



Be-Tech Fidelio & BEDE Interface Software

User's Manual

October 31st, 2006

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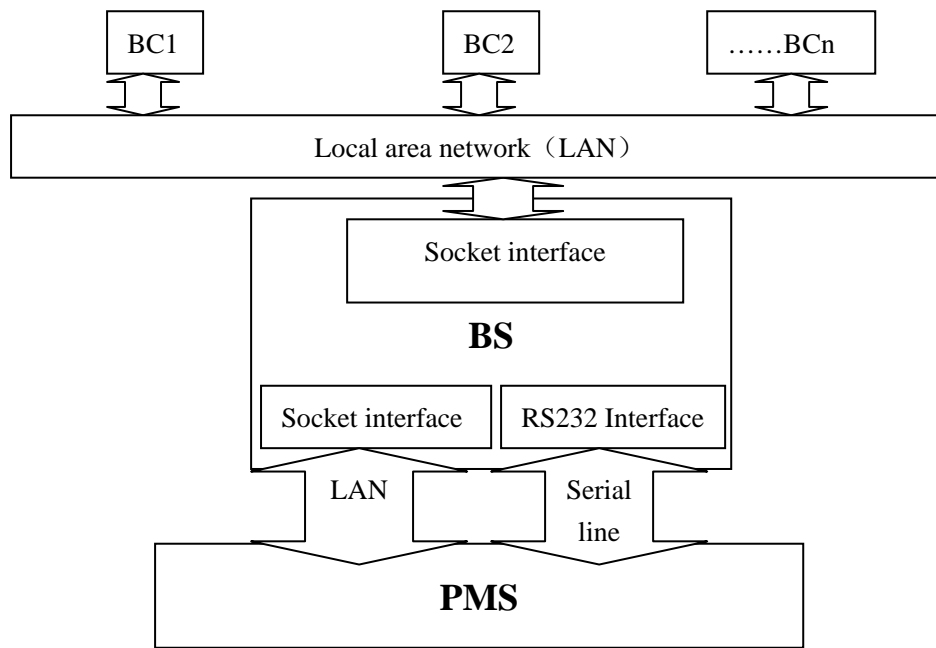
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This instruction manual is written for users and developing and installation personnel of the interface software, part I, part III and part VI of this manual are specially written for developing personnel and are ignorable by users.

I. Interface software system structure

1. Interface software structure chart (as shown in diagram 1-1)



2. Description of the interface software structure

As shown in the system structure chart, the interface software contains two parts; one part is the interface software server, Be-Tech Server (i.e. BS), the other part is the Be-Tech Client (BC). The PMS in the diagram is hotel software or other software, the PMS in the manual is a simulated one for demonstration.

Intercommunication between each part in the system: Communication between BS and BC is carried out by Socket mode through LAN; Communication between BS and PM can be carried out either by Socket mode through LAN, or by RS232 connection through a serial line.

The BS can be allocated by users to communicate with PMS under Fidelio protocol or BEDE protocol depending upon which communication protocol is supported by PMS.

II. Interface software installation

1. Requirement for server installation

Hardware requirements: a. The basic frequency of the CPU should be at least 1GHZ; b. the EMS memory should be at least 512M; c. the hard disk should be at least 4G.

Operating system requirement: Windows2000 or WondowsXP

2. Requirement for client (BC) installation

Hardware requirements: a. The basic frequency of the CPU should be at least 1GHZ; b. the EMS memory should be at least 256M; c. the hard disk should be at least 4G.

Operating system requirement: Windows98, Windows 2000 or WondowsXP

3. Installation procedures

After entering the catalogue of the disk, double click “Be-Tech Interface.exe” icon, the installation of “Be-Tech Interface Software” is started.

As shown in diagram 2-3-1, this is the “Welcome to use” interface of the “InstallShield Wizard”, click the “Next (N)>” button to enter the next step.



Diagram 2-3-1

As shown in diagram 2-3-2, this is a “Select Setup Language” interface of the “Be-Tech Interface Software”, this system supports Chinese and English language, e.g., you may select “Chinese” as shows here, click “Confirm” button and go to the next step.

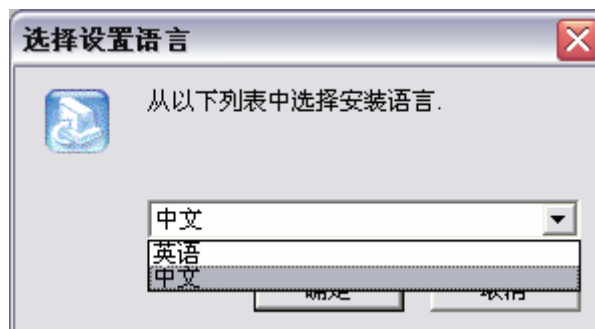


Diagram 2-3-2

As shown in diagram 2-3-3, this is the “Welcome to use” interface of the “Be-Tech Interface Software”, click the “Next (N)>” button to enter the next step.



Diagram 2-3-3

As shown in diagram 2-3-4, this is the “Customer Information” interface of the “Be-Tech Interface Software”, you can input “User name” and “Company name” in this interface, after the related information is input, click the “Next (N)>” button to enter the next step.



Diagram 2-3-4

As shown in diagram 2-3-5, this is the “Select Destination” interface of the “Be-Tech Interface Software”, when you click the “Browse(R)...” button in this interface, the system pops up a “Select Folder Name” interface (as shown in diagram 2-3-6), after the desired folder is selected, click “Confirm” button to save the selection return to the “Select Destination” interface, then click the “Next (N)>” button to enter the next step.



Diagram 2-3-5

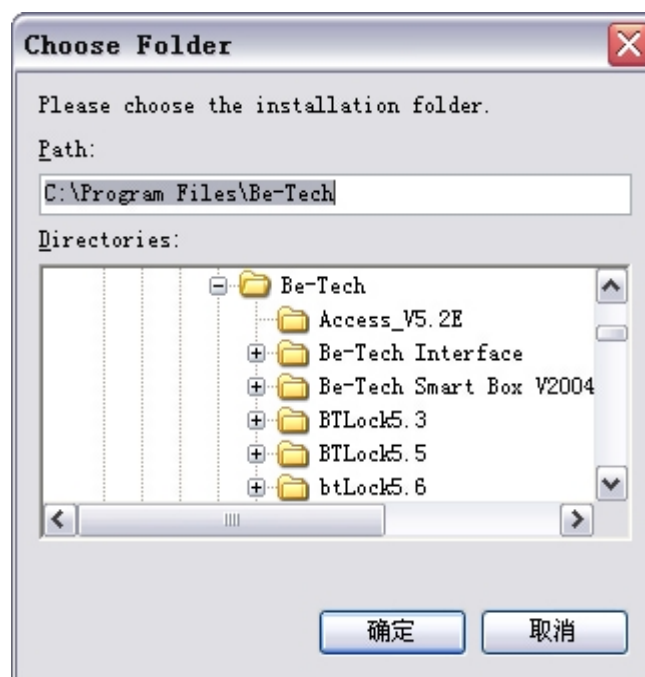


Diagram 2-3-6

As shown in diagram 2-3-7, this is the “Select Installation Type” interface of the “Be-Tech Interface Software”, after the desired installation type is selected, click the “Next (N)>” button to enter the next step.



Diagram 2-3-7

As shown in diagram 2-3-8, this is the “Select Components” interface of the “Be-Tech Interface Software”, after the desired components are selected, click the “Next (N)>” button to enter the next step.

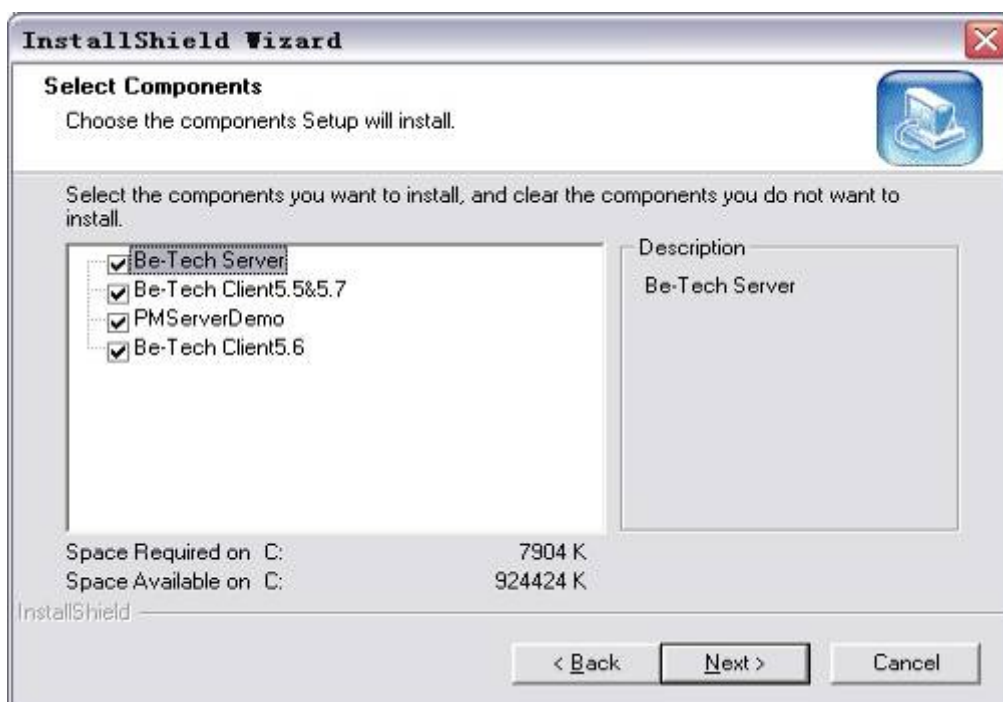


Diagram 2-3-8

As shown in diagram 2-3-9, this is the “Select Program Folder” interface of the “Be-Tech Interface Software”, after the desired program folder name is input, click the “Next (N)>” button to enter the next step.



Diagram 2-3-9

As shown in diagram 2-3-10, the program setup completion interface is shown, click the “completion” button to complete the installation of this software. Thus, all the procedures for installing the “Be-Tech Interface Software” are completed.



Diagram 2-3-10

III. Operation and commissioning of each part of the interface software

1. Operation and connection

The whole software system can be put into operation after the corresponding door lock management software is commissioned and the interface server (BS), client (BC), demo PMS (or call the formal PMS with this interface) are installed according to the above procedures.

- a. Start and run PMS, view and confirm each part that is to communicate with BS.
- b. Insert the encryption dog corresponding to the interface software into the server in which the BS is installed, start the BS and allocate the corresponding communication pattern and the communication protocol according to the allocation of the PMS; at the same time allocate the Socket port that provides service to the client, default value may be used if there is no interference.
- c. After the BS is allocated, try to connect it with the PMS, the BS will display the communication information according to the actual connecting status during connection.
- d. After the BS and PMS are connected, you can start the BS service to receive connection requests from clients;
- e. After the BS and PMS are put into operation, you can run the client BS, and try to connect with the database and the BS according to the IP of the BS, the service port, and the information of the SQL Server database used by the current door lock management software;
- f. If BC, BS and PMS are put into operation and connected successfully, it indicates that the PMS runs successfully with the interface.

Note: As hardware-based cryptographic is used in the BS part of this software, it is necessary to insert the hardware encryption dog corresponding to this part of the software, otherwise you cannot use this part of the software normally.

2. Interface software commissioning

- (1) Commissioning process instruction (the operation interface is shown in diagram 3-2-1) of “Be-Tech Interface Demo Program (PMSDemo)”



Diagram 3-2-1

- ① Run "Be-Tech Interface Demo Program (PMSDemo)".
 - ② Set communication protocol.
 - ③ Set communication mode.
 - ④ Set the basic parameters of the communication protocol. If Socket communication mode is selected, it is necessary to set the port for the communication between the "Interface Demo Program" and the "Be-Tech Interface Server", If RS232 communication mode is selected, it is necessary to set the serial port to be connected and the baud rate for the communication between the "Interface Demo Program" and the "Be-Tech Interface Server".
 - ⑤ Click "Set" button, confirm the parameter setting and save, you can restore the default value by simply clicking the "Default" button.
 - ⑥ Click the "StartService" button to start "Interface Demo Program" service. If you check in front of the "Auto-start service", the service will be started automatically when you start the program next time, you can stop the service by clicking the "End Service" button.
- (2) Commissioning process instruction (the operation interface is shown in diagram 3-2-2-1) of "Be-Tech Interface Server (BS)"

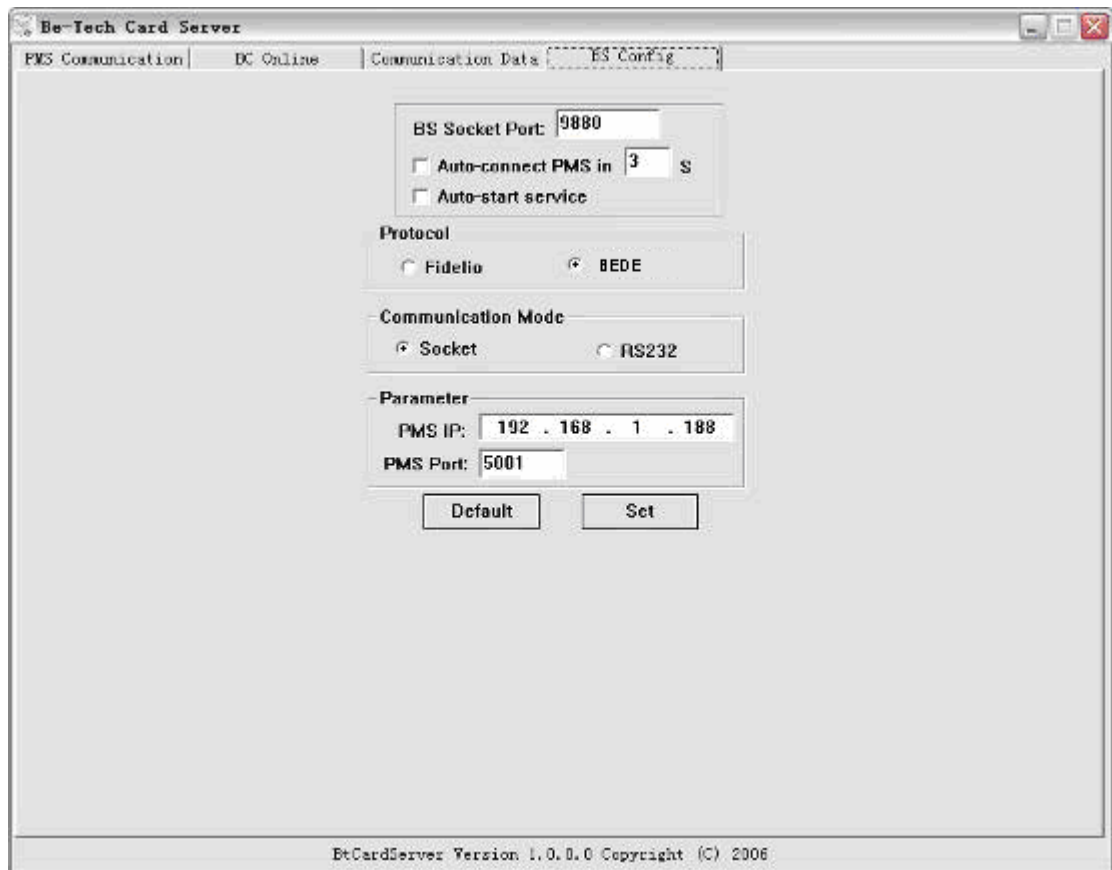


Diagram 3-2-2-1

- ① Run “Be-Tech Interface Server” and open “BS Config” page.
- ② Set up the port for communication between “Be-Tech Interface Server” and “Be-Tech Interface Client”.
- ③ Set communication protocol. The protocol for “Be-Tech Interface Server” and that for the “Interface Demo Program” must be the same.
- ④ Set communication mode. The communication mode for “Be-Tech Interface Server” and that for the “Interface Demo Program” must be the same.
- ⑤ Set the IP address of the “Interface Demo Program”, take the address of 192.168.1.188 as an example here.
- ⑥ Set the port for communication between “Be-Tech Interface Server” and the “Interface Demo Program”, this port must be the same as that set for “Interface Demo Program”.
- ⑦ Click “Set” button, confirm the parameter setting and save, you can restore the default value by simply clicking the “Default” button.
- ⑧ Open the “PMS Communication” page (the operation interface is shown in diagram 3-2-2-2)

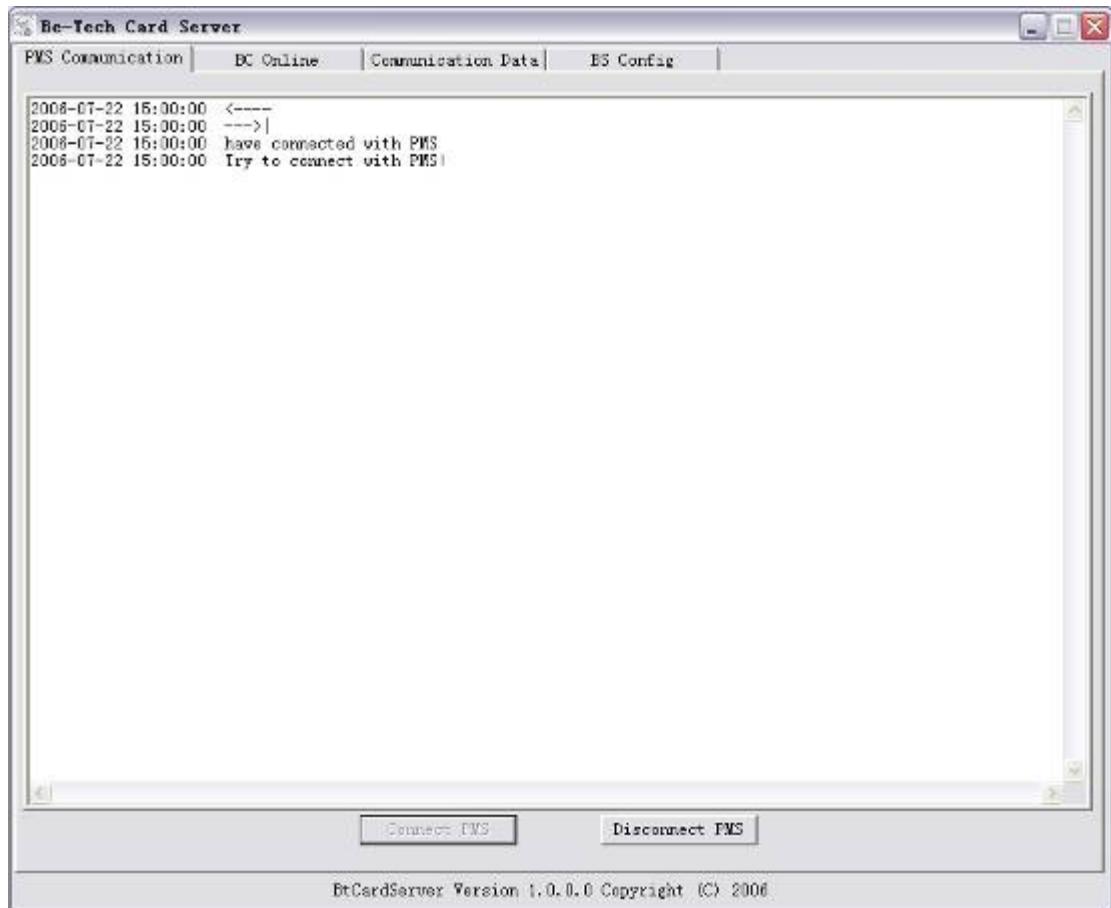


Diagram 3-2-2-2

- ⑨ Click “Connect PMS” button to connect “Interface Demo Program”. If you check in front of the “Auto-connect PMS” of the “BS Config” page, it will be connected automatically when you start the program next time; you can disconnect it by simply clicking the “Connect PMS” button.
- ⑩ Open the “BC Online” page (the operation interface is shown in diagram 3-2-2-3)

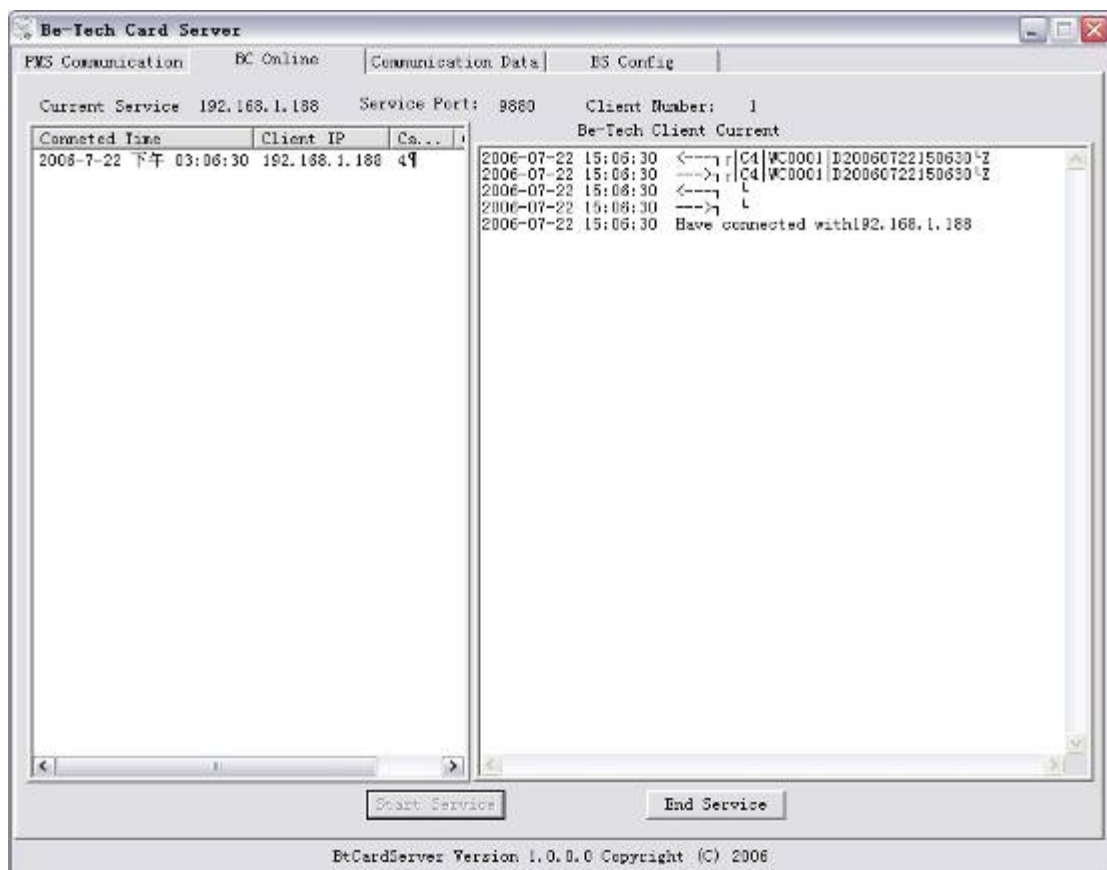


Diagram 3-2-2-3

⑪ Click the “Start Service” button to start the service of “Be-Tech Interface Server”. If you check in front of the “Auto-start service” of the “BS Config” page, the service will be started automatically when you start the program next time, you can stop the service by clicking the “End Service” button.



