door2**. You can define their name such as **Front door**, **Back door**.

Check door magnetism status- If selected, the controller will check it automatically.

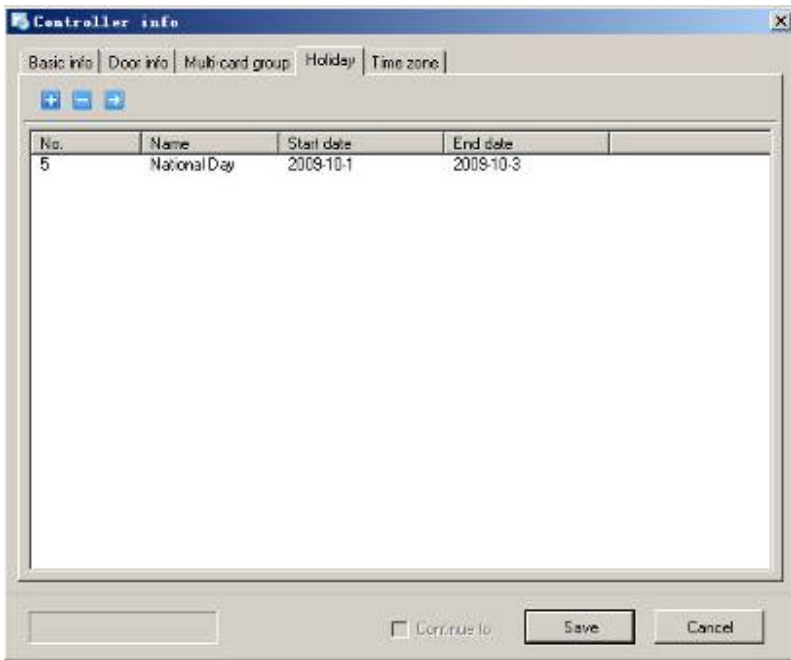
Save it.

3. Multi-card group. Used to set time of Multi-card group unlocking time.

Number	Name	Unlock cards quantity
1	Multi-card group1	0
2	Multi-card group2	0
3	Multi-card group3	0
4	Multi-card group4	0
5	Multi-card group5	0
6	Multi-card group6	0
7	Multi-card group7	0
8	Multi-card group8	0

4. Holiday

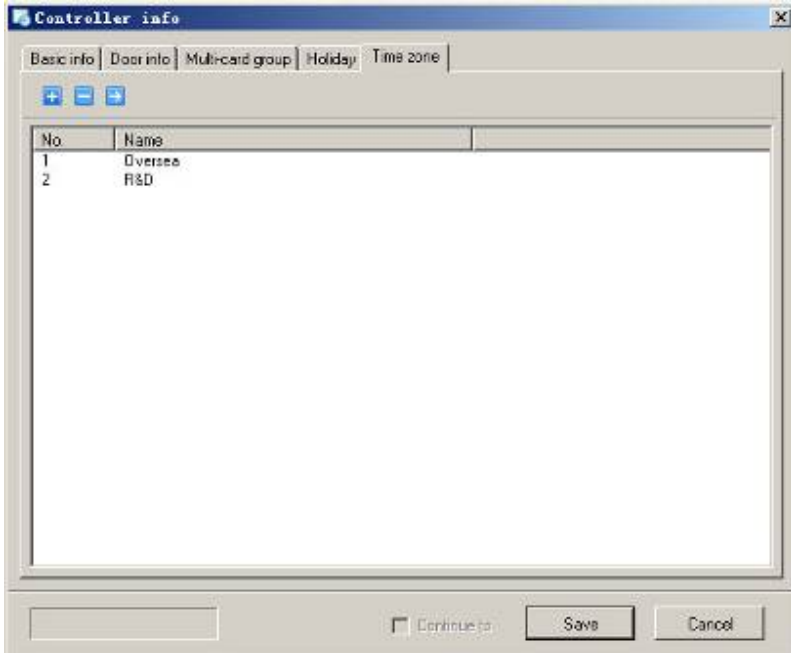
Add holidays we set before to the controller.



