

## **Induction IC Card Office Access & Attendance Management System**

Attached: Attendance Management, Fixed Dining Management, Online Patrol Management, Meeting attendance management, Anti-theft alarm Card Module.

### **Program Plan**

Company : Epordo

Maked date: 2009.11.2

Program Name: Office Access & Attendance IC Card System

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## Chapter 1 Program proposed

*Endless sales personnel disturb your normal working order.*

*Staffs leave their posts without permission on working hours.*

*Unauthorized persons break into your office.*

*Unidentified people go into your office and walk off with important documents from your desktop.*

*Too many the company's doors, you have to bring heavy keys.*

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*Unauthorized person use places such as multi-functional conference room.*

*Unauthorized person enter important areas such as financial room.*

*And so on ... ..*

Whether you are beset by daily tedious administration affairs? *Intelligent induction IC card access control management system* can help you solve some trivial problems in routine office, and improve work efficiency, improve the working environment for you and your colleagues to work and life in safer, more orderly environment.

## Chapter 2 System overview, design principles and basis

### 2.1 System Overview

With the vigorous development of high technology, intelligent management has entered the people's social life, many intelligent building blocks erected to meet the needs of information times. As buildings and office environment for cross-century use, must be functionally to meet current and future development needs, and become cultural and economic development base.

Induction IC card access manage and control system (access control system for short), with the multiple function such as portal access control, real-time monitoring, security burglar alarm. It is mainly to facilitate internal staff to access, and preclude outside personnel to access casually. This brings convenience for the internal management and provide users with an efficient and cost-effective working environment .

It realized functions of communications automation (CA), office automation (OA) and management automation (BA). It has fully realized integrated management for communication system, office automation system, based on integrated cabling system and a computer network as a bridge.

As an advanced high-tech technology prevention and management tools, access control system, has already widely used in some developed countries and regions for scientific research, industry, museums, hotels, shopping malls, health care, banks, prisons, etc., especially because the system itself owns characteristics of elusive, timeliness and so on, it is used more and more widely in many applications of many fields.

### 2.2 Design Principles

Because of the need for security and efficient management, access control system design should follow the following principles:

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### **System's Utility**

Function of the Access control system should meet the actual needs, but not flashy. If one-sided pursuit of the system's advancement, that will inevitably cause the investment is too large, too much deviation from the actual needs. Therefore, the system's utility is the first principle to be followed firstly. At the same time, both of the system's front-end products and system software own the good learnability and operability. In particular, operability (convenience) makes the managers with primary operational level of the computer to master the essentials of system with simple training operation, to meet the operational level to complete the duty.

### **System's Stability**

As the access control system is the system of ongoing long-term work and closely related with our normal life, so stability of the system is very important. Require that the product system has over five years' experience in the successful application of the market and with the corresponding customer base and customer service system.

### **System security**

All the equipment and accessories in access control system should be in line with China or the relevant international safety standards and work effectively in non-ideal environment when their performance is safe and works reliably. Powerful real-time monitoring capabilities and linkage alarm function fully guarantee the security of the using environment.

### **System expandability**

Technology of the access control system moves forward and demand of the user is also changing, therefore the design and implementation of access control system should take into account the actual expandable needs of the future, namely: flexible to change or update the various sub-systems to meet the need in different time, to maintain a leading position for a long time to become the model of intelligent building. When system had been designed, functions needed to realize were allocated rationally, and this configuration can be changed, even after the completion of the projects, changing the configuration is also possible and convenient. System software makes the appropriate upgrades and improvement according to developers' market demand in different historical periods, and upgrade software for the corresponding application customers. At the same time, the system can be extended to attendance system, conference attendance systems, patrol management system, dining management system and other card projects.

### **System maintainability**

The maintenance during operation of the Access Control System should be simple and easy to do. There is no need use of too many special maintenance tools in the maintenance of the process. From the computer's configuration to the system's configuration, configuration of the front-end equipments has taken fully careful consideration to the system reliability, and implemented corresponding certification. When we increased the rate of system failure to be lowest, we also take into account even due to unexpected reasons, the problem occurs, we have to ensure the data is easy to save and quick recovery data, also ensure that the channel can be opened quickly in emergency. Maintenance of the entire system is on-line, and system will not cease all equipments' normal operation because of maintenance of some equipments.

### **Advanced**

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When ensuring the premise of the stability, practicality and convenience, access control products should have a certain advancement to ensure that in the next few years, system will not be eliminated, and to meet the requirements and needs in use of access control.

## 2.3 The main design basis and specifications

1." International integrated cabling standard"	ISO/IEC11801
2. "Civil electrical design specifications"	JGJ / T 16-92
3. "The People's Republic of China security precautions industry standard "	GA/T74-94
4. "The People's Republic of China public security, industry-standard"	GA/T70-94
5. "Monitoring systems engineering technical specifications"	GB/50198-94

## 2.4 Dept name recommended

Department recommended to use Induction IC Card Access Control System function:

Company gate, finance room, chairman, president, vice president office, reference room, Development Department, warehouses, plant rooms, etc.

The other department according to the need to use induction IC card access control system:

Administrative department, engineering, human resources, sales department, planning department, etc.

## Chapter 3 Identification model, function and feature of brand products the program recommended

### 3.1 Identification Model

**Mode 1:** *one-way induction (Card Reader + Controller + button + electric lock)*

User outside produces the proximity card authorized, the controller will drive and open the electric lock after identification by the card reader successfully. System will also record the time of entering the door. Press the open button to open the electric lock and be out directly.

It is suitable for environment with general security level to prevent outside person enter the door illegally. It is the most common management model.

**Mode 2:** *Two-way induction (Card Reader + Controller + Card Reader + electric lock)*

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User outside produces the proximity card authorized, the controller will drive and open the electric lock after identification by the card reader successfully. System will also record the time of entering the door. While the user left the room controlled, he has to produces the proximity card authorized, the controller will drive and open the electric lock after identification by the card reader successfully. System will also record the time of leaving the door.

A higher security level environment is suitable for. This can not only prevent the illegal entry of external person, and can check the people and time the last one to leave. Facilitate to provide evidence effectively at specific time, such something has been being stolen.

### **Mode 3: Card + PIN**

There has to input correct password to enter the door, after swiping the card. Each person has only one password. This is used for more secure occasions. The advantage of this mode is that, even if the card is lost and other people picked up, he/ she cannot access, but also needed to enter the correct password. And this mode can be easily set up mode, such as for the same door, some people must be allowed access with card + password, some people can only swipe cards, the person with highest authority can enter by inputting the super password.

## **3.2 Function and role of the system**

System can build up standardized management image of company, mansion or institutions, etc. Also can enhance the management grades and standardize internal management system.

A proximity card can replace all the door keys with different permission, the authorized card holders can enter the door within their responsibility areas. All the incoming and outgoing cases have been recorded in the computer to facilitate the time check with specific occurrence things.

You can shut out the unwanted individuals, for example, prevent pyramid sales, insurance and other industries salesman into your office without authorization, interfering with your normal office order. Competitors will not easily enter your office or development place and walk away with your business data or core technical information. You can have plenty of time to deal with the appropriate file before your superiors enter your office and make difficulties purposely for you intentionally .

If the employee's proximity card is lost, it can immediately be reported the loss within the system, so that even if other people picked up the card, he/she cannot be enter into the company. This is relatively convenient compared with the ordinary mechanical locks- there is no need to change a lock for security, and re-assign key for everyone. For person resigned, dismissed or left, their induction cards will be forbidden, then they cannot enter the company for theft or revenge sabotage activities. The sensor card is a way to disable the employee after the, such as, if you do not use proximity card access control management style, you may have to replace the door locks for many times in case.

