

OWNER'S MANUAL

*Instruction manual for New generation
Air-conditioning network intelligent manager system*

Thank you very much for purchasing our product,
Before using it, please read this manual carefully and keep it for future reference.

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**NOTE**

- This manual gives detailed description of the precautions that should be brought to your attention during operation.
 - In order to ensure correct service of this paper, please read this manual carefully before using the unit.
 - For convenience of future reference, keep this manual after reading it.
 - As the product updates, this document will be changed without prior notice.
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1. IMM INTRODUCTION

1.1 IMM system introduction

IMM system is the short name of Intelligent Manager. It consists of three parts: IMM software, M-interface web gateway and V4+ outdoor unit refrigerant system. The IMM system can connect 4 M-interface gateways at most, totally could join up 64 refrigerant systems. The IMM software can communicate with network and M-INTERFACE gateway, to control and manage the refrigerant system. The IMM system framework as the Fig.1-1 display.

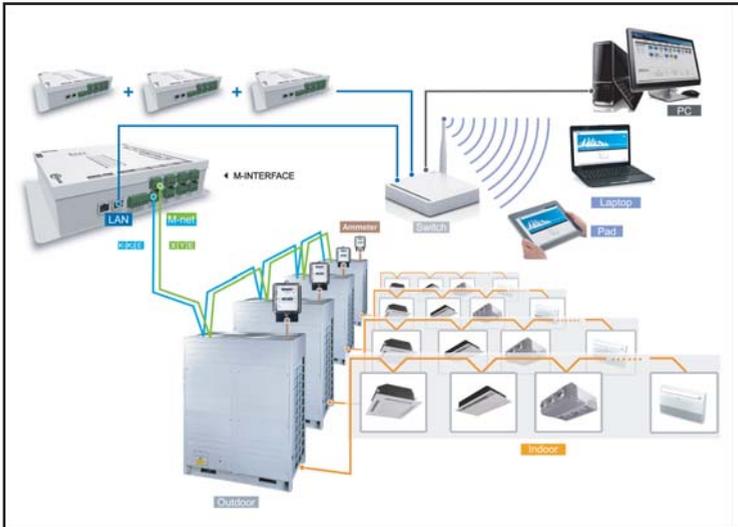


Fig.1-1

IMM software installed in the computer, and the M-INTERFACE gateway connects to the computer through LAN port. Laptop and Pad can visit WEB page of M-INTERFACE through wireless network.

1.2 Models which could be inserted

- 1) Projects which do not need electric quantity division: can freely insert V4+ units.
- 2) Projects which need electric quantity division: connect the V4+ series outdoor units and indoor units, and wiring the M-net terminal communication wire from the outdoor side.
- 3) Details refer to IMM TECHNOLOGY MANUAL.

1.3 IMM network introduction

IMM software includes server software, cline-side software and database software. Install the server software and the database software in the same computer and stay the same sub network with the M-INTERFACE gateway, which can be realized by configuring the IP, details refers to 3.1. The cline-side can connect to the server through the local or remote network.

1.3.1 Local network connection

The client-side can connect to the server through the local network, the local network connection as the following display:



Fig.1-2

1.3.2 Remote network connection

The client-side and server also can use the remote network (VPN) connection. VPN has router establishing and computer establishing methods, and the remote network connection needs some IT knowledge and needs to assist by network administrator.

1) Router establishing

VPN tunnels establish between routers, and then can visit WEB interface through VPN tunnels. VPN Server can be established by oneself and also can be rented. Its topology structure as follow display:



Fig.1-3

2) computer establishing

Use VPN client-side software and VPN Server to establish VPN tunnel, then user can visit the server through VPN tunnel. VPN client-side software and VPN Server can be achieved by commercial ways. Its topology structure as follow display:

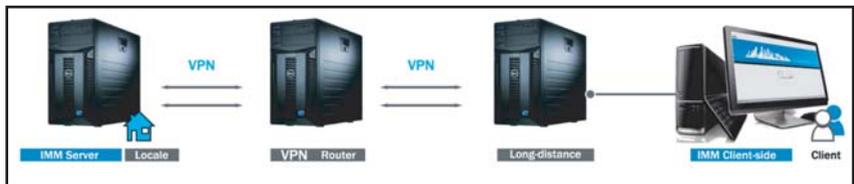


Fig.1-4

1.4 IMM software functions

User can operate the IMM client-side software to monitoring the air-conditioning system. The functions offered by IMM software as the following display:

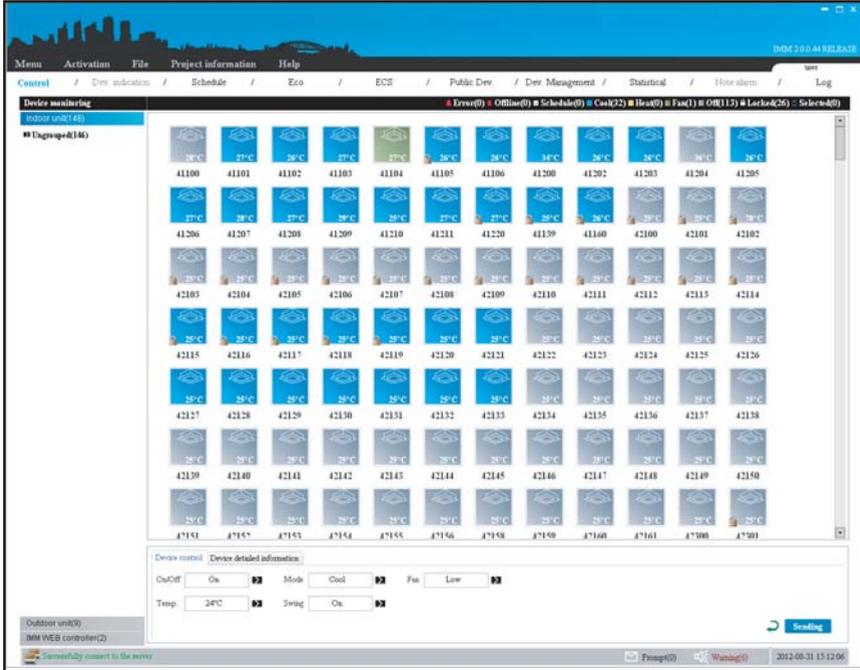


Fig.1-5

Main functions as follow:

- 1) Device monitoring
Offer control and management of indoor/outdoor unit for the M-INTERFACE gateway.
- 2) Schedule management
Offers schedule control function of indoor unit.
- 3) Energy saving management
Offers energy saving control function oh indoor unit.
- 4) Statistics of energy consumption
Offers electric quantity division function of air-conditioning system.
- 5) Device management
Offers the group division function of air-conditioning device.
- 6) Data statistics
Provides the status changing records of indoor unit, outdoor unit and M-INTERFACE gateway.
- 7) Log
Offers all the records of the client-side operations which operated by the user.

2. SOFTWARE INSTALLATION

2.1 Installation preparation

Before the IMM software installation, it needs to make sure the air-conditioning system operated normally, M-INTERFACE gate way worked normally, the communication between M-INTERFACE gateway and air-conditioning system was normal, and it needs to meet the following hardware and system requirements.

Table.2-1

	Specification	Recommendation	Remark
PC	CPU: i3 or above Internal storage: 2G or above Hard disk: 120G or above Keyboard/Mouse Network: 108ASE-T Screen resolution should over 1024*768 Screen size should over 17 inch	Recommended that IBM or DELL products	Must be desktop, and ensure the computer works normally before installing the software; laptop is not allowable.
System	Microsoft Windows XP Professional Service Pack 3/Windows7 Flagship edition 32-bit systems.	_____	
Document form	NTFS	_____	

2.2 Software installation

Details refer to IMM TECHNOLOGY MANUAL.

3. SETTING

3.1 IP address setting

Default IP of M-INTERFACE gateway is 192.168.100.40, subnet cover code is 255.255.255.0. The M-INTERFACE gate and IMM server must be stayed in the same sub network, two ways of realization: amend the M-INTERFACE gate IP and configure the static state IP for server.

3.1.1 Configure static IP

Generally configure single IP, if the IP address of computer cannot be amended, then configure several IP. Methods as follow (Take windows 7 system for example):

1) Configure single IP

Open the property dialogue box to configure the IP address and subnet cover code, for example: IP: 192.168.100.44, subnet cover code: 255.255.255.0.

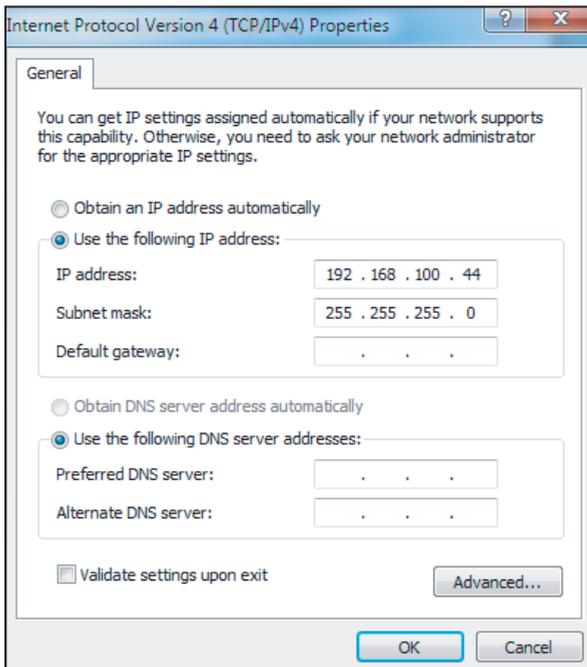


Fig.3-1

After configuration, click the “OK” button.