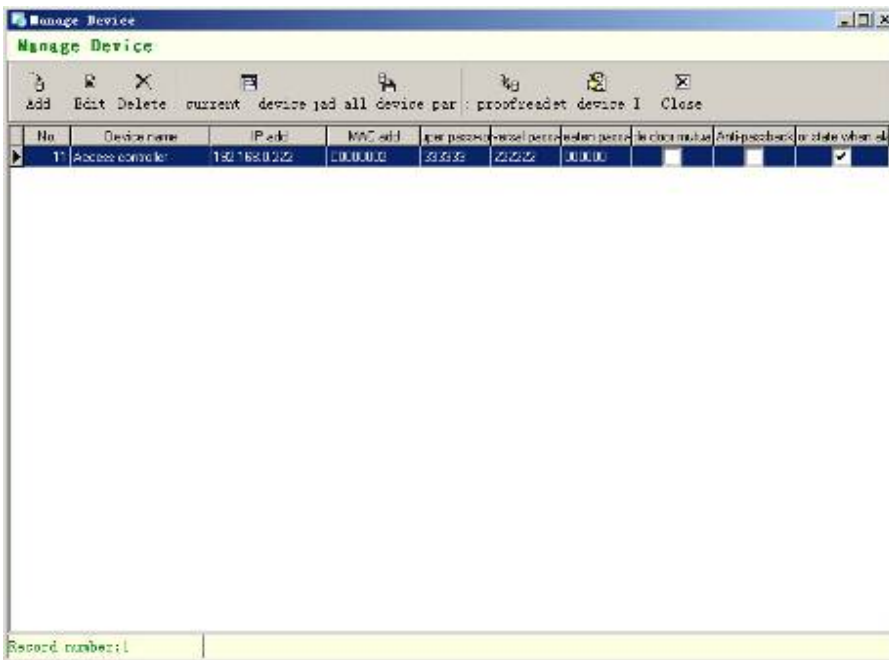
Click “+” to add holiday we set before and save.

5. Time zone

Same as Holiday, add invalid time zone to controller. Save it.



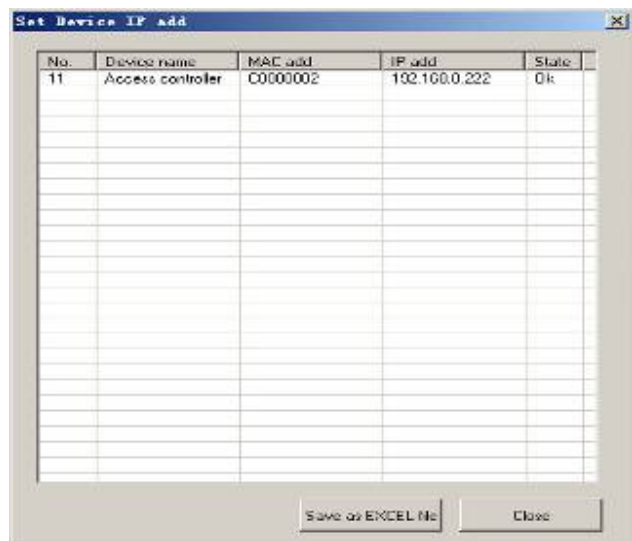
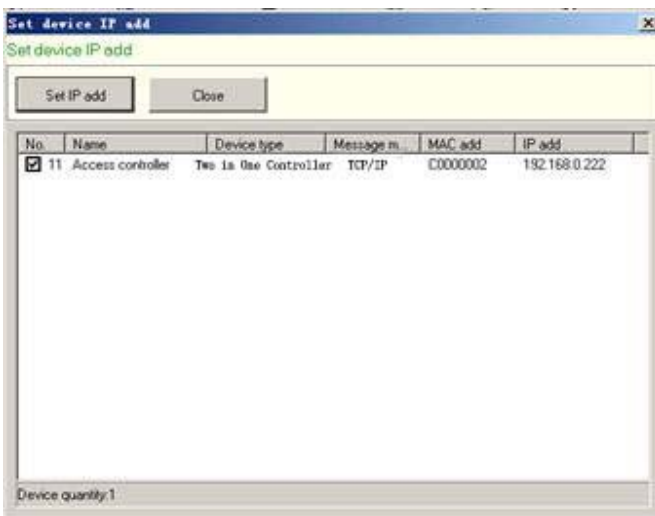
6. All information needed to fill in has been finished. Now turn back to the first window.



Testing proof and read clock- Test and make the clock in controller to keep pace with computer



Set device IP- Check the connection state. Select controller and *Set IP add*. If state is ok, it will beep.