Adopt advanced international internal cryptographic protocol, outsiders cannot open your electric locks into your place by mechanical or other high-tech ways. While, such as password access control, mechanical locks have no corresponding security mechanisms, other people can enter your place easily with a short circuit or a master key.

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Software imperative operation can be used. For example, you are being carried out secret or major telephone or consultations not wanted to be disturbed, now you can force the door closed via software functionality, so that even if the card holders with authority cannot enter. After finished, you can restore the system to be normal by the software.

Real-time monitoring status of the door and access status of the proximity card holder, enforcement of those cards, and can compare the photos to avoid illegal holders pretending to enter.

### 3.3 Product features the program recommended

*Stability, security and convenience* are our primary three basic principles when designing products.

*Approachable, remarkable function, simple and practical operation, for customers* are our long-term design philosophy and corporate culture.

In order to ensure system stability, high-speed CPU applications, non-volatile memory technology, precision clock application, we just cooperate with well-known brand chip. Lightning protection design, misconnection design, anti-surge design, anti-jamming design, anti-static design experienced up to 9 years of development history and market precipitation. We've listened voices from different angles of the customer requirements, needs, feedback, and we improved the over 10 generation products. Each year, ten thousands of systems around the world running stably is our customers' confidence guarantee.

Adoption of communication formats and protocols authorized by international security, and integration with our own unique encryption technology, and can be reserved with your password, fingerprint biometric identification technologies to provide appropriate security products with different levels of security.

#### **"Approachable, easy-to-understand, fast and convenient operation interface"**

Powerful function, simple, practical and convenient operation is all in compliance with Microsoft's software style and operating habits. The shortcut menu and user-friendly design make the training complete within a few minutes. User can easily master by reading manual. Remove the worry of terminal user. The humanized operation wizard makes customers easily started and managed access control system without reading the instructions. We've avoided description of abstraction or specialization at the interface as far as possible, and shown with user-friendly and clear manner as far as possible. For example: After setting finished, the customer did not need to understand controller, card reader, and other special terms and settings. All customers see are a group of intuitive door icons, and operation wanted to do with access control .

#### **"Multi-language version suitable for more customer base"**

Simplified Chinese version, Traditional Chinese version and English version three versions are released simultaneously. Installation program in different languages were easy to install on the

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operating system in different language. Software can also be installed on the simplified operating system, then switched to Traditional or English interface, bringing users more convenience.

### "Combination of advancement and Compatibility"

The Windows smart management software is based on the C / S structure with advanced. Net environment and the ACCESS and SQL database. We attach great importance to the compatibility applications of customer, to ensure that customers can easily install software to Windows XP, Windows2003, and Vista operating systems and so on.

### "Perfect unity of powerful function but simple operation"

Although our system with powerful function is suitable for access control demand from all areas, units and functional departments, but we have hidden not commonly used functions into extended function. Once customers need to use this function, it can be started, while they do not use that function, it can be shielded, not need learn and master the use of these functions, which makes software more easy-to-understand. System included many specific purpose of access control for specific industry. For example, anti-passback for troops and scientific research institutions, interlock and multi-card to open the door function for bank vault system, to meet the access control needs of multi-aspect customer. For the function not needed to use, system will automatically shield these function to make the operation interface more simple and practical.

More drop of humanization settings are result with our clients' long-term efforts, that we are under the guidance of "From customer perspective" design concepts.

### "Easy, convenient and safe" fool-style" upgrade mode"

The database is automatically seamless upgraded when software is upgraded. There is no need to maintain Database with the professional knowledge and professional staff. The software upgrade is "fool-style", simple implementation of the uninstallation and installation is needed. The database will automatically judge the software version, to add and delete fields, everything is carried out when the client is inadvertent, to allow customers acquire the newest software functions easily. Software will automatically retain the original settings and parameters, the database will also automatically compressed to improve the speed and efficiency for next time use, and even keep the latest four database backup to prevent database damage due to illegal operation of operating system.

### "Batched Settings" makes customers use more efficiently.

**Batched Setting** is one of design philosophy for the sake of our customer. We've set **Batched Settings** functions on the place where software usually used or may be used. This makes efficiency more high when operator uses software. For example: access control permissions volume settings can set the people who pass the same door with batched setting, and set the door which a group of people passed, or delete their authority with batched setting. on a certain volume through the door who can also set up a group of through the door of bulk, of course, can also remove the bulk of their rights. In addition, attendance leave can also be batched setting. Staff card number, Names and departments and so on can be batched imported or exported with Excel.

### "Glance" interface mode and Report Format

We have almost concentrated all the operation of common use functions to the total console

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interface, and easily realized powerful function operation through clear buttons and right shortcut menu. While ensuring the system interface simple, allow customers to clear all the practical functions and report project of current interface.

#### **"WYSIWYG" customize report, query, output, print mode**

WYSIWYG design concepts-all the query results can be directly printed out, what kind of the results queried is what kind of printing. Some reports commonly used can define and retain the printing items, arrange the order of these items to print, and save the report format customized for the next time use. Many settings and reports can be quickly exported to Excel format for reporting, the secondary development or submit to the Finance or other related departments for quote or reference.

#### **"Admitted mistake must be reported" humanization interactive software interface**

The software will automatically detect the settings and input data whether correct, comply with specifications or not. If not, system will give the operator hint in time. System has self-test function to make customers discover and resolve failures or setting incorrectly.

## **Chapter 4 System essential component, function principle topology and configuration**

### **4.1 Essential component of access control system**

*Card Reader*: By RF induction principle, recognize induction card's encryption card number built-in.

*Induction Card*: storing user ID which cannot be copied and decrypted.

*Access Controller*: Store induction card authority and card swiping records, process centrally all signals that readers upload, responsible for communication with computer and co-ordination with other data storage, and manage intelligent processing center of the software.

*Electric Lock*: Electric implementing agencies.

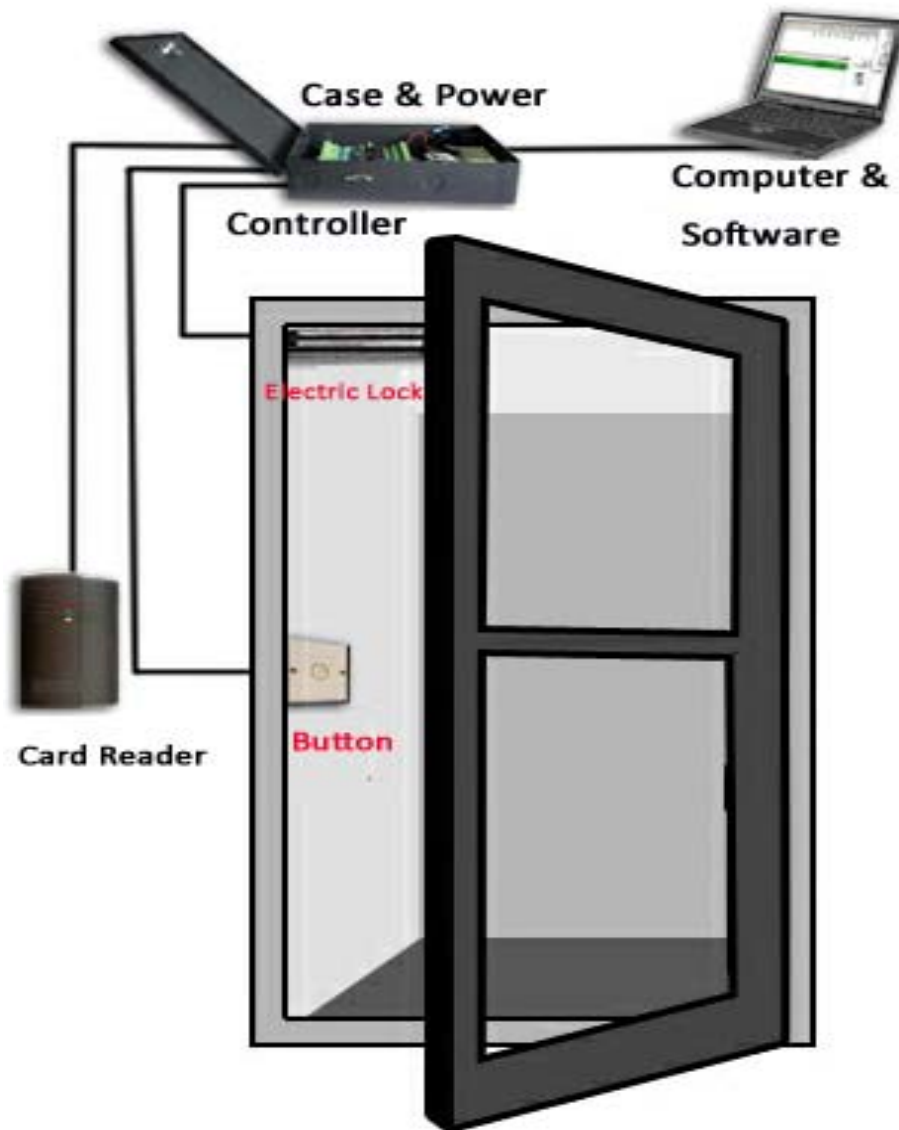
*485/232 signal converter*: For data storage networking and long-distance communications.