(3) Commissioning process instruction of “Be-Tech Interface Client (BC)”

① Run “Be-Tech Interface Client (BC)”.

② Click the “Set” button to set the “Server Address” and “Communication Port”. The “Server Address” and “Communication Port” are the address and communication port of “Be-Tech Interface Server”. Click “Confirm” button to set and save the settings (the operation interface is shown in diagram 3-2-3-1).



Diagram 3-2-3-1

③ Click “Connect” key  to connect the server, you can disconnect it by clicking the “Disconnect” key .

④ Click “User Options” in the “Set” menu bar, you can select you desired item (refer to “User Options” in the instruction manual of “Be-Tech Interface Client (BC)”for detail) according to the actual requirement.

⑤ Click “Confirm” button to set and save the result.

⑥ Click “Door lock” button to open the door lock list (the operation interface is shown in diagrams 3-2-3-2 and 3-2-3-3).

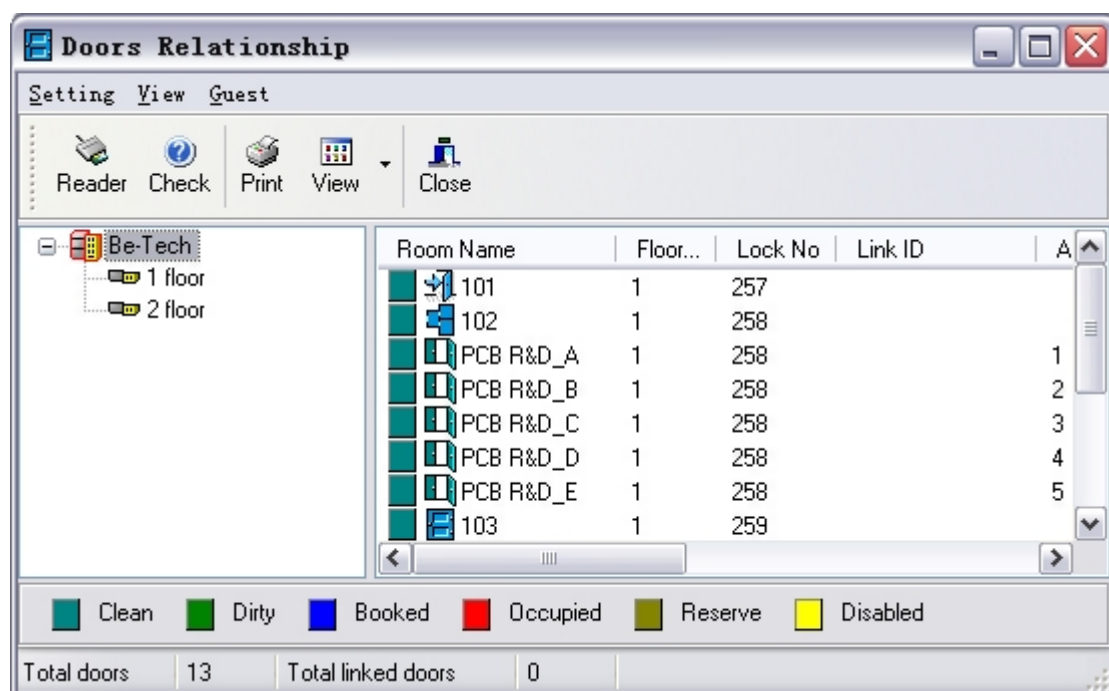


Diagram 3-2-3-2

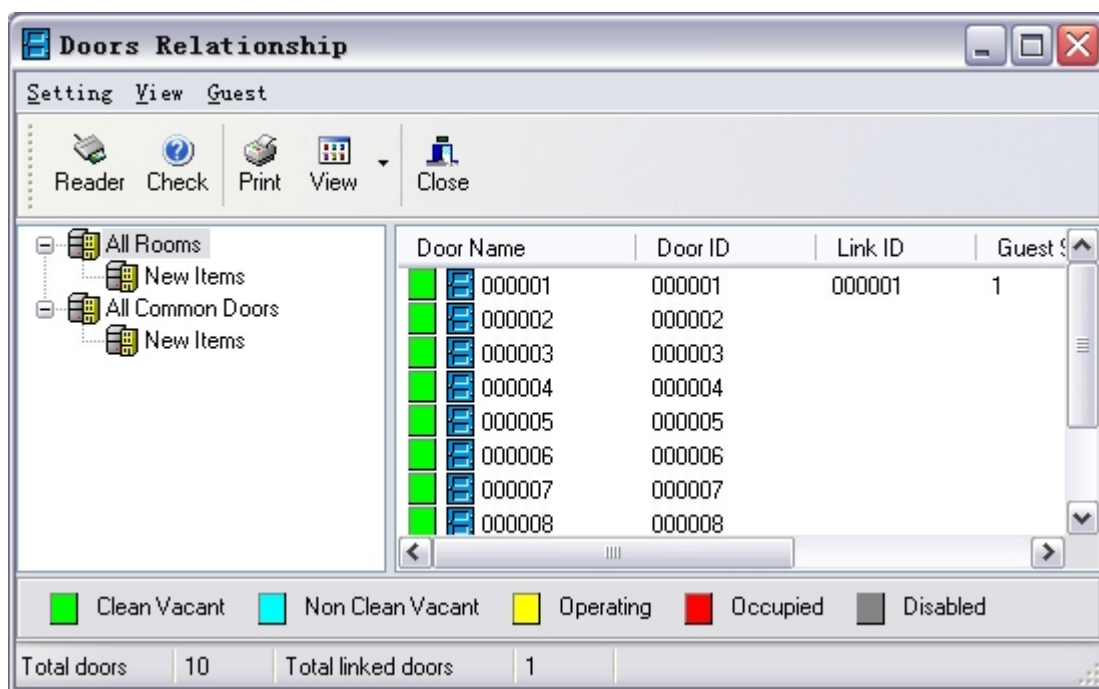


Diagram 3-2-3-3

⑦ Select the door lock whose “Comparison number” is to be set, and right click the mouse to select the “door lock comparison number” and set it (the operation interface is shown in diagrams 3-2-3-4 and 3-2-3-5).

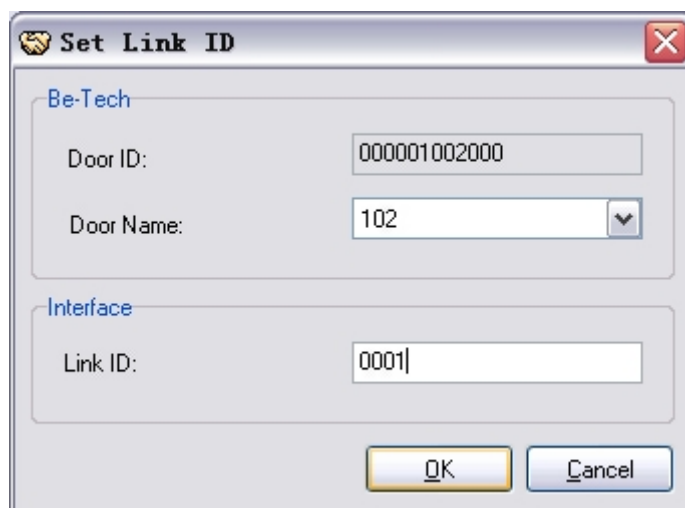
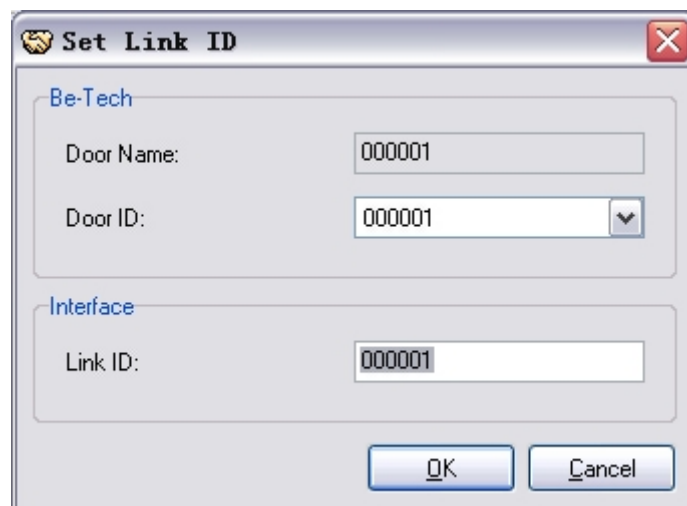


Diagram 3-2-3-4



The dialog box is titled "Set Link ID" and contains two sections: "Be-Tech" and "Interface".

Be-Tech

Door Name: 000001

Door ID: 000001 (dropdown menu)

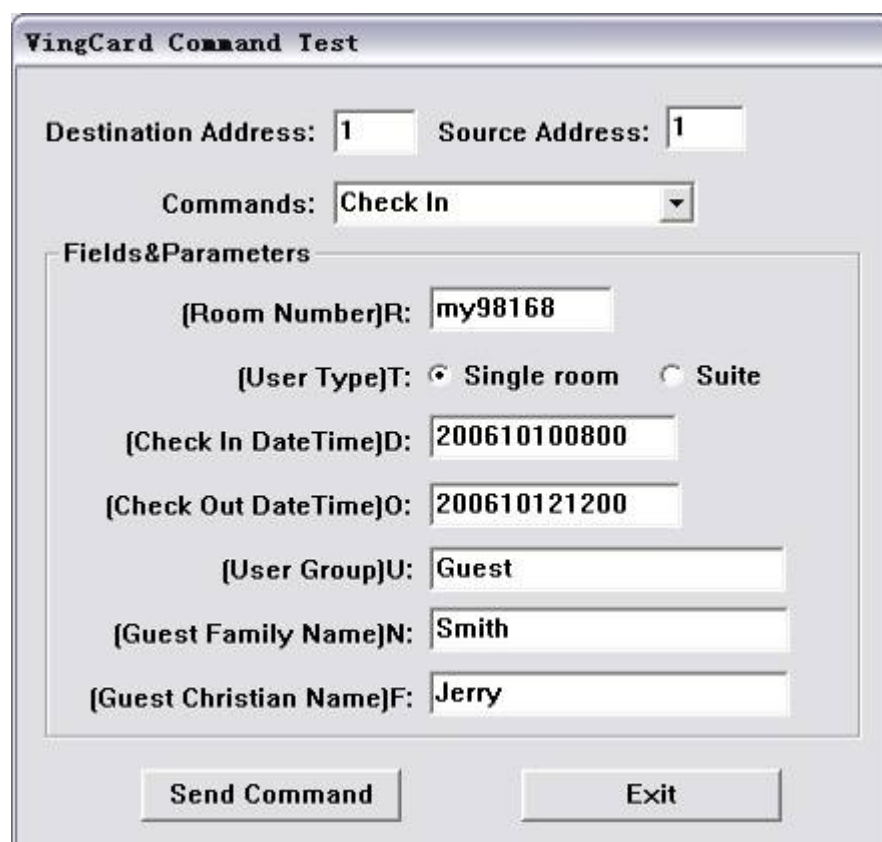
Interface

Link ID: 000001

Buttons: OK, Cancel

Diagram 3-2-3-5

- ⑧ Input the "Comparison number" and click "Confirm" button to set and save the result.
- (4) Test process instructions for "Be-Tech Interface Demo Program":
 - ① Click the "Test Command" button in the "Be-Tech Interface Demo Program" menu to open the command test menu (the operation interface is shown in diagrams 3-2-4), take BEDE protocol as an example.



The dialog box is titled "VingCard Command Test" and contains the following fields and controls:

Destination Address: 1 Source Address: 1

Commands: Check In (dropdown menu)

Fields&Parameters

[Room Number]R: my98168

[User Type]T: ☒ Single room ☐ Suite

[Check In DateTime]D: 200610100800

[Check Out DateTime]O: 200610121200

[User Group]U: Guest

[Guest Family Name]N: Smith

[Guest Christian Name]F: Jerry

Buttons: Send Command, Exit

Diagram 3-2-4

② Set the “destination address”, “source address”, “room number”, “user type”, “Check-in time”, “Check-out time”, “User group”, “Guest name”, “Guest surname”, and then select the “Command” to be sent, click “Send command” button to send the “Command” to “Be-Tech Interface Client”, for detailed parameter setting, please refer to the parameter setting instructions for “Be-Tech Interface Demo Program”.

③ “Be-Tech Interface Client” will start to execute the command after it receives it and has verified it, until the command is completely executed.

IV. Interface software server (Be-Tech Server)

“Be-Tech Interface Server (BS)” parameter setting instructions:

1. Instruction of “BS Config” page operation (the operation interface is shown in fig. 4-1)

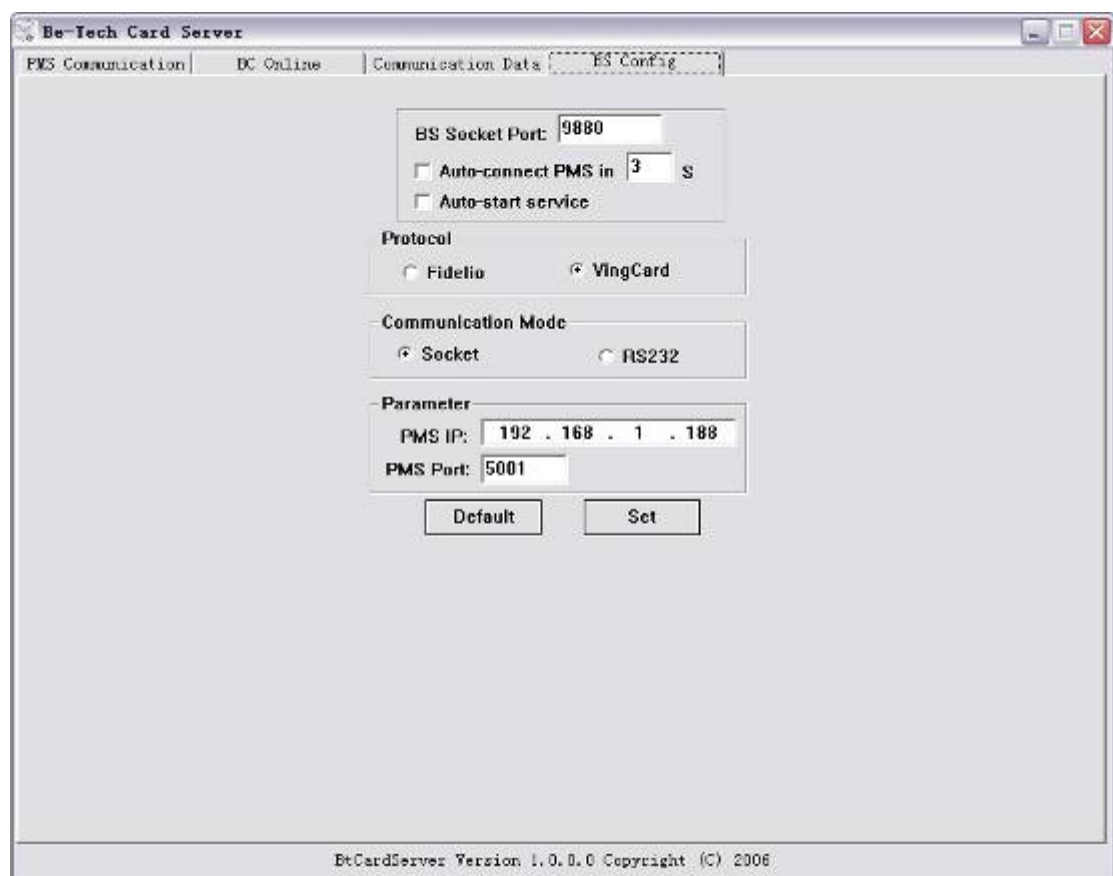


Diagram 4-1

- ① “BS Socket Port” is used for setting the port No. to be connected for communication between “Be-Tech Interface Server (BS)” and “Be-Tech Interface Client (BC)”.
- ② “Auto-connect PMS In S” is used for setting the delayed time (second) before starting the server.
- ③ “Auto-start service” is used for setting whether to start the server automatically when the program is started.

- ④ “Protocol” is used for setting the communication protocol of the program, which contains two protocols, i.e. Fidelio and BEDE.
- ⑤ “Communication Mode” is used for setting communication mode of the program, which uses two communication modes, i.e., Socket and RS232, Socket communication mode means communication under TCP/IP protocol, RS232 communication mode means communication through serial port line.
- ⑥ “Parameter” is used for setting basic parameters for different communication modes, if Socket communication mode is selected, it is necessary to set the PMS IP and the port No. to be connected for communication; if RS232 communication mode is selected, it is necessary to set the serial port to be connected for communication and the baud rate.
- ⑦ “Default” is used for restoring the default value of the program.
- ⑧ “Set” is used to save and validate the parameter settings.

2. Instruction of “PMS Communication” page operation (the operation interface is shown in fig. 4-2)

This page is used to set up connection between “Be-Tech Interface Server (BS)” and “Be-Tech Interface Demo Program (PMSDemo)”; “Connect PMS” key is used for connection, “Disconnect PMS” is used for disconnection; the connection information can be seen in the window.

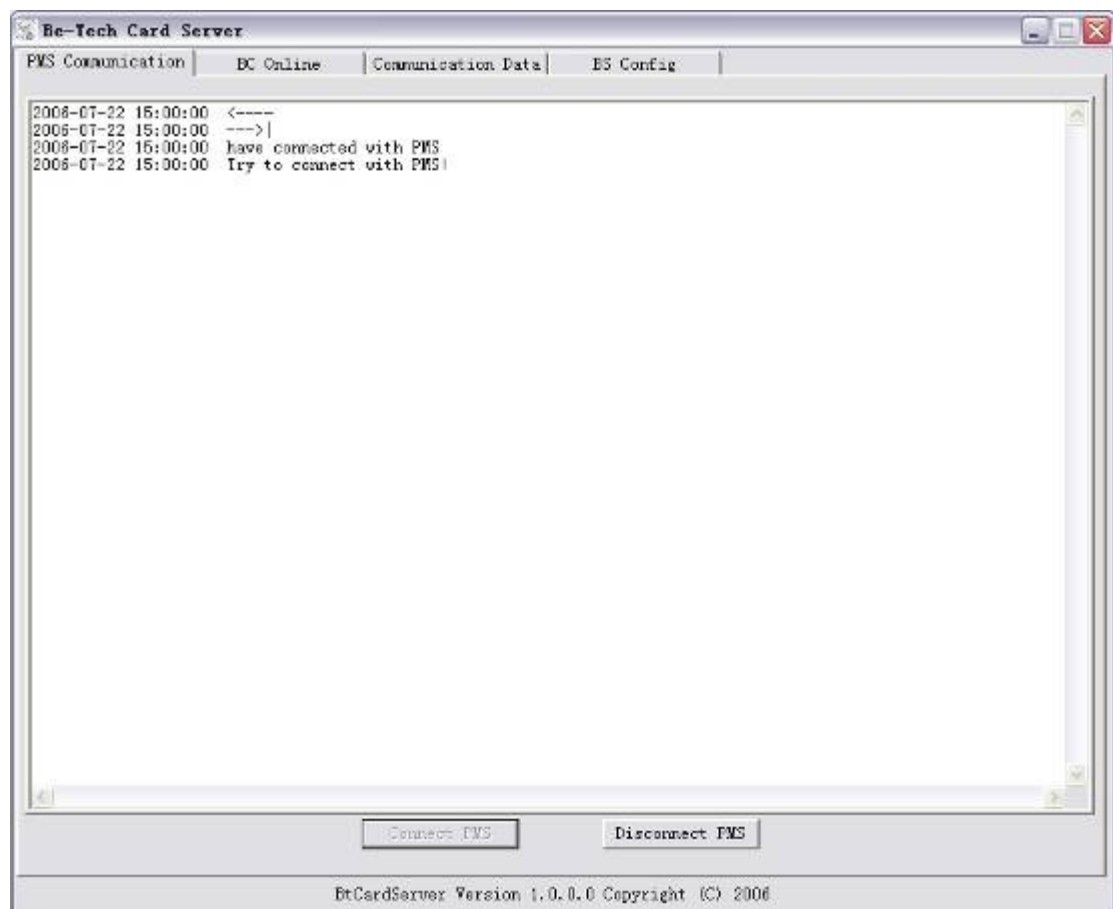


Diagram 4-2

3. Instruction of “BC Online” page operation (the operation interface is shown in fig. 4-3)

This page is used to start the service of “Be-Tech Interface Server (BS)”; “Start Service” key is used to start the service, “End Service” key is used to end the service; the uppermost part of this page is used to display “Current Service” (current server IP address), “Service Port” (server port), and “Client Number” (current client number), the left window is used to display the basic connection information of the current clients, such as “Connection time”, “Client IP”, “Issuer No.”, and “Client port”, and the right window is used to display the detailed command sending and receiving information of the current client.