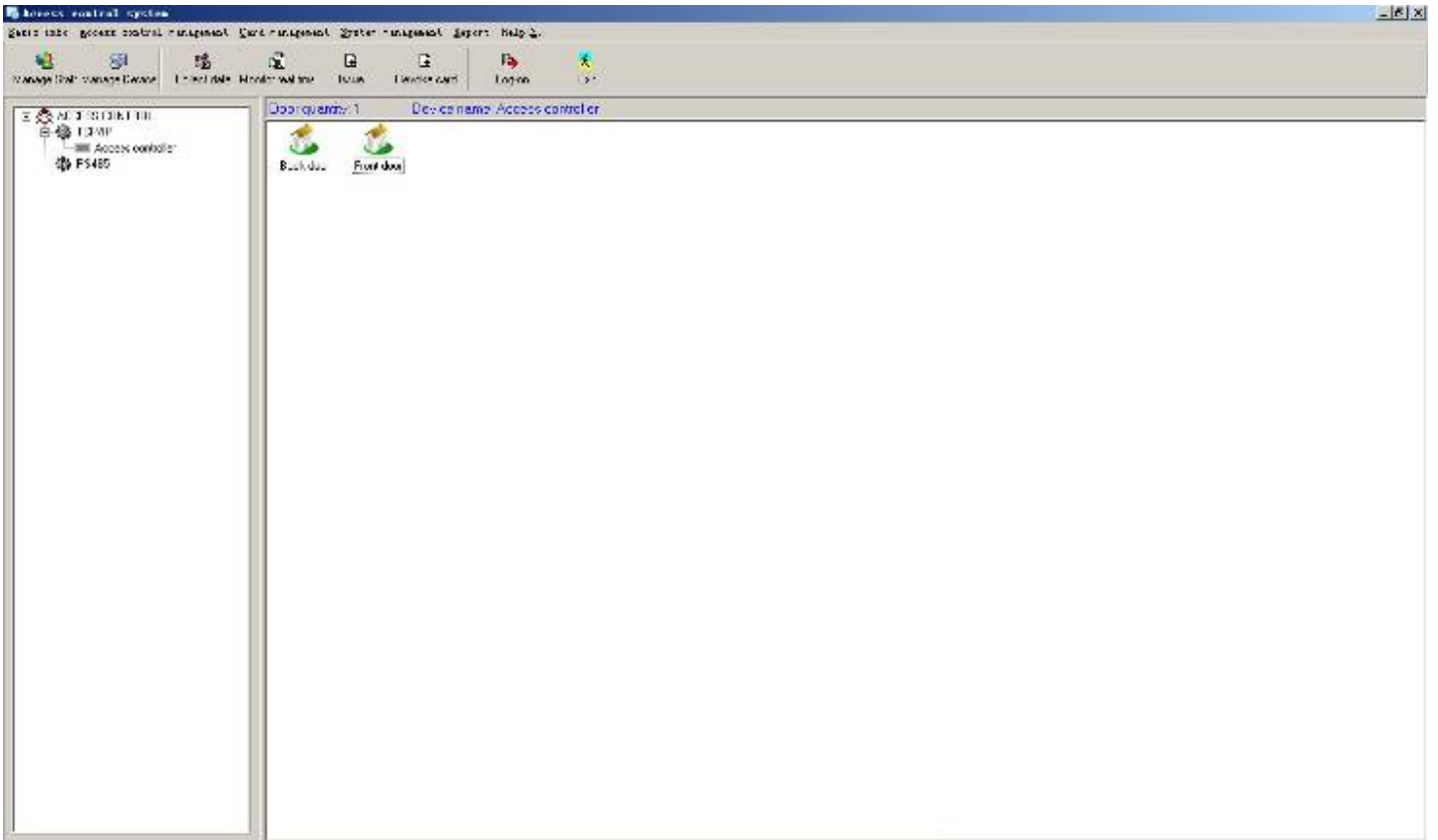


Download current device parameter- Down load all setting information to current controller when the connection is successful.

Download all device parameter- Down load all setting information to all controllers (when there are several controllers in the system)

Note: Just after downloading parameter to the controller, all the settings will be in effect. Make sure once you modify any of information, please do that.

Then there are 2 doors in the window:



Choose a door and right click



Unlock-Open the door by computer, same function as reading a card.
 Passage door- Open the door and make it into passage model, which is the door always keep open status .
 Cancel passage- Cancel passage model, the door will be locked again, return back to normal.
 Regular lock- Make the door always in locked status, reading card and pressing button is invalid .
 Cancel regular lock- Cancel locked status, return to normal.
 Alarm unlock- Unlock the door by computer with the alarm
 Cancel alarm unlock- return to the status before.

Big icon:



Small icon:



List:



Exact list:

Door name	Unlock delay	Controller
Back door	4 s	Access controller
Front door	4 s	Access controller

4.2 Card management

4.2.1 Issue card

Card management->Issue card, or shortcut



1. All departments is in the filter, you can select dept. to search staff easily. Such as **oversea**.

2. Select one staff, then his personal information and door using state will show. If you have issued a card to him, he state is **using**, so can't issue again unless revoke the old card.