*Management Software*: All units managed and monitored centrally via computer, and manage corresponding clock, authorization, statistics.

*Door button*: Set as pressing button when going out.

*Power*: Provide power supply for implementation structure of the power and electric lock when system runs.

## 4.2 System function and schematic diagram



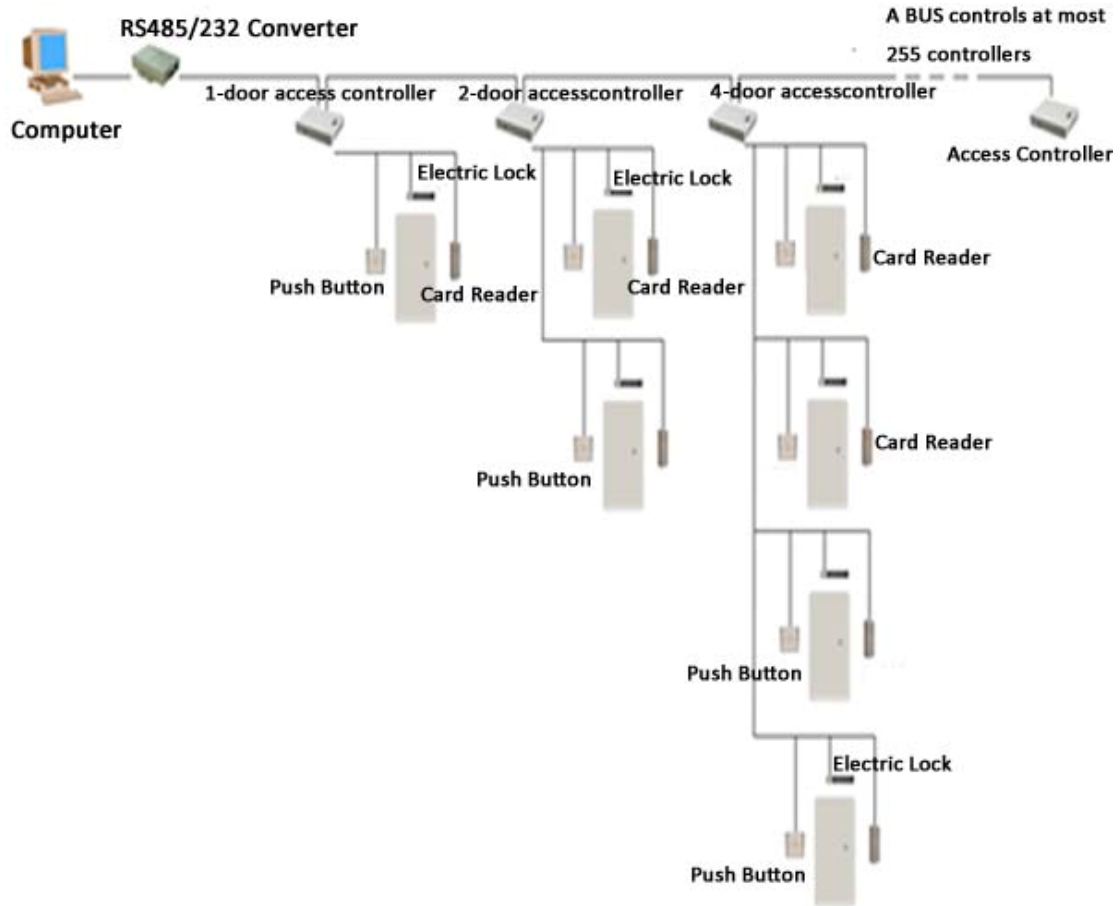
## 4.3 Access Control System group networked cabling topology diagram

### *Access control system topology of RS485 communication*

Apply for relatively concentrated corporate office locations, access control system with cost-effective as a priority.

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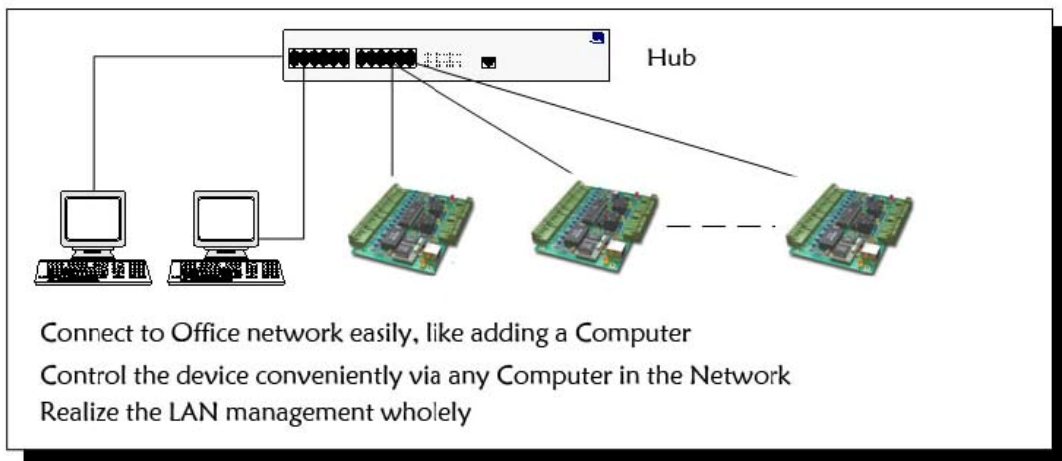
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### LAN access control system topology

Apply to relatively concentrated corporate office locations, high-end access control system with performance as a priority.