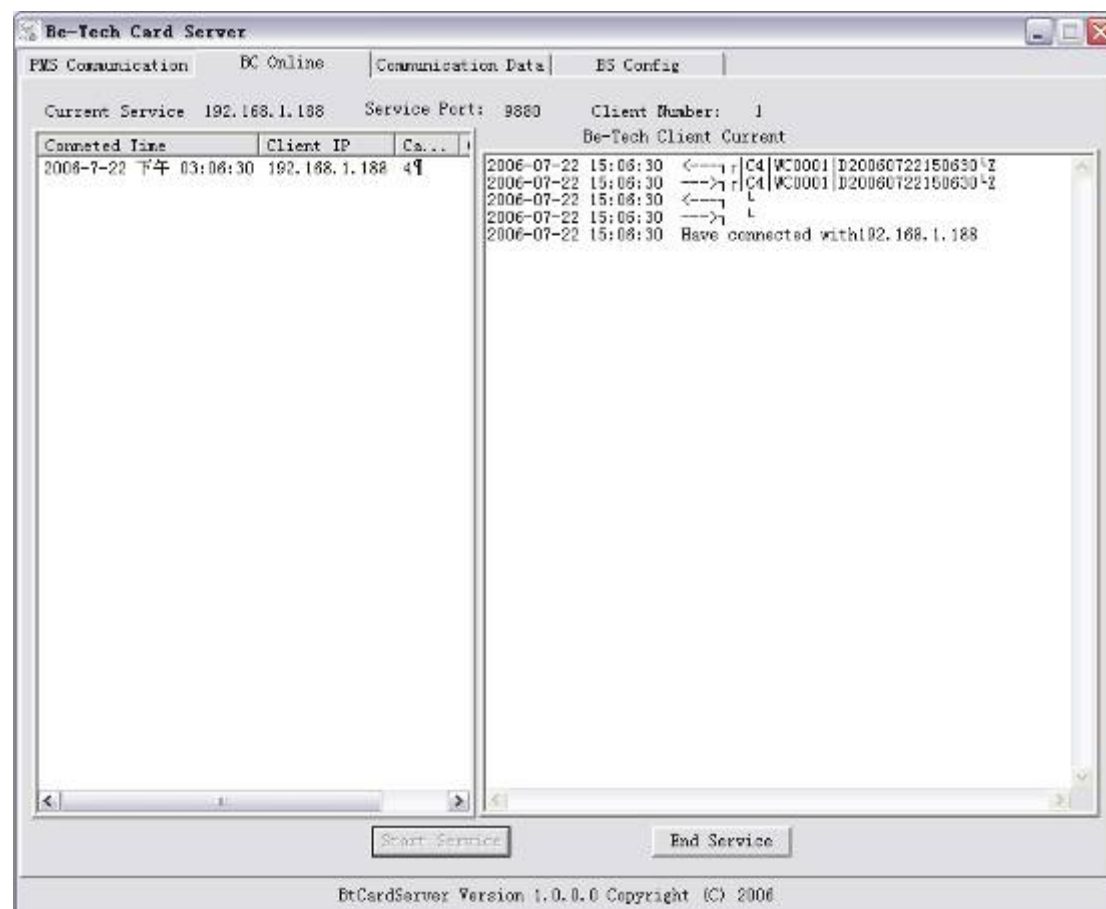


Diagram 4-3

4. Instruction of “Communication Data” page operation (the operation interface is shown in fig. 4-4)

This page is used to display the data sending and receiving information between “BC” and “BS” that between “BS” and “PMS”; “Look Up Date” is used to select the date of data recording, each date is a file data record information, when “BS” is used, a file data record information can be created each day, the communication status between “BC” and “BS” and that between “BS” and “PMS” can be displayed and compared in this column.

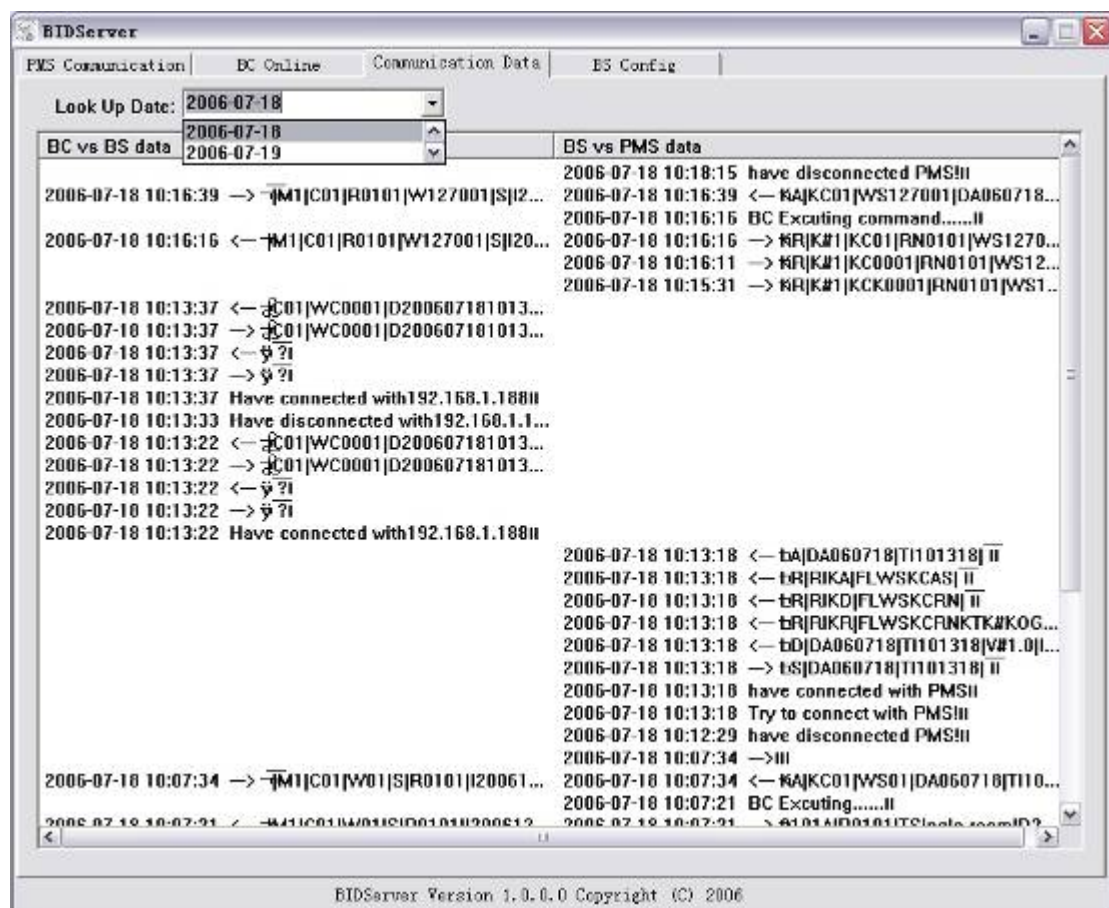


Diagram 4-4

V. Interface client (Be-Tech Client)

1. Instruction of EM5.6 interface client operation (the operation interface is shown in fig. 5-1)

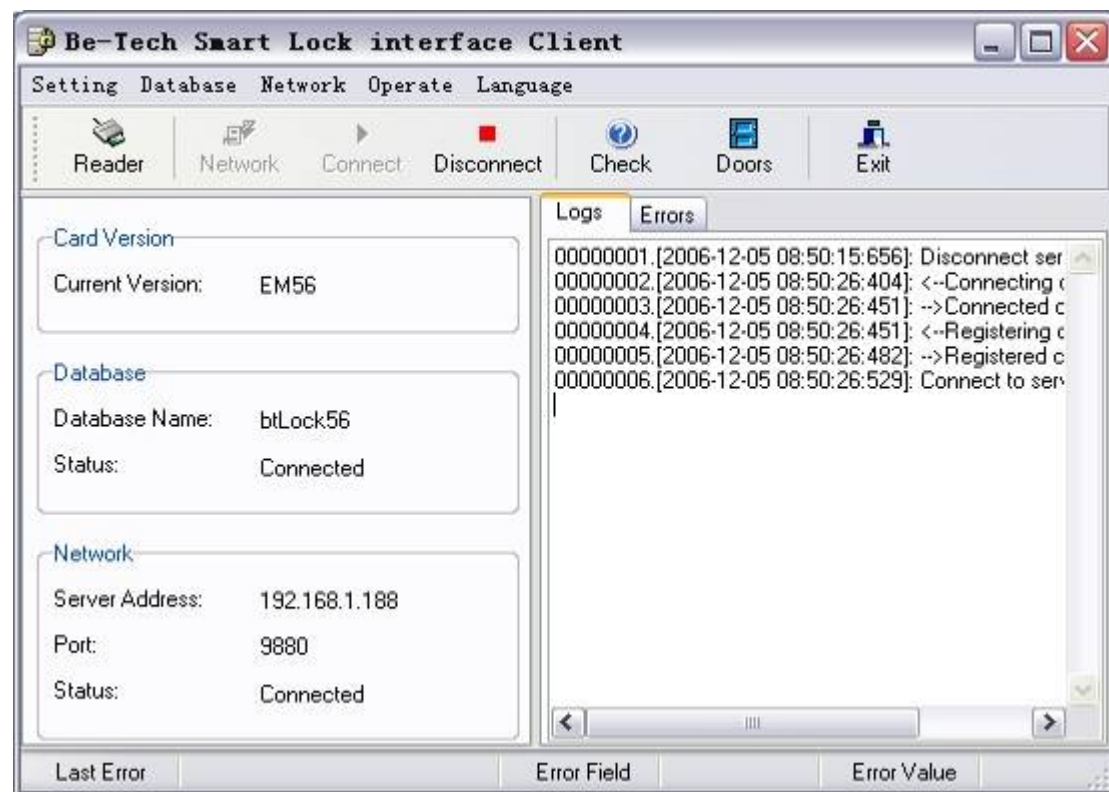


Diagram 5-1

① Main interface operating instructions (the operation interface is shown in diagram 5-1):

(1) At the top of the main interface of the system is the menu bar, which consists of 5 parts: setting, database, network connection, operation and Language (as shown in diagram 5-1-1-1).

Setting Database Network Operate Language

Diagram 5-1-1-1

(2) Below the menu bar of the main interface, there are seven quick buttons: card reader, setting, connect, disconnect, check, door lock and exit (as shown in diagram 5-1-1-2);



Diagram 5-1-1-2

(3) At the bottom of the main interface is the system error display area used to display the error messages such as error messages, error fields, and error field value etc. (as shown in diagram 5-1-1-3).

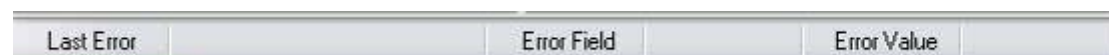


Diagram 5-1-1-3

(4) At the lower left of the quick buttons is the basic information display area of the system used to display such basic information as card edition, database connection and network connection (as shown in diagram 5-1-1-4), at the lower right is communication log and error log display area (as shown in diagrams 5-1-1-5 and 5-1-1-6).

The screenshot shows a configuration window with three sections: Card Version, Database, and Network. Each section contains a label and a value.

Card Version	
Current Version:	EM56

Database	
Database Name:	btLock56
Status:	Connected

Network	
Server Address:	192.168.1.188
Port:	9880
Status:	Connected

Diagram 5-1-1-4

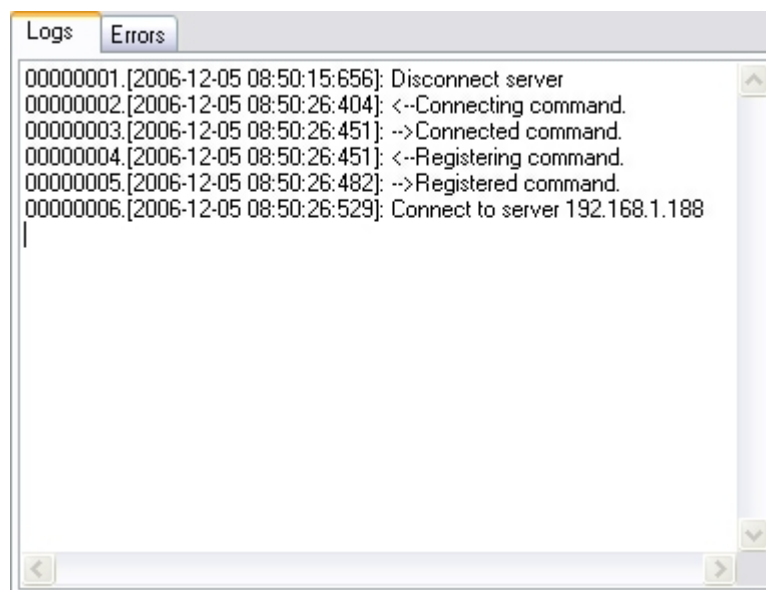


Diagram 5-1-1-5

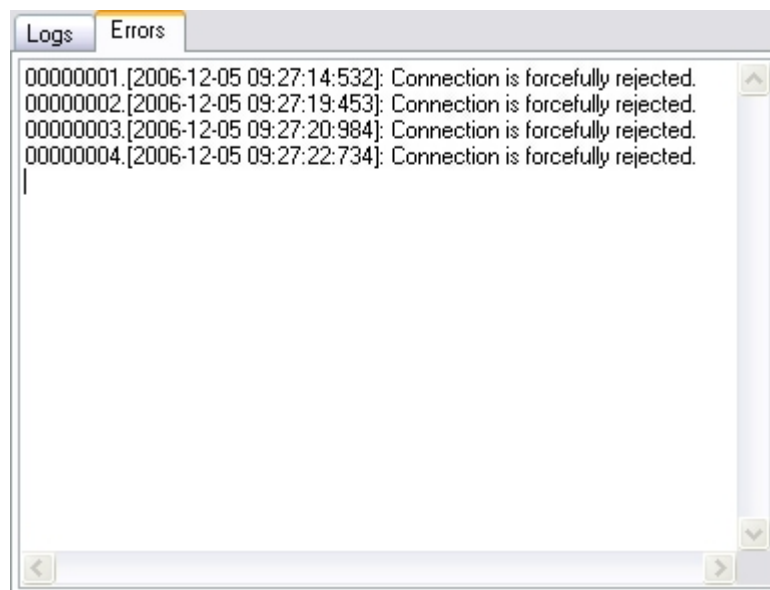


Diagram 5-1-1-6

② Menu operating instruction:

(1) Setting (as shown in diagram 5-1-2-1):

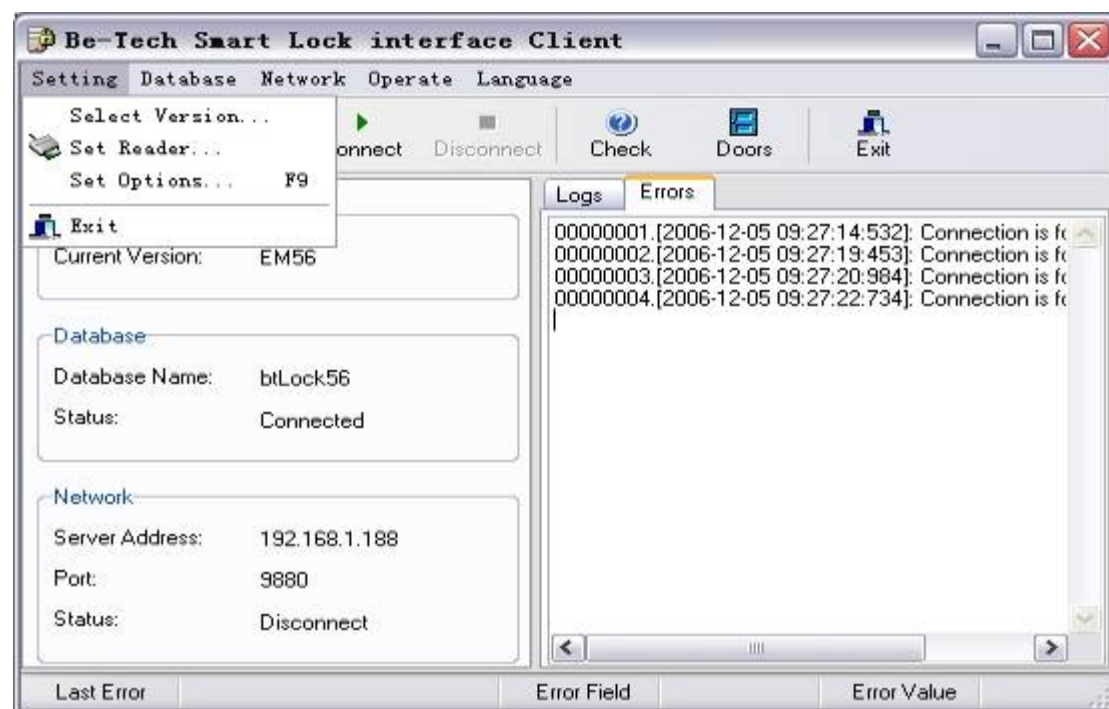


Diagram 5-1-2-1

After clicking “Setting”, a pull-down menu appears, as shown in the diagram, there are four setting items in the menu: card edition, card reader, use operations and exit.

A. Card edition: Click this item, the system will pop up a “card edition select window” (as shown in diagram 5-1-2-2), please select the card edition according to the actual edition of your card, and then click “Confirm”.

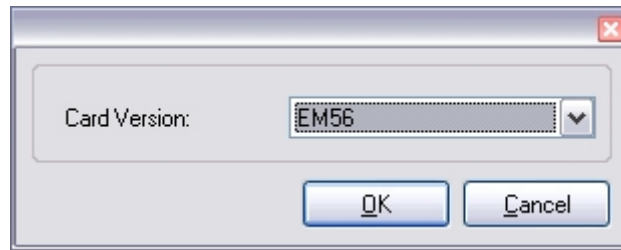



Diagram 5-1-2-2

B. Card reader: Click this item (you can also click the quick button  of the card reader), the system will pop up a “Be-Tech EM card reader properties dialog window (as shown in diagram 5-1-2-3), select the correct card reader model, the connection port the baud rate, set each item of the alarm setting options, and input the corresponding information according to the actual condition, at last, click the “confirm” button to complete the setting of the card reader.

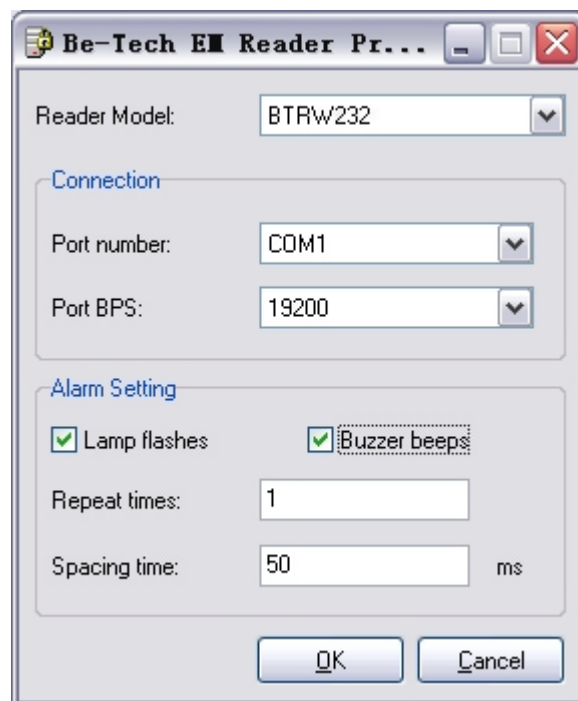


Diagram 5-1-2-3

C. User options: We can see that the user option setting window contains 3 pages: communication, function and database. They are described as following:

Communication (as shown in diagram 5-1-2-4): This page is used to set necessary communication items and their basic parameters.

Function card (as shown in diagram 5-1-2-5): This page is used to set the necessary function card items, cut-off time for guest check-in and the default departure time for guest check-in, and the staying days.

Database (as shown in diagram 5-1-2-6): This page is used to set the necessary database items.