3. Click to add authorized door, also can it.

4. Click to read card NO. Select Unlock mode **Single card unlock** and card type

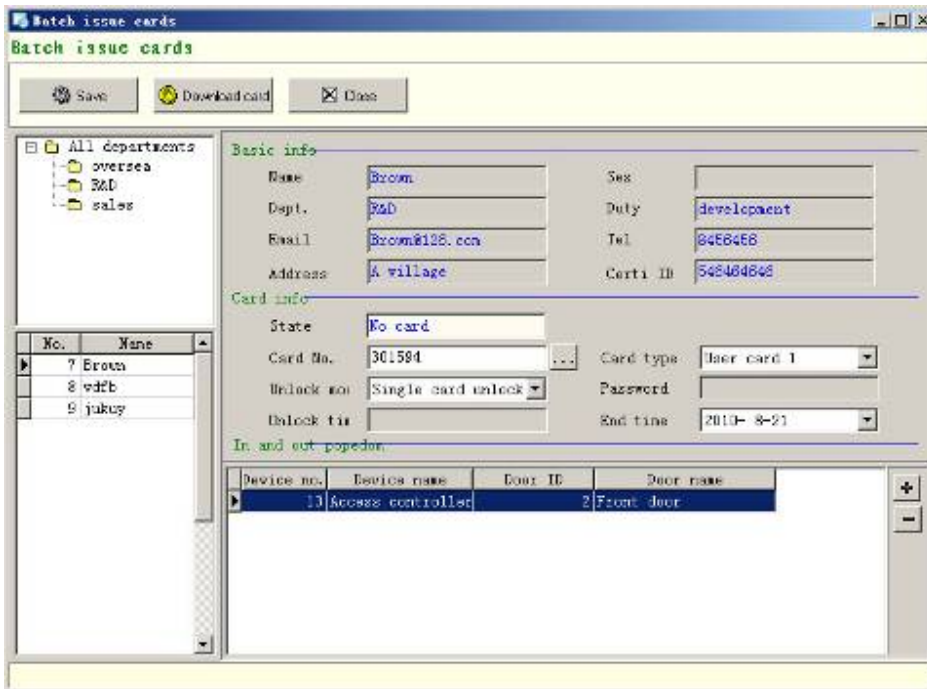
- User card 1
- User card 2
- User card 3
- User card 4
- User card 5
- User card 6
- User card 7
- User card 8

If you select card add password unlock, staff should enter password and reading card to open door.

5. Issue card **Issuing card finish**.

4.2.2 Batch issue card

Card management->Batch issue card. This function helps you to quickly issue batch cards.



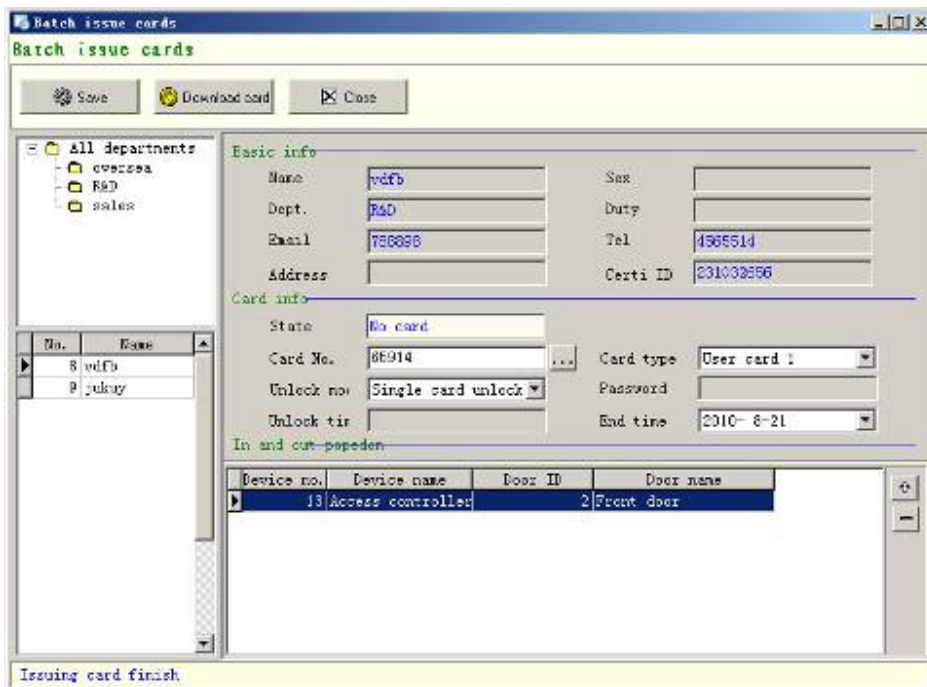
1. Issue card to all staffs that belong to a same dept., such as R&D, select it, then all staffs show in the filter.

2. From the first Brown on, add doors and read card NO., click save, then Download card. After that issuing one card finish.

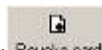
C0000002 Issuing card ok

Issuing card finish

3. The next. Pay attention to that staff name which has been issued card will not show in the filter, but automatically jump to next, so you no need to select, do it as normal.



4.2.3 Revoke card



Card management -> Revoke card. Or click shortcut **Revoke card**. Verify card content and make card blank.