#### LAN

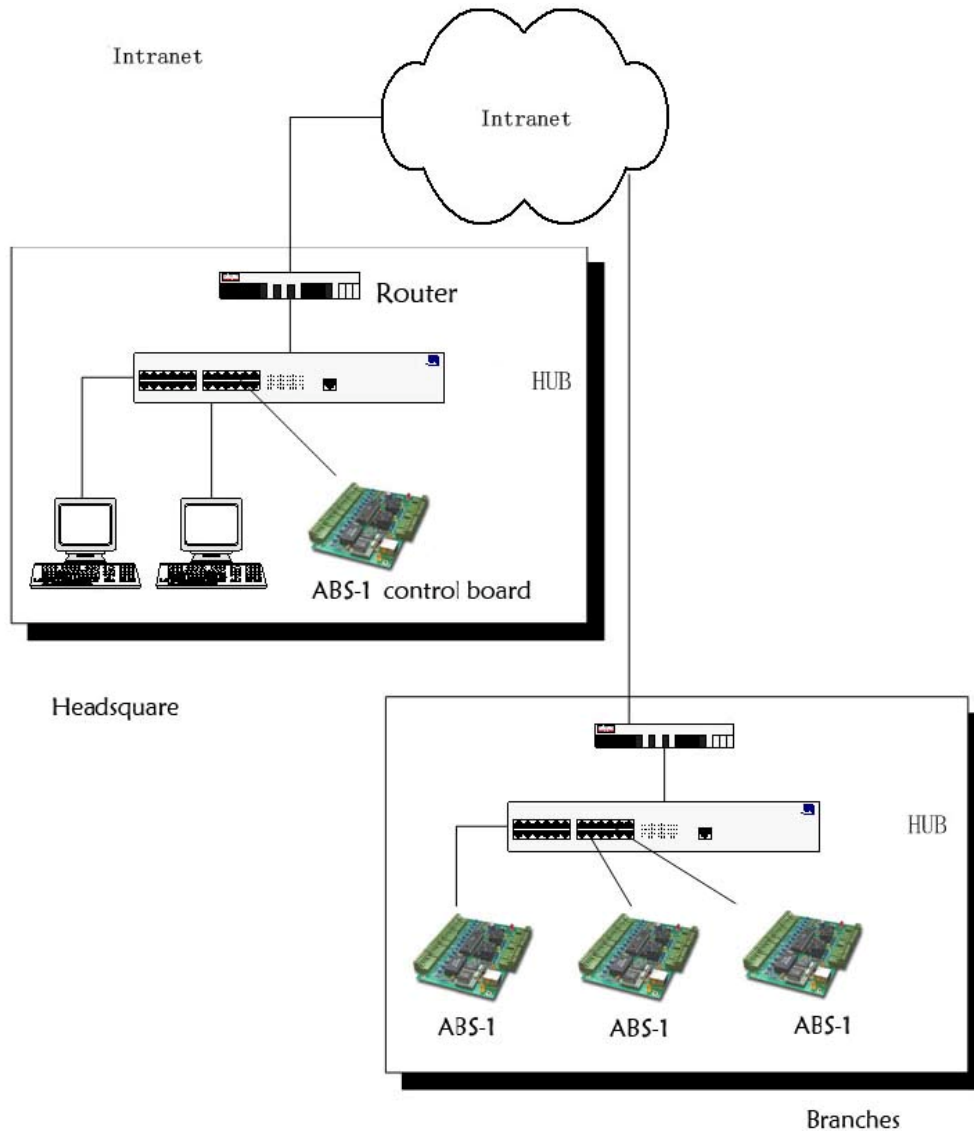


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### ***Intranet Access Control System Topology***

Apply to company which certain offices scatter in various areas, but have their own internal corporate network. If the bandwidth of network is more than several trillion, system can realize the headquarters manages divisions, and also division's self-management. And be able to realize the access control data sharing. For example: Certain bank in city manages access control system for the various subordinate branches' internal network.



To realize the center access control, attendance, & Alarm management across different sites via Corporation Intranet

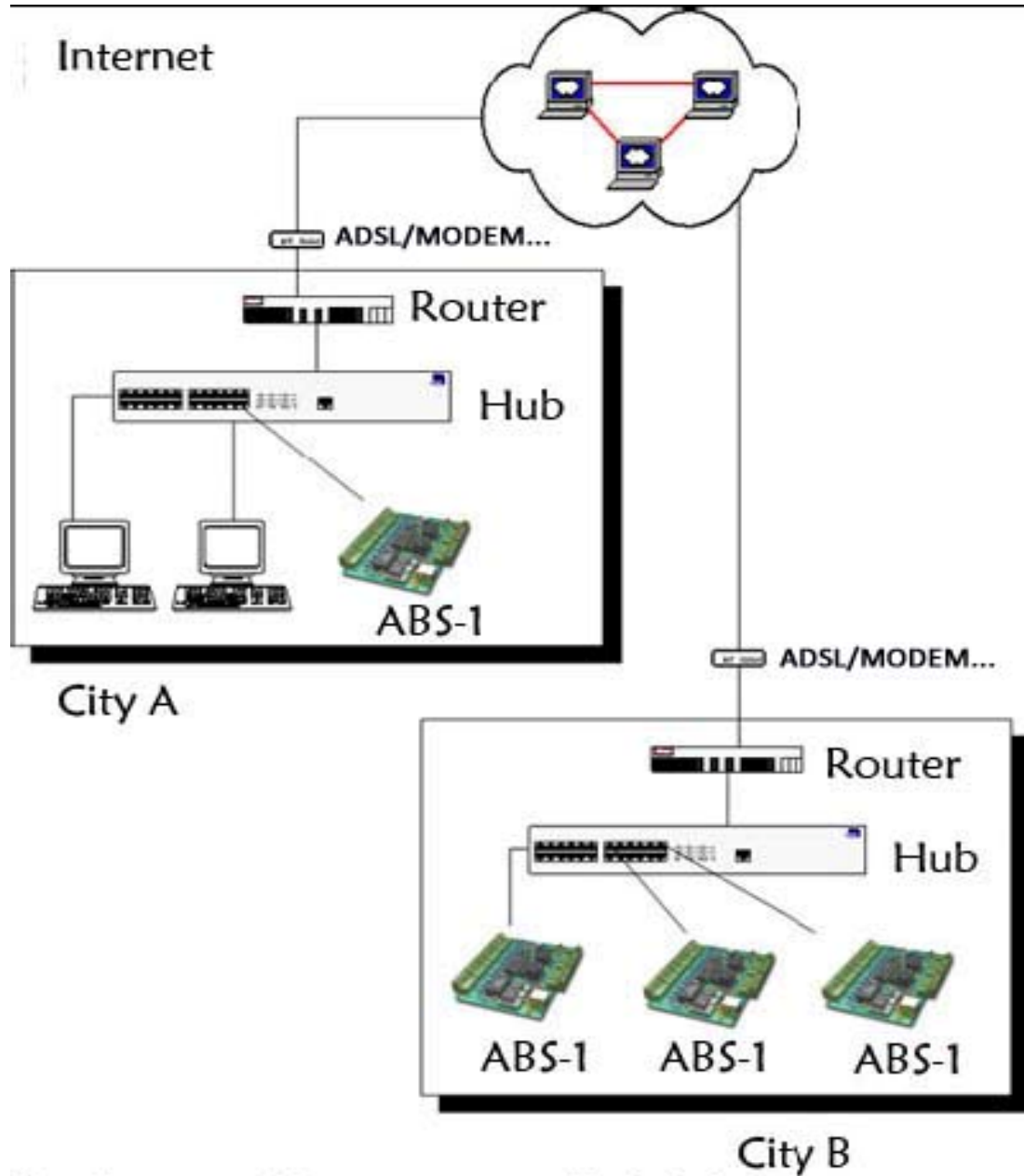
### ***Internet, remote interconnection access control system topology***

Apply to offices distributed around the world, head office centralizes managing branch offices' access control via the Internet. Staff can take attendance when travelling to any one place. For the model, there is no right to manage branch themselves, they must manage centrally by the head office. Also telecommunications and other industries can also be used for unmanned

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management.