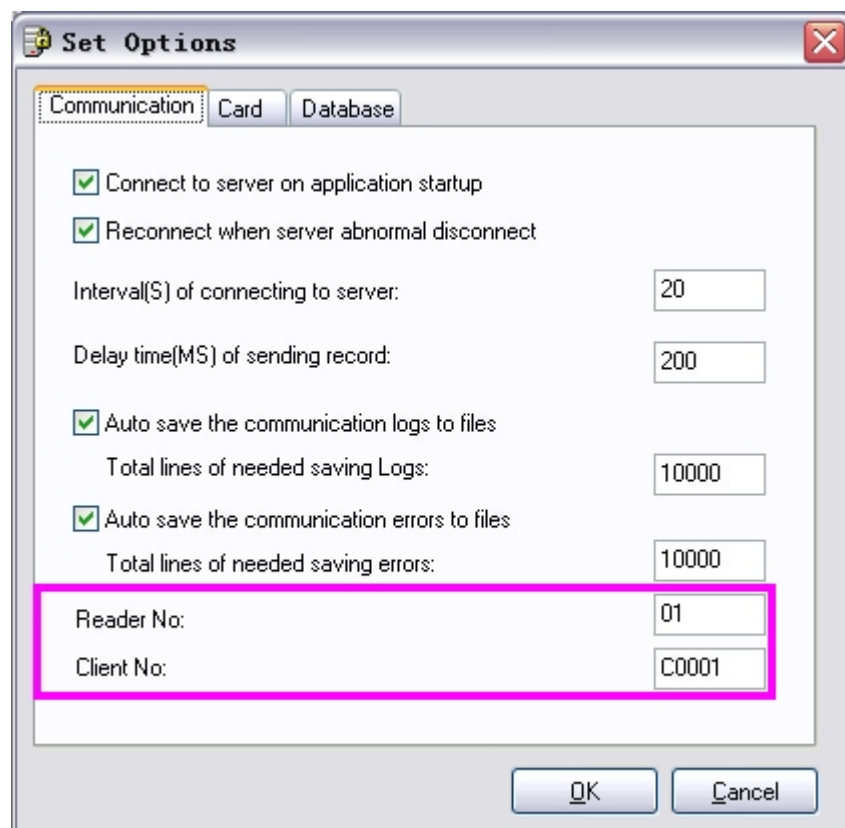


Diagram 5-1-2-4

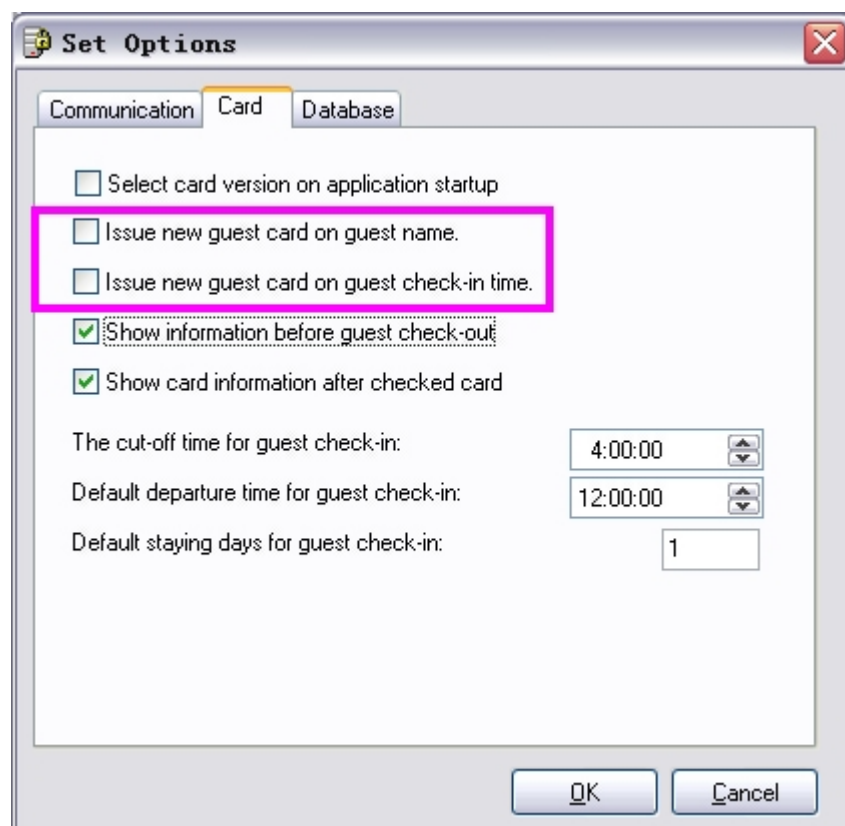
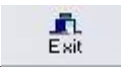


Diagram 5-1-2-5



Diagram 5-1-2-6

D. Exit: You can exit the client system by clicking this button (or by clicking the quick button ).

(2) Database (as shown in diagram 5-1-2-7):

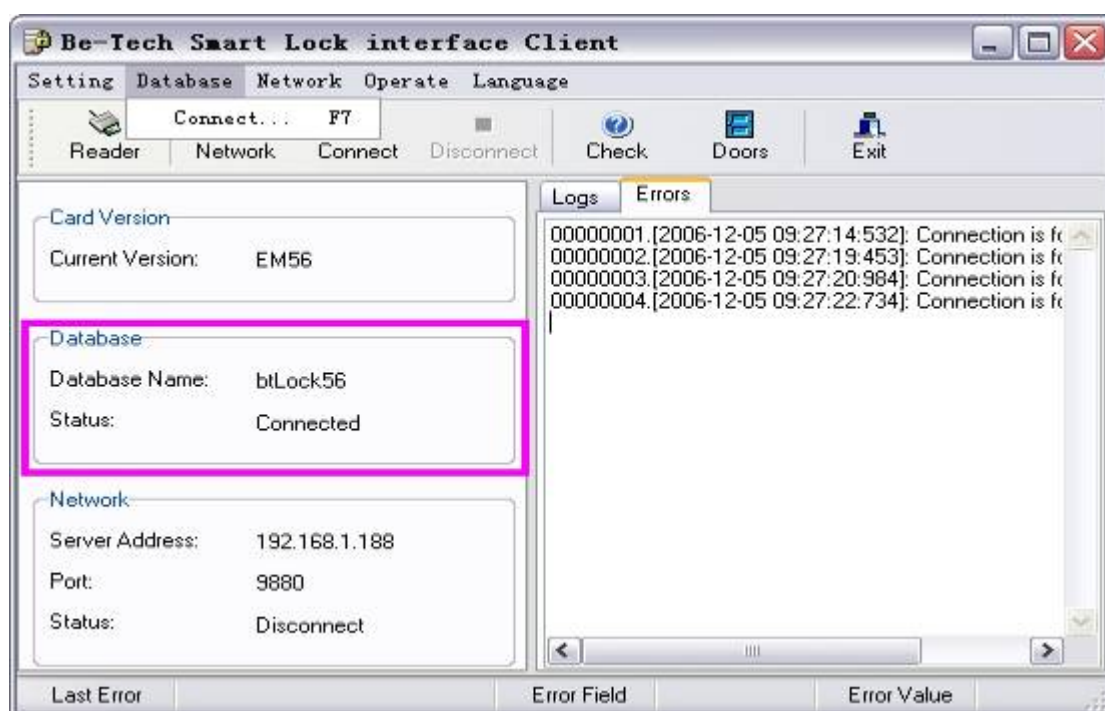


Diagram 5-1-2-7

After clicking the “Database”, a pull-down menu appears, as shown in the diagram, there is only one setting item in the menu: “Connect database”. Click this item to connect the database corresponding to the card edition, the connection status is displayed in the “basic system information display area” (as shown in diagram 3.13).

(3) Network connection (as shown in diagram 5-1-2-8):

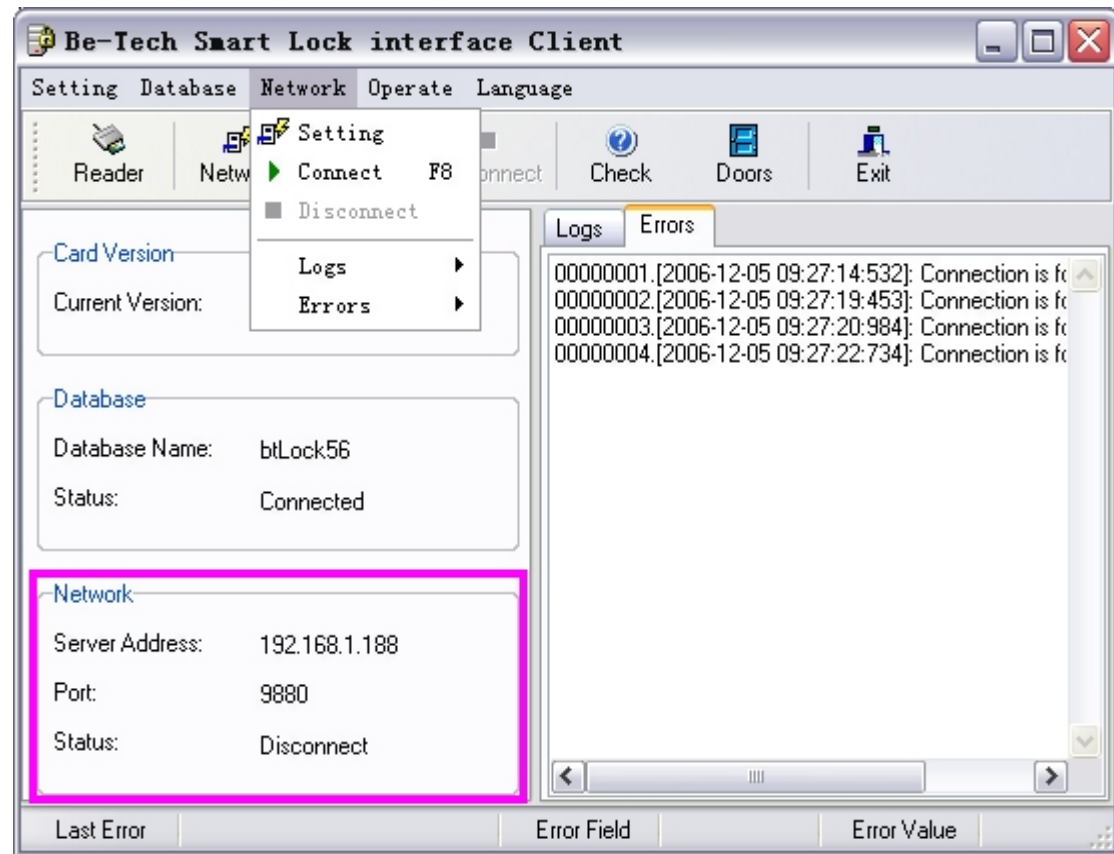




Diagram 5-1-2-8

After clicking the “Network connection”, a pull-down menu appears, as shown in the diagram, there are five setting items in the menu: Network setting, Connect server, Disconnect, Communication log, and Error log.

A. Network setting: Click this item (or click the quick button ) , the system will pop up a “Be-Tech Server Properties Setting Window” (as shown in diagram 3-2-3-1), please set the network according to the actual “Server address” and “Communication port”, and click “Confirm” at last.

B. Connect Server: Click this item (or click the quick button ) to connect “Be-Tech Interface Server”, the connection status is displayed in the “basic system information display area” (as shown in diagram 5-1-2-8).

C. Disconnect Server: Click this item (or click the quick button ) to disconnect “Be-Tech Interface Server”.

D. Communication log: This item is used for necessary operations to the “Communication log display area” including Clear, Print, Save, and as Save as, the communication status is displayed in the “Communication log display area” (as shown in diagram 5-1-1-5).

E. Error log: This item is used for necessary operations to the “Error log display area” including Clear, Print, Save, and as Save as, the error status is displayed in the “Error log display area” (as shown in diagram 5-1-1-6).

(4) Network connection (as shown in diagram 5-1-2-9):

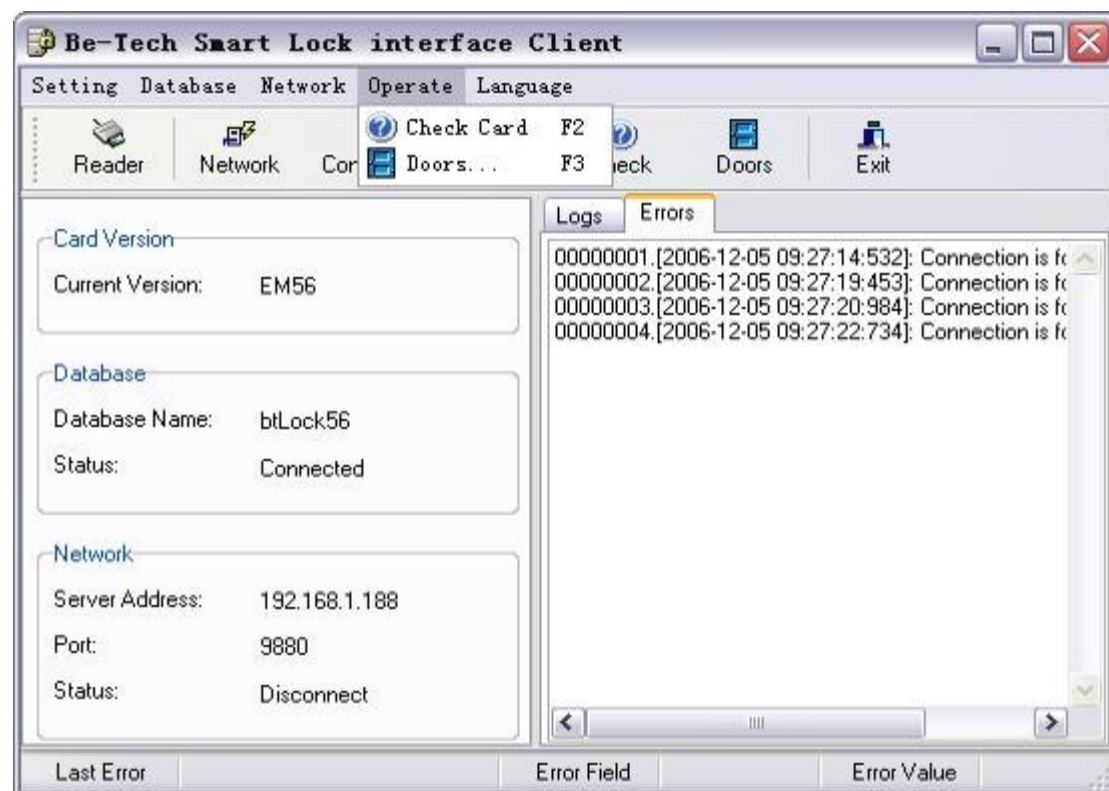




Diagram 5-1-2-9

After clicking “Operation”, a pull-down menu appears, as shown in the diagram, there are two setting items in the menu: Check and Door lock operation.

A. Check Card: Click this item (or click the quick button , you can use the card issuer to query your required card information.

B. Lock operation: Click this item (or click the quick button , the system will pop up an “Lock list operation window (as shown in diagram 3-2-3-2), you can carry out necessary operation to the lock in this window.

A) Main interface operating instructions (the operation interface is shown in diagram 3-2-3-2):

At the topmost of the main interface is the window’s menu bar, which consists of 3 parts: Setting, View, and Guest (as shown in diagram 5-1-2-10).

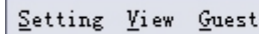
A horizontal menu bar with three items: 'Setting', 'View', and 'Guest'. Each item is underlined.

Diagram 5-1-2-10

Below the menu bar of the main interface, there are five quick buttons: Card reader, Check card, Print, View, and Close (as shown in diagram 5-1-2-11);

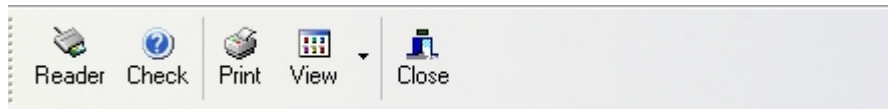


Diagram 5-1-2-11

At the bottom of the main interface is the system error display area used to display the error messages such as Total door lock number and Associated door locks etc (as shown in diagram 5-1-2-12).

Total doors	13	Total linked doors	0
-------------	----	--------------------	---

Diagram 5-1-2-12

Above the information display area is the room state identification area (as shown in diagram 5-1-2-13) which has 6 state identifications: Clean vacant, Non clean vacant, Operating, Occupied, Locked, and Maintenance.



Diagram 5-1-2-13

At the lower left of the quick buttons is the overall room information display area (as shown in diagram 5-1-2-14), at the lower right is the detailed room information display area (as shown in diagram 5-1-2-15).

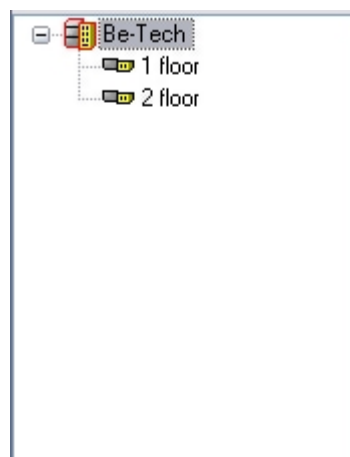


Diagram 5-1-2-14

Room Name	Floor...	Lock No	Link ID	Apar...	Common Door
101	1	257			101--104 (00257--002
102	1	258			
PCB R&D_A	1	258		1	
PCB R&D_B	1	258		2	
PCB R&D_C	1	258		3	
PCB R&D_D	1	258		4	
PCB R&D_E	1	258		5	
103	1	259			
104	1	260			
201	2	513			201--204 (00513--005
202	2	514			
203	2	515			
204	2	516			

Diagram 5-1-2-15

B) Menu operating instruction:

I. Setting (as shown in diagram 5-1-2-16):

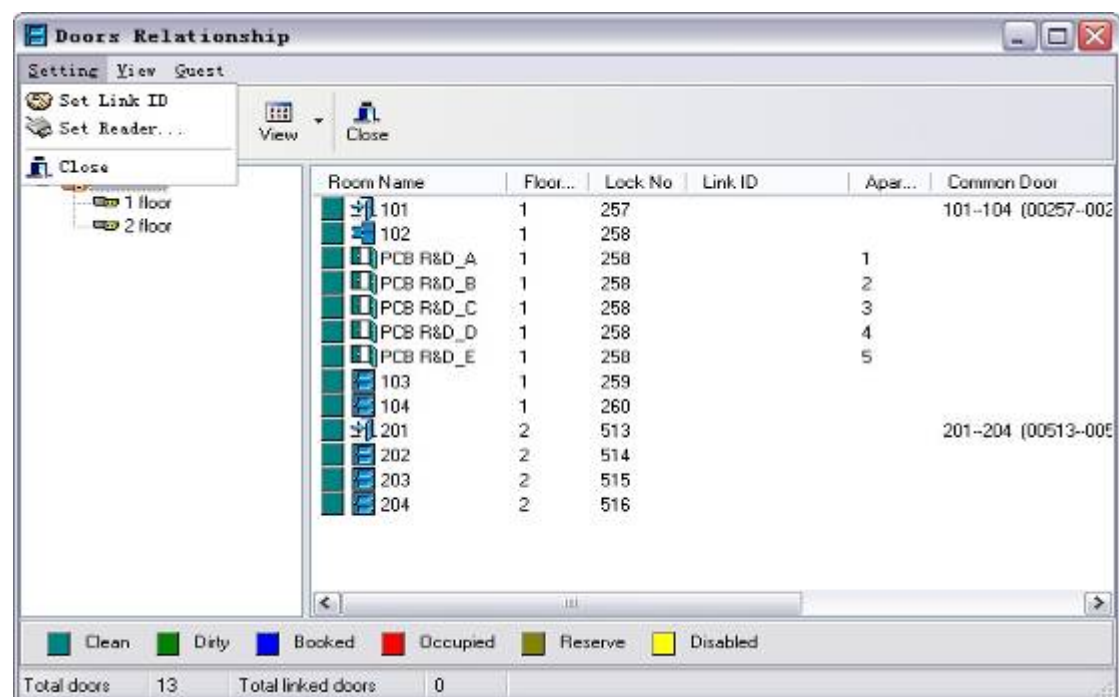


Diagram 5-1-2-16

After clicking “Setting”, a pull-down menu appears, as shown in the diagram, there are 3 setting items in the menu: Door lock comparison No., card reader, and close.

Lock comparison No.: the room No. related to the lock in BC corresponding to the PMS room No.; click this item (this operation can also be carried out in the detailed room information display area (as shown in diagram 5-1-2-17), the system will pop up a “Setting Lock comparison No. Properties Window” (as shown in diagram 3-2-3-4), input the Lock comparison No., and then click “confirm”.

