

SOFTWARE SNMP DIRECTION

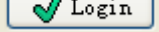

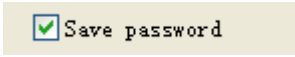
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I 、 System Login

Dbclick desktop shortcut icon to start the system programme, show system start picture, then show login window, see picture 1.1,

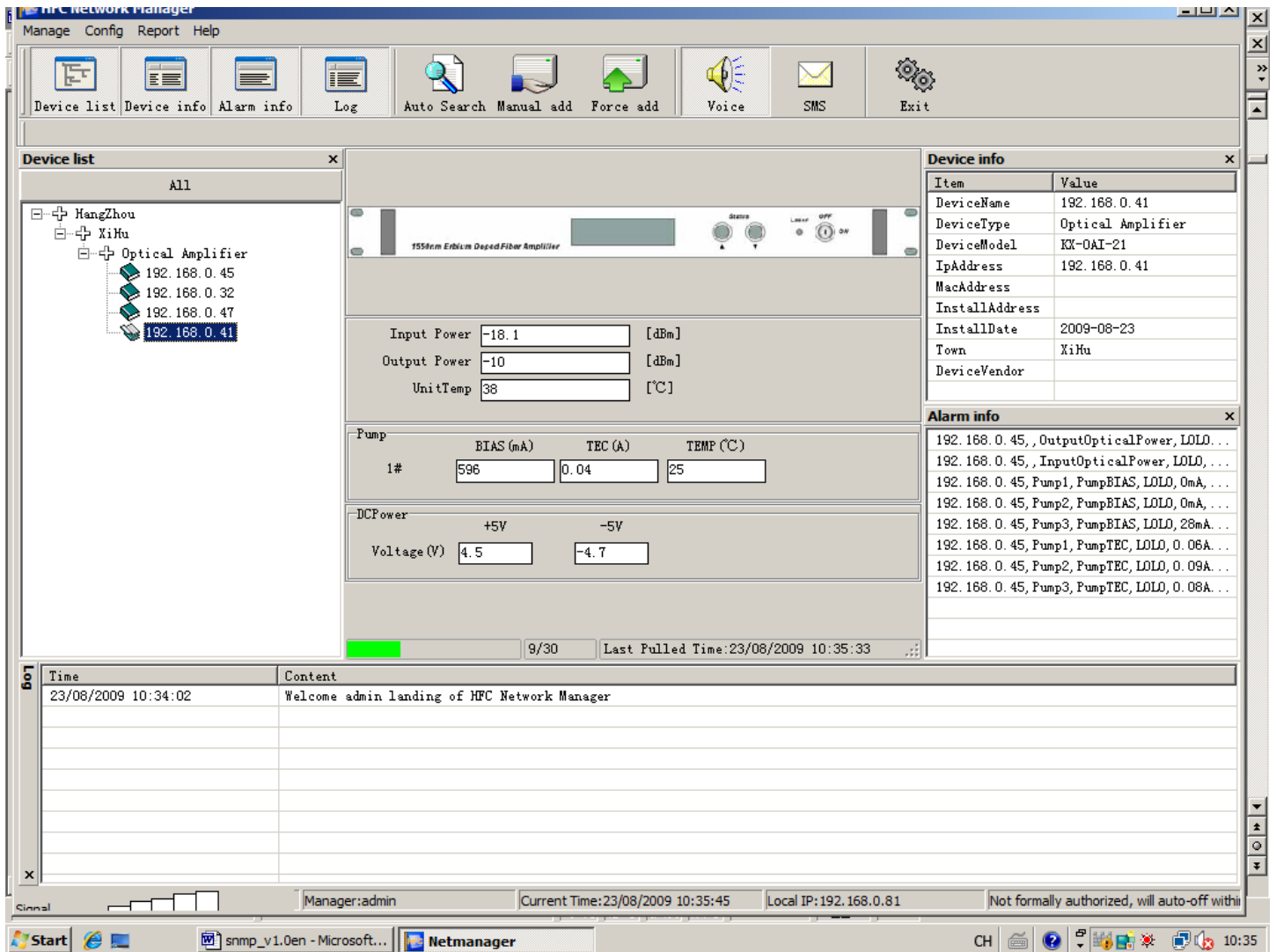


picture 1.1 login window

Enter your account and password, click  button. The system will validate the account and password. If you want the system to remember your account and password, click **account and password** to mark it, then the system will remember them. And when you start the programme next time, the system will default to them and fill them in the input box, so the user need only click  button to log in system directly. If you want to eliminate the account and password the system has remembered, you need only click  to clean out the mark and log in again successfully. Then when you start login system next time, the system will default to the account and password as empty and you need to reenter them by yourself.

II、Main interface

After logging in successfully, show system main interface, see picture 2.1.

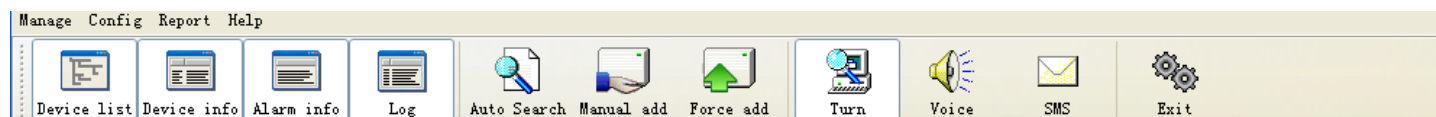


Pic 2.1 system main interface

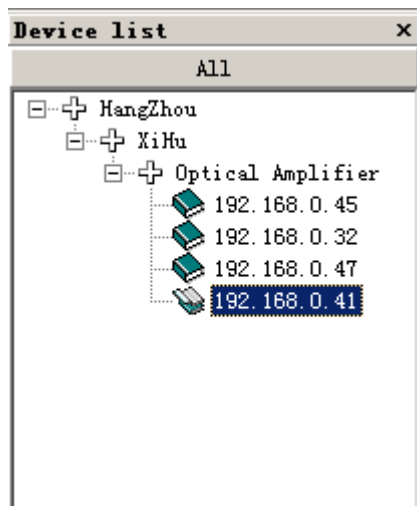
system main interface is divided into six area

- Menu (picture 2.2)
- device list (picture 2.3)
- device information (picture 2.4)
- alarm information (picture 2.5)
- running log (picture 2.6)
- data display (picture 2.7)

g. status bar (picture 2.8)



Pic 2.2 Menu area



Pic 2.3 device list

Item	Value
DeviceName	192.168.0.41
DeviceType	Optical Amplifier
DeviceModel	KX-OAI-21
IpAddress	192.168.0.41
MacAddress	
InstallA...	
InstallDate	2009-08-23
Town	XiHu
DeviceVe...	

Pic 2.4 device information

Alarm info
192.168.0.45, OutputOpticalP...
192.168.0.45, InputOpticalPo...
192.168.0.45, Pump1, PumpBIAS, ...
192.168.0.45, Pump2, PumpBIAS, ...
192.168.0.45, Pump3, PumpBIAS, ...
192.168.0.45, Pump1, PumpTEC, L...
192.168.0.45, Pump2, PumpTEC, L...
192.168.0.45, Pump3, PumpTEC, L...

Pic 2.5 alarming information

Time	Content
23/08/2009 10:24:54	Welcome admin landing of HFC Network Manager
23/08/2009 10:25:07	admin add device 192.168.0.47 successful
23/08/2009 10:25:26	admin add device 192.168.0.41 successful

Pic 2.6 running log

1550nm Erbium Doped Fiber Amplifier

Status: [Up Arrow] [Down Arrow]

Laser: OFF [ON]

Input Power: -18.1 [dBm]

Output Power: -11.1 [dBm]

UnitTemp: 36 [°C]

Pump	BIAS (mA)	TEC (A)	TEMP (°C)
1#	596	0.06	25

DCPower

	+5V	-5V
Voltage (V)	4.5	-4.7

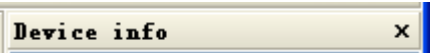
Pic 2.7 data display

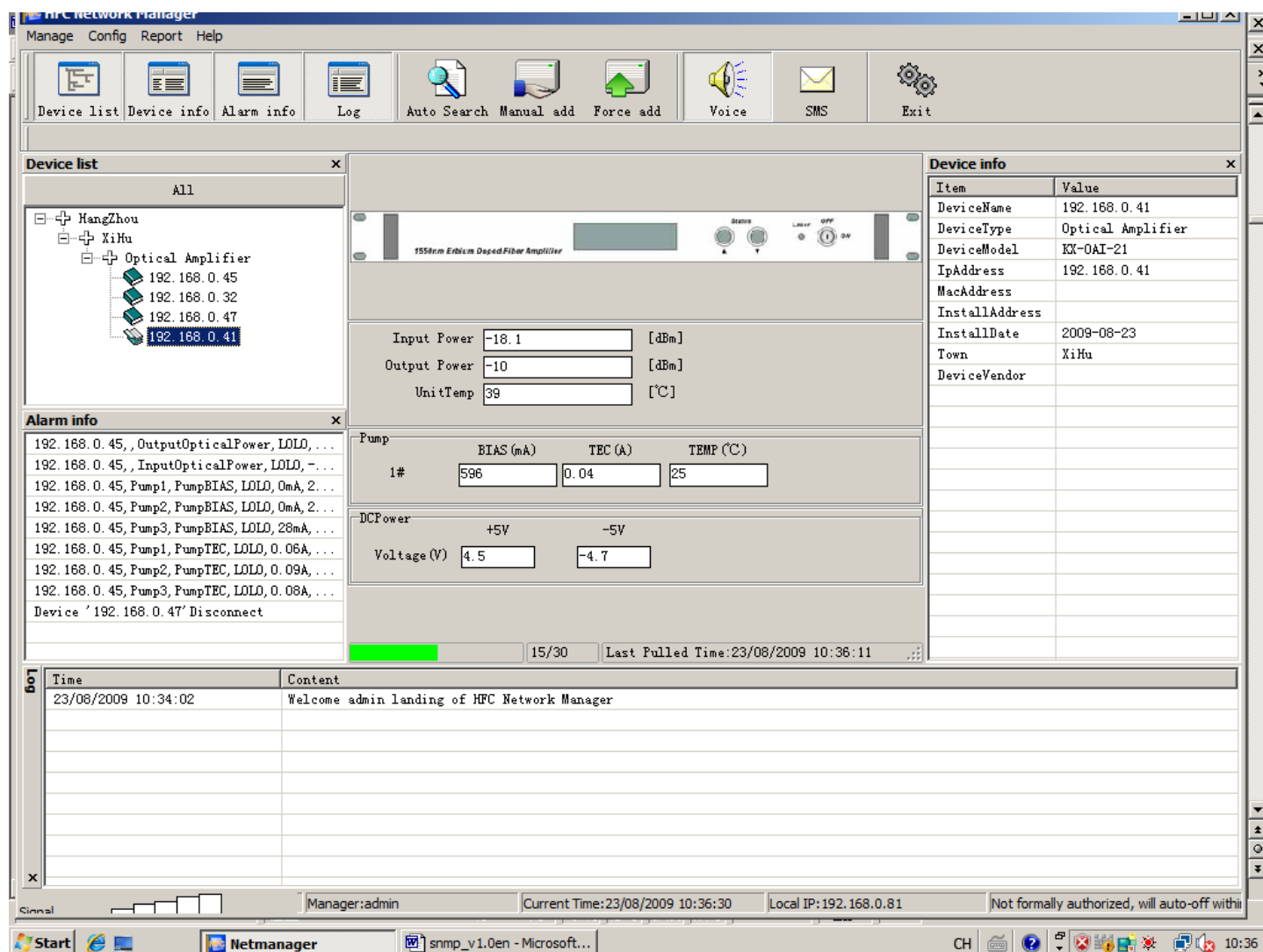
Manager: admin | Login Time: 2009-01-19 12:15:22 | Local IP: 192.168.1.57 | 0/20 | Not formally authorized, will auto-off within 57 min

Pic 2.8 status bar

2. 1、Interface controlling

The place of device list、 device information、 alarming information and running log in the main interface can be controlled freely by the user. The user can drag the place of the information display area and control wheter to display it in the main interface, see 2.9. As the device information area: In the topest of the information display area

 , press the left mouse button, keep pressing and drag the mouse. Then you can move the device information area and combine with other areas freely. If you want both the device information area and device list displayed in the left of the main interface, you can drag the device information area just as the above method. Adopting this method, the user can customize the window display area to make it convenience to use.