2) Configure several IP

Before configure several IP, it need to configure a statistic IP address. Open the property dialogue box, select the "Advanced", and display the TCP/IP setting dialogue box as follow:

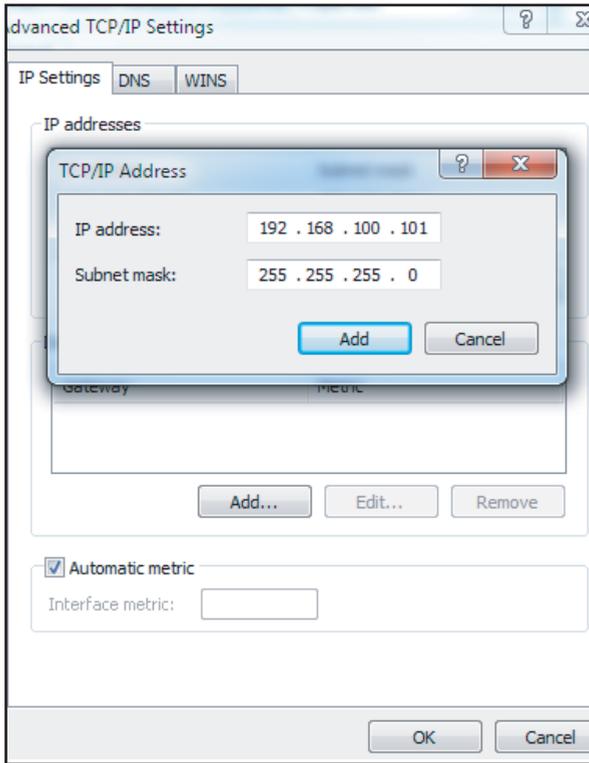


Fig.3-2

Click the "Add" button in IP address bar, add a IP address in the same net area with "192.168.100.40", e.g.:IP: 192.168.100.101, subnet cover code: 255.255.255.0, and then click the "Add" button.

3.1.2 Amend gateway IP

Before amending the IP address of M-INTERFACE gateway, it needs a computer to visit the WEB page of M-INTERFACE, then enter the IP address amending page through the computer. The page display as follow:



Fig.3-3

After typing, click “OK” to save. Do not conflict with other IP in the network, detailed IP address assignment needs to consult the network administrator.

3.2 Software operation setting

Before software operation, set the server software, client-side software and database software. Detailed setting steps refer to IMM TECHNOLOGY MANUAL. After setting, insert the dongle (please keep the dongle properly), and start the server software and then start the client-side software.

4. OPERATION INSTRUCTION

4.1 User login

Operate the IMM client-side software, popup the login interface as the follow display:

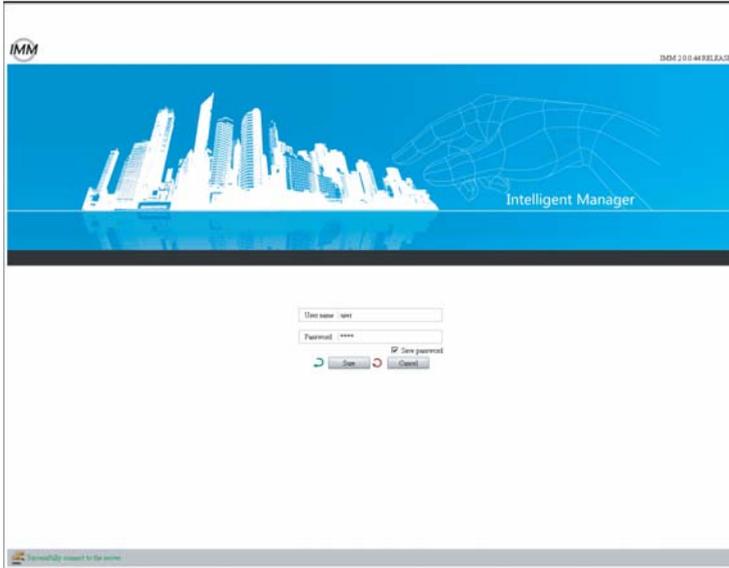


Fig.4-1

After “Connect to the server successfully” was displayed at the lower left of the login interface, then can carry out the login operations.

Steps of carrying out the login operations as follow:

- 1) Type in user's password, the default is user;
- 2) Choose whether save the password;
- 3) Click [OK] to carry out login;
- 4) Click [Cancel]to exit this page;

When clicked the “OK” button, after login successfully, then enter into the system home page. If login failed, please refer to Appendix 5.1.

4.2 User log out

Click the icon  on upper-right corner, exit the system, and the interface display as follow:

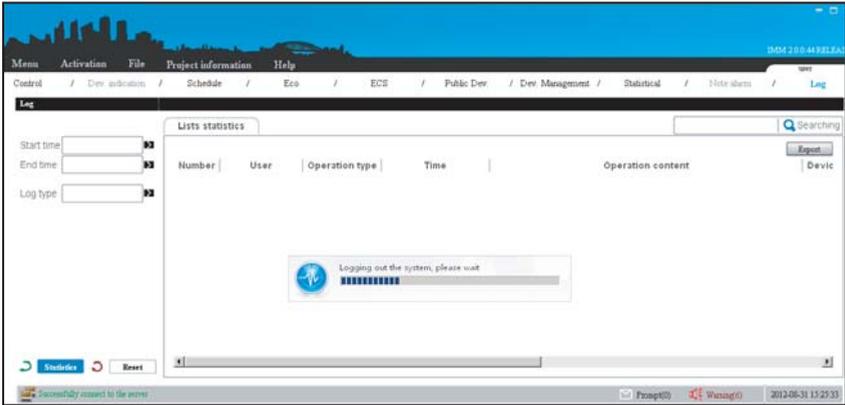


Fig.4-2

4.3 System initialization

After the user login successfully, then will show out the system initialization dialogue frame, and carry out the initialization of the whole system, update the system information. The initialization dialogue frame display as follow:

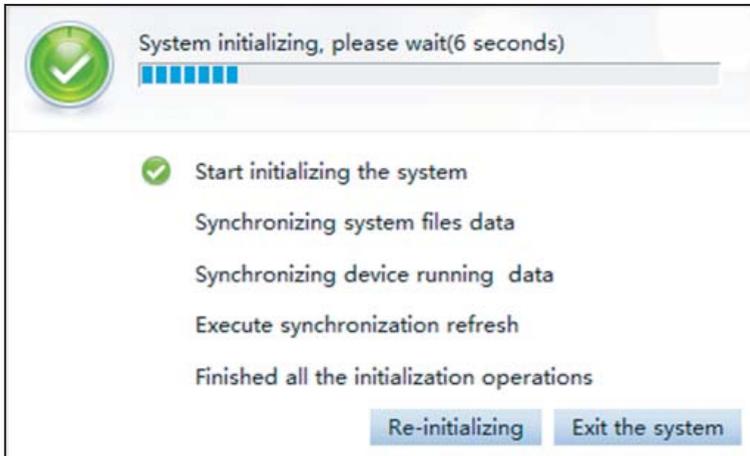


Fig.4-3

Click the “Re-initialization” button, then it will re-initialize from the current time. Click the “Exit the system” button, then will stop the initialization work and exist the system.

4.4 Main interface introduction

The system home page display as the follow:

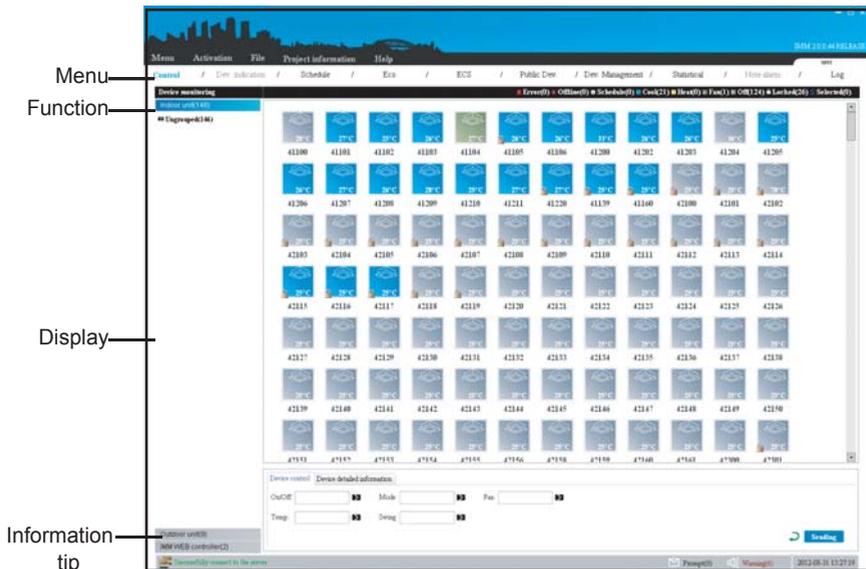


Fig.4-4

Menu: system functions menu.