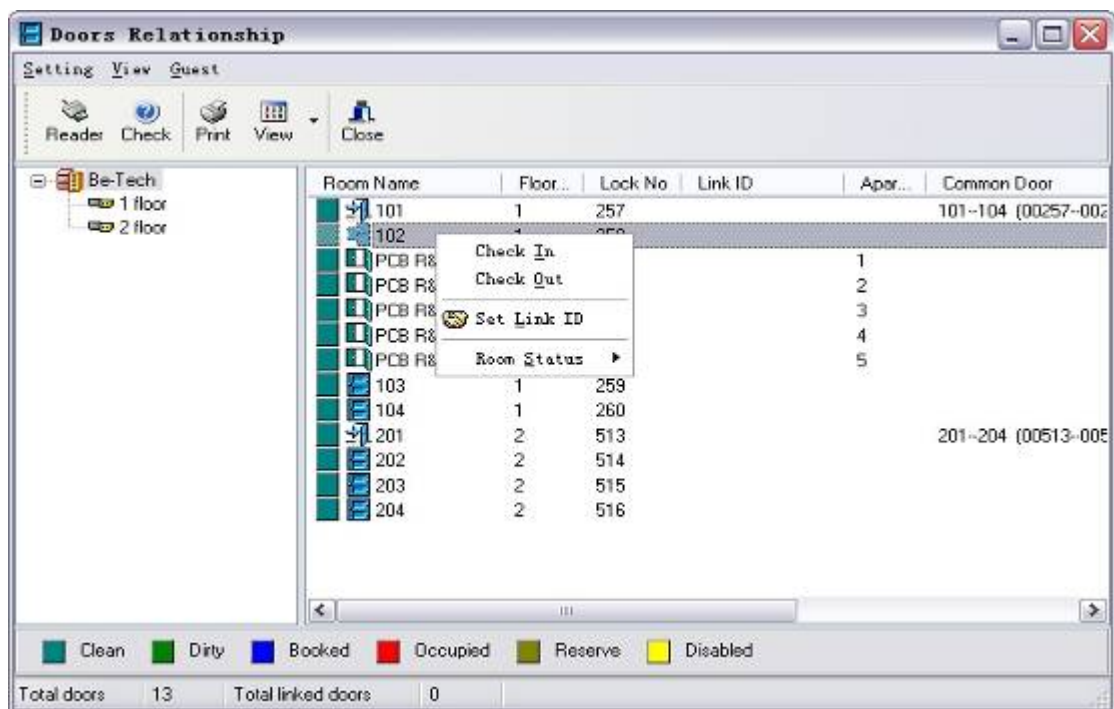



Diagram 5-1-2-17

Card reader: Same as client card reader items, please refer to client card reader operating instructions for detail.

Close: You can close the window by clicking this item (or by clicking the quick button ).

II. View (as shown in diagram 5-1-2-18):

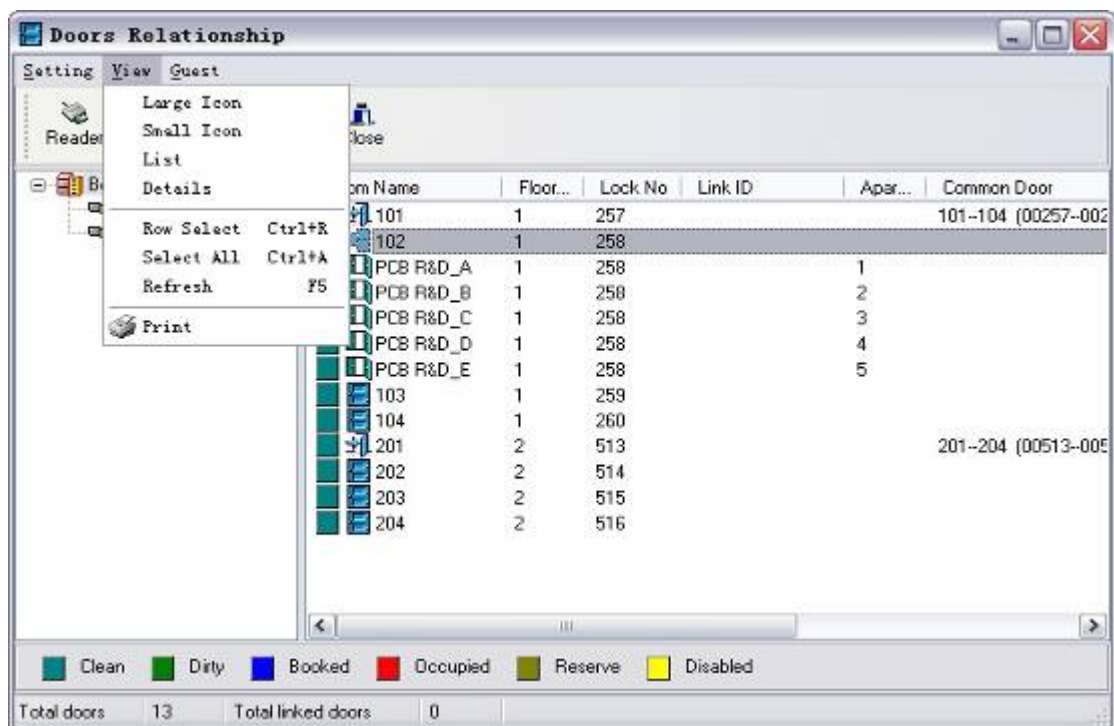



Diagram 5-1-2-18

After clicking “View”, a pull-down menu appears, as shown in the diagram, there are 8 setting items: large icon, small icon, list, detailed data, select row, select all, refresh and print.

The large icon, small icon, list and detailed data are the 4 items that are used to display room information in different modes in the room information display area (this operation can also be carried out by clicking the quick button  or in the detailed room information display area (as shown in diagram 5-1-2-19)

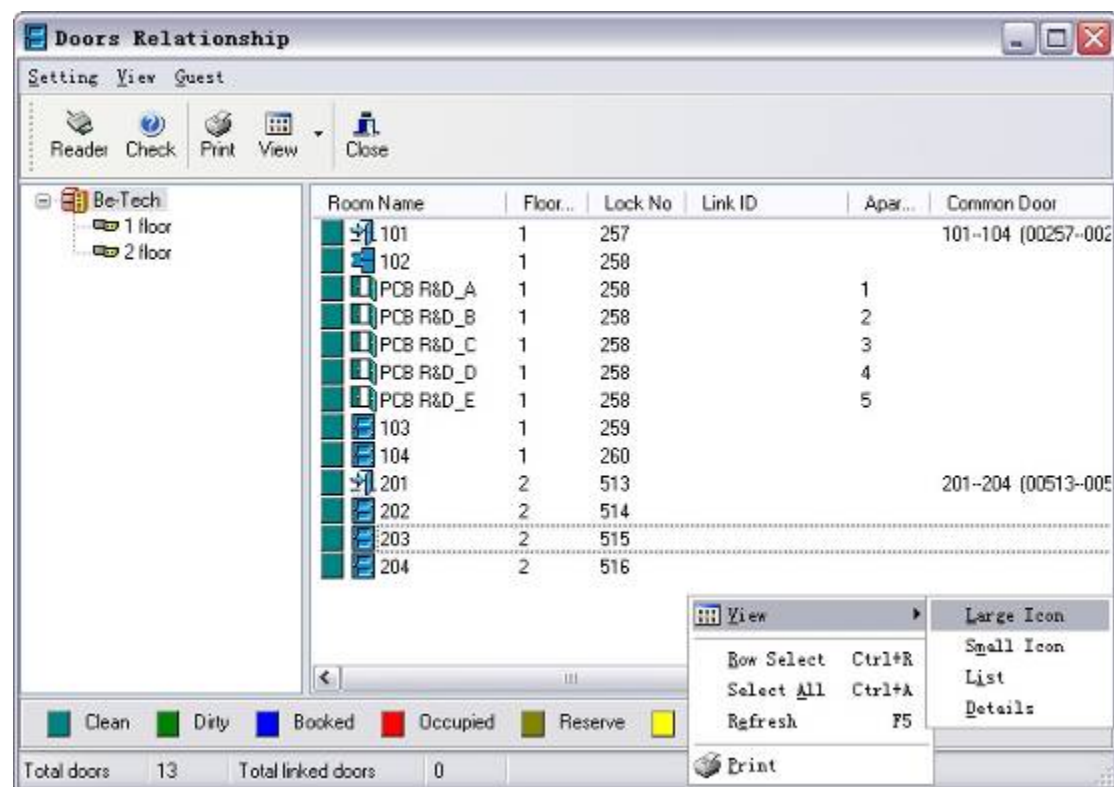



Diagram 5-1-2-19

“Select row” and “select all” are the two items that are used to select rooms in different ways, you can click the “select row” button to select the room items in that whole row, or click the “select all” button to select all the rooms, this function is designed to convenience user operation (this operation can also be carried out in the detailed room information display area (as shown in diagram 5-1-2-19)).

Refresh item is used to refresh the current room state information (this operation can also be carried out in the detailed room information display area (as shown in diagram 5-1-2-19)).

Print item is used to print the current room state information (this operation can also be carried out

by clicking the quick button  or in the detailed room message display area (as shown in diagram 5-1-2-19)).

III. Guest (as shown in diagram 5-1-2-20):

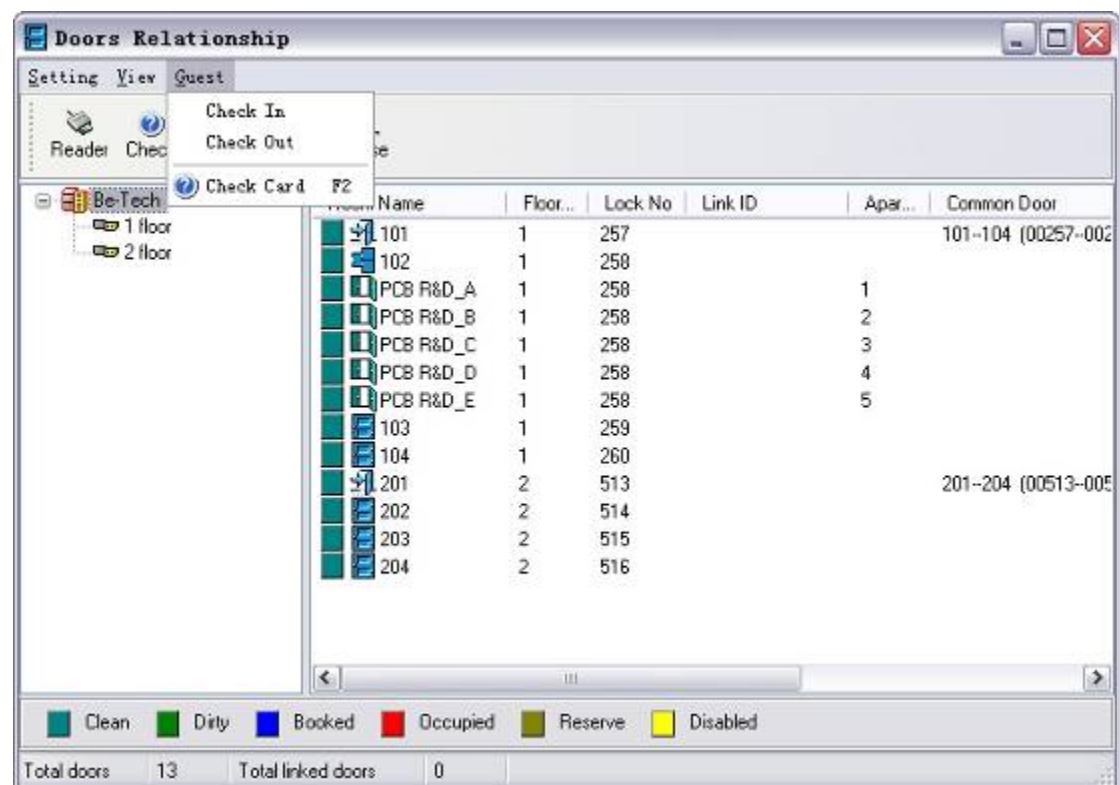


Diagram 5-1-2-20

After clicking “Guest Check-in”, a pull-down menu appears, as shown in the diagram, there are 3 setting items in the menu: Guest check-in, Guest check-out and card check.

Guest Check-in (as shown in diagram 5-1-2-21)): This card is only effective to the door locks corresponding to lock number in the same system. You can allocate the same lock number to several locks (this can also be done by left clicking the mouse on the icon of the room corresponding to the guest card to be issued, or by right clicking the mouse to select the corresponding item (as shown in diagram 5-1-2-17)).

Accompanied check-in: Several gussets check in the same room, same as guest check-in.

Extend: The guest continues to stay in the original room, to do so, put the guest card to be extended on the card issuer, open the “Guest card” window, then click “Extend (R)” button, the system will pop up a "Query" window, click “Confirm” button to read the card, the system will return to the “Guest card” window after reading the card, click "Issue" button, the system will pop up a "Query" window, click “Confirm” button to issue the card.

Guest Card

Room Name: 102

Apartment No.: 102(000) — 102(000)

Consumption: 0 Guest Sum: 0

Guest Name:

Stay Days: 1

Check-In Time: 2006-12-05 10:00:27

Check-Out Time: 2006-12-06 12:00:00

Sex: ☒ Male ☐ Female Old: 0

Passport No.:

Nationality.: City:

Address:

Memo:

Check-In Roommate Relet

Check-Out Issue Exit

Diagram 5-1-2-21

Guest Check-out: The guest checks out and exits from staying status, the check-out room is left in Non Clean Vacant status; you can change the room status by right clicking the mouse to select the desired room status.

Check card: Same as client card check items, please refer to client card check operating instructions for detail.

(5) Language (as shown in diagram 5-1-2-22):

For users' convenience, this system supports both English and Chinese Languages (as shown in diagrams 5-1-2-22 and 5-1-2-23), users can select any of the two languages according to the actual requirement.

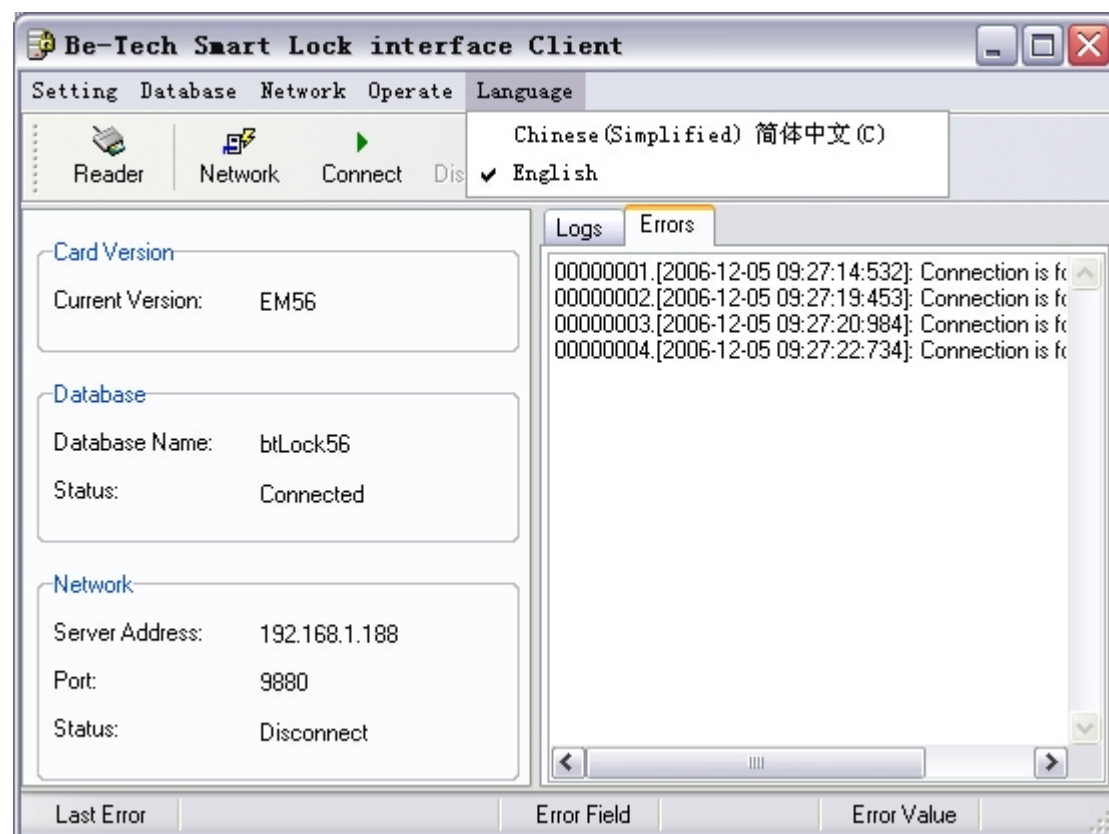


Diagram 5-1-2-22

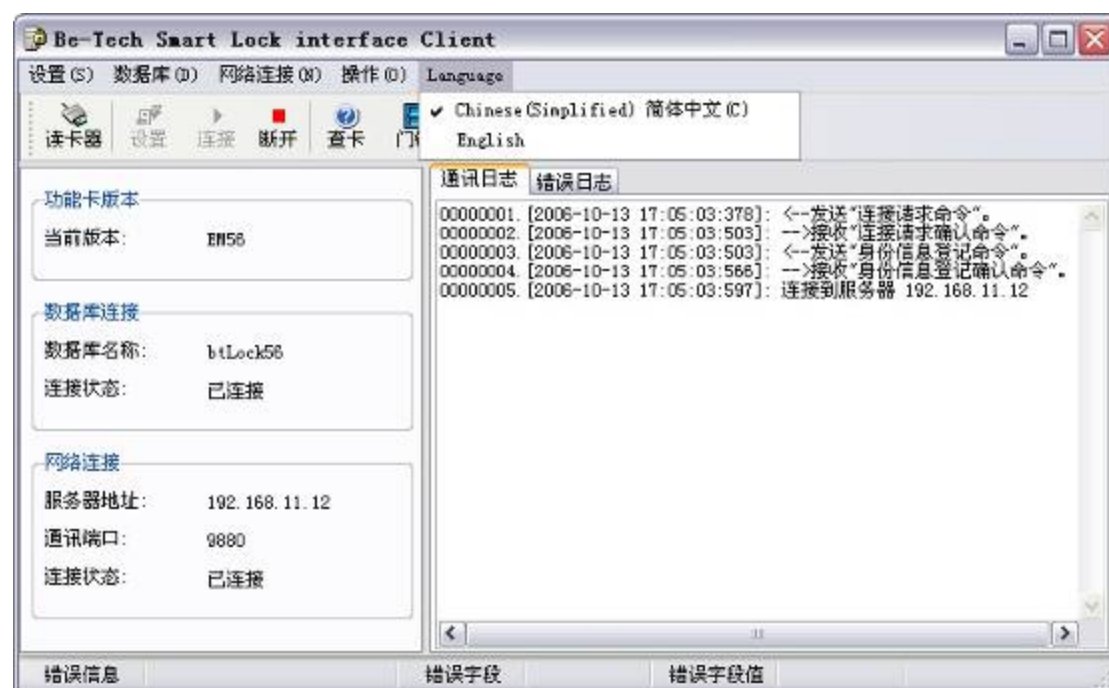


Diagram 5-1-2-23

2. Instruction of IC5.5& MF5 interface client operation (the operation interface is shown in fig. 5-2)

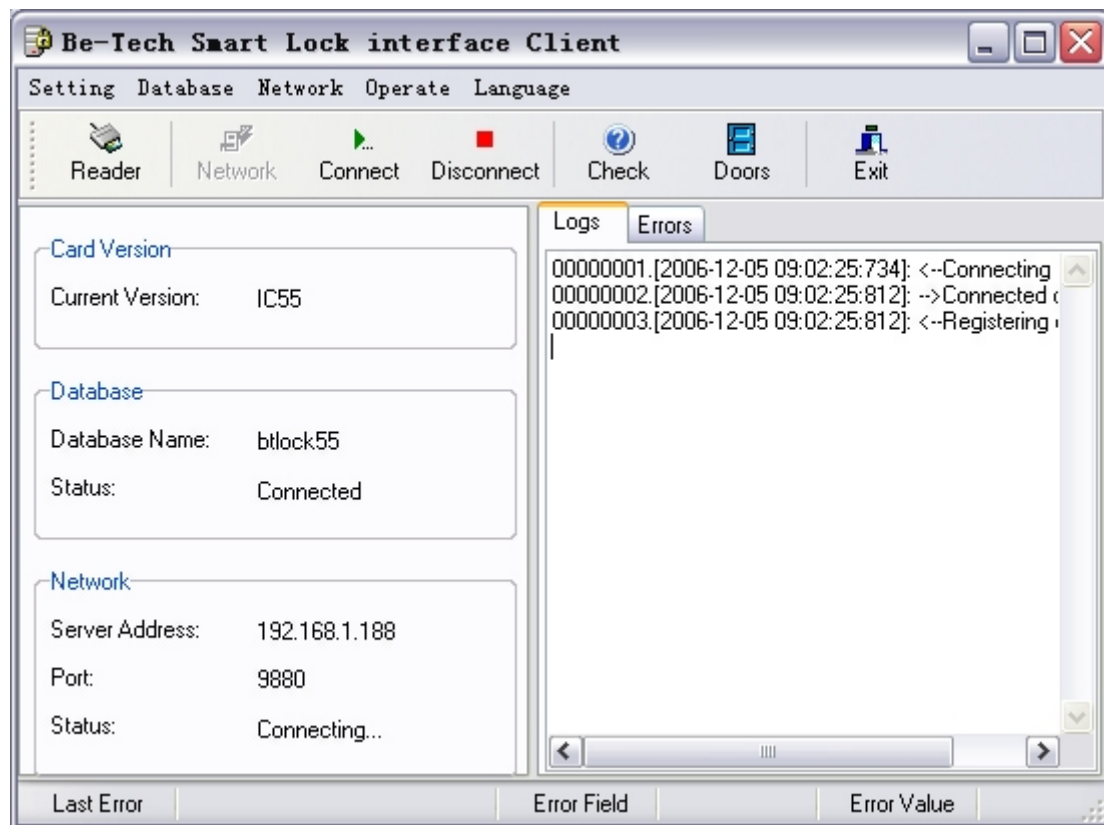


Diagram 5-2

Both IC5.5 and MF5.7 interface clients supports two kinds of card readers respectively, the two kinds of card readers supported by IC5.5 interface client are ZYICCUR (USB IC card issuer) and MWIC232, the two kinds of card readers supported by MF5.7 interface client are ZYMUR100 (USB Mifare card issuer) and ZYMSR100, among which, ZYICCUR (USB IC card issuer) and ZYMUR100 (USB Mifare card issuer) can be used only after a drive is installed.