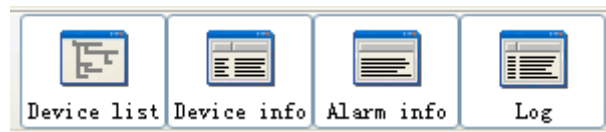
Pic 2.9 customize main interface

2. 2、Shortcut button

There is a line of shortcut button in the menu area. see picture 2.2.

2. 2. 1、The first four button (see picture 2.10)

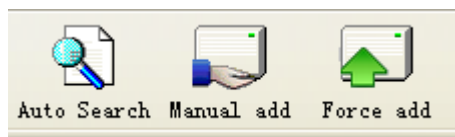
Control device list, device info, alarm info and log display. The system defaults these four buttons are under press status. means this display area is showed on main interface. if uses do not want to display certain area, click the relevant button to make it dap out, the relevant display area will not on the main interface.



Pic 2.10、 Display control shortcut button

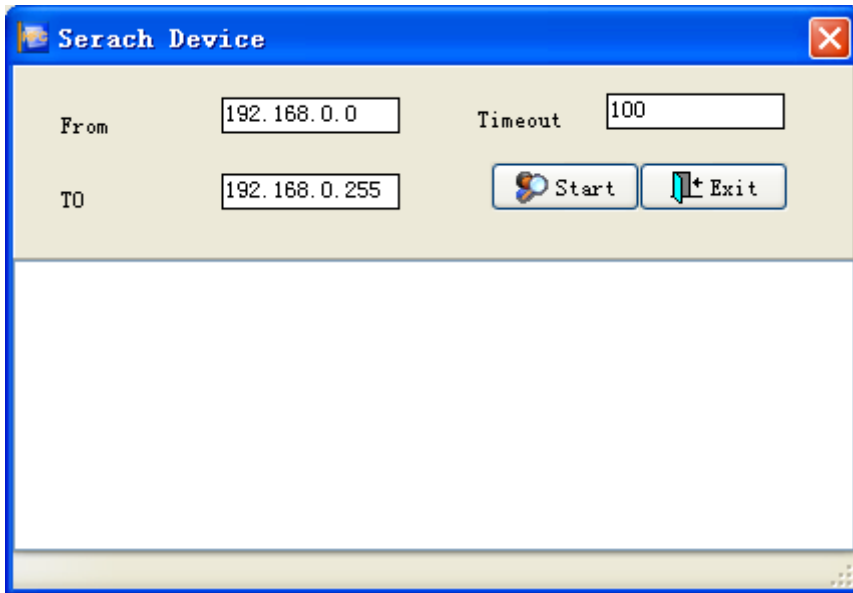
2. 2. 2、 Three buttons in the middle (see picture 2.11)

Used for adding device speediness.



Pic 2.11、 Device adding buttons

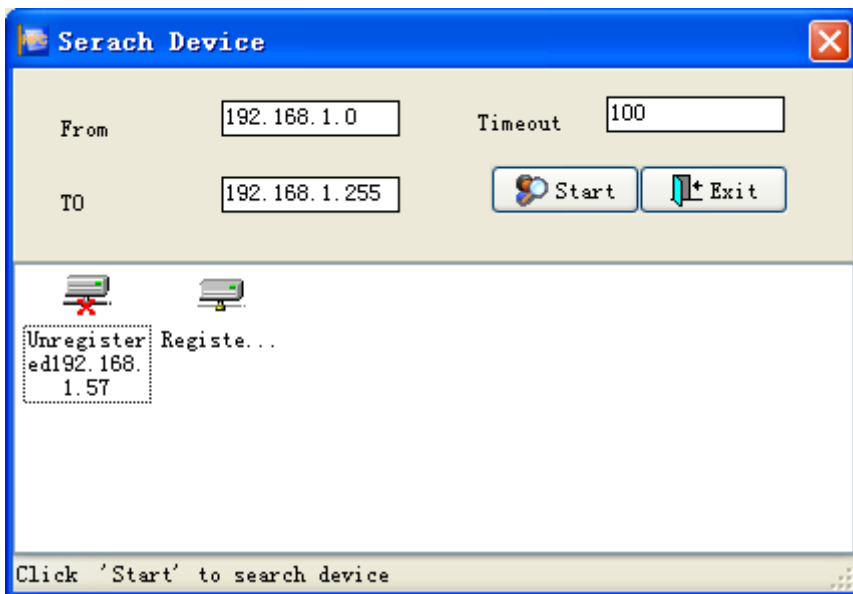
2. 2. 2. 1、 Click  button, dap out search device window, see picture 2.12.



Pic 2.12、Search device

If users do not know the IP address of the device, please input the network segment of the device, see above, input the IP address segment from 192.168.6.0 to 192.168.6.255, time-out device default 100ms, means if the response time of verifying a certain IP exceeds 100ms, system will give up verifying, continue to verify the next IP address.

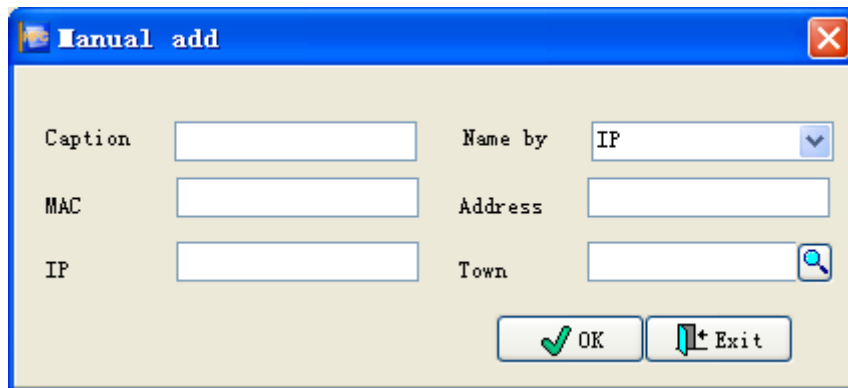
Click  button, the system begin to search the device in this IP segment, see picture 2.13.



Pic 2.13、Seach device automatic

Serach results will show all devices in this IP segment, and display whether correspond devices have

already registered in this system. If users want to add device, dblclick this device icon, dap out add window; if it can be identified by system, it will dap out manual add window, see picture 2.14.

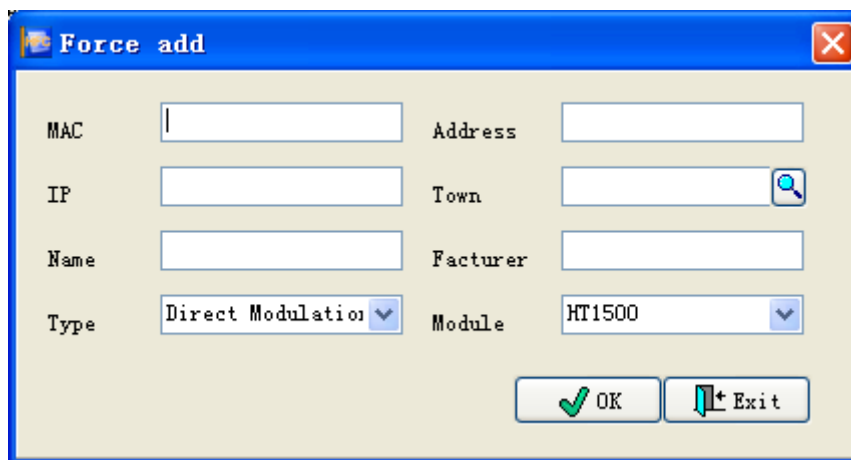


The 'Manual add' dialog box features a blue title bar with a close button. The main area is light beige and contains the following fields and controls:

- Caption:** A text input field.
- MAC:** A text input field.
- IP:** A text input field.
- Name by:** A dropdown menu currently showing 'IP'.
- Address:** A text input field.
- Town:** A text input field with a magnifying glass icon to its right.
- Buttons:** 'OK' (with a green checkmark) and 'Exit' (with a red X) buttons at the bottom right.

Pic 2.14. Manual add device

If system can't identify this device, it will dap out the force add window, see picture 2.15.

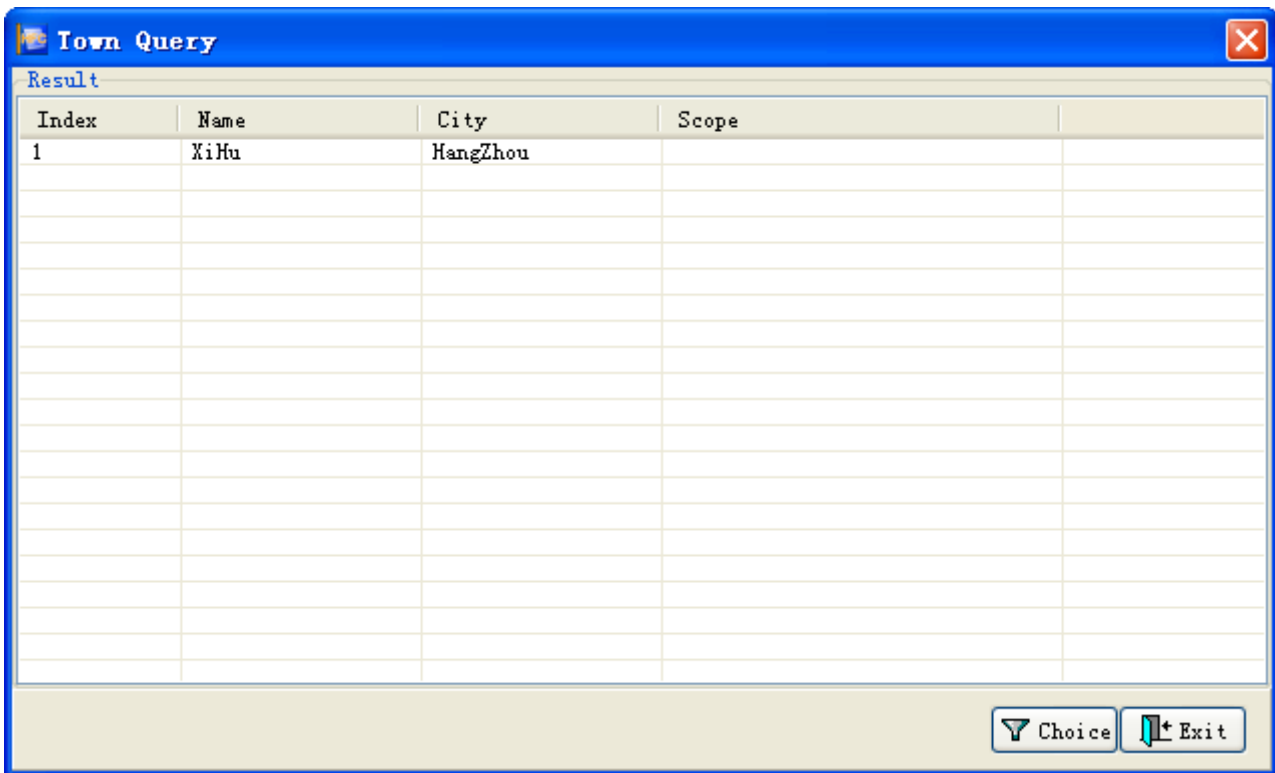


The 'Force add' dialog box features a blue title bar with a close button. The main area is light beige and contains the following fields and controls:

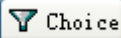
- MAC:** A text input field.
- IP:** A text input field.
- Name:** A text input field.
- Type:** A dropdown menu currently showing 'Direct Modulation'.
- Address:** A text input field.
- Town:** A text input field with a magnifying glass icon to its right.
- Facturer:** A text input field.
- Module:** A dropdown menu currently showing 'HT1500'.
- Buttons:** 'OK' (with a green checkmark) and 'Exit' (with a red X) buttons at the bottom right.