No need to Place the card on encoder, click **verify** to check its content, **revoke** it. If you have the appointed card but you want to terminate its function, no need to place the card on encoder. Then select dept. and staff name, revoking is ok, the card will be blank when read next time.



Dept. Staff name

Personal info
Name Duty
Dept. Tel

Card info
State
Card No. Card type
Unlock mod Password
Unlock tin End date

Dept. Staff name

Personal info
Name Duty
Dept. Tel

Card info
State
Card No. Card type
Unlock mod Password
Unlock tin End date

Note: Any time if there is information to warn you that the card is not blank when issue card, you should revoke the card firstly. All the revoking and loss-reporting can be done without cards.

4.2.4 Loss-Report

Card management-> Loss-Report. When a card is lost or can not be found, you can use this function to loss-report. Select holder's name and click **Loss-report**.

Loss-report

All departments
- overseas
- R&D
- sales

No.	Name
5	susan

Basic info
Name Sex
Dept. Duty
Email Tel
Address Certi ID

Card info
State
Card No. Card type
Unlock mode Password
Unlock times End date

In and out popedon

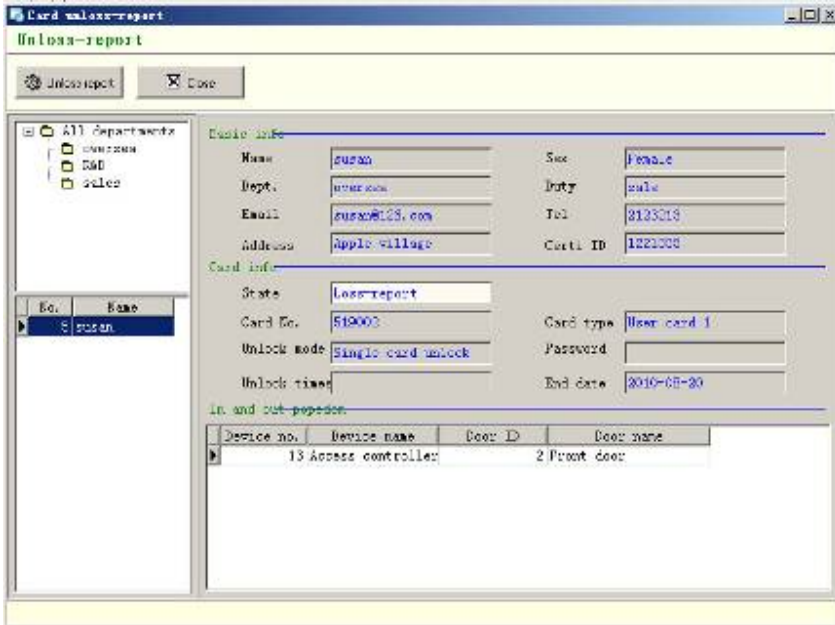
Device no.	Device name	Door ID	Door name
13	Access controller	2	Front door

Note: If you want to issue a new card for the staff, make sure the loss-reported card has been revoked by using Revoke function, otherwise, can not issue again.