Use internet, You can control global sites

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## Chapter 5 System components and accessories introduction

### 5.1 Card reader and card

			
<b>Card reader</b> includes ID card and IC card type, ID or IC card reader must match with the corresponding ID or IC (Mifare One 13.56MHz) card.			
123mm*76mm*23mm	121mm*46mm*22mm	123mm*76mm*23mm	121mm*46mm*22mm
Black	Black	Silver	Silver

#### **Proposal on type selection:**

The wide appears generous, the narrow looks delicate, exquisite. The black appears stable, high-grade, the silver looks stylish and advanced.

#### **Benefits:**

High capacity to resist interference between metal shield and readers.

Stable performance, advanced anti-deadhalt circuit design, anti-surge protection, anti-misconnection protection.

Use pure digital radio base stations chips imported, error free design.

Intelligent sound and lighting control mode.

In accordance with international wiring standards.

Buzzer sounds sonorous, and will not be variation by interference.

Transmission distance is long, up to 100 meters.

Stylish design and a variety of styles and color choices.

High temperature, low temperature resistance.





#### **Basic parameters:**

Item	Parameter
Operating voltage	12VDC
Rated current	30-110 mA
Output Format	International Standard Wiegand 26bit
Inductuion distance	4-10cm
Transmission Distance	100 meters

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Temperature application range	-40 to 70 degrees
Humidity application range	< 95% non-condensing

			
<b>Induction thick card</b>	<b>Induction thin card</b>	<b>Induction thickness cards</b>	<b>Shaped Card</b>
86mm *54mm*1.8mm White card, best induction performance. Tough and durable texture.	86mm*54mm*0.76mm Credit card specification, slim, beautiful and practical.	86mm*54mm*1.0mm Slightly thick and good price.	Generally made into key chain shape, easy to carry, short distance of induction.

### Password Keyboard Card Reader:



Item	Parameters
Quiescent Current	<35-45mA
Dynamic Current	<85-105mA
Operating Voltage	+12 VDC
Output format	Standard Wiegand 26bits Un-buffer keyboard format (compatible with Motorola Indala 501, HID 5355K, Star 101A Reader format)
Communication distance	less than or equal 100 meters
Temperature application range	-40 to 70 degrees Celsius
Humidity application range	less than 95% non-condensing

**Note:** Each reader has ID or IC card (Mifare one 13.56MHz) models.

## 5.2 Access Controller





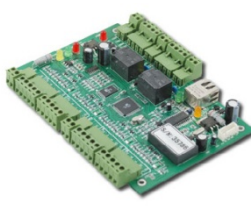
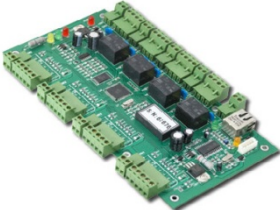
Access data storage controller is access controller for short, adopting high-speed computing circuits and mass storage technology Flash MCU design which is leading international advanced level. The controller is integrated with process, storage and communication functions into a

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printed circuit board, with feature of rapid removal of the communication port terminal. The software monitors the communication activities of each port, choosing the memory interface processing unit which can support micro-program control memory installed by a higher level. MCU design has its inherent reliability, while expanding the transient protection function, and automatic self-test function also enhances the reliability. When offline, the access controller can store induction IC card reader wiegand26 format card reader information, time information and the current state information. It is widely used in access control, attendance, membership management, consumption, customer management, parking management and so on induction IC Card application system.

- Leading international advanced level of high-speed computing circuits and Flash mass storage technology design, one-up reaction speed.
- The 10th generation products become more mature taste.
- Wide range of success stories make you more at ease.
- Accessible multi-language Windows software operation interface, simple and practical, powerful function, easy to grasp instantly without professional knowledge, fast installation and easier training.
- Independent intellectual property rights and open data communication protocols makes your system integration easier to enjoy more thoughtful, meticulous, cutting-edge technical support.

<b>Profile</b>			
<b>Communication mode</b>	RS485 communication mode Single door two-way access controller	RS485 communication mode Double door two-way access controller	RS485 communication mode Four door two-way access controller
<b>Profile</b>			
<b>Communication mode</b>	TCP/IP communication mode Single door two-way access controller	TCP/IP communication mode Double door two-way access controller	TCP/IP communication mode Four door two-way access controller
<b>PCB Size</b>	160mm *106mm	160mm *106mm	218mm *106mm
<b>Function</b>	Control one door of swiping card to enter and pressing button to exit, or swiping card to enter or exit.	Control two doors of swiping card to enter and pressing button to exit, or swiping card to enter or exit.	Control four doors of swiping card to enter and pressing button to exit
<b>Number of connecting</b>	One pair	two pairs	four pairs

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card reader			
Able to control door output	one group	two groups	four groups

### Basic parameters

Item	Parameter
Control Box Size	273mm * 228mm * 65mm
Supporting Power	12VDC 4-7A
Circuit board power consumption	< 100mA
Reader Input Format	Wiegand 26 (compatible with all the readers under the agreement, such as Motorola, HID, EM, Mifare one, etc.)
Output relays maximum load current	7A
Open delay time	0-600 seconds adjustable
Maximum number of connections	255 units (proposed 80 units or less) for a bus of 485 controller, TCP / IP network-based controller without unit limitation.
Operating Temperature	-40 to 70 degrees
Operating Humidity	10-90% RH, non-condensing
User registration card number	2 million cards Permissions
Record storage number offline	100,000 records
Protection measures for power failure	high-speed flash memory design, and never lost.
On-line distance between reader and controller	100 meters (80 meters recommended)
Packaging components (after the purchase of Case and power supplies)	circuit boards, Cases, power supply, power cord, serial communication line (485 controller only), software CD-ROM, concise installation manual, certification, keys (2), packing Carton

### Extension functions:

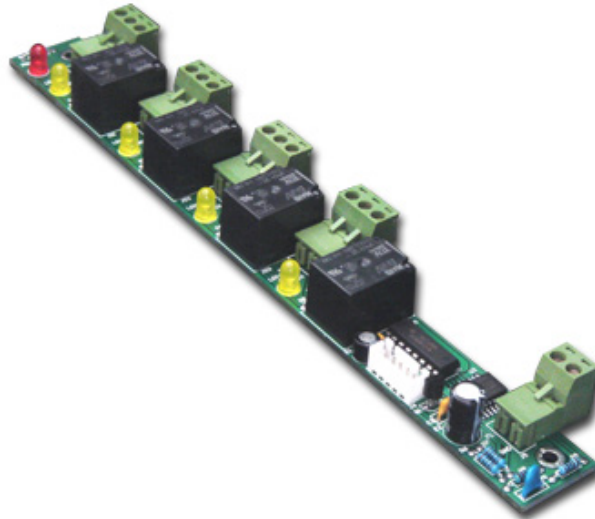
Fire Protection Linkage, Door Linkage, Alarm for door has not closed for long time, Illegal Break-in Alarm, Alarm when illegal card swiping, Compel Alarm function. (If not connected with the fire and alarm linkage extended board, system only has the alarm by software interface hint, and drives the computer speakers to be alert. If connected with extended board, then system has the hardware alarm output function, capable of driving lights, sirens and other equipment).