① Main interface operating instructions (the operation interface is shown in diagram 5-2):

(1) At the top of the main interface of the system is the menu bar, which consists of 5 parts: setting, database, network connection, operation and Language (as shown in diagram 5-2-1-1).

Setting Database Network Operate Language

Diagram 5-2-1-1

(2) Below the menu bar of the main interface, there are seven quick buttons: card reader, setting, connect, disconnect, check, door lock and exit (as shown in diagram 5-2-1-2);

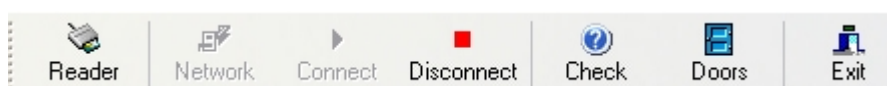


Diagram 5-2-1-2

(3) At the bottom of the main interface is the system error display area used to display the error messages such as error messages, error fields, and error field value etc. (as shown in diagram 5-2-1-3).

Last Error	Error Field	Error Value
------------	-------------	-------------

Diagram 5-2-1-3

(4) At the lower left of the quick buttons is the basic information display area of the system used to display such basic information as card edition, database connection and network connection (as shown in diagram 5-2-1-4), at the lower right is communication log and error log display area (as shown in diagrams 5-2-1-5 and 5-2-1-6).

Card Version	
Current Version:	IC55
Database	
Database Name:	bblock55
Status:	Connected
Network	
Server Address:	192.168.1.188
Port:	9880
Status:	Connecting...

Diagram 5-2-1-4

Logs	Errors
<pre>00000001.[2006-12-05 08:50:15:656]: Disconnect server 00000002.[2006-12-05 08:50:26:404]: <-Connecting command. 00000003.[2006-12-05 08:50:26:451]: -->Connected command. 00000004.[2006-12-05 08:50:26:451]: <-Registering command. 00000005.[2006-12-05 08:50:26:482]: -->Registered command. 00000006.[2006-12-05 08:50:26:529]: Connect to server 192.168.1.188 </pre>	

Diagram 5-2-1-5

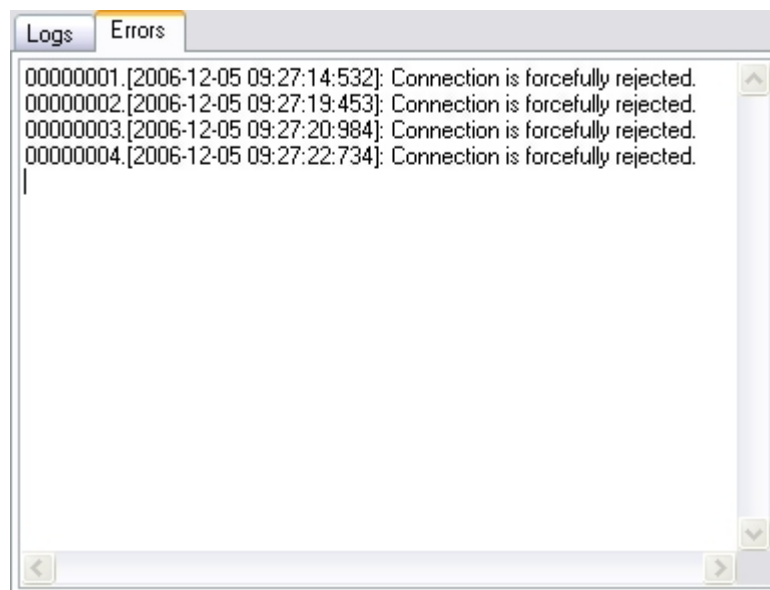


Diagram 5-2-1-6

② Menu operating instruction:

(1) Setting (as shown in diagram 5-2-2-1):

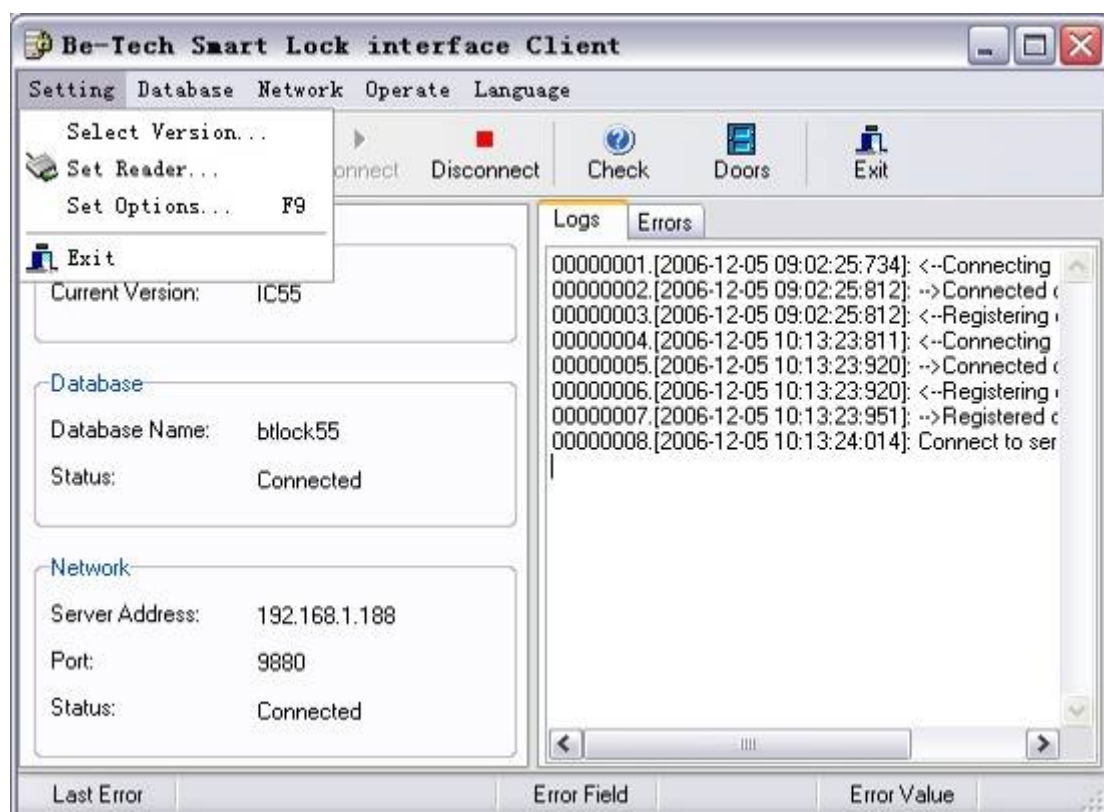


Diagram 5-2-2-1

After clicking “Setting”, a pull-down menu appears, as shown in the diagram, there are four setting items in the menu: card edition, card reader, use operations and exit.

A. Card edition: Click this item, the system will pop up a “card edition select window” (as shown in diagram 5-2-2-2), please select the card edition according to the actual edition of your card, and click “Confirm” at last.

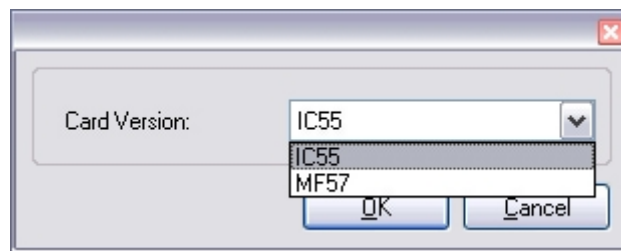



Diagram 5-2-2-2

B. Card reader: Click this item (you can also click the quick button  of the card reader), the system will pop up an IC5.5 or MF5.7 card reader select window (as shown in diagram 5-2-2-3 and diagram 5-2-2-4), after selecting the corresponding card, click “Confirm” button, the system will pop up a corresponding card reader properties editor dialog window (as shown in diagram 5-2-2-5, diagram 5-2-2-6, diagram 5-2-2-7 and diagram 5-2-2-8), selecting the correct card model, connection port the baud rate, set each item of the alarm setting options, and input the corresponding information according to the actual conditions, at last, click the “confirm” button to complete the setting of the card reader.

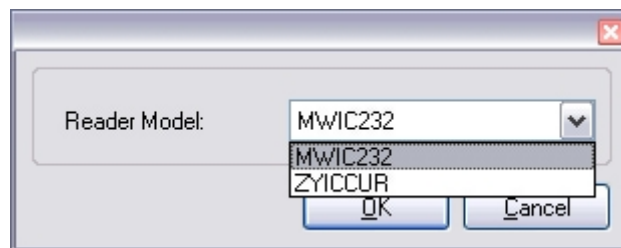


Diagram 5-2-2-3



Diagram 5-2-2-4

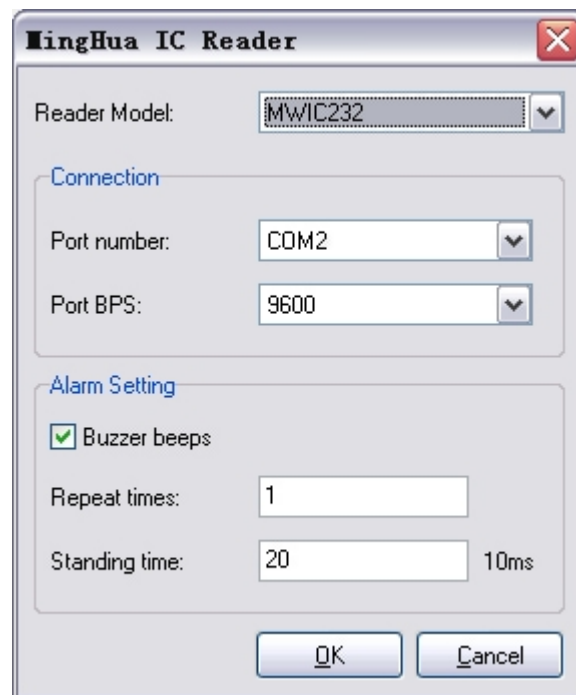


Diagram 5-2-2-5

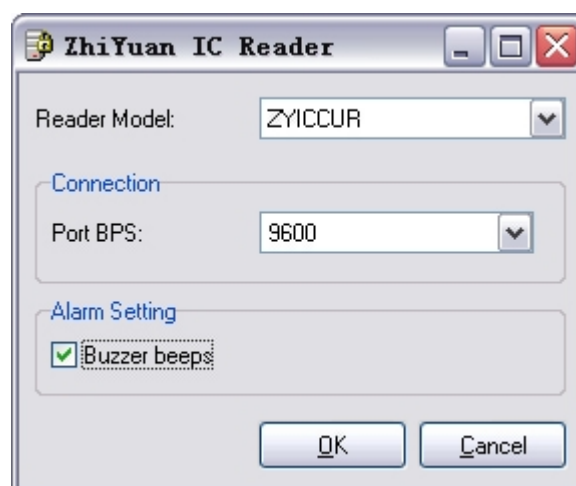


Diagram 5-2-2-6

The dialog box is titled "ZhiYuan Reader Properties" with a close button (X) in the top right corner. It contains two main sections: "Connection" and "Alarm Setting".

Connection Section:

- Reader Model: ZYMSR100 (dropdown menu)
- Port number: COM1 (dropdown menu)
- Port BPS: 19200 (dropdown menu)

Alarm Setting Section:

- ☒ Lamp flashes
- ☒ Buzzer beeps
- Repeat times: 1 (text input)
- Standing time: 25 (text input) 10ms
- Spacing time: 25 (text input) 10ms

At the bottom, there are two buttons: "OK" and "Cancel".

Diagram 5-2-2-7

The dialog box is titled "ZhiYuan Reader Properties" with a close button (X) in the top right corner. It contains two main sections: "Connection" and "Alarm Setting".

Connection Section:

- Reader Model: ZYMUR100 (dropdown menu)
- Port number: (empty dropdown menu)
- Port BPS: (empty dropdown menu)

Alarm Setting Section:

- ☒ Lamp flashes
- ☒ Buzzer beeps
- Repeat times: 1 (text input)
- Standing time: 25 (text input) 10ms
- Spacing time: 25 (text input) 10ms

At the bottom, there are two buttons: "OK" and "Cancel".

Diagram 5-2-2-8

C. User options: We can see that the user option setting window contains 3 pages: communication, function and database. They are described as following respectively:

Communication (as shown in diagram 5-2-2-9): This page is used to set necessary communication items and their basic parameters.

Function card (as shown in diagram 5-2-2-10): This page is used to set the necessary function card items, cut-off time for guest check-in and the default departure time for guest check-in, and the staying days etc.

Database (as shown in diagram 5-2-2-11): This page is used to set the necessary database items.

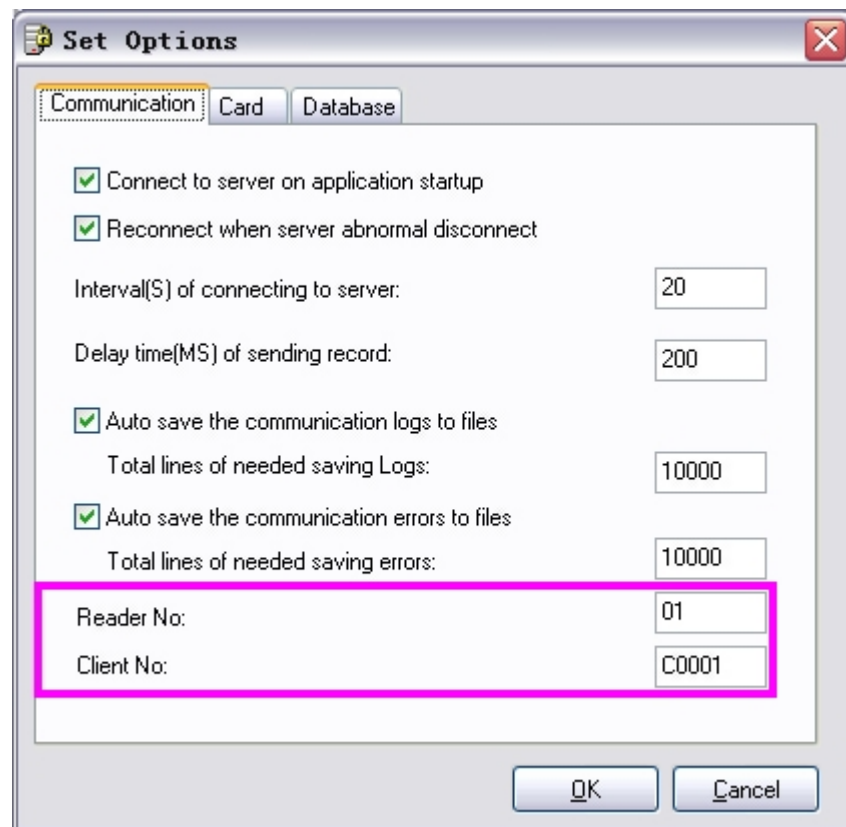


Diagram 5-2-2-9

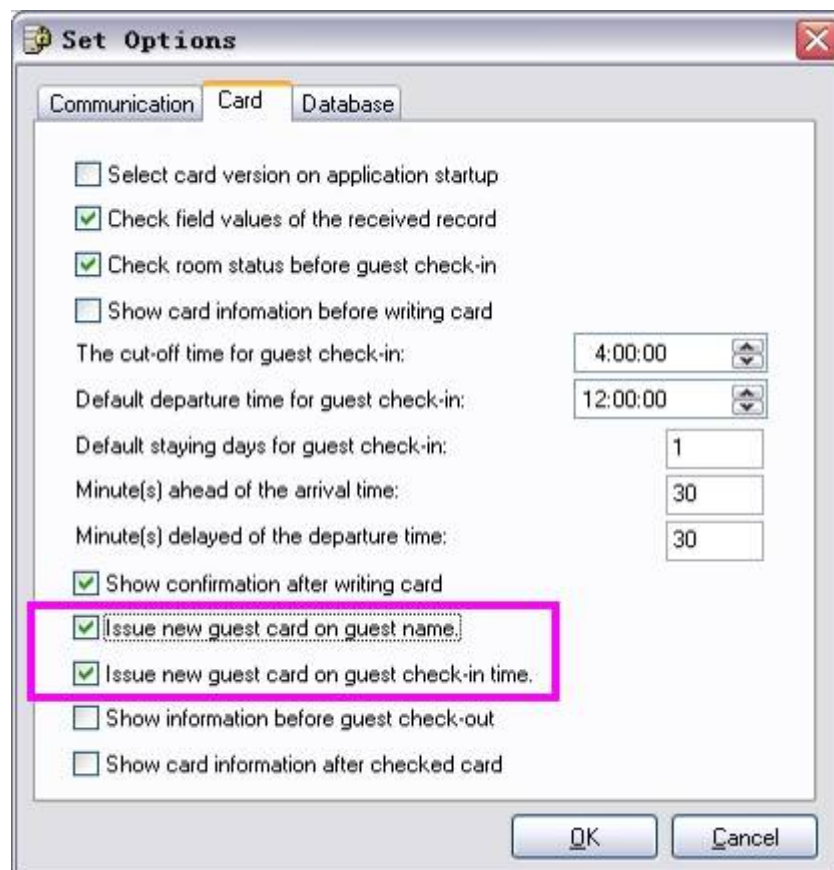


Diagram 5-2-2-10

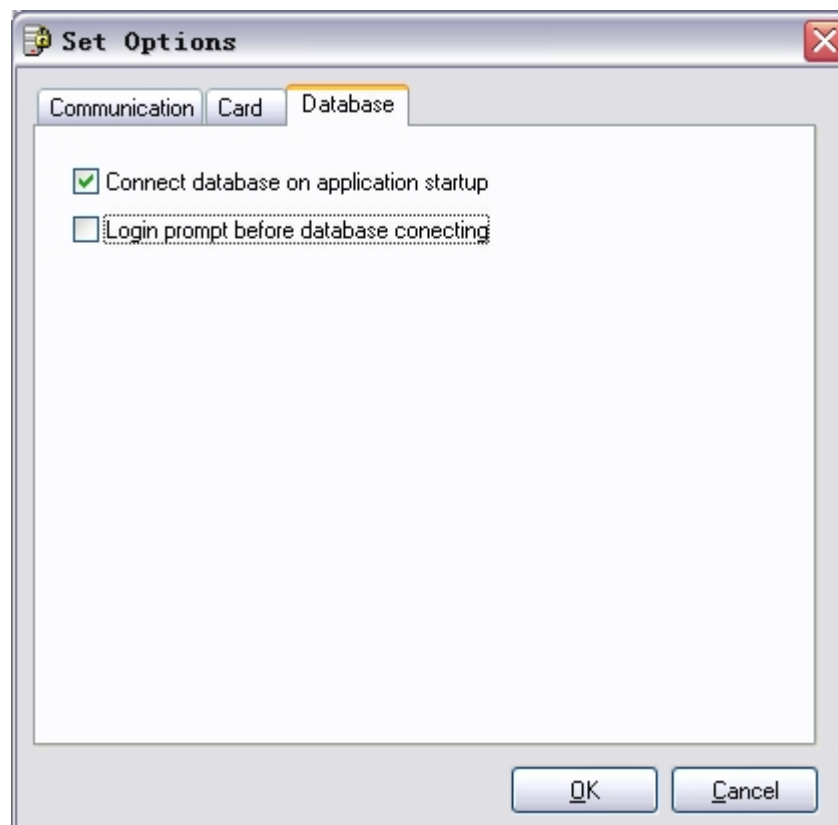


Diagram 5-2-2-11

D. Exit: You can exit the client system by clicking this button (or by clicking the quick

button ).

(2) Database (as shown in diagram 5-2-2-12):

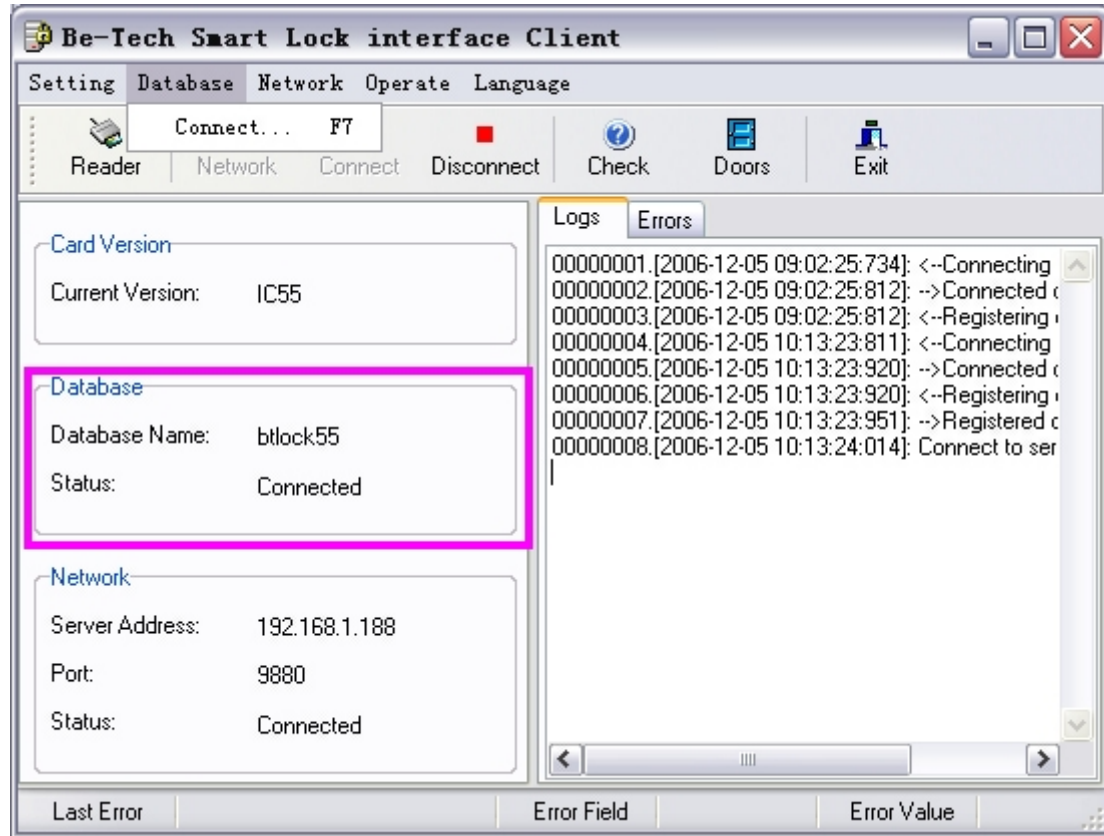


Diagram 5-2-2-12

After clicking the “Database”, a pull-down menu appears, as shown in the diagram, there is only one setting item in the menu: “Connect database”. Click this item to connect the database corresponding to the card edition, the connection status is displayed in the “basic system information display area” (as shown in diagram 5-2-2-12).