Functions: functions in menu, include device monitoring, schedule management, energy saving management, statistics of energy consumption, public device, data statistics and log etc. functions.

Display: display detailed information of each function.

Information tip: display the prompt message and alarm information.

The upper-right corner of the interface will display the software version and user’s login name.

4.5 Devices monitoring

This part is displayed as 3 classes of air-conditioning indoor unit, outdoor unit and M-INTERFACE gateway. Each class will be displayed as primary group and secondary group.

E.g.: under the indoor unit it will display the primary group: Buildings; and under the primary group it will display secondary group: first floor, second floor, third floor etc. Detailed group setting please refers to 4.10.

4.5.1 M-INTERFACE gateway monitoring

Choose the M-INTERFACE gateway selection; the interface will display all the M-INTERFACE gateway devices in the IMM system.

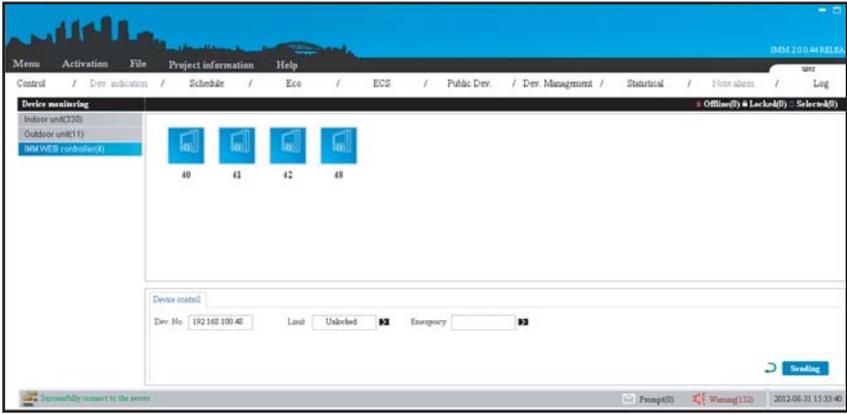


Fig.4-5

There are 3 display statuses of M-INTERFACE gateway: lost connection, locked and selected. When selected or right mouse click a M-INTERFACE gateway device, the bottom of interface would display its IP address and it whether has limit mode, and the user can control the M-INTERFACE gateway device through the method of setting the limit mode parameters, emergency stop parameters and then click the “send” button. User can amend the device name: double-click the device name, then amend it, and press enter key to save. E.g.: select the M-INTERFACE gateway devices named 40 and 41 (selecting method refers to 4.5.4), and choose the “limit mode” parameters, and then click the “send” button, the page display as follow:

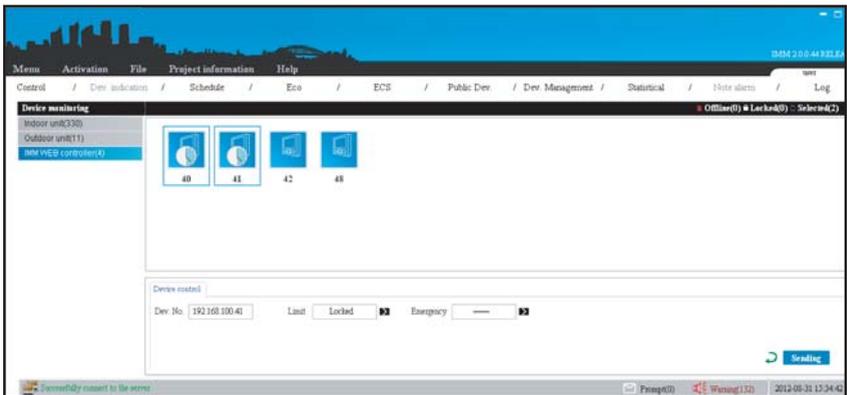


Fig.4-6

After successfully set “Limit mode”, the device icon will add an icon with locker.

Parameters specifications:

Table.4-1

Parameters	Specifications
Limit mode	Locked: can not operate in the WEB page of M-INTERFACE Un-locked: Remove the locking of M-INTERFACE gateway device.
Emergency stop	----: Not carry out the emergency stop function. Stop: Carry out the emergency stop function, stop all the devices of the M-INTERFACE gateway.

Icon specifications:

Table.4-2

Icon	Specifications	Icon	Specifications
	M-INTERFACE device work normal		M-INTERFACE device locked
	M-INTERFACE device lost connection		M-INTERFACE device selected

Status selection:

The gateway device has 3 statuses: locked ( Locked), lost connection ( Offline) and selected ( Selected). Click the corresponding status icon to check the relative device. Click the lost connection icon, and it will display all the devices which lost connection. Right click the “selected” icon, and it will popup the selection frame of “All select/cancel all select”, choose “All select” then it will select all the icons in the interface, and click “cancel all select” then it will cancel selecting all the icons.

4.5.2 Outdoor unit monitoring

Select the outdoor unit class, the left side of interface will display the group information under the indoor unit, and the right will display the corresponding outdoor device.

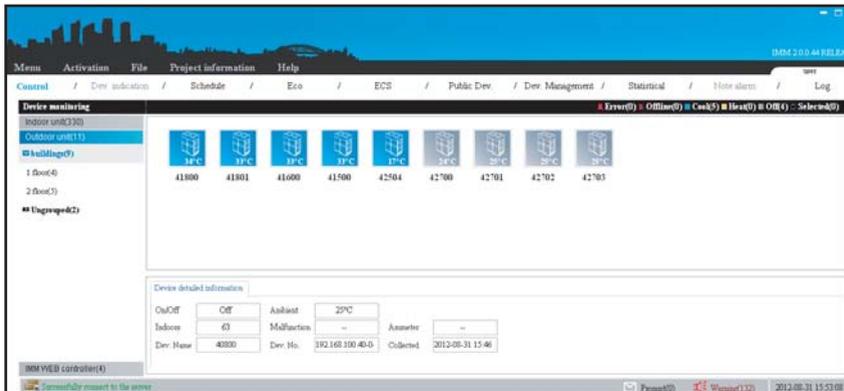


Fig.4-7

The outdoor unit display status: error, lost connection, cooling, heating and selected. Select or right mouse click a outdoor unit, then check the on and off status, ambient temperature, ammeter readings etc. detailed information of this device in the “Device details information”.

Icon specifications:

Table.4-3

Icon	Specifications	Icon	Specifications	Icon	Specifications
	Outdoor unit lost connection (White)		Outdoor unit is OFF, outdoor ambient temp. is 21°C. (Gray)		Outdoor unit operates cooling, outdoor ambient temp. is 24°C.(Blue)
	Outdoor unit error (Red)		Outdoor unit operates heating, outdoor ambient temp. is 24°C.(Orange)		Outdoor unit is selected, outdoor ambient temp. is 25°C.

Status selection:

The outdoor unit display status: error ( Error), lost connection( Offline), cooling( Cool), heating ( Heated), off unit( Off) and selected ( Selected). Click the error, lost connection, cooling, heating and selected icons by the mouse, then the interface will display all the corresponding status. E.g.: click the cooling icon, then it will display the devices under cooling status in the selected group on the page, display as follow:

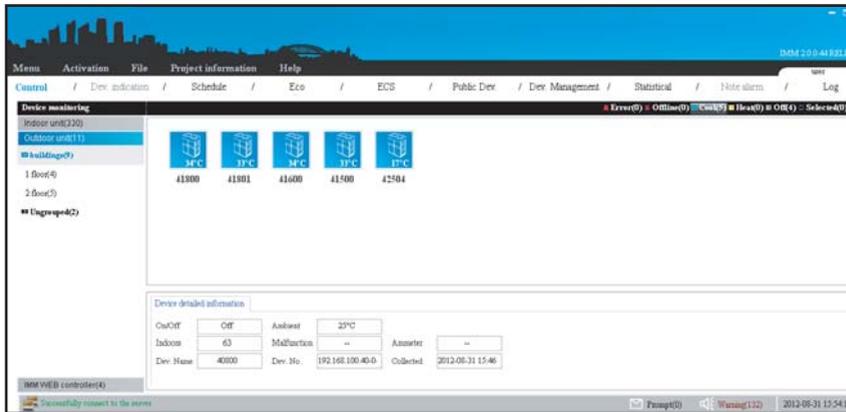


Fig.4-8

4.5.3 Indoor unit monitoring

Select the indoor unit class, the left side of interface will display the group information under the indoor unit, and the right will display all the indoor units in the IMM system, select the “device control” to carry out the control operation for one or more sets indoor units; select the “device details information” to check the operating detail information of a device.