Enforce door Close, and enforce door Open, Remote open the door function, Interlock( two-door and four-door controller can control multi-door interlock.), Anti-passback, Anti-trailing function, Multi-card to open the door, Timed constant open or close the door function, Urgent close the door, Electronic Map, Header card to open the door, External keyboard password functions (card + password, super password)

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### 5.3 Access Control System and other accessories



#### *Fire alarm output and fire protection linkage extended panel*

- Four-way alarm output, can be freely defined for certain door and functions of the controller.
- Can be connected with fire signal output, to open all the doors of the controller automatically after receiving the fire signal, and generate a fire alarm record for query afterwards.
- Can control the Fire Protection Linkage, Alarm for door has not closed for long time, Illegal Break-in Alarm, Alarm when illegal card swiping, Compel Alarm and so on.
- Can change the Anti-compel password.
- Can set how long to be alarm when door is not closed, 0 - 6000 seconds can be set.
- Can set each delay keeping time of output, 0 - 6000 seconds can be set.

Apply for: all of Internet-based or network-based access controllers of our company. Enhanced extended board increased anti-theft alarm function than conventional products, and appearance with more three terminal blocks of two pins than conventional extended panel.

#### *RS485/232 communication converter*



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Size: 103mm \* 82mm \* 22mm

Input Format: RS485/RS422

Output Format: RS232

Load capacity: 256 terminals

Communication distance: 1200 m (within 800 m proposed)

Performance Characteristics: Anti- lightning strike, anti-surge, anti-static design

Application: Enhance data transmission distance between controller and computer.

Generally, if the 232 communication transmission distance up to within 20 meters, the 485P converter will support up 1,000 meters. There are at most 128 controllers's network management if all control devices was managed centrally by network. Only support serial-type bus structure, connection distance can be up to 1,200 meters, not supporting the star connection.

### **Electric Bolt Lock**



Application: Glass doors double opening

Operating Voltage: 12 VDC

Operating Current: Standby current 0.3A, operating current 0.9A

Lock Body Weight: 0.9KGS

Additional function: 4 lines, with jumper delay, with Magnetic Detection

Operating temperature range: -30 ~ 70 °C

Operating Humidity Range: 0 ~ 90% RH

Description: Intelligent Electric Bolt Lock control by single-chip microprocessor, with magnetic control detection of doors opening and closing state function, the Hall element detection latch position function and automatic adjustment of power and other functions. The lock is widely used in access control systems with a variety of controllers assorted, such as various password locks, magnetic locks, proximity card lock, and automatically controlling fire door occasions. This lock is one high-quality electric lock which can control bi-directional vertical hinged door and sliding door, and is the best choice for realization automated management of access control.

### **Magnetic Lock**



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Application: wooden door, fire door, iron door

Tensile resistance: 280 kilograms (600 pounds)

Lock Body Dimension: 250 \* 42 \* 25mm

Operating Voltage: +12 VDC

Description: strong suction, easy to install, low power consumption, built-in surge absorber, auto-degaussing without residual magnetism, low-noise, with the door state detection output, anti-corrosion, long service life, open the door after power failure.

### **Open button**

#### **Standard metal door open button**



Sizes: 86mm \* 86mm

Exterior Color: Silver, Honed

Features: Comply with standard electric 86 bottom case size, beautiful, exquisite and durable aluminum panel

Maximum resistance current: 3A, 36VDC

#### **Metal narrow door open button**



Sizes: 86mm \* 86mm

Exterior Color: Silver, Honed

Features: Beautiful, exquisite and durable aluminum panel

Maximum resistance current: 3A, 36VDC

#### **Plastic standard door open button**



Sizes: 86mm \* 86mm

Exterior Color: White

Features: Comply with standard electric bottom case size, large panel design, beautiful, exquisite and durable

Maximum resistance current: 3A, 36VDC

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## Chapter 6 System Software and Function introduction

### 6.1 The basic functions of access control management

#### Flexible Authority Management

System can set that one person can enter some doors or all the doors. And also can set some person can enter some doors. The set result can be arranged by door or person, it is clear for user to see which door can be passed by some people and who can enter which doors. This is simple and can print or export to Excel Report.

#### Time Segment Privilege Management Function

Set who can enter which door, can enter the door on which day, and can enter the door three times from which time to which time everyday.

#### Offline Run

After setting upload via software, Controller will record all privilege and information. Even the software and computer are closed, system can remain normal offline run and information will not loss when power failure.

#### Real-time monitor, Photo Display and Door Status Display

System can real-time monitor all door' status of swiping cards and in and out, and can real-time display User's pictures pre-stored in the computer so that security guard and user check. If connection to the door magnetic signal line, the user can see clearly which door was open and which door is closed. Real-time records of the legitimate card display as green, illegal as orange, alarm records as red, convenient to remind the attention of security personnel. If installation video access control devices, Customer can take real-time photo and video.

#### Real-Time Read

User can real-time monitor and read controller's records automatically at the same time, uploading one record to computer database once swipe one card.

#### Enforce door Close, and enforce door Open

If some doors need open for a long time, now it can be set as NO via software, while some doors need keep closed and not allow anyone enter the door, now it can be set as NC. Also, on some special time, the door can be set as NC. Such as there is need to close the door to arrest thief.

#### Remote open the door function

Administrators can remote open some door via clicking "Remote Open Door" on the software interface after receiving instructions. Click the software interface on the "long-range open" button on the remote to open a door. Remote open door records also can form records by set.

## 6.2 Access management extended function

### Quick Query indoor person

Can query how many person was in some door, or some area (there are several doors). And display the list of person in this area.

For example: for mine, you can quickly know how many people were under the mine. If emergency happened, it is convenient to set rescue plans and print the list of persons needed to be rescued.

For example: For the corporate management, the boss or the Ministry of Personnel can quickly know how many people have come to the company to work. If abnormality happened, manager can immediately do an attendance statistics and check indisciplined officers.

For example: Some companies provide meal, manager can quickly know how many people were on work and can notify canteens to avoid wastage.

To quickly locate queries can quickly check where certain individuals are now, where he stayed long. For some large companies, because of confidentiality, are not allowed to open mobile phone, or cell phone cannot be contacted, so that he can know what the building location, and find him.

### Card + Password Function

If user chooses the Card Reader with Password Keyboard, system will have the function of card + PIN. That is to say, the door can be set to require users to enter the correct password after swiping card, card and password are correct before it would be open. One card matches with a password and everyone has his own password. This function can prohibit someone to pick up or stolen other person's card to open the door. The same door can be set as someone needs Card+Password to open the door, but some need swipe card. Password can be 1`6 digits.

### Super Access Password Function

Each door can be set up to four passwords, that means users can open the door with entering any one of these passwords. The system does not record the events and people by password. A password is 1-6 digits.

### Fire Alarm and Emergency opening door function

If the controller has connected with alarm output and fire linkage expansion board, system will have following function: the fire when the fire alarm signals comes, all the doors that the controller which expansion board has connected with controls will all be opened automatically for people escaping. And system can start the fire siren, store and record the fire alarm time.

### Linkage Output function

If the controller has connected with alarm output and fire linkage expansion board, system will have following function: when the door was opened legally, this will drive another delay to work at the same time to control more devices. For example: a client requires open the door legally, the lights will be bright, or output a switch signal to the camera and so on. Linkage relay operating time can set 0-600 seconds.

### Illegal Break-in Alarm

Or call forcible to open the door alarm. That means there is no legal means (swipe card,

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buttons, etc.) to force to open the door, or break into. System software's monitoring interface will use a red prompt of the alarm information time and location, this will drive computer speaker box to reminder on duty personnel. If the controller has connected with alarm output and fire linkage expansion board, the fire alarm will be driven to hoot. This function requires installation of magnetic door or electric lock connected to the controller and with feedback signal output of magnetic door.

#### **Alarm for door has not closed for long time**

If the controller, then the alarm output and fire linkage expansion board, you have opened the door had been lawfully drive a relay at the same time another action in order to control more devices. For example: a client requires lawful opened the door, the lights will be bright, or output a switch signal to the camera and so on. Linkage relay operating time can be set 0-600 seconds.