(3) Network connection (as shown in diagram 5-2-2-13):

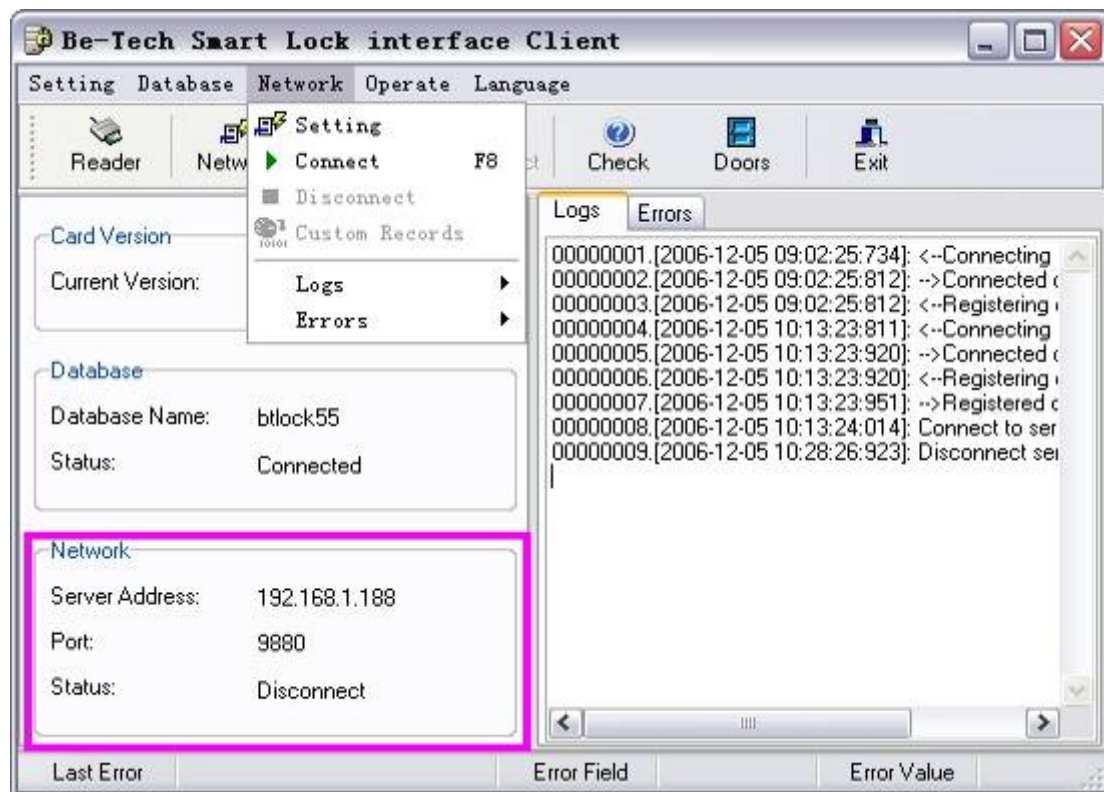




Diagram 5-2-2-13

After clicking the “Network connection”, a pull-down menu appears, as shown in the diagram, there are five setting items in the menu: Network setting, Connect server, Disconnect, Communication log, and Error log.

A. Network setting: Click this item (or click the quick button ) , the system will pop up a “Be-Tech Server Properties Setting Window” (as shown in diagram 3-2-3-1), please set the network according to the actual “Server address” and “Communication port”, and click “Confirm” at last.

B. Connect Server: Click this item (or click the quick button ) to connect “Be-Tech Interface Server”, the connection status is displayed in the “basic system information display area” (as shown in diagram 5-2-2-13).

C. Disconnect Server: Click this item (or click the quick button ) to disconnect “Be-Tech Interface Server”.

D. Communication log: This item is used for necessary operations to the “Communication log display area” including Clear, Print, Save, and as Save as, the communication status is displayed in the “Communication log display area” (as shown in diagram 5-2-1-5).

E. Error log: This item is used for necessary operations to the “Error log display area” including Clear, Print, Save, and as Save as, the error status is displayed in the “Error log display area” (as shown in diagram 5-2-1-6).

(4) Network connection (as shown in diagram 5-2-2-14):

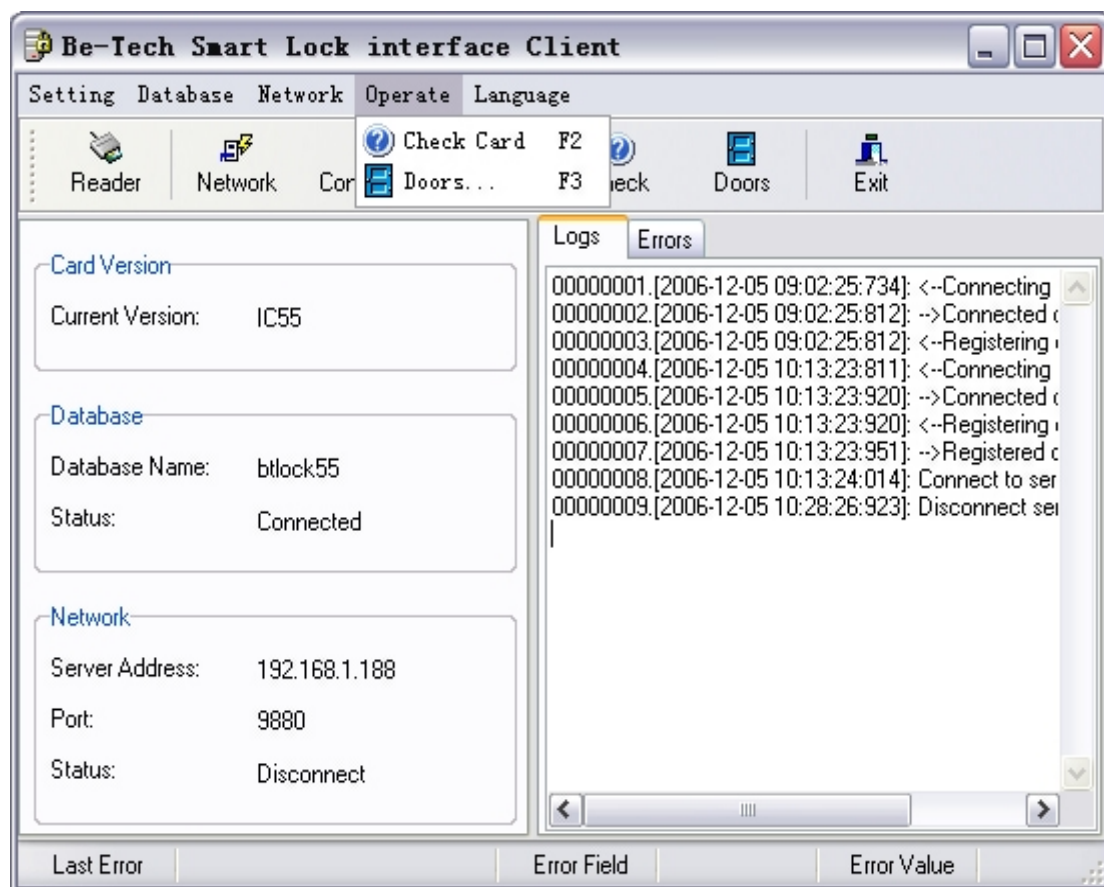




Diagram 5-2-2-14

After clicking “Operation”, a pull-down menu appears, as shown in the diagram, there are two setting items in the menu: Check and Door lock operation.

A. Check Card: Click this item (or click the quick button ) , you can use the card issuer to query your required card information.

B. Lock operation: Click this item (or click the quick button ) , the system will pop up an “Lock list operation window (as shown in diagram 3-2-3-3), you can carry out necessary operation to the lock in this window.

A) Main interface operating instructions (the operation interface is shown in diagram 3-2-3-3):

At the topmost of the main interface is the window’s menu bar, which consists of 3 parts: Setting, View, and Guest (as shown in diagram 5-2-2-15).



Diagram 5-2-2-15

Below the menu bar of the main interface, there are five quick buttons: Card reader, Check card, Print, View, and Close (as shown in diagram 5-2-2-16);

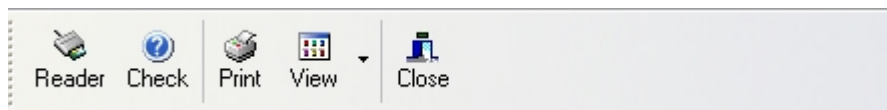


Diagram 5-2-2-16

At the bottom of the main interface is the system error display area used to display the error messages such as Total door lock number and Associated door locks etc (as shown in diagram 5-2-2-17).



Diagram 5-2-2-17

Above the system information display area is the room state identification area (as shown in diagram 5-2-2-18) which has 5 state identifications: Clean vacant, Non-Clean Vacant, Operating, Occupied and Forbidden.



Diagram 5-2-2-18

At the lower left of the quick buttons is the overall room information display area (as shown in diagram 5-2-2-19), at the lower right is the detailed room information display area (as shown in diagram 5-2-2-20).



Diagram 5-2-2-19











Door Name	Door ID	Link ID	Guest SN	Total Guests	Room
 000001	000001	000001	1	Vacant	Clear
 000002	000002			Vacant	Clear
 000003	000003			Vacant	Clear
 000004	000004			Vacant	Clear
 000005	000005			Vacant	Clear
 000006	000006			Vacant	Clear
 000007	000007			Vacant	Clear
 000008	000008			Vacant	Clear
 000009	000009			Vacant	Clear
 000010	000010			Vacant	Clear

Diagram 5-2-2-20

B) Menu operating instructions:

I. Setting (as shown in diagram 5-2-2-21):

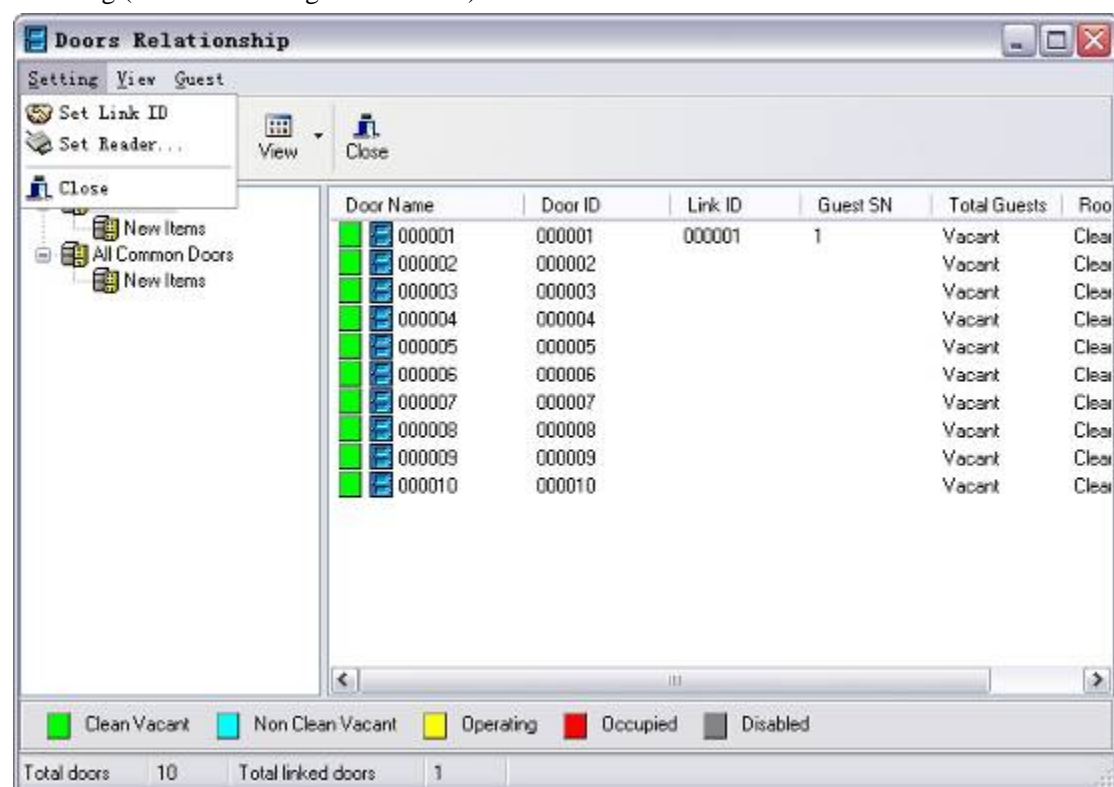


Diagram 5-2-2-21

After clicking “Setting”, a pull-down menu appears, as shown in the diagram, there are 3 setting items in the menu: Door lock comparison No., card reader, and close.

Lock comparison No.: the room No. in “Be-Tech Interface Demo Grogram (PMSDemo)””; click this item (this operation can also be carried out in the detailed room information display area (as shown in diagram 5-2-2-22), the system will pop up a “Setting Lock comparison No. Properties Window” (as shown in diagram 3-2-3-5), input the Lock comparison No., and then click “confirm” to complete setting.

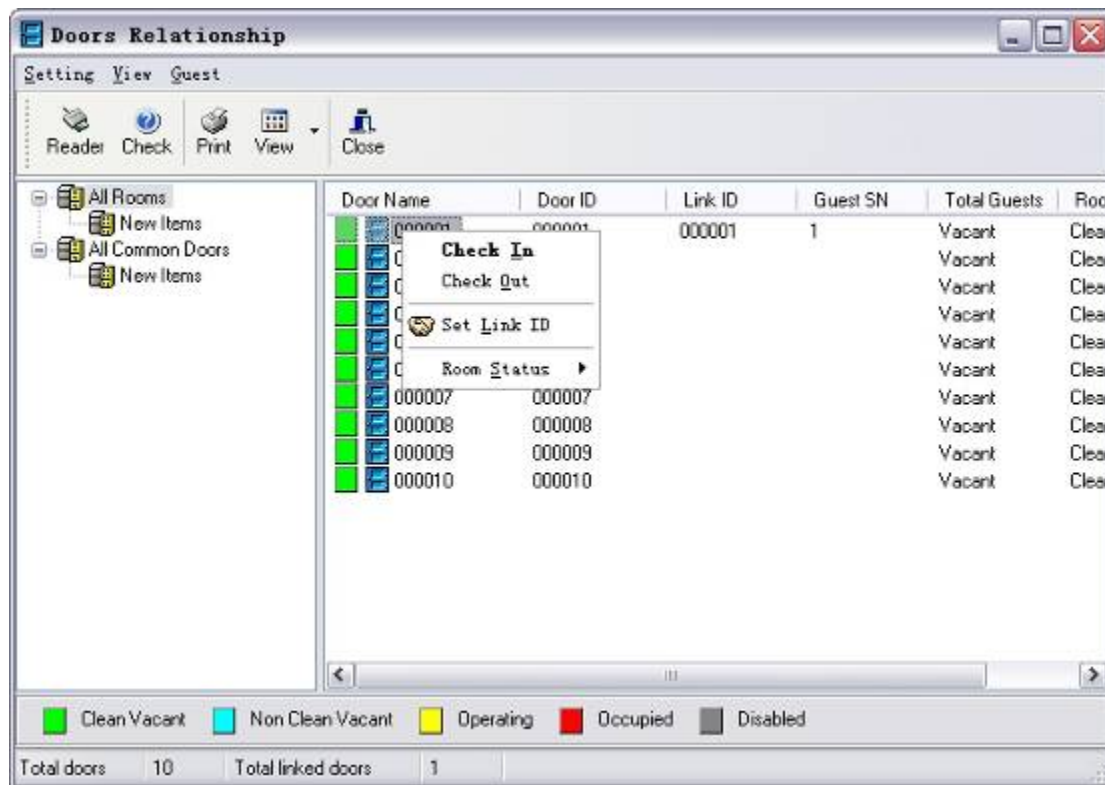



Diagram 5-2-2-22

Card reader: Same as client card reader items, please refer to client card reader operating instructions for detail.

Close: You can close the window by clicking this item (or by clicking the quick button ).

II. View (as shown in diagram 5-2-2-23):

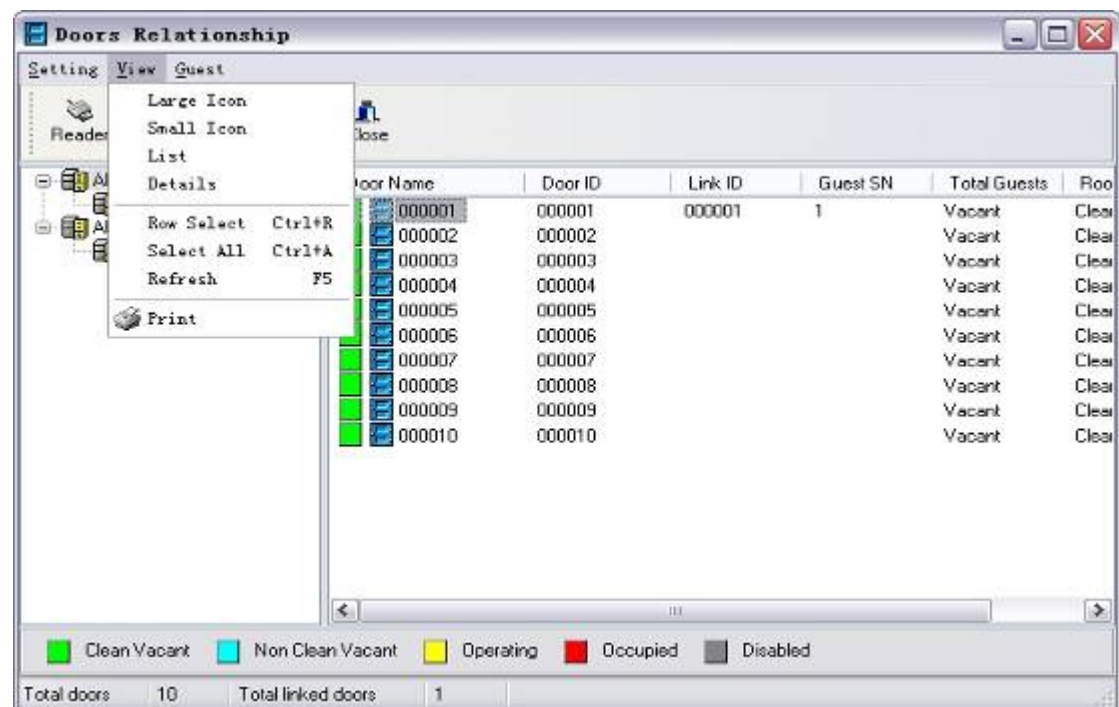



Diagram 5-2-2-23

After clicking “View”, a pull-down menu appears, as shown in the diagram, there are 8 setting items: large icon, small icon, list, detailed data, select row, select all, refresh and print.

The large icon, small icon, list and detailed data are the 4 items that are used to display room information in different modes in the room information display area (this operation can also be

carried out by clicking the quick button  or in the detailed room information display area (as shown in diagram 5-2-2-24)

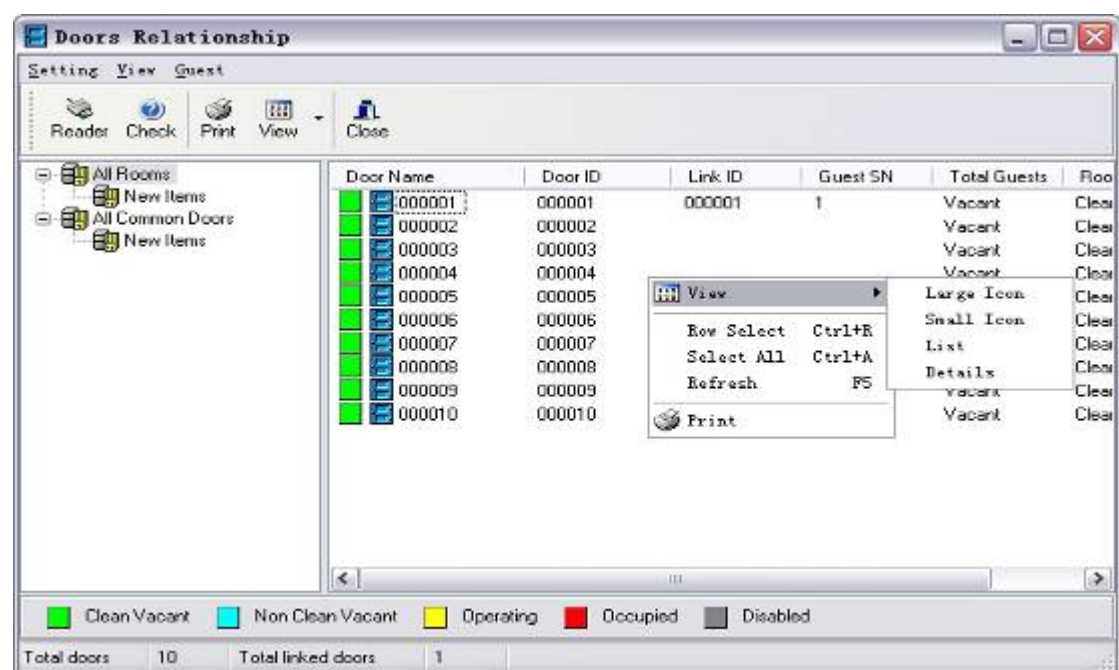



Diagram 5-2-2-24

“Select row” and “select all” are the two items that are used to select rooms in different ways, you can click the “select row” button to select the room items in that whole row, or click the “select all” button to select all the rooms, this function is designed to convenience user operation (this operation can also be carried out in the detailed room information display area (as shown in diagram 5-2-2-24).