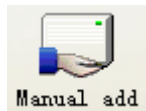
Pic 2.15. Force add window

Click  button, dap out town query window, see picture 2.16.

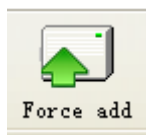


Pic 2.16、Town query

Base related conditions users can query existing town information in the system, when query related town information pitch in this information and click  Choice or dblclick this information, and choose this information then back to superior window.

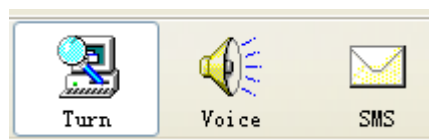


2. 2. 2. 2、Click **Manual add** button, dap out manual add device window, see picture 2.14.



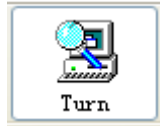
2. 2. 2. 3、Click **Force add** button, dap out force add device window, see picture 2.15.

2. 2. 3、Device turn, voice alarm and SMS



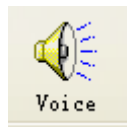
Pic 2.17

2. 2. 3. 1、 Device turn button



Click the button, the system began to polling device reconfiguration, if detected equipment disconnected, in the information area will sound warning. If users want to stop polling device reconfiguration, please click the button to make it pop-up, the system stops polling device reconfiguration.

2. 2. 3. 2、 Vice alarm button



The system default this button is in the state of pressing, that is system default voice alarm. If users want to stop voice alarm, only need to click voice alarm button to make it pop-up, then it stoped.

2. 2. 3. 3、 SMS alarm button



Click the button, system located SMS alarm state, in the status bar (pic 2.8) will display current short message network signal, if alarming, system will send the alarm information to interrelated people according SMS alarm device. If users want to stop SMS alarm please click SMS alarm button to make it pop-up, then it stoped.

2. 2. 4、 Exit Button

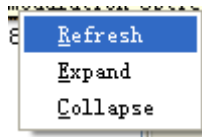


Press Exit Button to exit the system.

2. 3、 Equipment list

Menu operation of right button in equipment list

2. 3. 1、 Menu 1 (Pic 2.18)

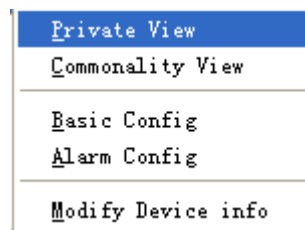


Pic 2.18、 Menu 1

There are three options for Menu 1: Refresh, Expand and Collapse

- A、 Refresh: to refresh the data of current node.
- B、 Expand the current node
- C、 Collapse the current node

2. 3. 2、 Menu 2 (Pic 2.19)



Pic 2.19, Menu 2

Menu 2 has: gathering operating data, gathering public data, basic data, alarming data

Take optica transmitter as an example

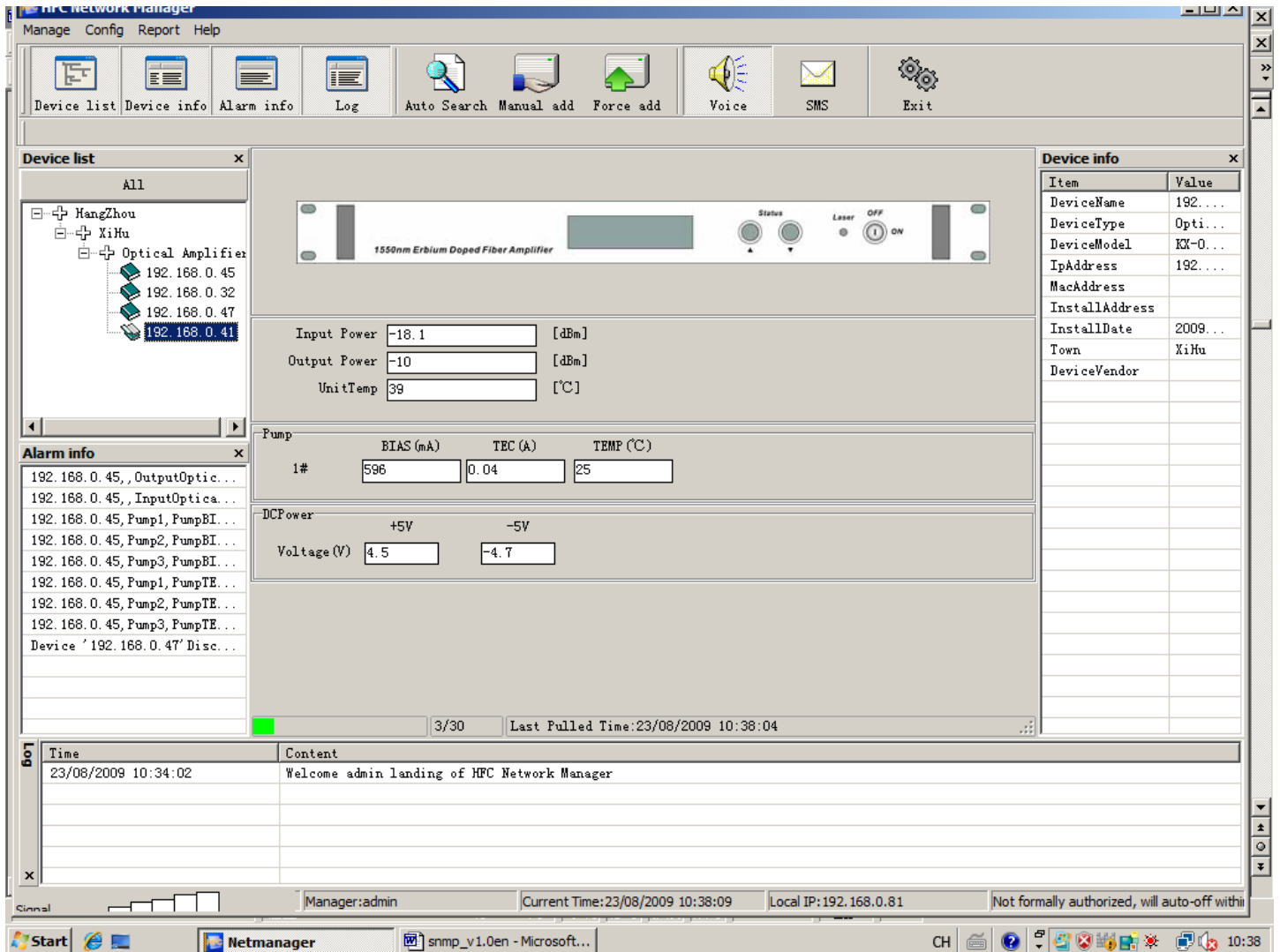
A、 gathering operating data

Click , the following window will dap out, see Pic 2.20



Pic 2.20 Gathering system operation data , waiting

After the gathering is completed, the window above will be closed, the operation information of the quipment will be displayed in the form of graph and words. see Pic 2.21



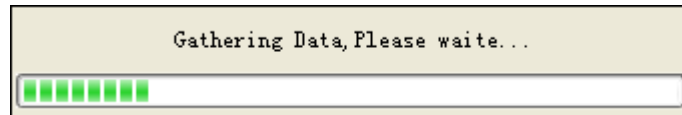
Pic 2.21 Equipment operation information

From Pic 2.21, we can see the External Modulation Optical Transmitter is in operation

Among all the operation data, Yellow font means the parameter of the equipment is beyond the standard range. Orange means the parameter is beyond the standard range severely (please refer to 5.3 equipment alarming parameters for the standard range)

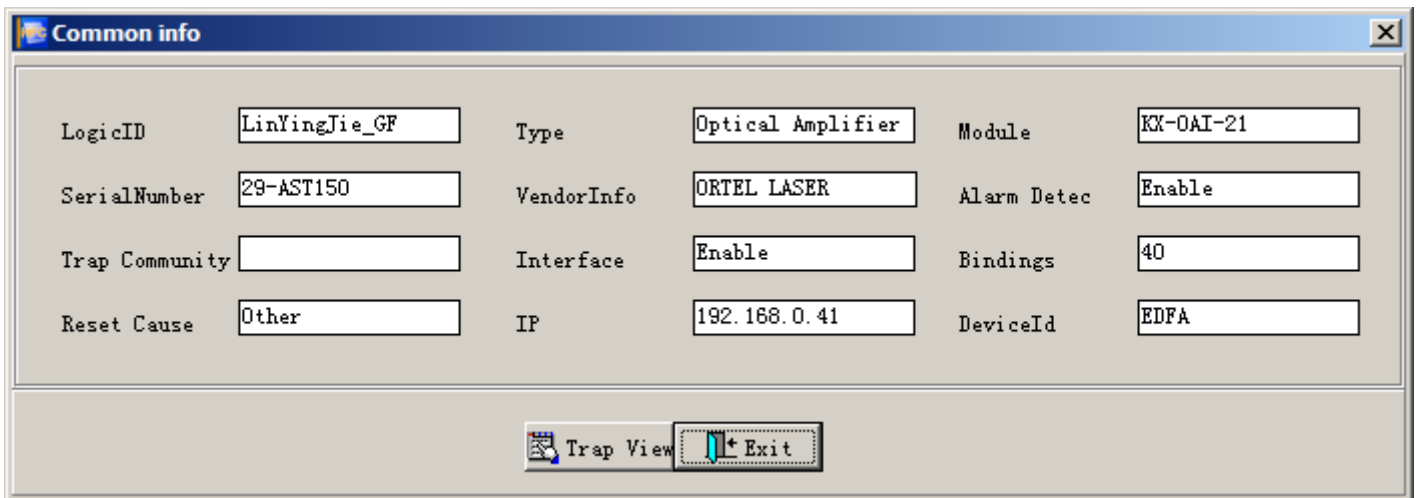
B、Gathering public data

Click Commonality View, the following Waiting window will dap out, see Pic 2.23



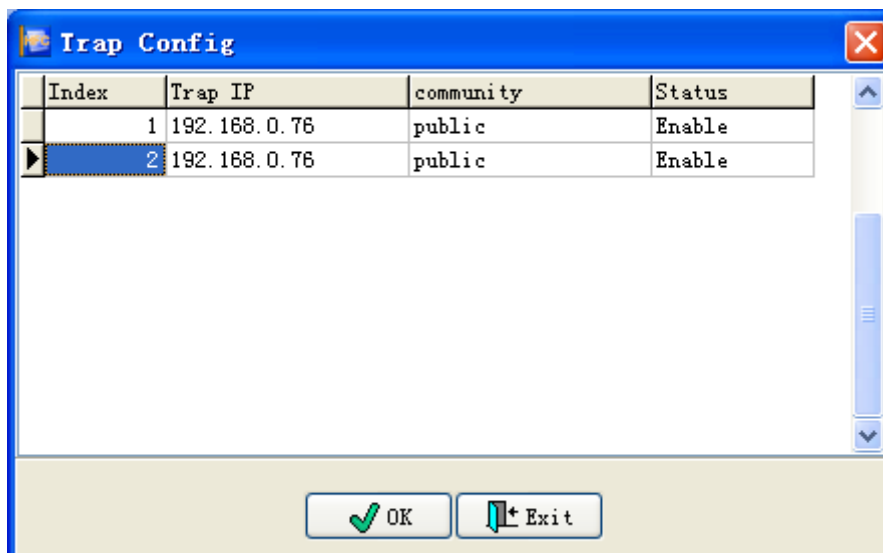
Pic 2.23, Pic 2.20 Gathering system public data , waiting