1) Check the operating status of indoor unit

Choose the “device detail information”, select a indoor unit, then the bottom of the interface will display the operating detail information of this device. Display as follow:

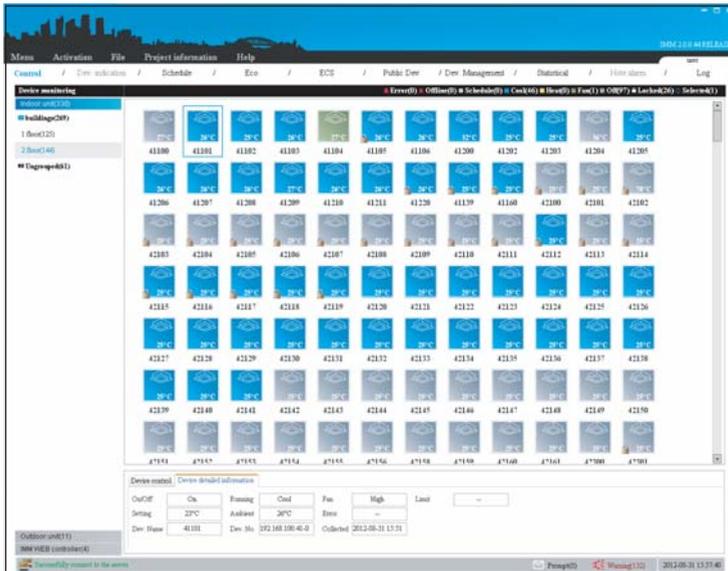


Fig.4-9

Displayed detail information: on and off status, operating mode, device name and device number etc.

2) Control the operating status of indoor unit

Choose the “Device control”, select one or more sets indoor units (selecting method refers to 4.5.4), in the bottom of the interface configure parameters: on and off setting, mode setting, operating fan speed, temperature setting and swinging setting, and click “send” button after setting, display as follow:

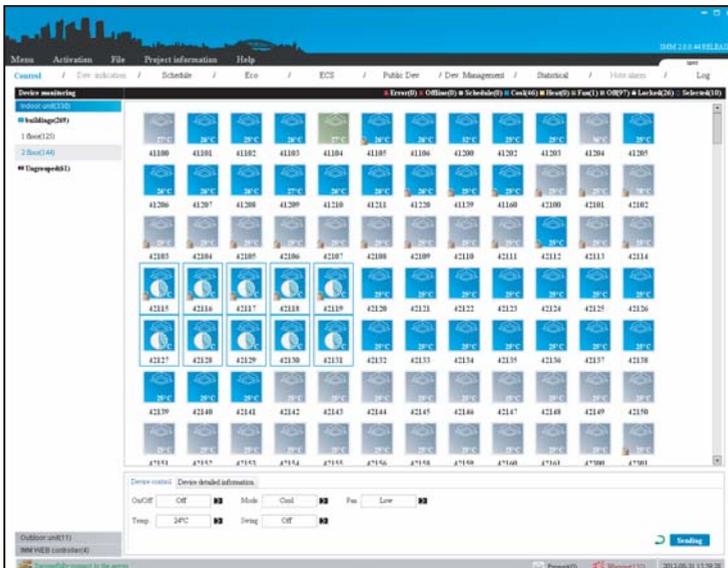


Fig.4-10

The interface will display the icons which wait for being sent, after the order execution, the icons will disappear, and the interface will be refresh, then can view the operating status of the control order had been executed. If control failed, the "Prompt message" in the interface bottom will display the control failed information.

Icon specification

Table.4-4

Icon	Specification	Icon	Specification	Icon	Specification
	Indoor unit error (Red)		Indoor unit operates heating, indoor ambient temp. is 25°C.(Orange)		Indoor unit is locked, indoor ambient temp. is 25°C.
	Indoor unit lost connection(White)		Indoor unit operates fan, indoor ambient temp. is 25°C. (Green)		Indoor unit is selected, indoor ambient temp. is 25°C.
	Indoor unit operates cooling, indoor ambient temp. is 25°C.(Blue)		Indoor unit is OFF, indoor ambient temp. is 25°C.(Gray)		The control order is carrying out, please wait

Status selection:

The indoor unit display status: error ( Error), lost connection ( Offline), schedule ( Schedule), cooling ( Cool), heating ( Heated), fan ( Fan), off unit ( Off), locked ( Locked) and selected ( Selected). Click the error, lost connection, schedule, cooling, heating, fan, off unit, locked and selected icons by the mouse, then the interface will display all the corresponding status. Right click the "selected" icon, and it will popup the selection frame of "All select/cancel all select", choose "All select" then it will select all the icons in the interface, and click "cancel all select" then it will cancel selecting all the icons. Right-click the "locked" icon, then it will display the locked lists, and click the corresponding list then will display the relative devices.

4.5.4 Shortcut keys operation

Shortcut keys operations of mouse:

The system offers shortcut keys operations of mouse, which convenient for the user to select/cancel one or more sets devices quickly.

- 1) Select single icon
Left-click the icon, if the icon was framed then means it was selected.
- 2) Select several icons
There are two ways for selecting several icons:
 - Select several icons as the way of selecting single icon.
 - Left-click outside the frame in the interface, drag a dotted line frame to select the corresponding -icons.
- 3) Cancel single selected icon
Left-click on the selected icon, then cancel selecting the icon.
- 4) Cancel several selected icons
There are two ways for canceling several selected icons:
 - Cancel several selected icons as the way of canceling single selected icon.
 - Double-click the left/middle/right key of the mouse in the blank place of the page, to cancel several selected icons.

Function shortcut keys operations

Right-click the  icon, then it will popup the selection frame of “All select/cancel all select”, choose “All select” and “Cancel all selected” to select and cancel quickly. The operation steps as follow:

- 1) Select the “indoor unit” or “outdoor unit” class (or primary group or secondary group).
- 2) Click a status display icon (cooling, heating, error, off unit etc.), such as click the cooling status icon, the interface will display the devices of corresponding group under cooling status.
- 3) Click the “select all” option, then all the cooling device in the page will be selected, and if click the “cancel the selected all”, all the selected icons will be canceled selecting.

4.6 User management

- 1) Schedule management offers the schedule operations for air-conditioning indoor unit. Display as follow:

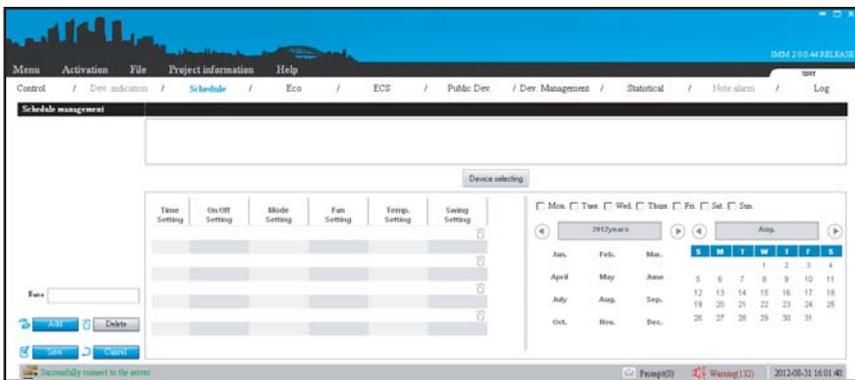


Fig.4-11

- 2) Schedule management operation steps as follow:

- Add the name

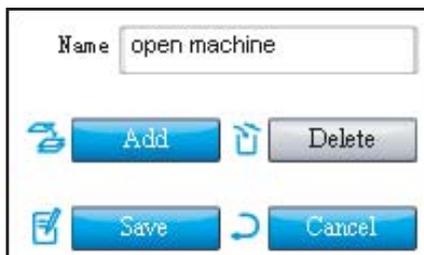


Fig.4-12

Click the “Add” button, type in schedule name.

- Add device

Click the “Device selecting” button, then it will popup the add device frame as the following display:

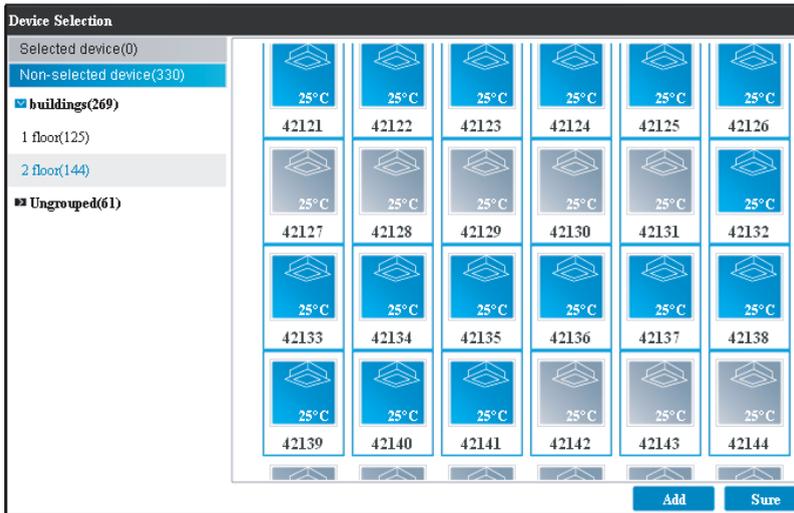


Fig.4-13

Click the “Non-selected device” option, select the device and click the “add” button. Click the “Selected device” option, and then it shows up the selected devices. Choose the relative devices, and click “Move” to move the devices into “Non-selected device”. After selection, click “OK” and then close the selection frame. The page will display the selected devices.