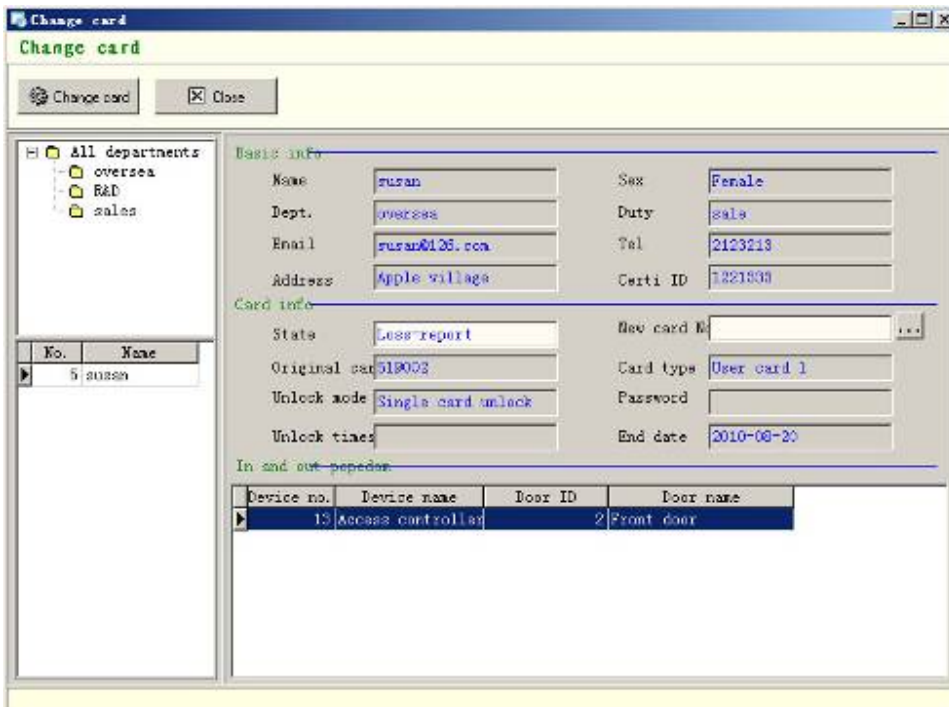
4.2.5 Unloss-Report

Card management-> Unloss-Report. If the loss-reported card has been found, then you can recover its function. As the loss-report, no need to place the card on encoder, can Unloss-Report directly, the card can open the door again.



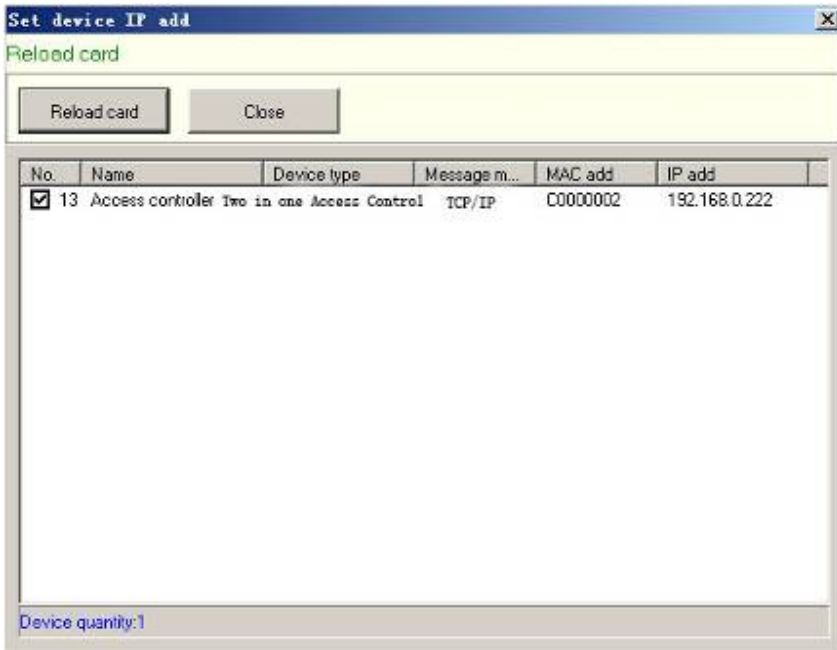
4.2.6 Card change

Card management-> Card change, if the holder's card has been loss-reported, you can use this function to issue a new card to him.