After the gathering is completed, the window above will be closed, the public informtation of the quipment will be displayed in data display area (Pic 2.7) See Pic 2.7



Pic 2.24 Public informtation of the quipment

Click  button, Trap will dap out to view the equipment. See Pic2.25



Pic 2.25 Trap View

Users can sent two Trap sending address

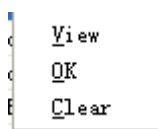
C、 Basic data of the equipment

D、 Public data of the equipment

E、 Alarming data of the equipment

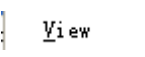
2. 4、 Alarming information

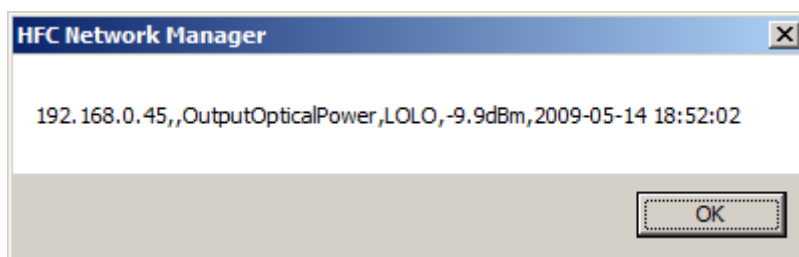
Menu operation of right button in equipment list




Pic 2.26, Alarming information right button menu

Alarming information right button menu has two options: view and confirm. See Pic2.26

Click  , system will display the alarming information in the form of messagebox, See Pic2.27



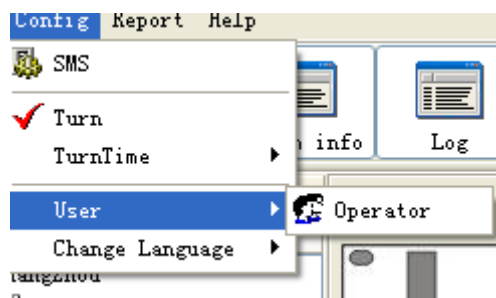
Pic 2.27 Alalrming information view

Click  ,system will delete this alarming message from information list.

III、 User administration

The default ID and password of system administrator is admin/admin, after logging in for the first time, administrator should alter the password in order to protect the safety of the system.

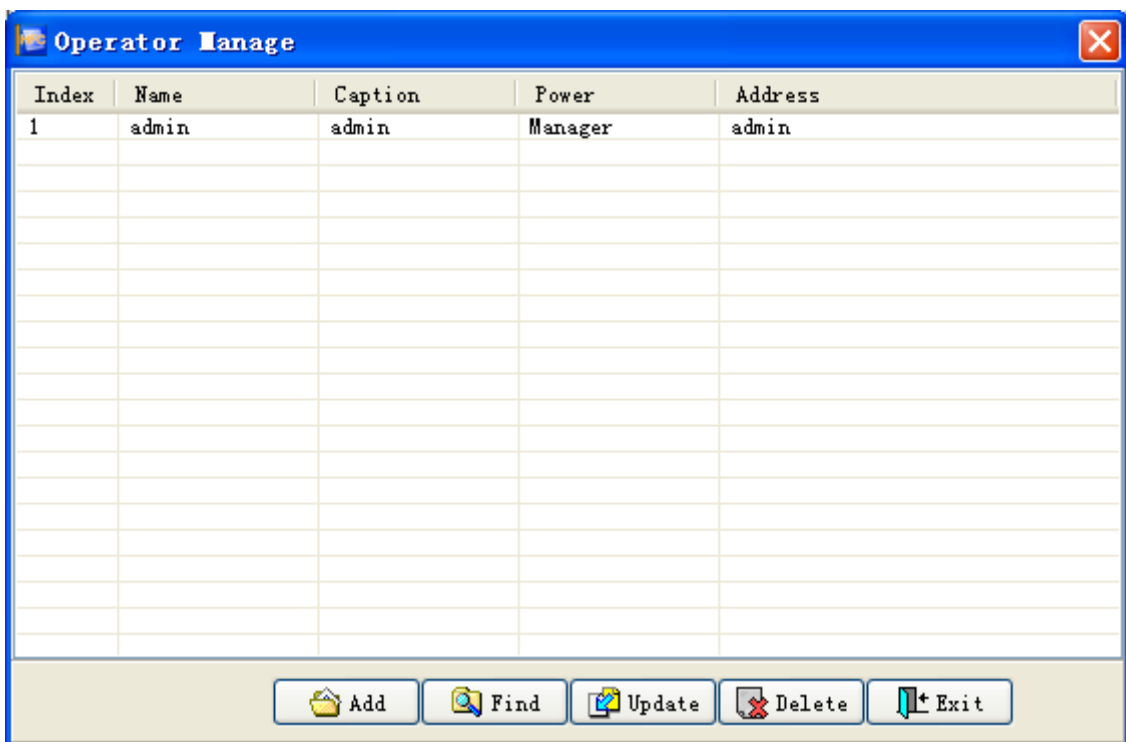
There is a Sub-menu  in the main Menu



Pic 3.1 User administration

3. 1、 Operator administration

Click , Operator administration window will dap out



Pic 3.2 Operator administration

System administrator can add, find, modify, delete user 's operation, and can operate all the users except the administrator himself, one administrator for onr system is reccommended.

3. 1. 1、 Add

Click , adding operator window will dap out, See Pic3.3

Caption Name

Password RePassword

Power Manager operator

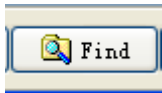
Contact

✓ Add Close

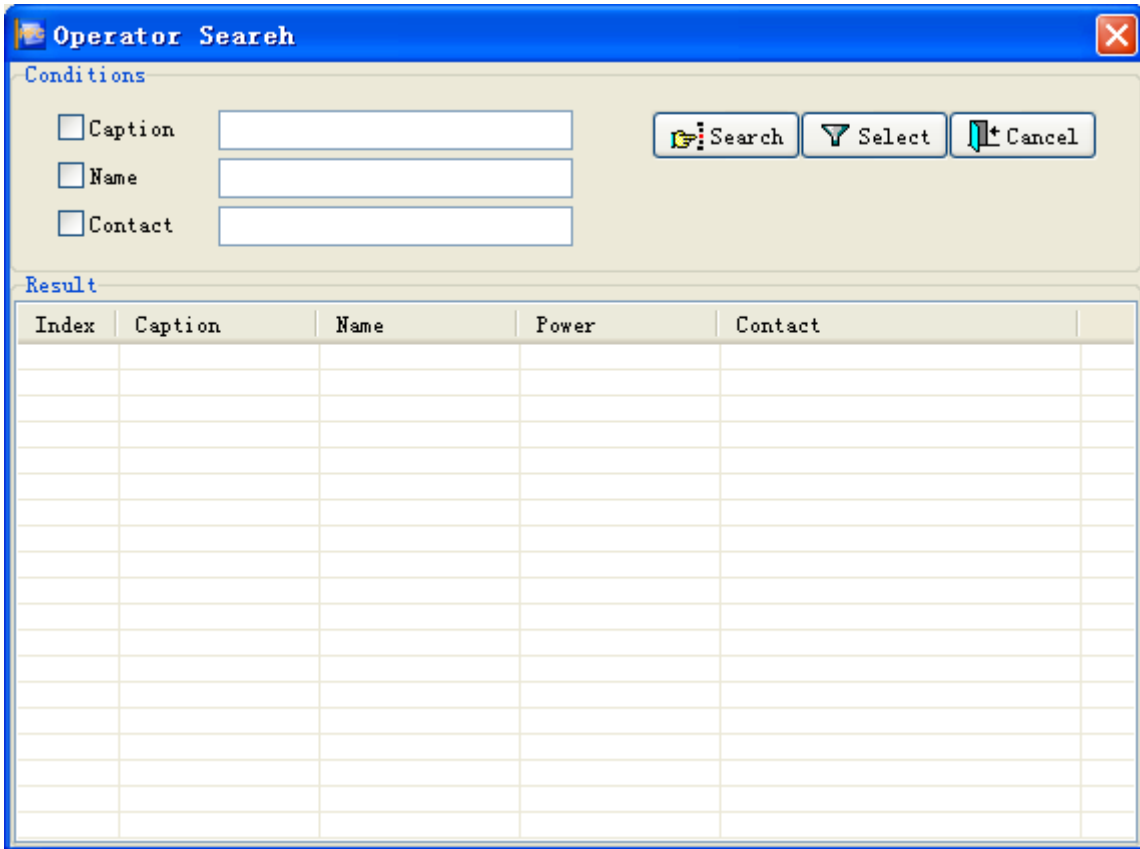
Pic 3.3 Adding operator wondow

Among the options, can choose administrator or operator

3. 1. 2、 Find



Click  button, find operator window will dap out, and See Pic 3.4




Pic 3.4 Find operator window

User can find the existing operator information in the system according to relative condition, select the operator

informaiton click  or double-click the operator information, it will return to former window.

3. 1. 3、 Modify



Click  button, password confirm window will dap out See Pic3.5 after confirmation, modify operator window will dap out, See Pic3.6



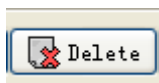
Pic 3.5 password confirm



Pic 3.6 modify operator

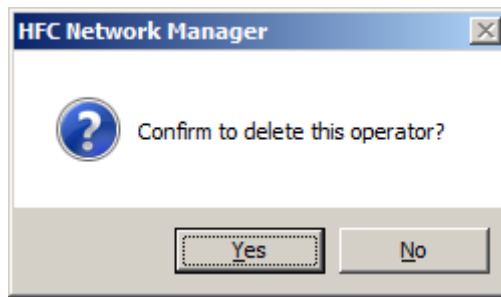
3. 1. 4、 Delete



Click  button, current user password confirmation window will dap out, See Pic 3.7, after confirming, confirm to delete this operator Dialog box will dap out, See Pic 3.8

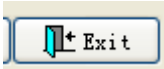


Pic 3.7 Password confirmation



Pic 3.8 confirm to delete

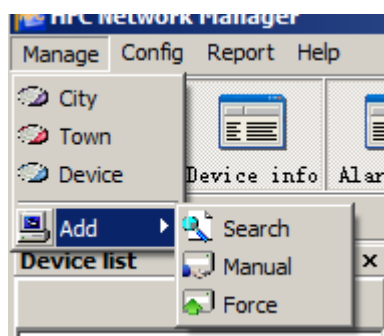
3. 1. 5、Exit

Click  button to close the operator administration window

IV、 System administration

System administration is mainly to add, delete or modify classified information in the system.