#### **Alarm when illegal card swiping**

Or alarm when invalid card swiping. That means someone attempt to swipe the card with the unauthorized card, System software's monitoring interface will use a red prompt of the alarm, this will drive computer speaker box to reminder on duty personnel. If the controller has connected with alarm output and fire linkage expansion board, the fire alarm will be driven to hoot and then remind the security came.

#### **Upload permission timed**

As uploading permission, the controller cannot determine the card's current permission legitimacy. After uploading finished, the controller begins to determine the permission. The function can make system upload automatically in the dead of night. It requires computer and software are in the running status.

#### **Dept. management with different operator**

Some companies require manage access control and attendance by department. The operators of his own department manage their own department doors and permissions. Senior managers can manage whole company doors and people.

#### **Header card to open the door**

For example, a company requires: the appointed a few people have permission to open the door with header card. Only the person owned the permission swiped the card to open the door in the morning, other people can enter legally, or remain the door open until door is closed on time in the evening. After setting up this function, if the header card holder has not come, others with legitimate card cannot enter, it is necessary to wait one of the header card holder coming. Operator sub-sector management sub-sector management of some companies require access control and attendance, the operator of his own department to manage their own department door and permissions. Senior managers can manage company-wide doors and people.

## **6.3 Industry advanced professional access management function**

#### **Interface Locking Function**

Operator can lock the interface and the back-ground software can continue to run and monitor when he/she needs to leave work place, so that others cannot take this chance to

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operate the software, only after the operator comes back and inputs password.

#### **Compel Alarm**

When staff was asked to open the door with coercion then the staff can enter the coercion password on the password keyboard, the door is opened, the staff will not be hurt by the gangsters. While monitoring interface of the software on the Master Control Center has been showed alarm information of the location being coerced to open the door. At the same time in the control center's computer speaker, there will sound alarm sound to remind the staff on duty and pay attention. This feature is most used in the savings bank lobby, bank treasury and other occasions.

#### **Anti-passback, anti-trailing function**

On some specific occasions, it is required that card holder has to come out from the door he has entered from by swiping the card. Also the swiping card records must be an entry corresponds to a strict. If one entered the door without swiping card but trailing someone else, he/she will not be allowed to come out. Or, one came out the door following other people, he/she will not be allowed to come in the door next time. If someone has swiped the card to enter the door, then he gave the card to another person to let the second person come in, the system will refuse the second person to come in even swiping the card. If user set system to start the function, the system can realize this function. It is generally used for military, national defense scientific research and other occasions. Our systems can only perform anti-passback from inner door—system will not allow person entering one door by swiping card and out from another door. Controller can also realize anti-passback function. For example, two-door controller, enters from any one of two doors and out from any one door. Four controllers, specify which doors and which doors are each other's anti-passback. Some exhibitions require entering from the designated entry door, and coming out from the specified doors.

#### **Interlock**

There are certain occasions specifically requested that before a door not properly closed the other one is not allowed to enter. Two-door controller can realize the two-door interlock, four-door controller can realize two-door/ three-door /four-door interlock. This feature is mainly used for bank savings bank, vaults strict occasions.

#### **Multi-card to open the door**

There is need to start this function on certain specific situations, which require some people all on the scene, swiping cards one by one to open the door. Single person to swipe the card, the door will not be opened. This function is typically used on antique collection venue, bank vault, museum, etc. System can be set multi-card to enter the door and a single card to go out the door, also multi-card to enter the door and the same multi-card to go out the door, to go out but also multi-card. For example: how many people of all to open the door have arrived can open the door, also multi-group, multi-card can also open, eight groups at most. Such as a bank vault application, request to open vault door legally when one of the three presidents, two of the eight security and three of the five cash transport men all have come and then swiping cards one by one. With the professionals help, System can also be set single group multi-card to open the door (can also be set up under the guidance of an independent set of multi-Card door (all the people of one group have come can open the door), and privileged groups to open the door (one man of the

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privileged group came can open the door.)

#### Timed constant open or close the door function

This function is also called the task timer function. In some occasions, such as executive office hall-the Civil Affairs office, the embassy and so on, it is required the door opened when working during the day time, people outside to handle affairs can come and go freely. While in the evening after work, required the door closed, its internal employees can only enter the door by swiping card, others cannot. Middle of the night, the door kept closed, its internal employees are not allowed to go out. This function can be set for one door or all doors, and each controller can be set up to 64 timed tasks. This feature can be run offline.

#### Urgent close the door

Some occasions call it "emergency double close function". This function does not need to set settings, just connect the emergency switch to the particular connection point of controller. On emergency situation, press the emergency switch, then all the doors under the controller control will be closed. Pressing the button and swiping card cannot open the door. For the "closed-door to catch thief", Pull up emergency switch, the system resume normal operation.

#### Electronic Map

Door icons can be placed on the position of corresponding map. It is more intuitive and humanization when real-time monitoring.

#### Close or open the door after swiping cards

Swipe the legitimate card, relay opened, then swipe, relay closed.

For example: In some schools' Technical Support Room, electric equipments like projector are not allowed to use casually. Legitimate teacher swipes the card through the relay to the projector power, and after class, swipe card again to turn off the power, others cannot use.

For example: Some companies' access security requirements are not strict. On working hours, it is free entry, and the first one comes and swipes card to open the door, then the last one left swipe card to close the door.

## 6.4 Attendance Management function modules supplied

Simple, practical, easy to operate, standard and fair reports.

Can set different shifts according to different work time, and set flexible time.

**Attendance Normal Shift Configuration**

1. Permit arrive late by no more than  mins.

2. Arrive late over  mins will be taken as absent of

3. Permit leave early by no more than  mins.

4. Leave early over  mins will be taken as absent of

5. The last swipe time that is  mins later than off-duty will be taken as overtime.

Swiping Card Frequencies

Two times each day     Four times each day

Two times

On Duty:

Off Duty:

OK    Cancel

This has solved the problem of before and after shift adjustment of the long holiday, and attendance problems about some company take half-day work on Saturday scientifically and reasonably, there is no need to enter manually.

**Holiday Setup (Only for Normal Shift)**

Holidays List

Description	Begin	End	Note

Add Holiday    Del Holiday

List of Days Need to Work

Description	Begin	End	Note

Add Work Day    Del Work Day

Sat. Rest     Sat. P.M. Rest     Sat. Work     Sun. Rest     Sun. P.M. Rest     Sun. Work

OK    Cancel

Leave types can be customized name, management is more flexible, results are faster and more intuitive.

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Department	User No.	Name /	From	To	Type	Note

You can customize the name of holiday.

Description	Begin	End	Note
Labor Day	2008-05-01 A.M.	2008-05-03 P.M.	
National Day	2008-10-01 A.M.	2008-10-03 P.M.	
New Year	2009-01-01 A.M.	2009-01-01 P.M.	

Description	Begin	End	Note
-------------	-------	-----	------

Set can leave, travel and sign batched. It is easy to manage when employees forget swipe the card or half-way out, you can sign manually.

Department: (ALL)

Optional Users:

- 1- Sali
- 2- Amber
- 4- Lily
- 5- Lai Sau Ying, An
- 6- Wong Wing Fong
- 7- Chong Hoi Yan, M
- 8- Zeng Xia Mei, Mi
- 9- Tammy Ho
- 10- To Man Sze, Cyn
- 11- Chung Man Chi,

Selected Users:

- 3- Jack

Note: forgot swipe card

Time: 2006-11-23 17:30:00

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The system statistic the staff information automatically about names, departments and the date of swiping card to generate attendance reports automatically.