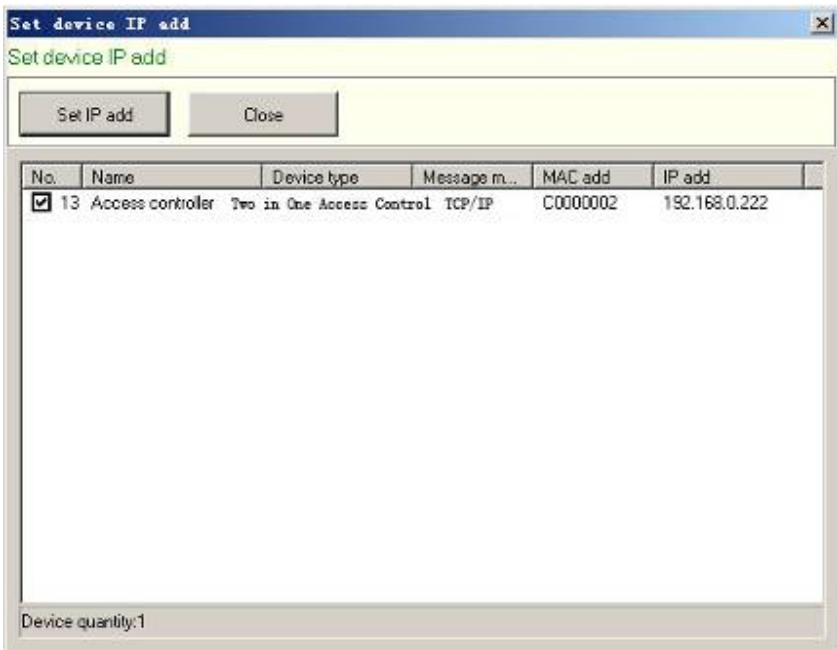
4.2.7 Reload card

Card management-> Reload card



4.2.8 Set IP add

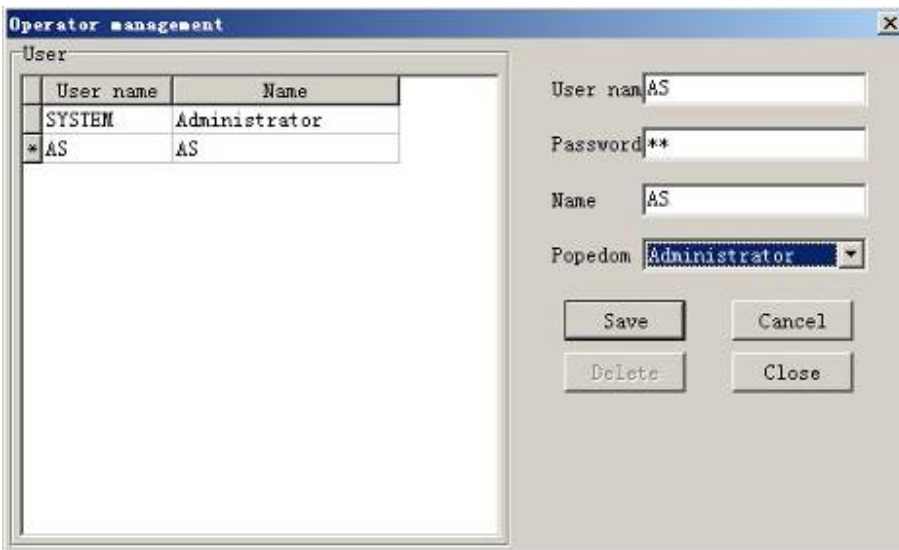
Card management-> Set IP add. If you have changed controller's IP, please set IP again.



4.3 System management

4.3.1 Operator management

System management-> Operator management. Add new operator to system.





Then you can change you password any time System management-> Change password.



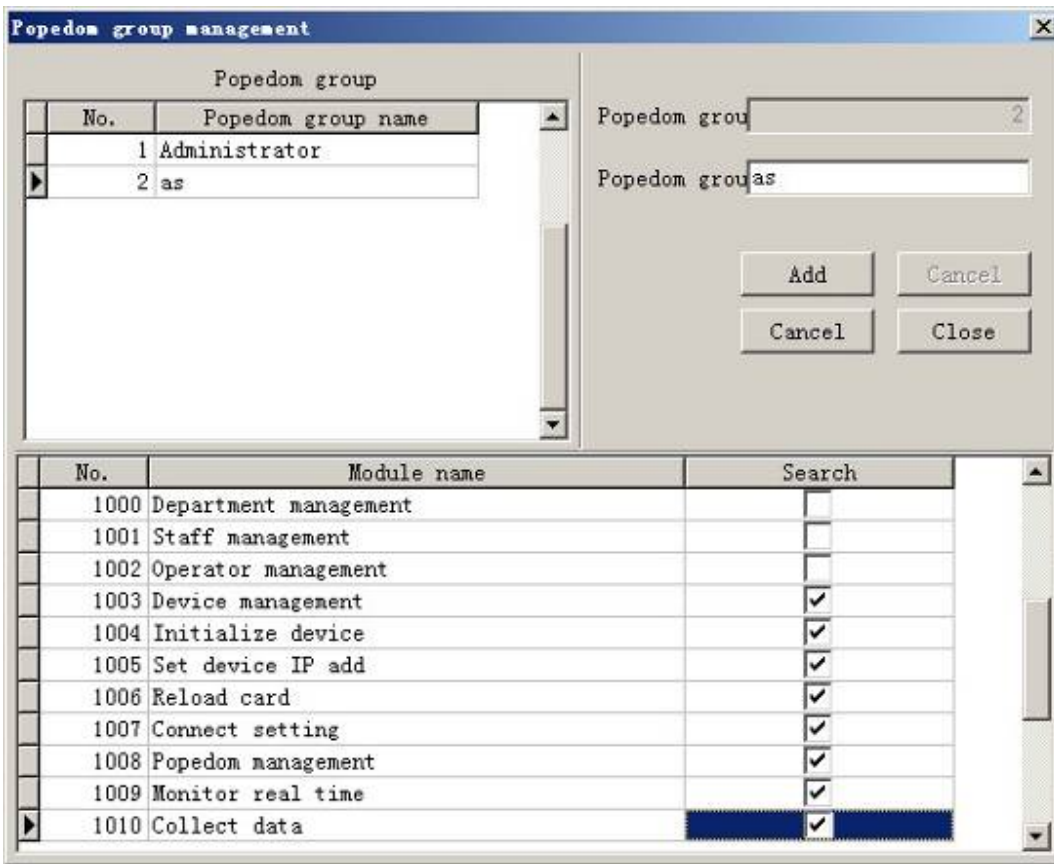
Click ok to save.