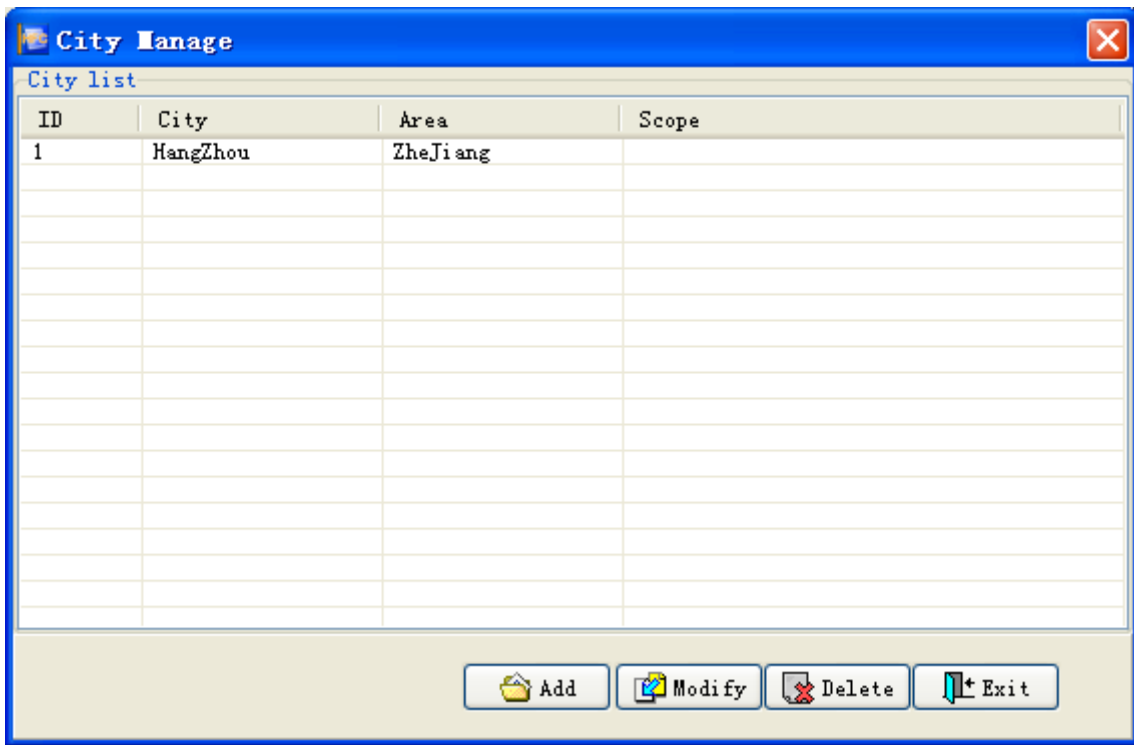
Main Menu has **Manage** sub-menu, containing: city management, head-end management, equipment management, HE management, grouping management and equipment adding, See Pic4.1



Pic 4.1 Management

4. 1、 city management

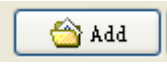
Click  , city management window will dap out, See Pic 4.2

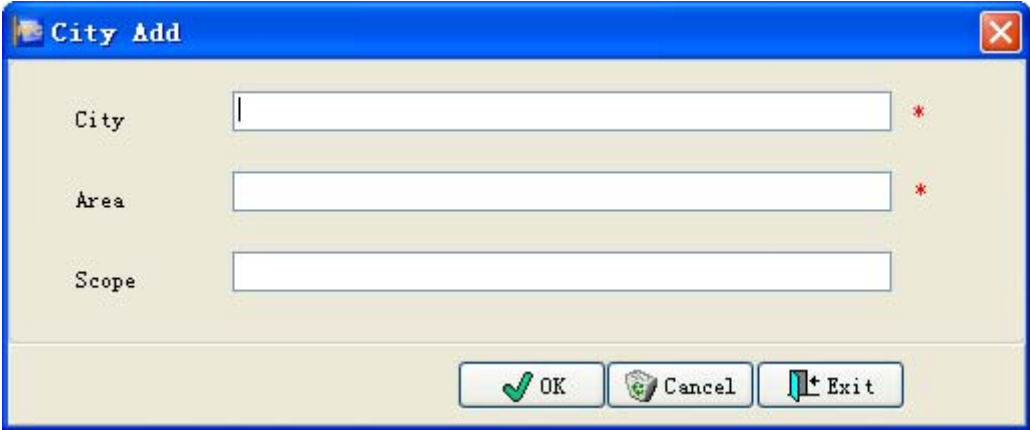


Pic 4.2 City Management

User can add, find, modify and delete city.

4. 1. 1、 Add

Click  button, add new city window will dap out See Pic 4.3




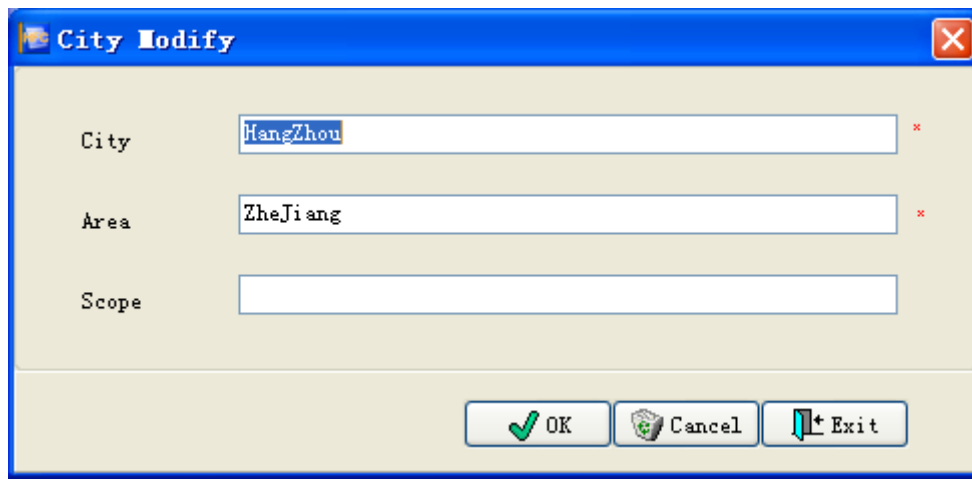
Pic 4.3 Add new city window

Users can find the existing city informations base related conditions in the system, if find related city information

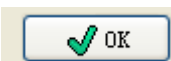
pitch on it, click  or dblclick this city information, select this information and return to parent window.

4. 1. 2、Modify


Click  button, dap out the window to modify city, see picture 4.5.

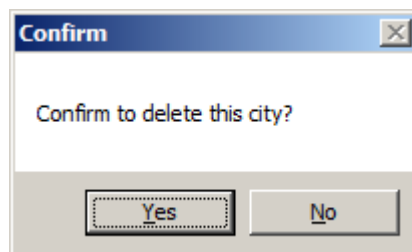


Pic 4.4、City modify

Click  button after modify, and then save it.

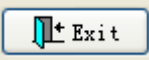
4. 1. 3、Delete

Click  button, dap out a dialog box confirm whether delete this city, see picture 4.6, click "Yes", delete this city, click "No", give up delete this city.




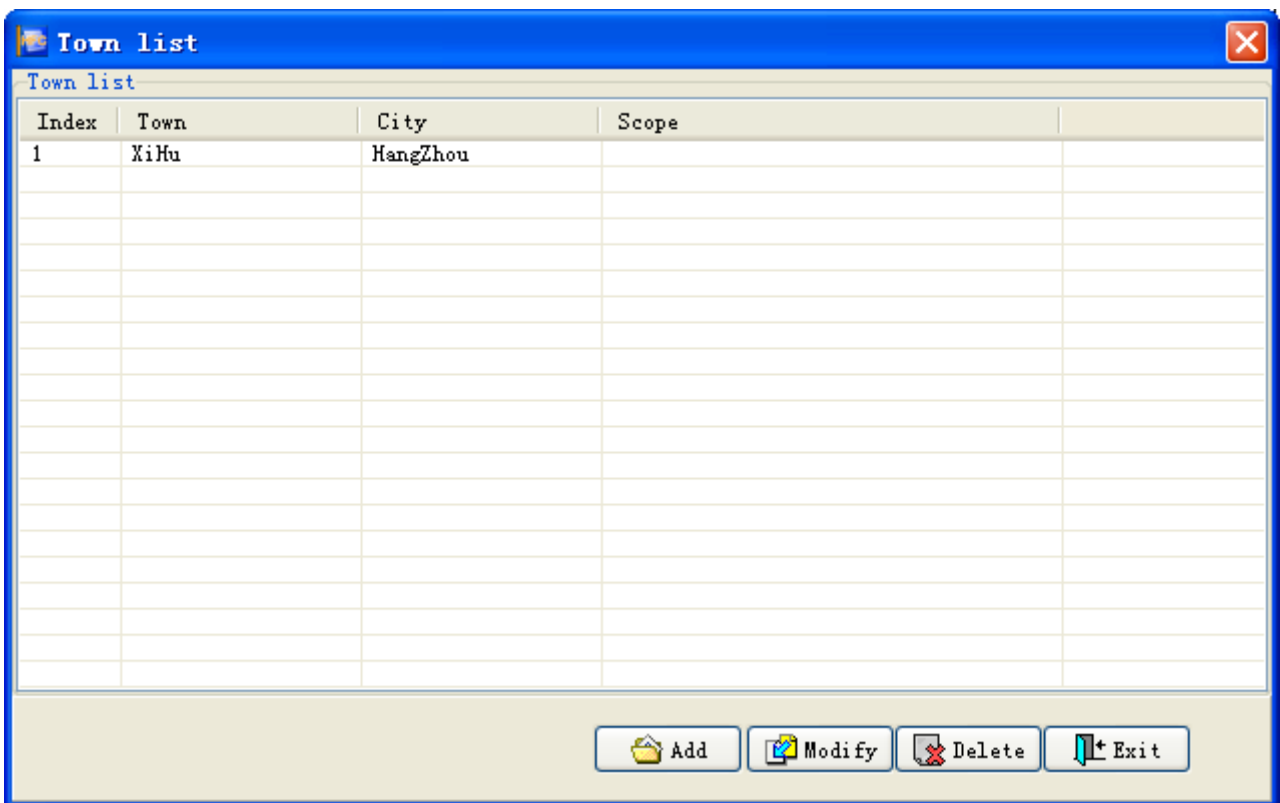
Pic 4.6、 Confirm whether delete this city

4. 1. 4、 Exit

Click  button, close city management window.

4. 2、 Machin room management

Click , dap out town list window, see picture 4.7.

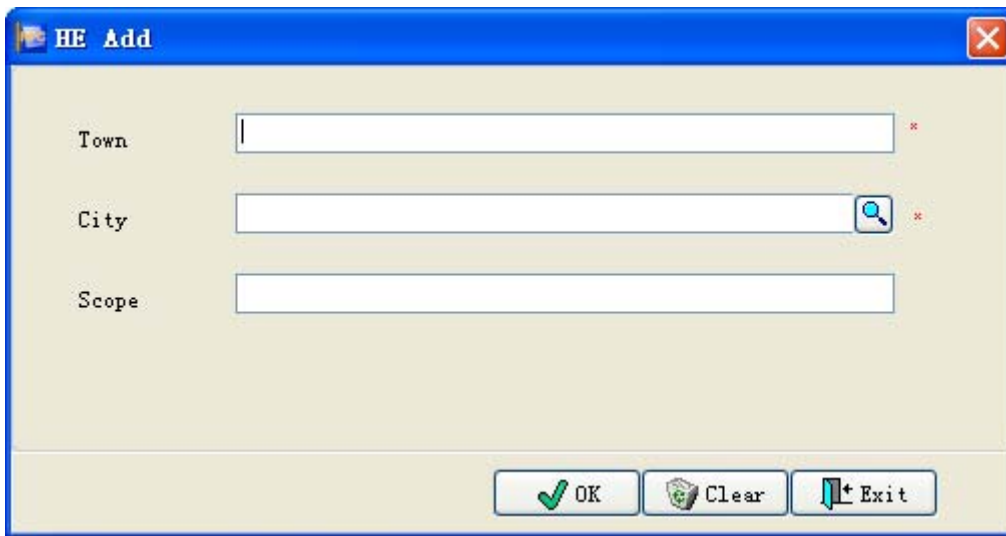


Pic 4.7、 Town list

Users can do head-end operate such as add, query, modify and delete.