Attendance Detail													
Department	User No.	Worker No.	Name	Date	A. M. OnDuty	A. M. OnDes	P. M. OffDuty	P. M. OffDes	Late min	Leav e min	Over time (hr)	Abse nt day	Not Swip e
sales	1		Sali	2006-11-01	8:20:24		19:50:38	Overti			2.0		
sales	1		Sali	2006-11-02	8:30:00	Sign I	17:30:00	Sign I					
sales	1		Sali	2006-11-03		Not Sw	17:40:50						1
sales	1		Sali	2006-11-04		*		*					
sales	1		Sali	2006-11-05		*		*					
sales	1		Sali	2006-11-06	8:34:58		21:35:10	Overti			4.0		
sales	1		Sali	2006-11-07	9:36:38	Arrive	18:36:58	Overti	66		1.0		
sales	1		Sali	2006-11-08	8:38:44	Arrive	18:21:22		8				
sales	1		Sali	2006-11-09	8:21:08		17:20:56	LeaveE		9			
sales	1		Sali	2006-11-10	6:25:02			Not Sw					1
sales	1		Sali	2006-11-11		*		*					
sales	1		Sali	2006-11-12		*		*					
sales	1		Sali	2006-11-13		Absent		Absent				1.0	
sales	1		Sali	2006-11-14	8:40:44	Arrive	18:23:34		10				
sales	1		Sali	2006-11-15	9:49:18	Arrive	9:58:38	Absent	79			0.5	
sales	1		Sali	2006-11-16		Busine		Busine					

Statistics automatically each employee's attendance, late, leave early, leave, absenteeism and other data.

Attendance Statistics Report [2006.11.01--2006.11.16]															
Department	User No.	WorkerNo.	Name	Planned Days	Late Minutes	Late Count	LeaveEArly Minutes	LeaveEarly Count	Overtime Hours	Absent (day)	Not Swipe [Times]	Manual Sign In [Times]	Busine ss Trip	Sick Leave Day	Privat e Leave
sales	1		Sali	12	163	4	9	1	7.0	1.5	2	2	1		

## 6.5 Online patrol function attached

Online Patrol (Patrol, Patrol sign) management system is an attached access control system management software. Customer can use Online Patrol (Patrol, Patrol sign) management function after installation access control system without additional investment, this software can be used independently.

You can specify a few doors of the access control system as patrol points. Users swipe cards on the patrol point, which means the patrol officers arrived at this site on certain time.

**Although this software is attached, but it has basic functions of Patrol (Patrol, Patrol sign) management, and operation settings are very convenient, the security personnel can master**

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**the software quickly:**

- Specify who as the inspection officer, which doors as the inspection point, operator can set Patrol routes and Inspection task.
- Generate detailed Patrolling reports and statistics. Reports can be printed or exported to Excel files, query or printing by date.
- In detailed patrolling report, there are patrol dates, members, patrol time planned, the actual patrol time (late, early arriving or undetected, patrol site name, the name of patrol routes and so on.
- Patrolling statistical reports can be displayed statistical information about some month (certain period), the number of being early, late or undetected for patrol.
- By real-time monitoring function, observe real-time patrol member when arrived where.

**After all, it is a management software supplied, which does not support the following function. If you need off-line patrol management, or a more powerful professional Patrol product, we suggest you buy the corresponding product from a professional Patrol product manufacturers :**

- Cannot be real-time alerting or alarm abnormality of being late, early arriving, undetected and so on. Can only report a statistical report.
- It is inconvenient to set new patrol points in the non-access control points. We suggest that customers who need set on any place or change patrol points choose professional off-line patrol system, but not use on-line patrol system.

## 6.6 Fixed dining functions attached

Quota management system is an attached management software. User can install Reader for access control (swipe induction cards when dinning) or install access control on the door of the canteen (employees swipe cards to enter into the restaurant for dinner). Without adding other hardware devices, you can realize the management of fixed dinner, this software can be used independently.

Many companies, units or facilities carry out such a management model: providing dining service, register when staffs dinner, and company will deduct actual dinning fees at the end of the month.

The so-called fixed dinner, it means that the amounts of dinning fees are the same for the same dinner for all staffs. For example: Breakfast charges 3 yuan, Lunch, Dinner 5 yuan, middle light snacks 2 yuan.

**Although this software is attached, but it has basic functions of fixed dinning management, and operation settings are very convenient, the canteen or company manager can master the software quickly:**

- Specify which readers are used for canteens dinning management.
- Dining rules can be set, for example, some companies require deduct money once swiping card. While some companies require that one meal just charges for one time whatever the times staff swipes cards.

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- You can set dinner time periods and the charge standard for each meal, supporting breakfast, lunch, dinner, supper meals. Charge standard can be accurate to a fraction in dollars and cents.
- Can generate dining statistical reports that can calculate the number of times, the total times and total amount for each person per meal times.
- Can generate detailed record table for the query and check. Show meal time, when and at which window for dining.
- Dining statistical reports and dining detailed reports support query by time, department and staff. The query results can be exported to Excel table, user can customize the print format and save the format.
- Can generate reports subtotal report of dining spots. The report can display meal frequency and total amount of each dinner spots for managers to assess and scheduling. For example, some canteens' different windows contracted to different people, so that data can be used for evaluation which window everyone likes, and then how much should give the contractor.

**After all, it is a management software supplied, which does not support the following function. If you need unfixed consumption or the dining management system or a more powerful consumption management function, we suggest you buy the corresponding product and software from a professional manufacturer:**

- Does not support the management of non-fixed dinner. For example: the same dinner, the staff A needs 5 yuan, the staff B needs 8 yuan.

## 6.7 Meeting attendance function attached

This is a function module access control system management software attached. Customer can use meeting attendance function after installation access control system on the door of company conference room or chamber units without additional investment and device.

The software can realize basic real-time conference attendance, query and statistical functions:

- Set the conference name, location, start time, attendance start and end time, the meeting content, and generate the notice of the meeting.
- Set leave and sign manually. Set participants and their status (representative, attendance, visitor, invitation or staff). Can pre-arrange seat number, and display name, identity, photographs and seat number when swiping card.
- Display with real-time projection that ought to be, real to be, leave, absence, and participants rate. And generate statistical reports printed or exported to Excel files.

**After all, it is a management software supplied. If the software cannot meet your needs, we suggest you buy the corresponding product and software from a professional meeting attendance software development company.**

## 6.8 Anti-theft alarm function attached

This is a function module attached by access control management system software. If you installed the Access Controller and the strengthening fire alarm linkage extension board, you only need to purchase Infrared probe, emergency switches, sirens and other accessories realize convenient anti-theft alarm function at low cost.

**Although this software is supplied, but it still has powerful anti-theft function, and the operation is simple:**

- Connect infrared inductive probe or ALEPF sensor to anti-theft induce. After fortified, there will start sound and light alarm siren once some people break in. Also door contact can be installed upon the window. There will be alarm once people open doors and windows illegally. Fortification and disarming is much simpler, safer and secreteer than using passwords and remote control, simply need swipe card three times continually to fortify and disarm.
- Connect gas sensors (gas leak alarm), smoke sensor (fire alarm), glass broken shock sensor (was broken into alarm).
- Connect urgent switch. People indoor once was hurt by House burglary, he can press the emergency switch to inform central management security personnel and start the siren.

**After all, it is a management software supplied. If the software cannot meet your needs, we suggest you buy the corresponding product from professional Anti-theft alarm device manufacturer. This software cannot realize the following function:**

- Do not support 110 and so on auto-dial function.