If you want to switch operator, use shortcut . Then current operator will appear at the bottom of the window. 

4.3.2 Popedom management

System management-> Popedom management. Set different operating rights for different operator. When operator logs in system, he just can do authorized operations, the unauthorized is invalid.

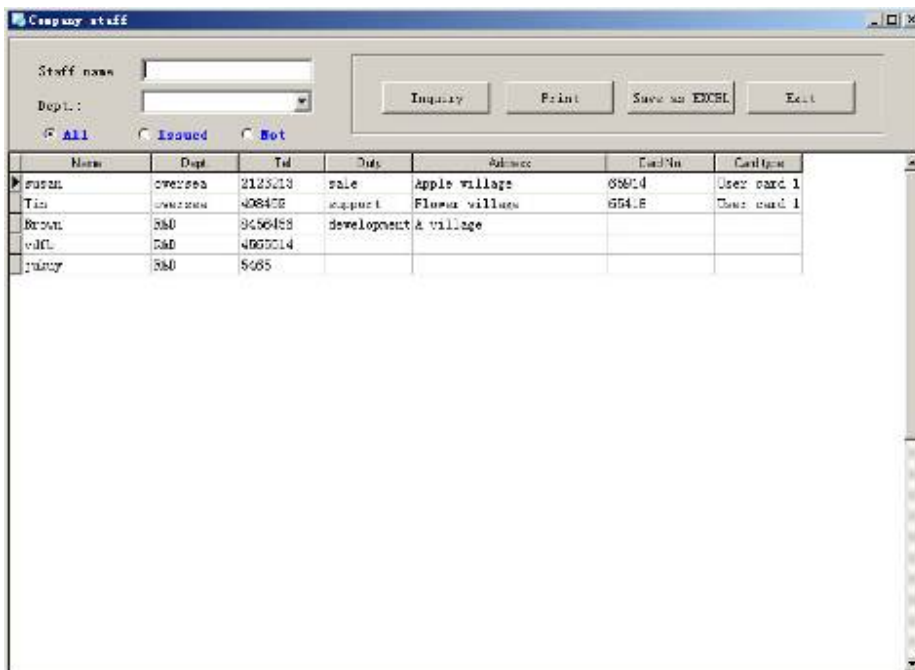


Language option: Switch language type.

4.4 report

This is to collect all issuing records and logging records.

1. Report->Staff report.



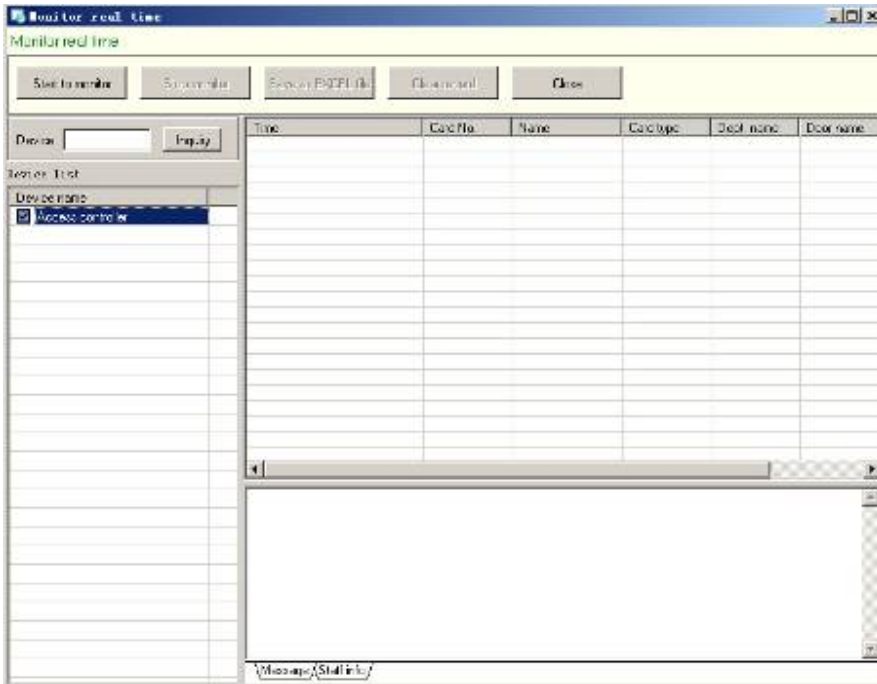
Inquire about staffs' issuing card records, you can input staff name and select Dept. to inquiry.



4.5 Lock events

4.5.1 Monitor real time

Access controller management-> Monitor real time. This is used to monitor the reading card events and unlocking events, if you start up this function, all records will show on the window from that on. And they can be saved as excel or printed.



4.5.2 Collect data

Access controller management-> Collect data. Choose controllers which you want to and select a period to collect reading card events.