4. 2. 1、 Add

Click  button, dap out HE add window, see picture 4.8.

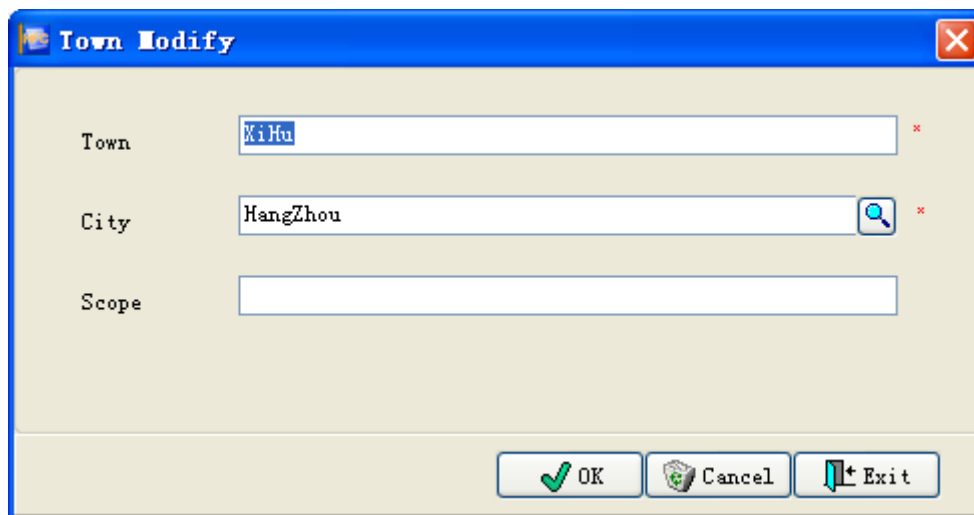


Pic 4.8、Head-end add

After filled Town information click  button, then save information.

4. 2. 2、Modify

Click  button, dap out Town modify window, see picture 4.10.

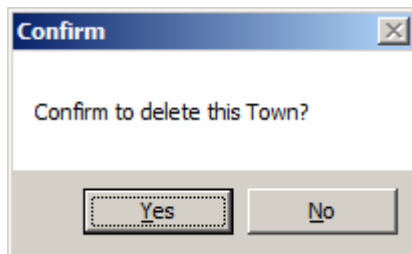


Pic 4.10、Town modify

After modified click  button, then save it.

4. 2. 3、Delete

Click  button, dap out whether delete town dialog box, see picture 4.11, click "Yes", delete this town, click "No", give up delete this town.



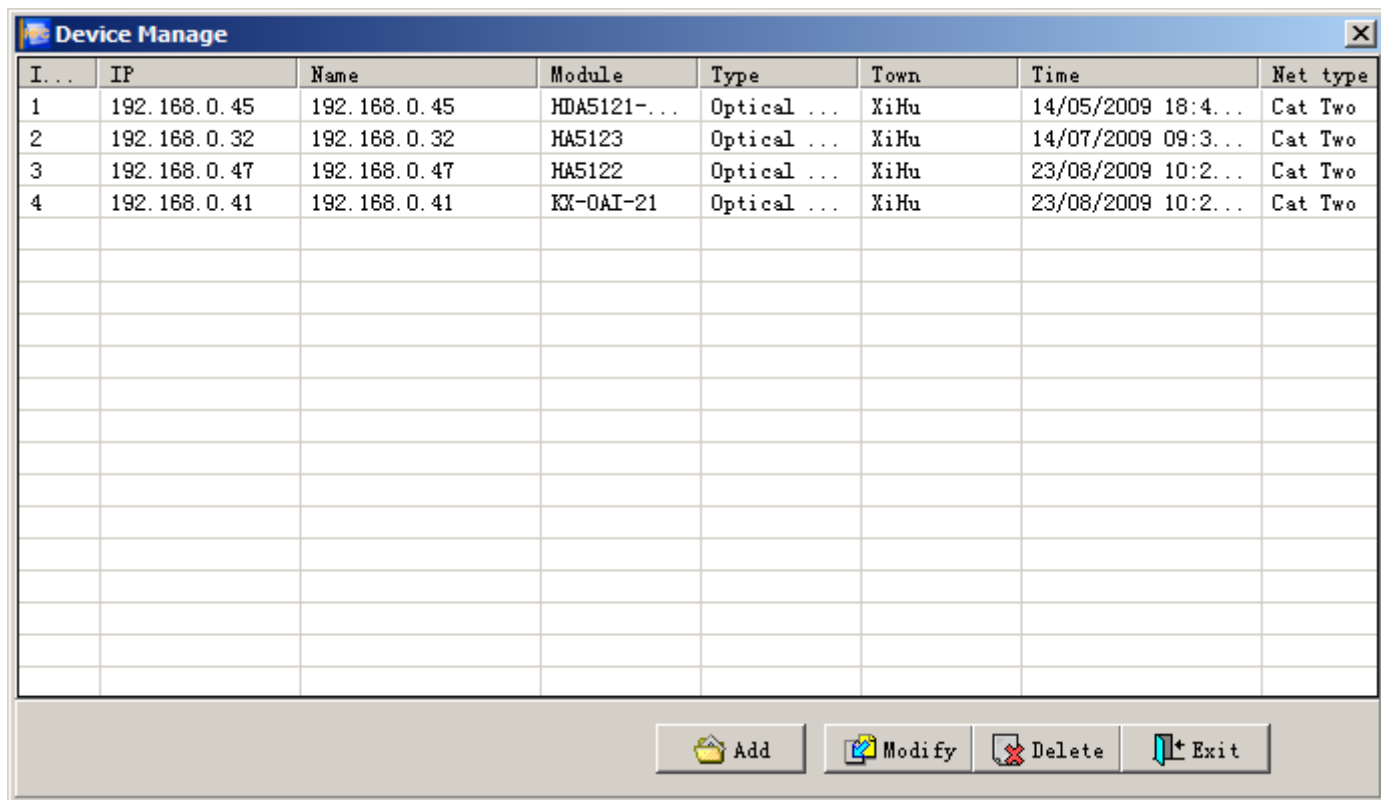
Pic 4.11、 Confirm whether delete this town

4. 2. 4、Exit

Click  button, close town window.

4. 3、 Device management

Click  Device , dap out device management window, see picture 4.12.

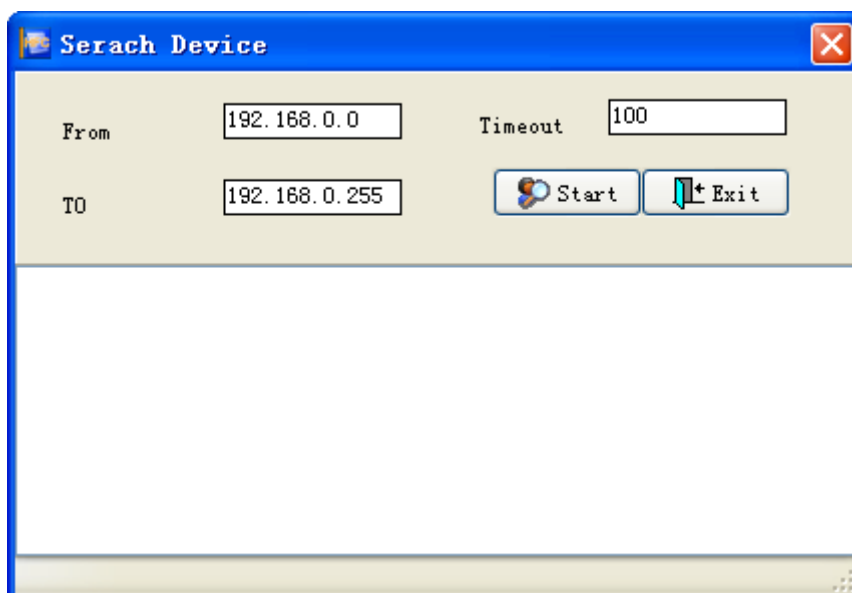


Pic 4.12、Device management

Users can do add, query, modify and delete operation.


4. 3. 1、Add

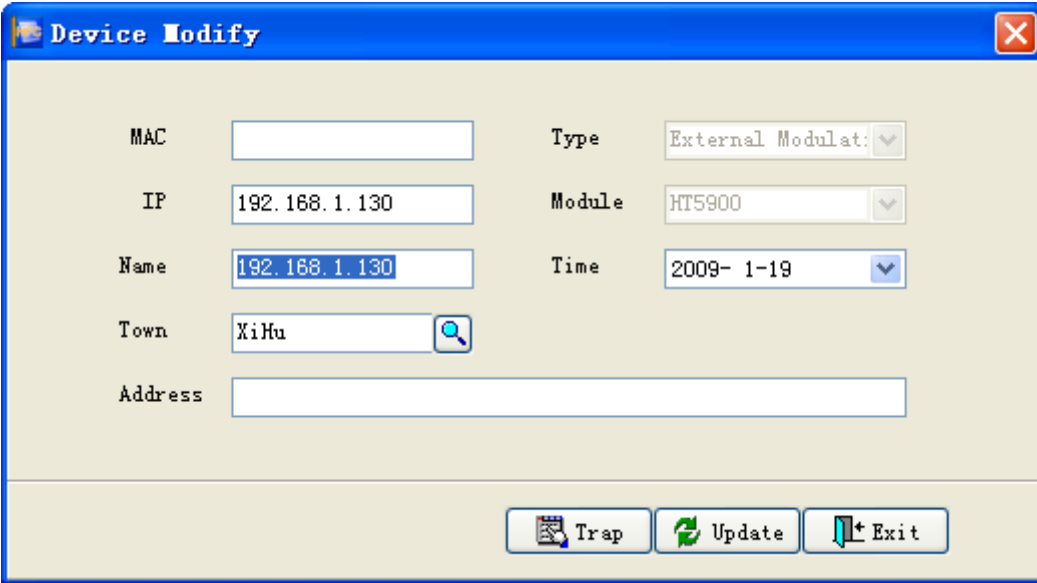
Click  button, see picture 4.15, the system automatically search add.



Pic 4.15、Serach device


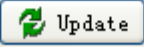
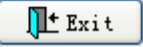
4. 3. 2、Modify

Click  button, dap out device modify window, see picture 4.17.



The image shows a 'Device Modify' window with the following fields and controls:

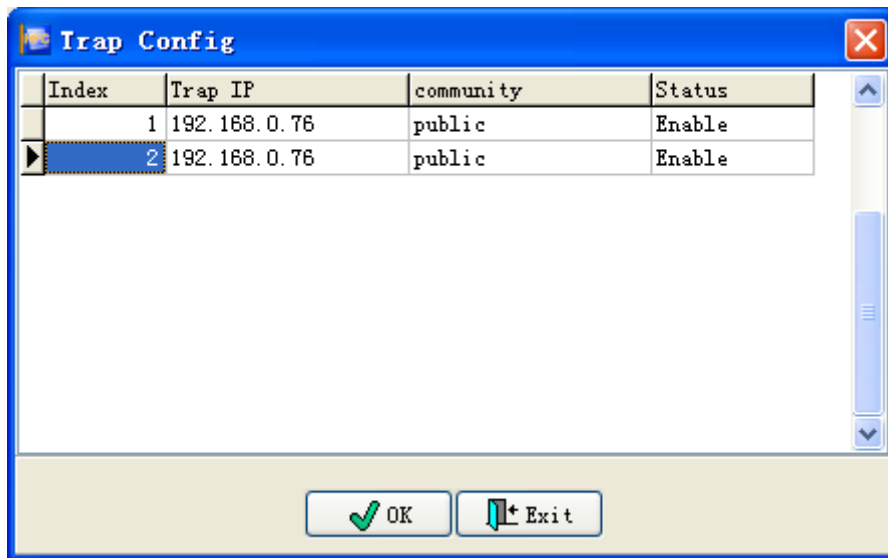
MAC	<input type="text"/>	Type	External Modulat: <input type="button" value="v"/>
IP	192.168.1.130	Module	HT5900 <input type="button" value="v"/>
Name	192.168.1.130	Time	2009- 1-19 <input type="button" value="v"/>
Town	XiHu <input type="button" value="🔍"/>		
Address	<input type="text"/>		

At the bottom of the window, there are three buttons:  Trap,  Update, and  Exit.