Refresh item is used to refresh the current room state information (this operation can also be carried out in the detailed room information display area (as shown in diagram 5-2-2-24)).

Print item is used to print the current room state information (this operation can also be carried out

by clicking the quick button  or in the detailed room message display area (as shown in diagram 5-2-2-24)).

III. Guest (as shown in diagram 5-2-2-25):

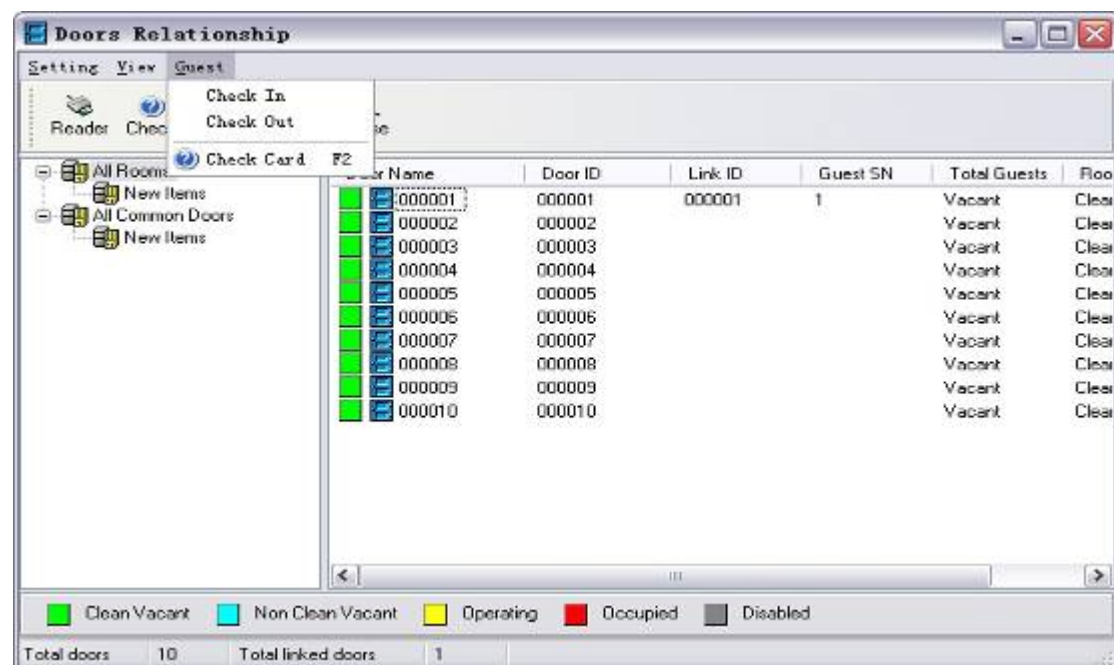


Diagram 5-2-2-25

After clicking “Guest Check-in”, a pull-down menu appears, as shown in the diagram, there are 3 setting items in the menu: Guest check-in, Guest check-out and card check.

Guest check-in (as shown in diagram 5-2-2-26): It is used for guest check-in and extend, and to issue guest cards. Click the “guest check-in” item in the pull-down menu (this operation can also be carried out in the detailed room information display area (as shown in diagram 5-2-2-22)), the system pops up a guest card properties window (as shown in diagram 5-2-2-26), select and input the corresponding information, and then click “check-in” key, you can click the “check-in” key continually for more guests to check in, at last, click “Issue” key to issue guest cards; if the guest needs to extend the staying, you can extend the guest card by clicking the “Extend” key in the window, at this time, you can also click “Modification” key to modify the information of the guest card and the data the card holder, after modification, click “Confirm” key, At last, click “Issue” key to issue guest cards.

Selected Rooms:

Door Name	Door ID	Guest SN	Total Guests	Room Status
<input checked="" type="checkbox"/> 000001	000001	1	Vacant	Clean Vacant

Guest Index: Guest1

Card Parameters:

Staying Days: 1

Arrival Time: 2006-12-05 10:43:01

Departure Time: 2006-12-06 12:00:00

Common Doors:

☒ Common Door1

Holder Details:

Guest ID: [Dropdown]

Guest Name: [Text Box]

Nationality: [Text Box]

Date of Birth: 1899-12-30

ID Document Name: [Text Box]

ID Document No.: [Text Box]

Contact Address: [Text Box]

Zip Code: [Text Box]

Telephone No.: [Text Box]

Remark: [Text Box]

Options:

☒ None ☐ Automatic ☐ Manual

Sex: ☒ Male ☐ Female

Married: ☒ No ☐ Yes

Place of Birth: [Text Box]

E-Mail: [Text Box]

Fax No.: [Text Box]

Buttons: >> Check-in Extend Check-out Issue Modify Confirm Cancel

Summary: Total selected room(s): 1 Total guest(s): 1 Operator: [Text Box]

Diagram 5-2-2-26

Guest check-out: This function is used only for guest who checked in previously to check out (this operation can also be carried out in the detailed room information display area (as shown in diagram 5-2-2-22).

Check card: Same as client card check items, please refer to client card check operating instructions for detail.

(5) Language (如图 5-2-2-27):

(5) Language (as shown in diagram 5-2-2-27):

For users' convenience, this system supports both English and Chinese Languages (as shown in diagrams 5-2-2-27 and 5-2-2-28), users can select any of the two languages according to the actual requirement.

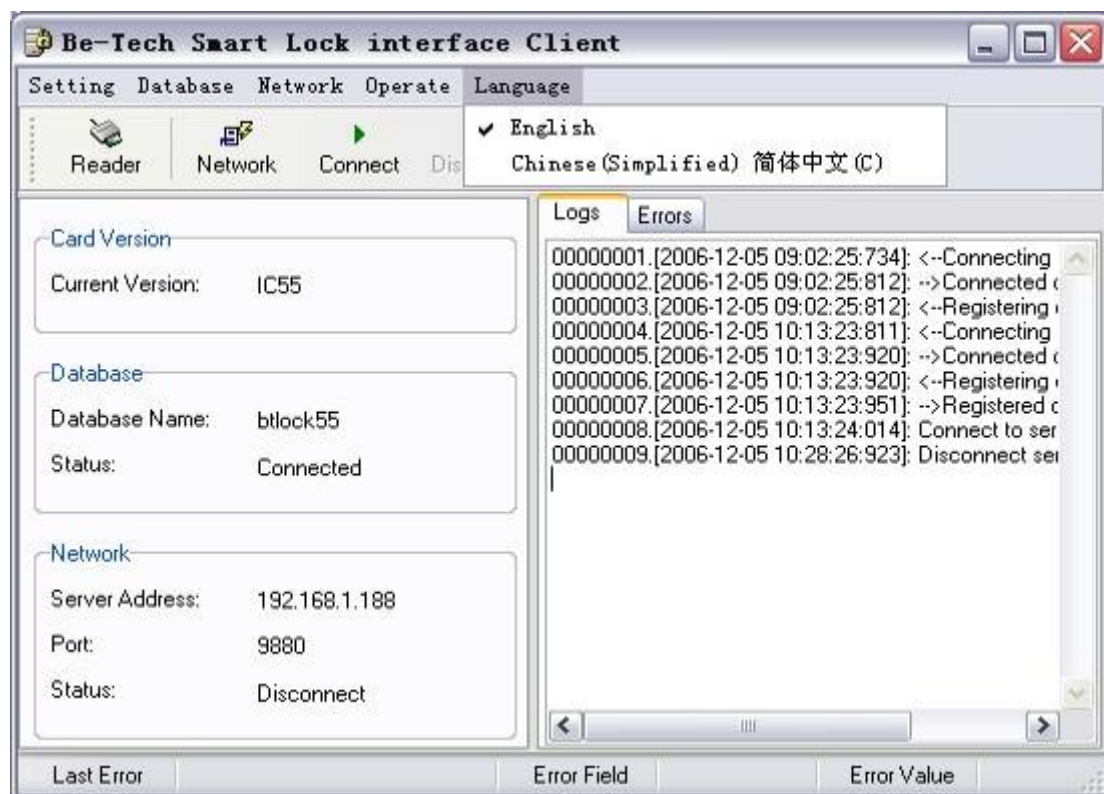


Diagram 5-2-2-27

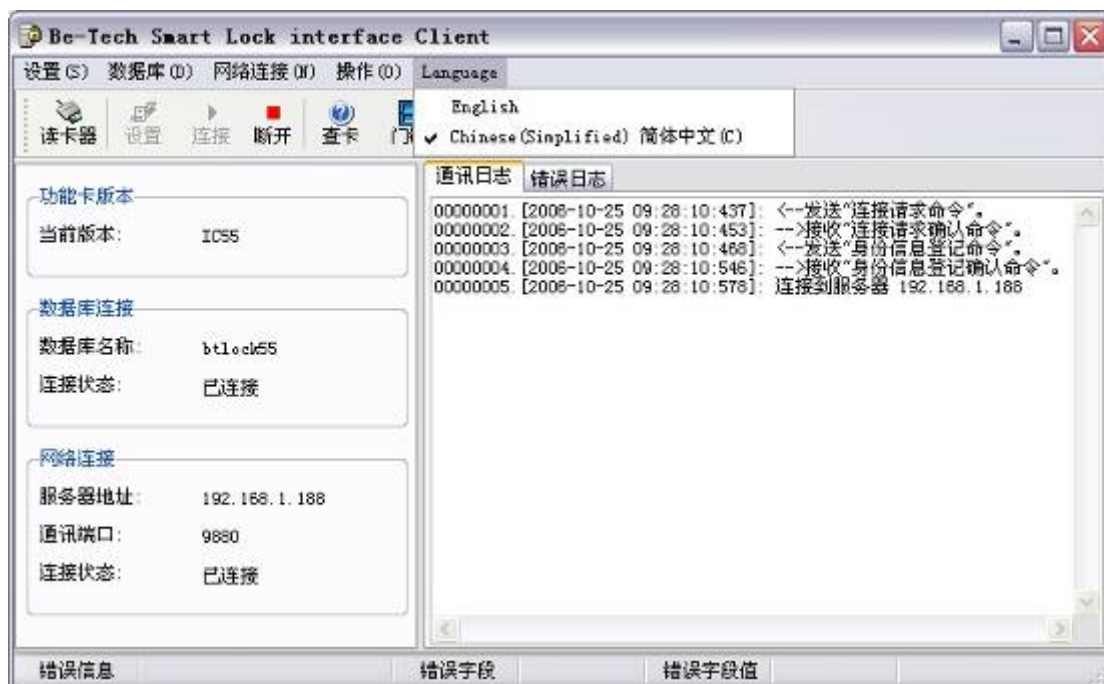


Diagram 5-2-2-28

VI. Interface software PMS demo program (PMS Demo)

Commissioning process instructions for “Be-Tech Interface Demo Program (PMSDemo)” (the operation interface is shown in diagram 6-1)

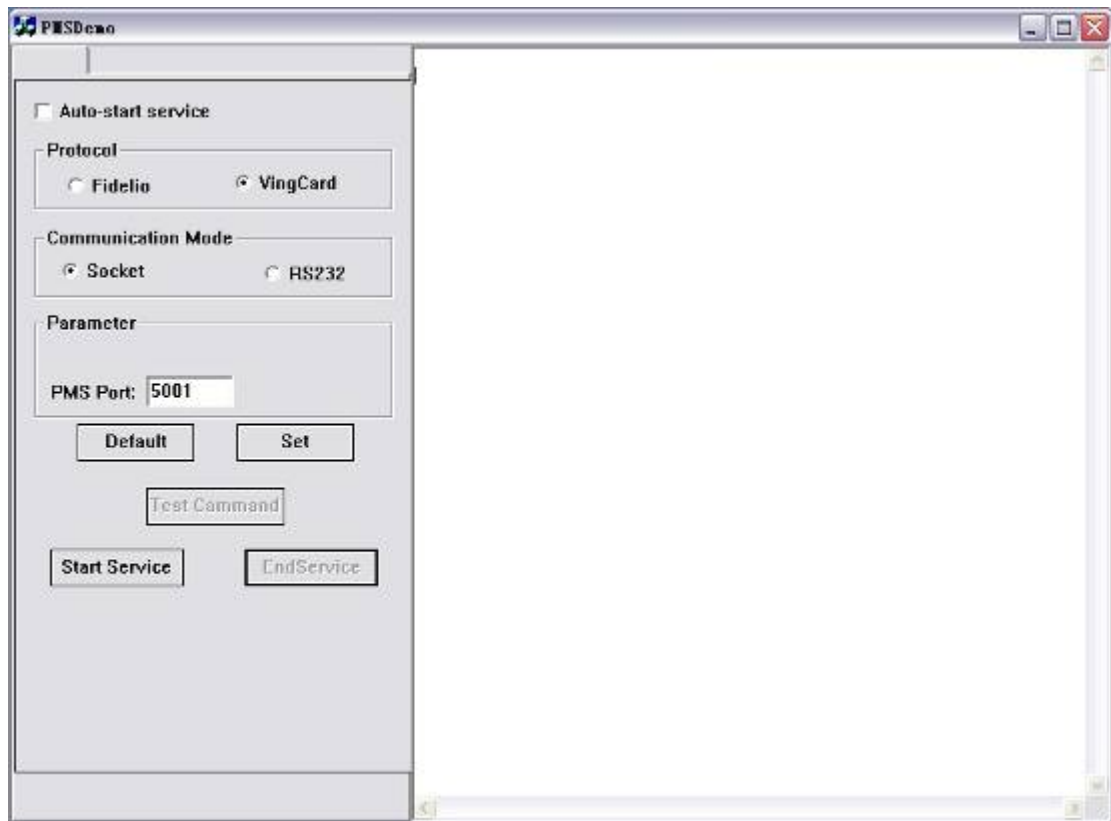


Diagram 6-1

① “Auto-start service” is used for setting whether to start the server automatically when the program is started.

“Protocol” is used for setting protocol type of the program, which contains two protocols, i.e. Fidelio and BEDE.

“Communication Mode” is used for setting communication mode the of the program, which uses two communication modes, i.e., Socket and RS232, Socket communication mode means communication under TCP/IP protocol, RS232 communication mode means communication through serial port line.

④ “Parameter” is used for setting basic parameters of different communication modes, if Socket communication mode is selected, it is necessary to set the port No. to be connected for communication; if RS232 communication mode is selected, it is necessary to set the serial port to be connected for communication and the baud rate.

⑤ “Default” is used for restoring the default value of the program.

⑥ “Set” is used to save and validate the parameter settings.

⑦ “Start Service” and “End Service” are sued to start and end the service respectively.

⑧ “Test Command” is used to call protocol test command.

Instructions of “Fidelio” protocol test command (the operation interface is shown in fig. 6-1-1)

Fidelio Command Test

Fields&Parameter

[Key Count]K#:	1
[Key Type]KT:	N
[Key Coder]KC:	01
[Room Number]RN:	my98168
[Workstation ID]WS:	C0001
[Guest Number]G#:	
[Guest Arrival Date]GA:	060101
[Guest Departure Date]GD:	060102
[Guest Departure Time]DT:	
[Guest Group Number]GG:	
[Guest Name]GN:	Mr Tom
[Key options]KO:	
[Track 2 Information]\$2:	

KR(Key Request)

KD(Key Delete)

Exit

Diagram 6-1-1

- A. “[Key Count]K#” is used to set number of cards to be issued.
- B. “[Key Type]KT” is used to set card type to be issued, “D” means issuing accompanied cards, all others for issuing new check-in cards.
- C. “Key Coder]KC” is used to set the serial No. of the card issuer, please note that this serial No. should be the same as that of the card issuer of “Be-Tech Interface Client (BC)”, otherwise, card issuing may fail.
- D. “[Room Number]RN” is used to set the “lock comparison No.” of the card to be issued, please note that this serial No. should be the same as the “lock comparison No.” of “Be-Tech Interface Client (BC)”, otherwise, card issuing may fail.
- E. “[Workstation ID]WS” is used to set the serial No. of the workstation, please note that this serial No. should be the same as that of the workstation of “Be-Tech Interface Client (BC)”, otherwise, card issuing may fail.
- F. “[Guest Arrival Date]GA” is used to set guest check-in time.
- G. “[Guest Departure Date]GD” is used to set guest check-out time.
- H. “[Guest Name]GN” is used for setting guest names.

Instructions of “BEDE” protocol test command (the operation interface is shown in fig. 6-1-2)



The image shows a Windows-style dialog box titled "VingCard Command Test". It contains several input fields and buttons. At the top, there are two text boxes: "Destination Address:" with the value "1" and "Source Address:" with the value "1". Below these is a "Commands:" dropdown menu currently set to "Check In". A section titled "Fields&Parameters" is enclosed in a rounded rectangle and contains several more input fields: "[Room Number]R:" with "my98168", "[User Type]T:" with radio buttons for "Single room" (selected) and "Suite", "[Check In DateTime]D:" with "200610100800", "[Check Out DateTime]O:" with "200610121200", "[User Group]U:" with "Guest", "[Guest Family Name]N:" with "Smith", and "[Guest Christian Name]F:" with "Jerry". At the bottom of the dialog are two buttons: "Send Command" and "Exit".

Diagram 6-1-2

A. "Destination Address" is used to set the serial No. of the card issuer, please note that this serial No. should be the same as that of the card issuer of "Be-Tech Interface Client (BC)"; otherwise, card issuing may fail.

B. "Source Address" is used to set the serial No. of the workstation, please note that this serial No. should be the same as that of the workstation of "Be-Tech Interface Client (BC)"; otherwise, card issuing may fail.

C. "Commands" is used to set test command, this protocol contains five test commands: "Check In", "Check Out", "Change Guest Status", "Replace Card", and "Verify Card", please note that "Change Guest Status" is unavailable currently.

D. "[Room Number]R" is used to set the "lock comparison No." of the card to be issued, please note that this serial No. should be the same as the "lock comparison No." of "Be-Tech Interface Client (BC)", otherwise, card issuing may fail.

E. "[User Type]T" is used for setting card user type to be issued, there are two the card user types: "Single" and "Suite", please note that only "Single" is supported at present.

F. "[Check In DateTime]D" is used to set guest check-in time.

G. "[Check Out DateTime]O" is used to set guest check-out time.

H. "User Group" is used to set user group.

I. “[Guest Family Name] N” is used for setting guest surnames.

J. “[Guest Christian Name] F” is used for setting guest surnames.

VII. Precautions for interface software commissioning and operation

1. The “Be-Tech Interface Client (BC)” communication page, the “Card Issuer No.” and “Workstation No.” must be exclusive, otherwise, connection may fail.

2. “Be-Tech Interface Client (BC)” card page: When “Judge whether to issue accompanied check-in card by name” item is selected, “Be-Tech Interface Client” will judge whether to issue accompanied check-in card by verifying whether guest names are the same, after receiving PMS card issuing command; When “Judge whether to issue accompanied check-in card by check-in time” item is selected, “Be-Tech Interface Client” will judge whether to issue accompanied check-in card by verifying whether guest check-in time are the same, after receiving PMS card issuing command; When both “Judge whether to issue accompanied check-in card by name” item and “Judge whether to issue accompanied check-in card by check-in time” item are selected, “Be-Tech Interface Client” will judge whether to issue accompanied check-in card by verifying whether guest names are the same and whether guest check-in time are the same, after receiving “Interface Demo Program” card issuing command; When neither “Judge whether to issue accompanied check-in card by name” item nor “Judge whether to issue accompanied check-in card by check-in time” are selected, “Be-Tech Interface Client” will judge whether to issue accompanied check-in card by the identification signal sent by the “Interface Demo Program”.

3. If the interface uses BEDE protocol, the destination adders of “BEDE” protocol test command corresponds to the serial No. of the issuer of the “Be-Tech Interface Client” that receives the “command”, the “Source address” corresponds to PMS address, “Room No.” corresponds to the lock “Comparison No.” displayed in the “Be-Tech Interface Client”, the command mainly consists of five parts: “Check-in”, “Check-out”, “Change Guest Information”, “Replace Card”, and “Verify Card” (“Change Guest Information” is unavailable currently).

Noun Antitheses Table:

PMSDemo	Be-Tech Smart Lock Interface Client
[Key Coder]KC	Reader No
[Room Number]RN	Link ID
[Workstation ID]WS	Client No
[Guest Departure Date]GD	Departure Time
KR[Key Request]	Issue
KD[Key Delete]	Check-out