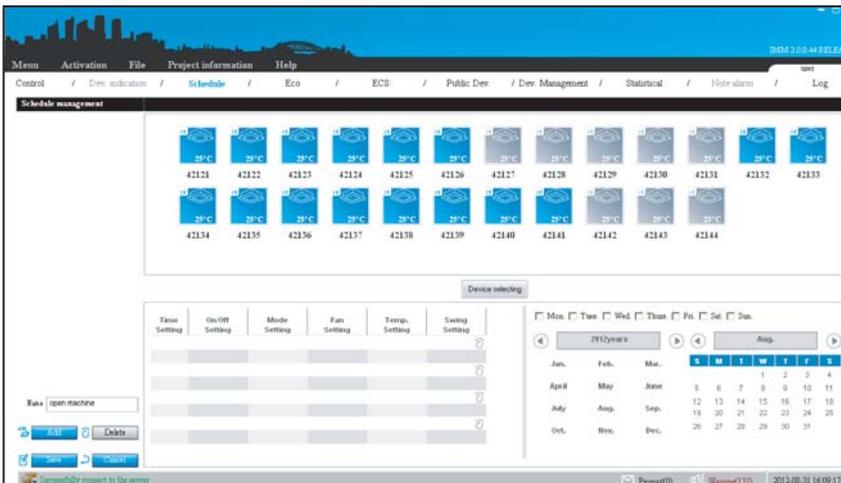


Fig.4-14

■ Control parameters setting

Time Setting	On/Off Setting	Mode Setting	Fan Setting	Temp. Setting	Swing Setting
08:00	On	Cool	High	18°C	Off
14:00	On	Cool	Medium	19°C	On

Fig.4-15

Set the time, on and off status, mode, fan speed, temperature, swinging parameters. Click the cancel icon to cancel the setting.

■ Time selecting

There are two ways of adding time: Choose date or week.

Date: Click the date under corresponding month, select the month and date which displayed in red.

Week: check the relative week, then this day of each week will be listed in the schedule. Such as selected Monday, then every Monday will carry out this schedule.

Mon. Tues. Wed. Thurs. Fri. Sat. Sun.

2012years Sep.

Jan.	Feb.	Mar.	S	M	T	W	T	F	S
									1
April	May	June	2	3	4	5	6	7	8
July	Aug.	Sep.	9	10	11	12	13	14	15
Oct.	Nov.	Dec.	16	17	18	19	20	21	22
			23	24	25	26	27	28	29
			30						

Fig.4-16

■ Save

After setting, click the save button, and display as the following:

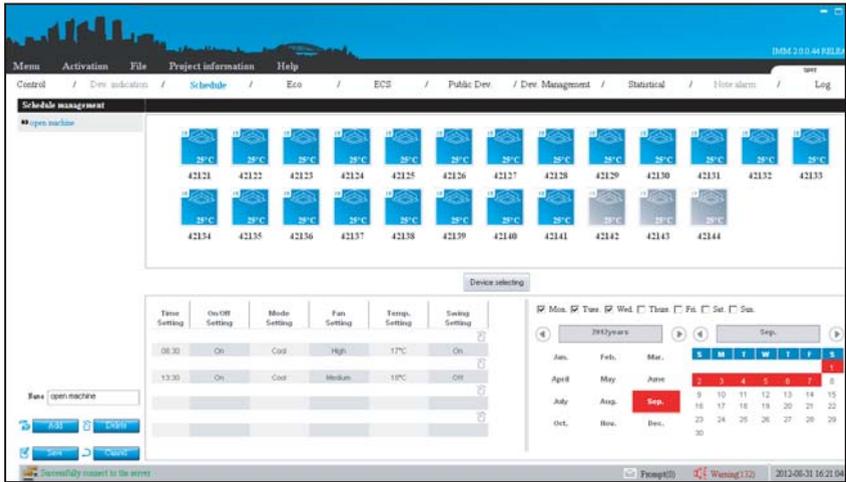


Fig.4-17

The upper left corner of the page will display the added schedule name. And the right displayed the added device. If it's the first time setting schedule of the device, then the icon will add the schedule icon. Use the "Data statistics" to check the execution status of the schedule.

4.7 Energy saving management

Energy saving management offers the energy saving control operations for air-conditioning indoor unit. Display as follow:

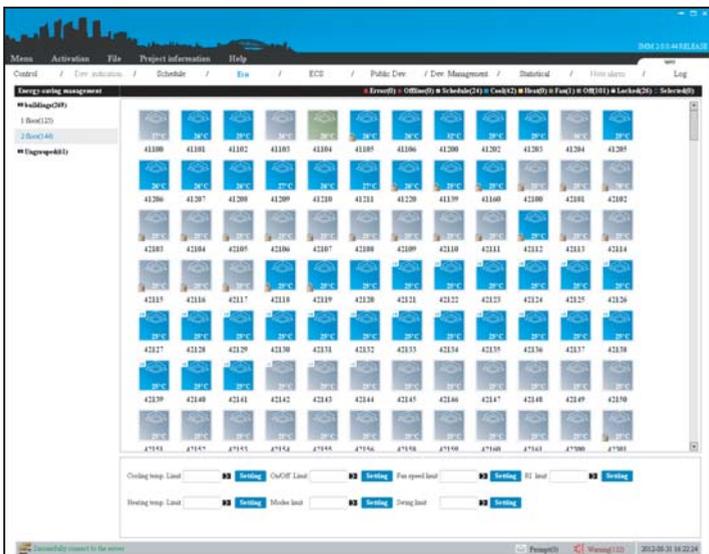


Fig.4-18

The left side will display the indoor unit group information, and select one or more sets indoor units and choose the energy saving option, then click the “Set” button. After setting, the air conditioner icon will display the locked icon. If it needs to remove the limit, then choose the “Remove” option, and click the “Set” button for removing the limit, then the locked icon will disappear. If it failed the control, check the failed information in the “Prompt message”. Click the right key of the mouse on an indoor unit, then the bottom of the interface will display the locking detail information of this device.

Options specification:

Table.4-5

Selection	Specifications
Cooling temp. limit	Set the lowest limit of cooling temp., and limit the remote controller control
Heating temp. limit	Set the lowest limit of heating temp., and limit the remote controller control
On and off unit limit	Limit the indoor unit on and off operations of the remote controller
Mode limit	Limit the unit cooling, heating mode operations
Fan speed display	Limit the fan speed control by the remote controller
Swinging limit	Limit the swinging control by the remote controller
Remote controller limit	Limit the air conditioner operations by the remote controller

4.8 Statistics of energy consumption

This function calculates the results of the device’s electric quantity division in a period. This function needs to be activated for use. Before calculating, it needs to set the “Public device”, display as follow:

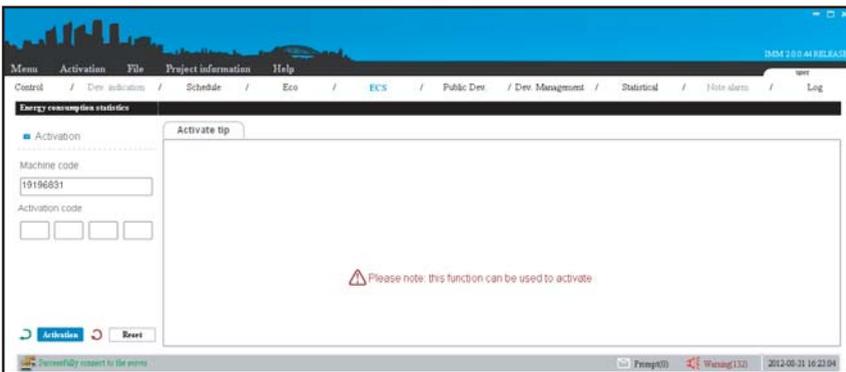


Fig.4-19

If the user needs this function please consult the dealer, and get the activation code to activate this function. The activated page as following display:

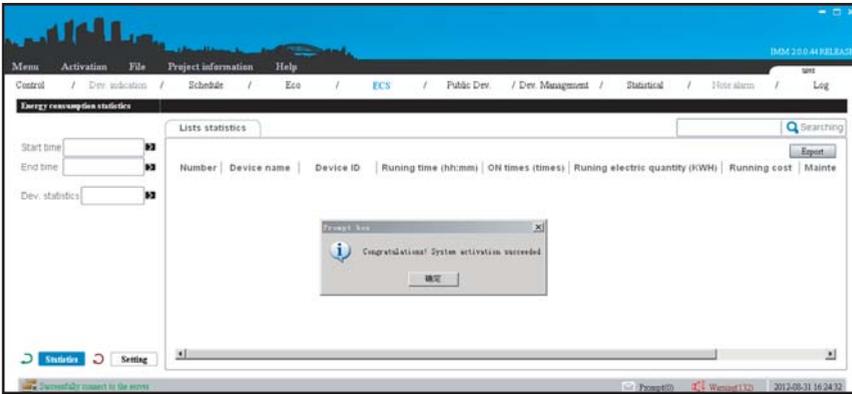


Fig.4-20

Select the "Start time", "End time" and "Calculate device" parameters, and then click the "Calculate" button, then the page will display the result. If not select the "Calculate device", then it default selects all the devices. Display as follow:

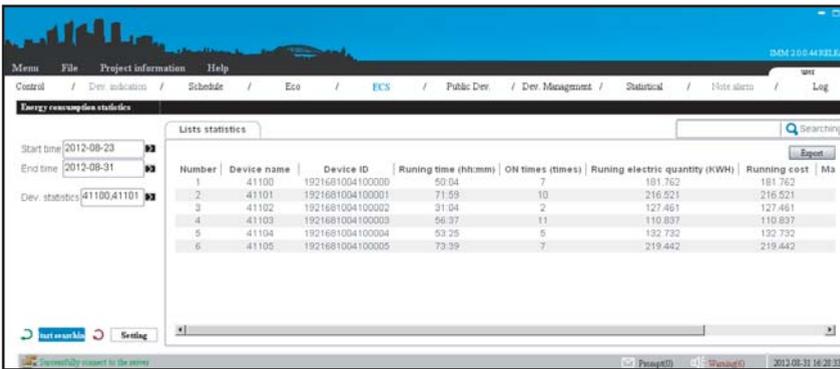


Fig.4-21

Click the “Setting” button, popup the dialogue frame, to set the single electricity price and the multi-step electricity pricing. Click the “Export” then it will export the displayed results to the xls/txt/csv form. The xls form display as follow.

	A	B	C	D	E	F	G	H	I
	Number	Device name	Device ID	Runing time (h:mm)	ON times (times)	Runing electric quantity (KWH)	Running cost	Maintenance cost	Total cost
1	41100		1921681004100000	50:04	7	181.762	181.762	0.7098	182.4718
2	41101		1921681004100001	71:59	10	216.521	216.521	0.7098	217.2308
3	41102		1921681004100002	31:04	2	127.461	127.461	0.7098	128.1708
4	41103		1921681004100003	56:37	11	110.837	110.837	0.7098	111.5468
5	41104		1921681004100004	53:25	5	132.732	132.732	0.7098	133.4418
6	41105		1921681004100005	73:39	7	219.442	219.442	0.7098	220.1518

Fig.4-22

Click the search icon, and carry out the searching operations for the contents in the page. Such as type in “41100”, then the page will display the searching results.

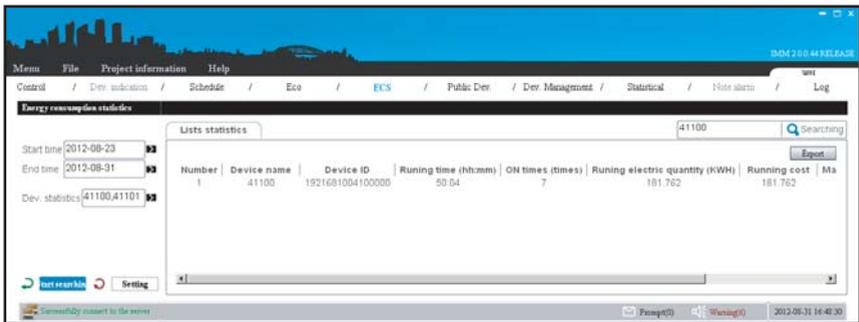


Fig.4-23

Energy consumption results are only for reference, not use for commercial calculating record. About the electric quantity division principle please refers to IMM TECHNOLOGY MANUAL. If the device was set to be “Public device” or “Idle device”, then the energy consumption statistic page will not display the electric quantity division result.

4.9 Public device

For the commercial office building or apartment hotel, and for the correctness of electric quantity division, it needs to set the public device.

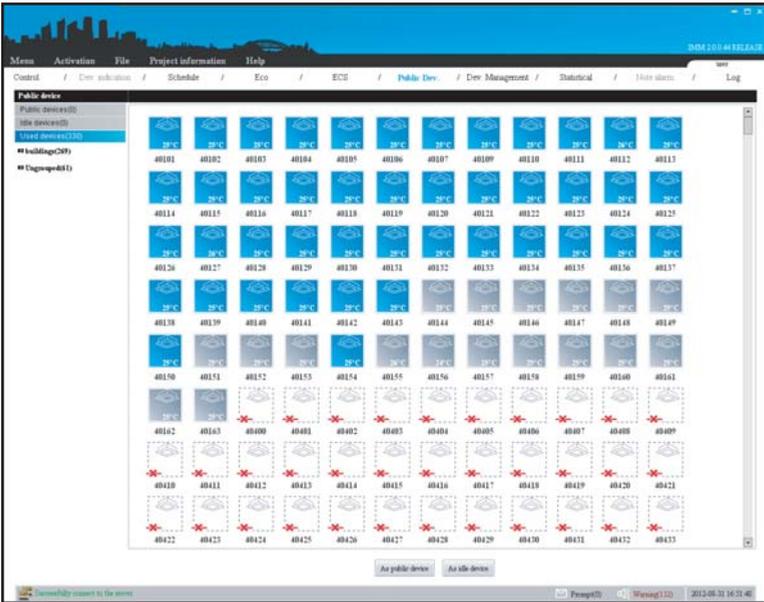


Fig.4-24

Find the relative air conditioning device in the operated device, click the “as public device” or “as idle device” button, and divide it to the public device or idle device. Idle device means the devices are not used; public device means the devices in the public place, such as air-conditioning devices in the hall or corridor. The cost produced by the idle and public devices will be shared by other devices in IMM system.

4.10 Device management

1) Provides the group division function, convenient for device management, display as follow:

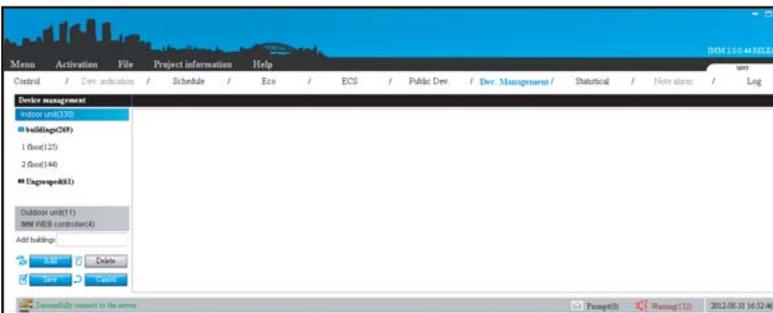


Fig.4-25

2) Click the relative group option, the corresponding device in the group will be displayed in the right of the page.

■ Add group:

The adding group method of the outdoor unit is the same as the indoor unit (Take adding the secondary group of indoor unit):



Fig.4-26

Click the primary group "Building", and then click the "Add" button, type in the secondary group name (4 floor). And click "Save" button, then it established secondary group (4 floor) both at indoor unit and outdoor unit, and select the devices need to be added in the "4 floor", left click the "4 floor" and choose the "add the selected devices into 4 floor".

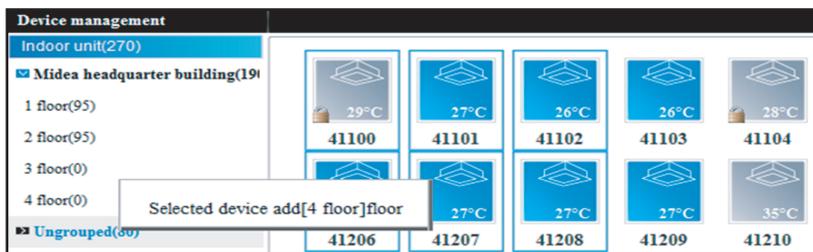


Fig.4-27

Successfully added the device, the 4 floor group will display the added devices. Devices only can be added in the secondary group.

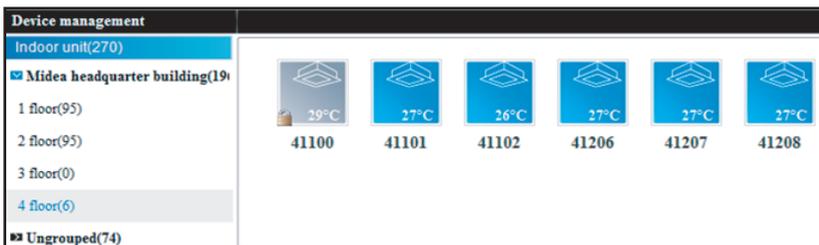


Fig.4-28

■ M-INTERFACE gateway display:

Click the "IMM WEB controller", the page display as follow:

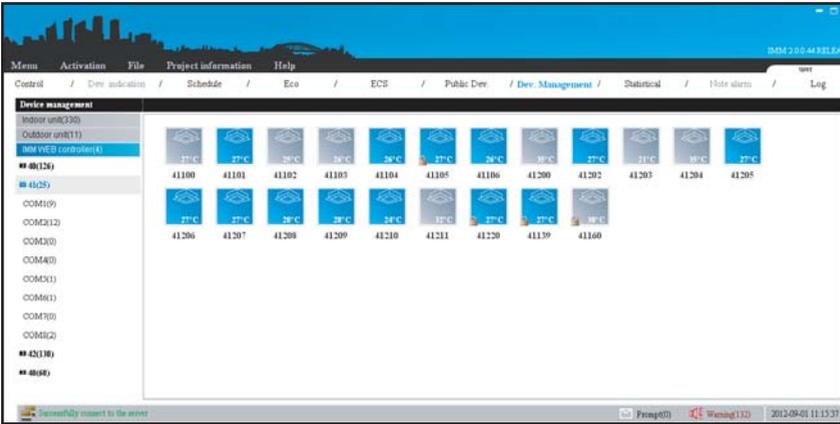


Fig.4-29

The left page will display all the gateway devices and their terminals, click the relative terminals, the right of the page will display the air-conditioning device under the terminal; 1-4 are indoor unit terminals, 5-8 are outdoor unit terminals.