Pic 4.17、Device modify

Modify some information, click  button to setup the device.


Click  button, dap out Trap config window, see picture 4.18.

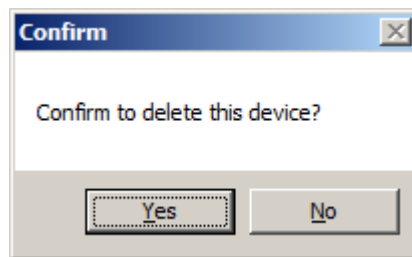


Pic 4.18、Trap config

Each device can be setting two IP for receiving Trap.

4. 3. 3、Delete

Click  button, dap out a dialog box confirm whether delete this device, see picture 4.19, click "Yes", delete it, click "No", give up delete this device.



Pic 4.19、Confrim

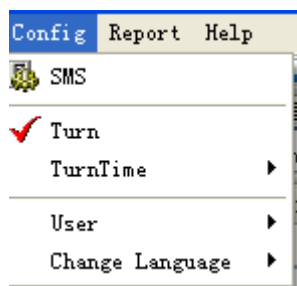
4. 3. 4、Exit

Click  button, close device management window.

V、 System setting

System Settings mainly Setting equipment alarm parameters and operating parameters.

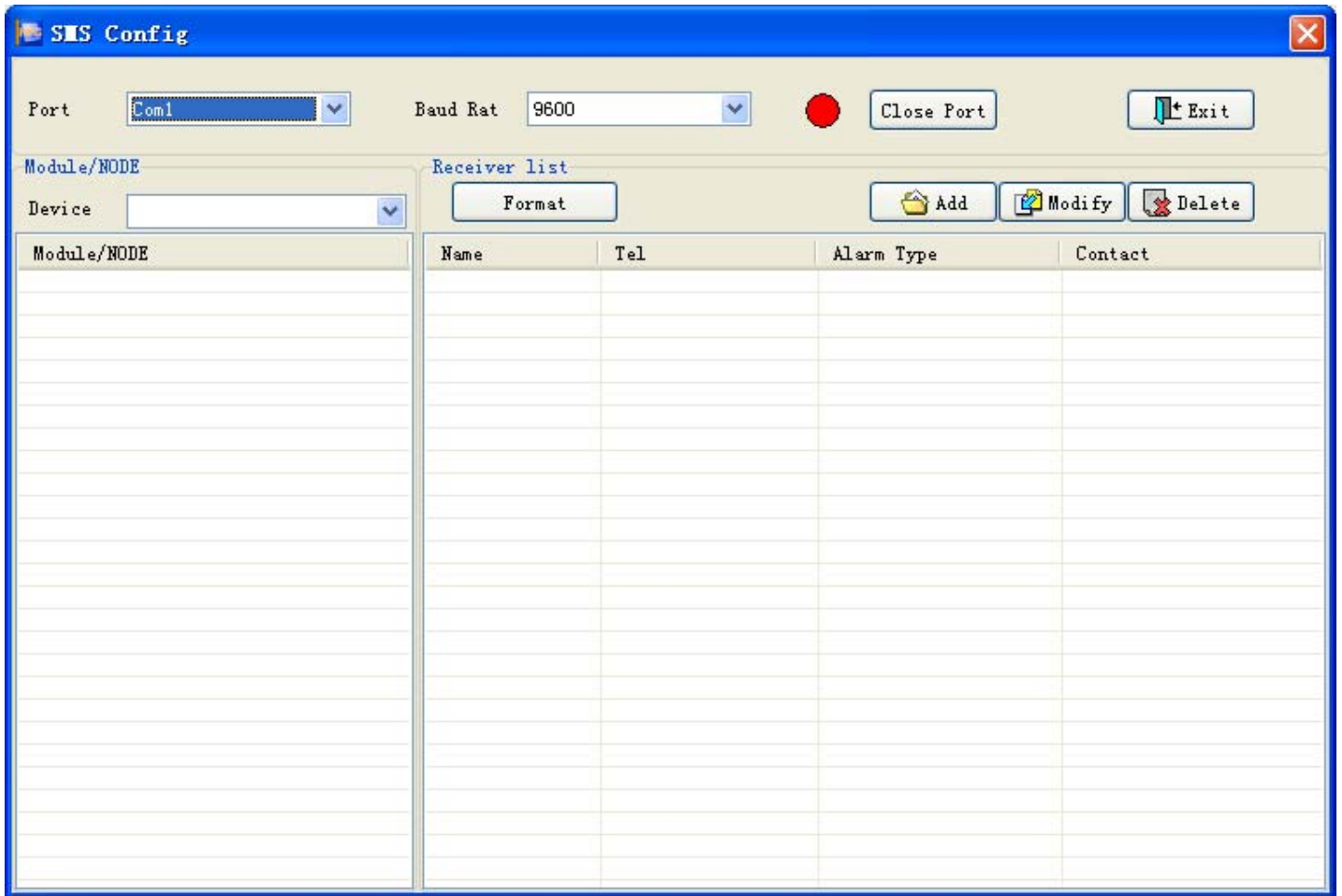
There is a **Config** submenu in the mainmenu, submenu included: short message alarm, device essential parameter, device alarm parameter and device commonality parameter; polling device reconfiguration, voice alarm configuration and short message alarm configuration, see picture 5.1.





Pic 5.1、 Setting

5. 1、 Short message alarm

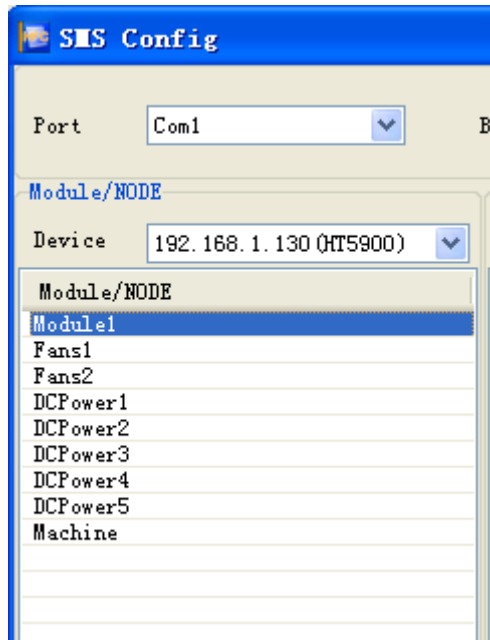
Click  SMS _____ , dap out short message alarm configuration window, see picture 5.2.



Pic 5.2. Short message alarm configuration

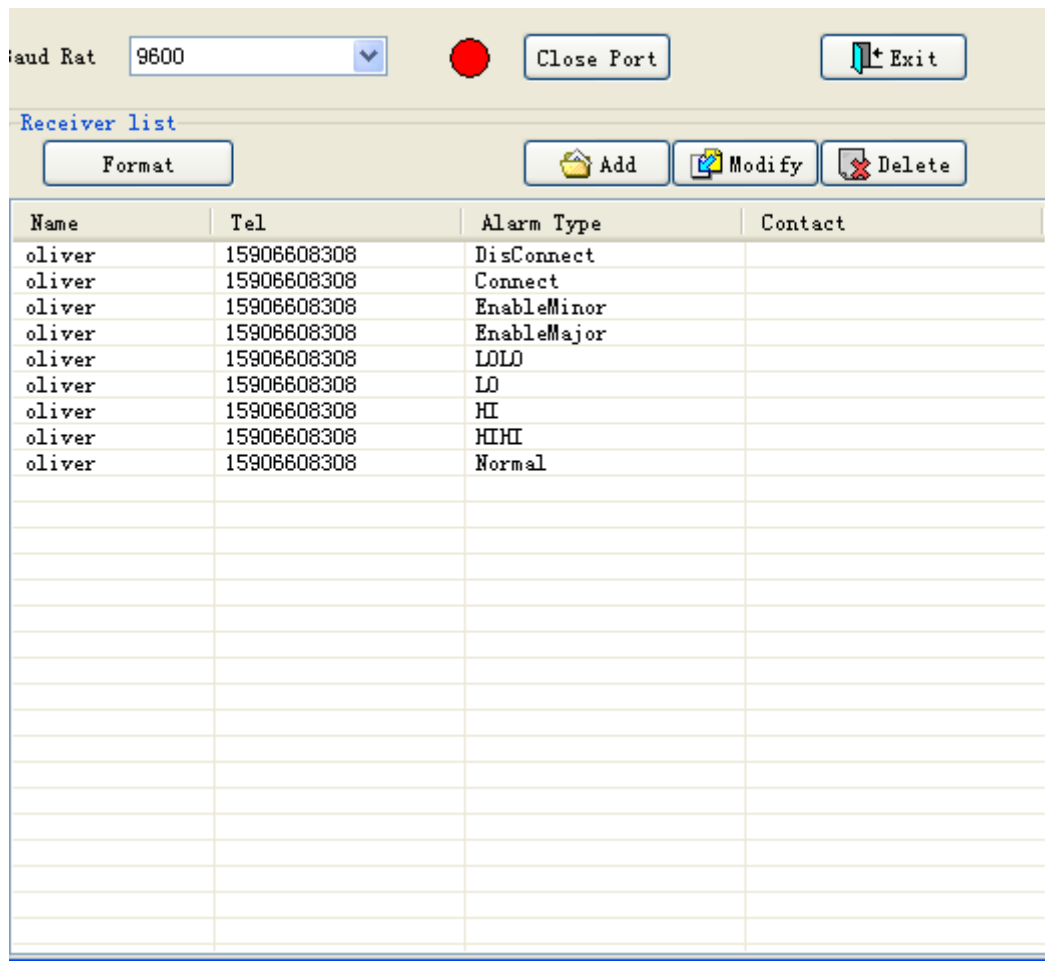
User can configure port number, baud rate with the port connected with SM sending module. then, open the port, if successful, it will display , otherwise, it will display 

Choose device in "alarm module/node", it will display "alarm module/node" about this device, see picture 5.3.

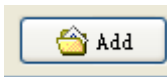


Pic 5.3. Alarm module/node

User can choose configuration items in "module/node" list, then it will display the already configured manager in the right side, see picture 5.4



Pic 5.4. Manager list



Click button, dap out add manager window, see picture 5.5.