4.11 Data statistics

Calculate the operation changing records of indoor unit, outdoor unit and M-INTERFACE gateway. Check the execution status of the schedule and the changing status of the device through this function.

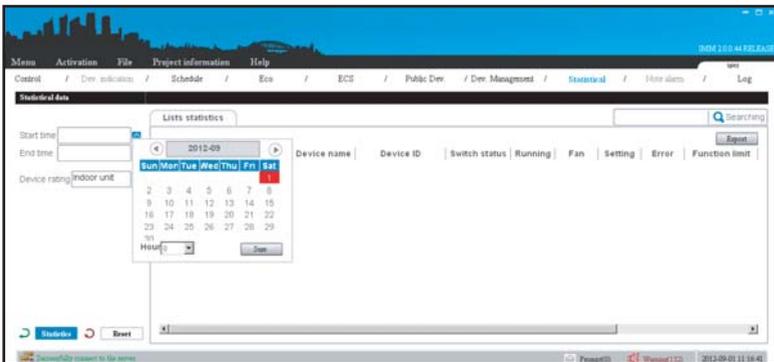


Fig.4-30

Select the “Start time”, “End time” and “Device class” parameters, and then click the “Calculate” button, then the page will display the result. Display as follow:

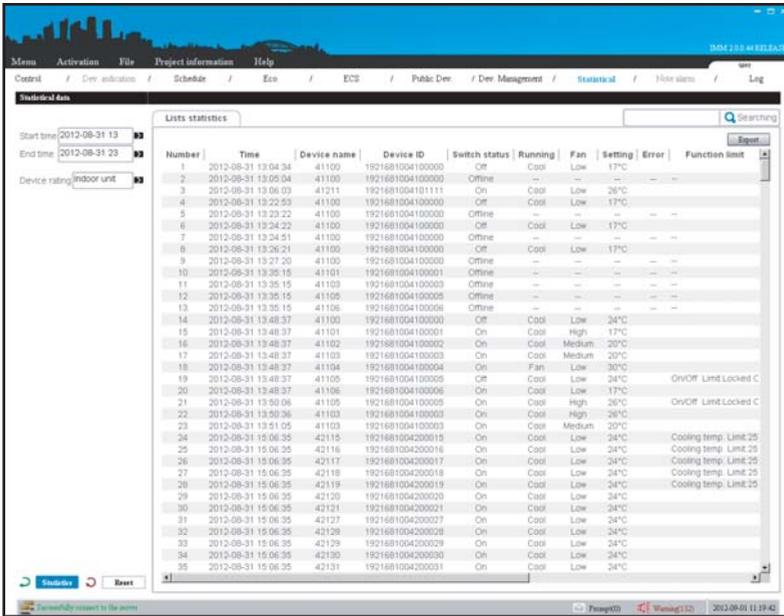


Fig.4-31

Click the search icon in the calculation page, and the result will be displayed in the page. Such as type in “41106”, then the page will display the searching results as follow:

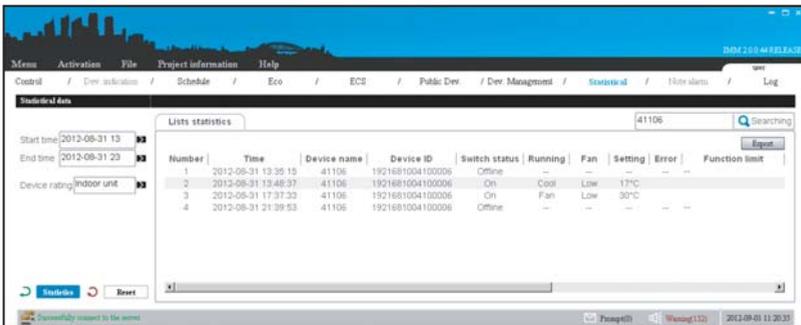


Fig.4-32

Click the “Export” button; export the page result to the xls/txt/csv form, the xls form display as follow:

	A	B	C	D	E	F	G	H	I	
1	Number	Time	Device name	Device ID	Switch status	Running	Fan	Setting	Error	Function limit
2	1	2012-08-31 13:35:15	41106	1921681004100006	Offline	-	-	-	-	-
3	2	2012-08-31 13:48:37	41106	1921681004100006	On	Cool	Low	17°C		
4	3	2012-08-31 17:37:33	41106	1921681004100006	On	Fan	Low	30°C		
5	4	2012-08-31 21:39:53	41106	1921681004100006	Offline	-	-	-	-	-
6										

Fig.4-33

4.12 Log

Display the IMM system operation records by all the user.

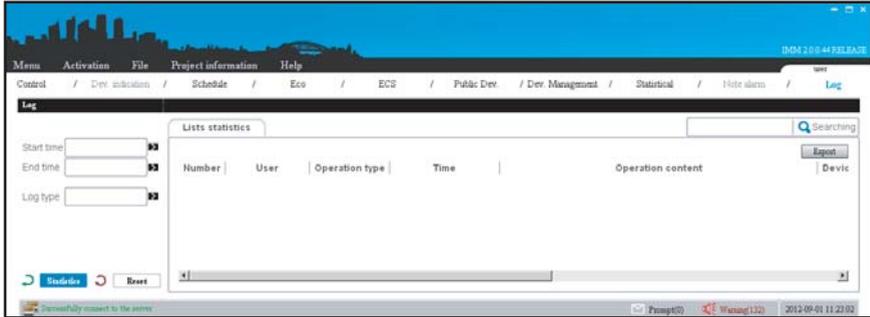


Fig.4-34

Select the “Start time”, “End time” and “Log type” parameters, the Log type has: orders, schedule, and energy saving and login. And then click the “Calculate” button, and then the page will display the result. Click the “Reset” button, the selection frame will be cleared.

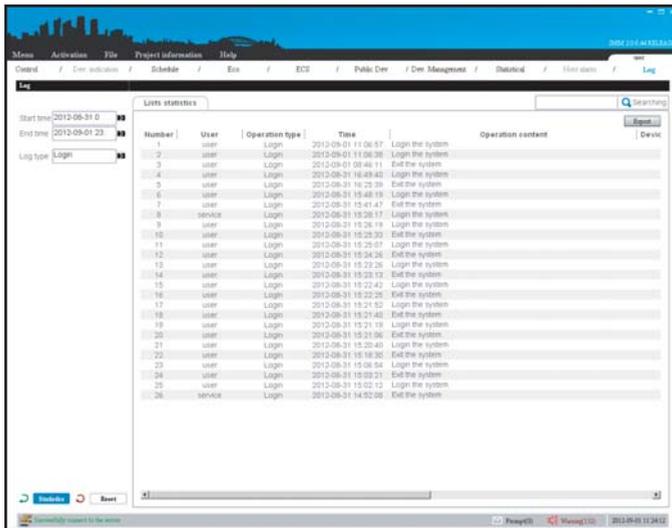


Fig.4-35

Click the search icon, and carry out the searching function. Such as type in “user”, then the page will display the searching results, display as follow:

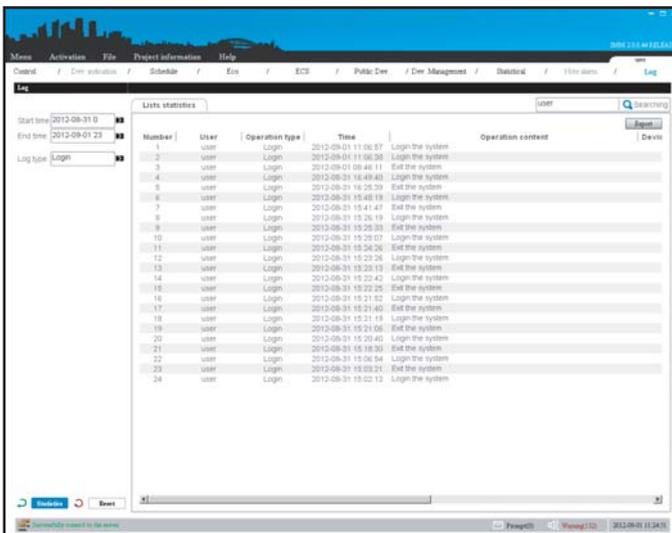


Fig.4-36

Click the “Export” button; export the page result to the xls/txt/csv form, the xls form display as follow:

	A	B	C	D	E	F	G	H
	Number	User	Operation type	Time	Operation content	Device rating	Device name	Computer IP address
2	1	user	Login	2012-09-01 11:06:57	Login the system			192.168.1.240
3	2	user	Login	2012-09-01 11:06:38	Login the system			192.168.30.10.10.46.1.117.192.168.100.117
4	3	user	Login	2012-09-01 08:46:11	Exit the system			192.168.1.240
5	4	user	Login	2012-08-31 16:49:40	Login the system			192.168.1.240
6	5	user	Login	2012-08-31 16:25:39	Exit the system			192.168.1.240
7	6	user	Login	2012-08-31 15:40:19	Login the system			192.168.1.240
8	7	user	Login	2012-08-31 15:41:47	Exit the system			192.168.1.240
9	8	user	Login	2012-08-31 15:26:19	Login the system			192.168.1.240
10	9	user	Login	2012-08-31 15:25:33	Exit the system			192.168.1.240
11	10	user	Login	2012-08-31 15:25:07	Login the system			192.168.1.240
12	11	user	Login	2012-08-31 15:24:26	Exit the system			192.168.1.240
13	12	user	Login	2012-08-31 15:23:26	Login the system			192.168.1.240
14	13	user	Login	2012-08-31 15:23:13	Exit the system			192.168.1.240
15	14	user	Login	2012-08-31 15:22:42	Login the system			192.168.1.240
16	15	user	Login	2012-08-31 15:22:25	Exit the system			192.168.1.240
17	16	user	Login	2012-08-31 15:21:52	Login the system			192.168.1.240
18	17	user	Login	2012-08-31 15:21:40	Exit the system			192.168.1.240
19	18	user	Login	2012-08-31 15:21:19	Login the system			192.168.1.240
20	19	user	Login	2012-08-31 15:21:06	Exit the system			192.168.1.240
21	20	user	Login	2012-08-31 15:20:40	Login the system			192.168.1.240
22	21	user	Login	2012-08-31 15:18:30	Exit the system			192.168.1.240
23	22	user	Login	2012-08-31 15:06:54	Login the system			192.168.1.240
24	23	user	Login	2012-08-31 15:03:21	Exit the system			192.168.1.240
25	24	user	Login	2012-08-31 15:02:12	Login the system			192.168.1.240

Fig.4-37

4.13 Prompt message

Display the failed control operation records and the connecting information between client-side and server; when the operation failed, prompt message icon will be red. User can click “Prompt message” icon to check the relative information, the prompt message frame display as follow:

Prompt Message
 Popup the newest Message

Number	Prompt Type	Time	Device rating	Device name
10	Command failed	2012-07-13 09:47:29	Indoor unit	43107
11	Command failed	2012-07-13 09:47:26	Indoor unit	43106
12	Command failed	2012-07-13 09:47:23	Indoor unit	43105
13	Command failed	2012-07-13 09:47:20	Indoor unit	43104
14	Command failed	2012-07-13 09:47:17	Indoor unit	43103
15	Command failed	2012-07-13 09:47:14	Indoor unit	43102
16	Command failed	2012-07-13 09:47:11	Indoor unit	43101
17	Command failed	2012-07-13 09:47:08	Indoor unit	43100
18	Successfully connect to the server	2012-07-13 09:46:32		

Detailed information:
43116Indoor unit 2012-07-13 09:47:57 Command failed Control Command excution failed

Fig.4-38

Click a prompt message, the page will display details of this information. If check the “Popup the newest prompt”, then it will automatically popup this prompt frame when there is prompt message.

4.14 Alarm message

When there was device error, lost connection, the system would has alarm message. The alarm frame display as follow:



Fig.4-39

After the alarm situation removal, the alarm frame will display the alarm has been removed. Click a prompt message, the page will display details of this information. If check the "Popup the newest prompt", then it will automatically popup this prompt frame when there is prompt message. When there was alarm message, it should be maintained immediately.

5. TROUBLESHOOTING

5.1 Login failed

- 1) Fail to connect the server

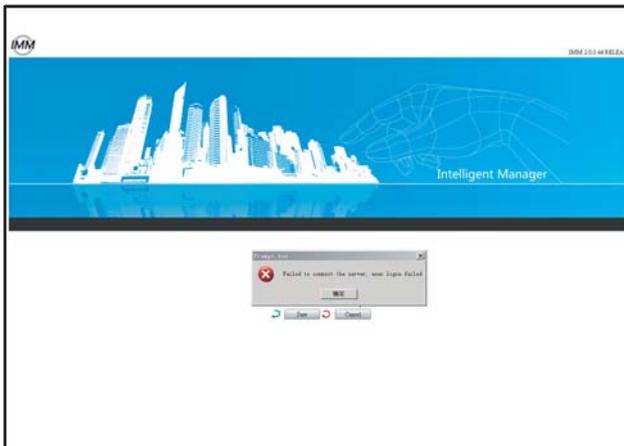


Fig.5-1

Carry out the login operation when it is not connect the server, the result be displayed as the above; it should check the client-side configuration information and the network of the server and client-side.

2) Wrong password

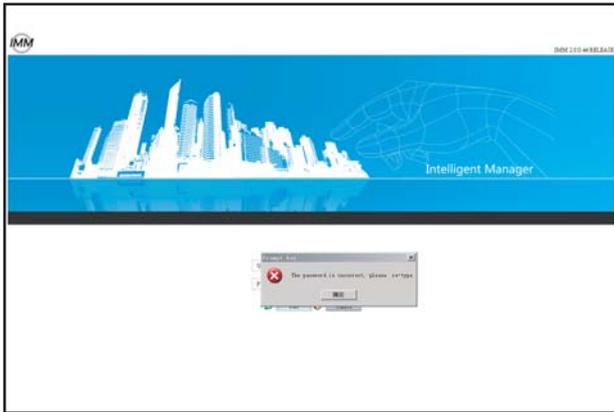


Fig.5-2

The above figure means the password was wrong. It needs to re-type in the correct password.

5.2 Control failed

- 1) When setting the mode limit, it might be caused control failed. Such as the heating mode limit has been set, then open the cooling mode, and which will cause control failed, and the failed information will display in the prompt message frame. It needs to un-lock the air-conditioner, and do the mode setting again.
- 2) If limited the remote controller, and then use the remote controller to control the air-conditioner will cause operation failed.
- 3) When controlling the indoor unit, if it was failed, then found out the reason through the prompt message.

5.3 No respond in page

If the page cannot be operated, then should check the connecting icon in the lower left of the page to judge whether it was normally connected to the server, if connection failed, then it needs to contact the local dealer or technicians to maintain the network.

6. APPENDIX

6.1 Error code analysis of client-side interface

The following error code tables are suitable for the V4+ series indoor and outdoor units. When there was error please contact technicians for maintenance immediately.

Indoor unit error code table:

Table.6-1

E0	Wrong phase order or none phase	P1	Anti cold air or defrosting protection
E1	Communication error	P2	High temperature protection of condenser
E2	T1 sensor error	P3	Temperature protection of compressor
E3	T2A sensor error	P4	Temperature protection of air exhausting pipe
E4	T2B sensor error	P5	Protection for high air exhausting pressure
E5	Air exhausting temp. sensor error of T3 or T4 or digital compressor	P6	Protection for low air exhausting pressure
E6	Zero crossing detection error	P7	Power over pressure protection
E7	EEPROM error	P8	Compressor over current
E8	Fan speed detection lose control	PF	Other protections
E9	Communication error between main board and display board	0#	Communication error between network connector module and main control board
EA	Compressor over current (4 times)	1#	Communication error between centralized monitor and network connector module
EB	Inverter module protection	2#	Communication error between centralized monitor and function module
EC	Fresh error	3#	Communication error between centralized monitor and computer (gateway)
ED	Outdoor unit error protection	4#	Order limit execution
EE	Water level detection error	5#	Order times out, no execution
EF	Other errors	6#	Excepted address do not exist
P0	Temperature protection of evaporator	7#	Wrong (not-supported) order

Outdoor unit error code table:

Table.6-2

E0	Outdoor unit communication error	P2	Protection for low air exhausting zpressure
E1	Wrong phase order or none phase	p3	Compressor current protection 1
E2	Indoor unit communication error	P4	Temperature protection of air exhausting pipe
E3	Air exhausting temp. sensor error of T3 or T4 or digital compressor	P5	High temperature protection of condenser
E6	T6 sensor error	P6	Inverter module protection
E9	Voltage error	P7	Compressor current protection 2
EF	Other errors	P8	Compressor current protection 3
H0	DSP communication error	P9	Power over pressure protection
H1	Network communication error	PA	Defrosting protection
H2	Outdoor unit reducing error (Valid for main unit)	PD	Oil return
H3	Outdoor unit increasing error (Valid for main unit)	PE	Oil averaging
P0	Protection for compressor top temperature	PF	Other protections
P1	Protection for high air exhausting pressure	—	_____

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