Add manager

Name: victor

mobile: 1333399888
(e. g. : 13905801234)

PHS: _____
(e. g. : 106 0574 87654321)
SPID Aera Code Number

Contact: _____

Alarm Type

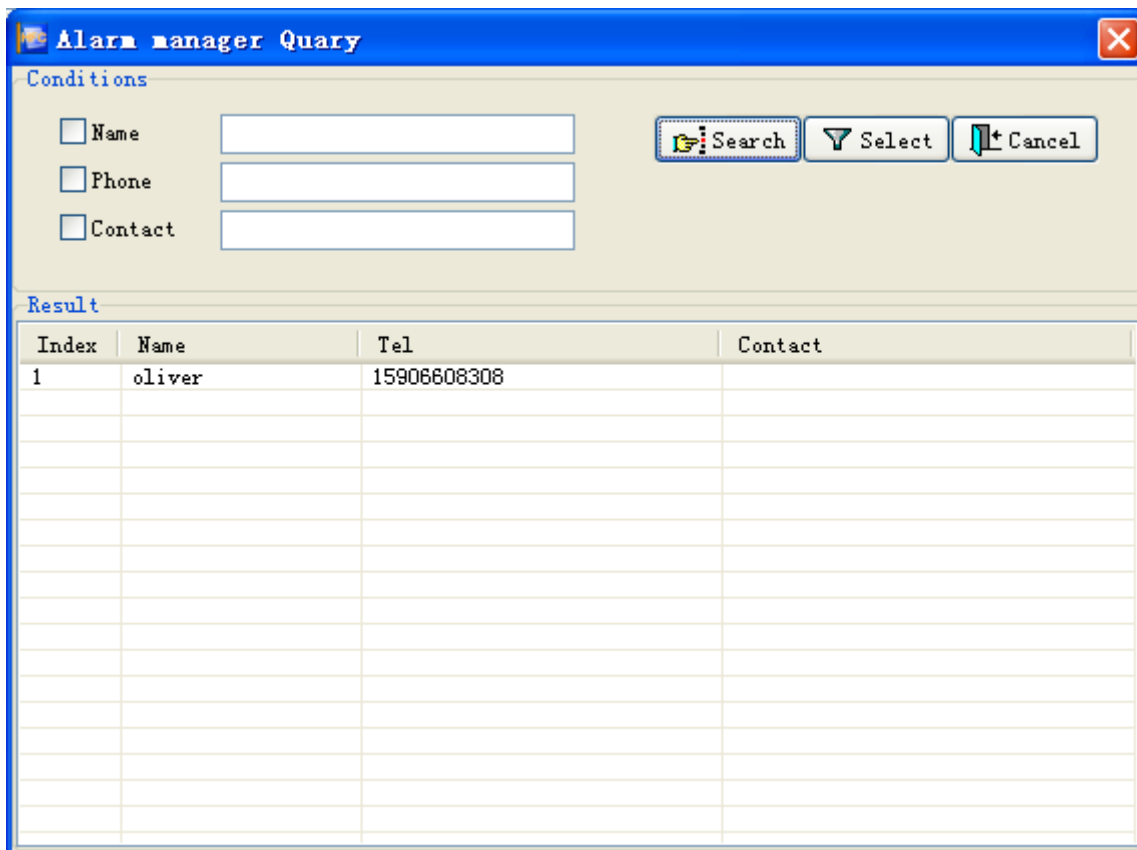
- Normal
- HIHI
- HI
- LO
- LOLO
- EnableMajor
- EnableMinor
- Connect
- DisConnect

Modify Cancel

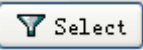
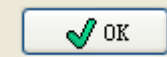
Pic 5.5、 Add manager


User should fill the manager's Name, mobile or PHS, contact ways and alarm type. When fill mobile or PHS should register format,

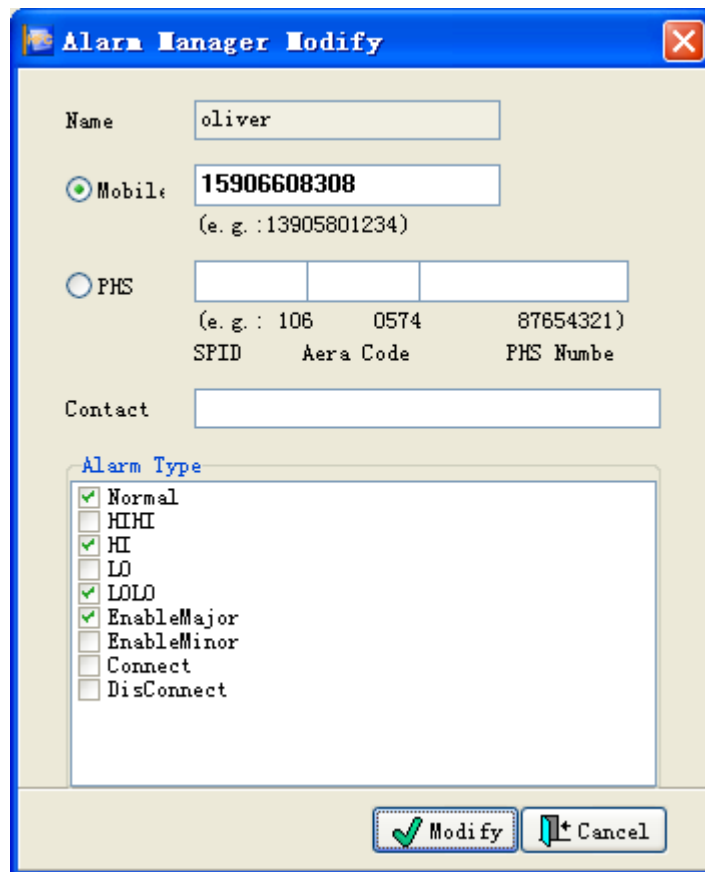
Click ... button, dap out alarm manager query window, see picture 5.6.



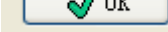
Pic.5.6. Alarm manager information


The user may inquire the alarm manager information according to the related condition.. If the alarm manager already setup, select the manager information point  or double click the operator information, the information will back to the former window, the system will auto-fill the information to the new adding alarm manager window. Then the user select the alarm type, click , the new adding alarm manager operation is done.

The user select the user information of the alarm manager list, click , the alarm manager modify window dap out as Pic. 5.7.




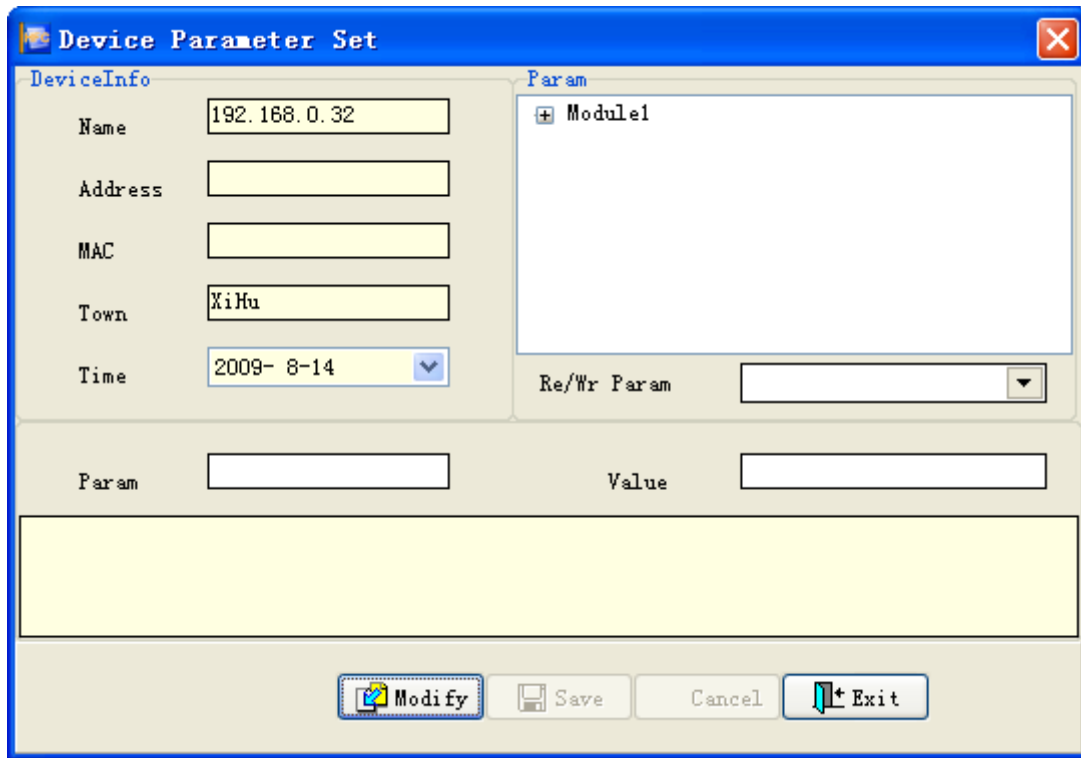
Pic.5.7 Alarm manager modify

The user modify the related alarm manager information, then click , the modified information saved.

The user select the user information of the alarm manager list, click , the modified alarm manager information deleted.

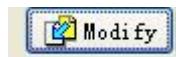
5. 2、Device basic parameter

Click , if select the device from the device list of the main interface, the setup window of the device basic parameter dap out as the Pic. 5.8. The window will not dap out if the device not selected. Note: The exact device must be selected to set the device basic parameter.

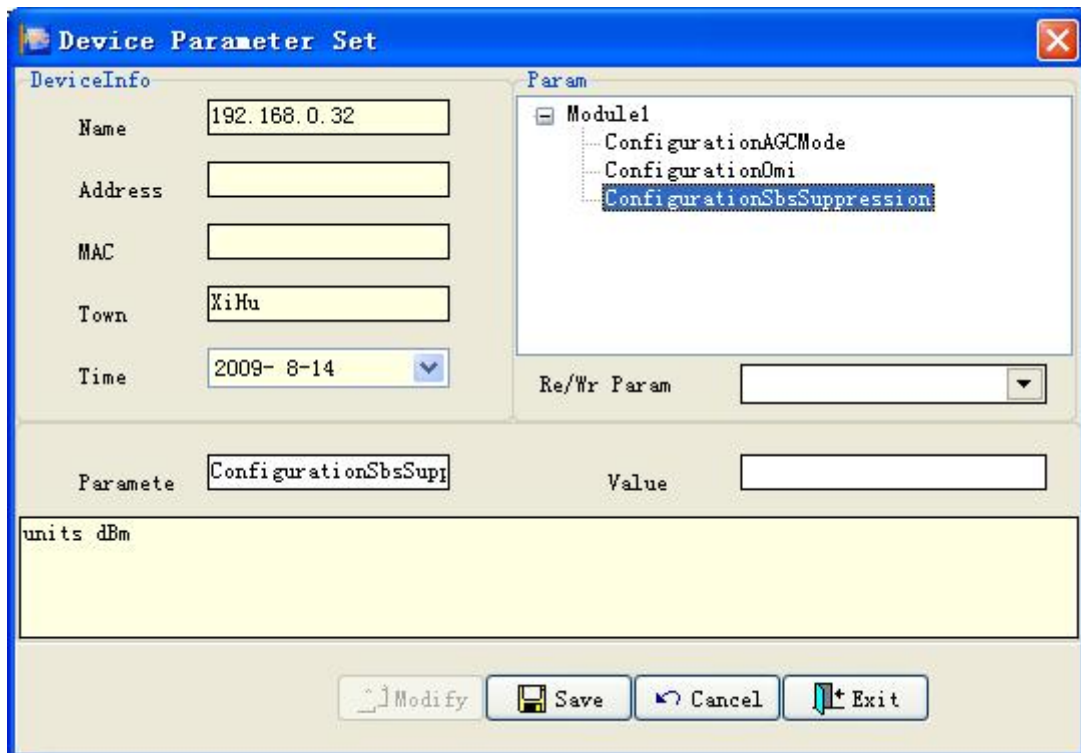


Pic. 5.8、 Device basic parameter set

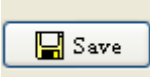
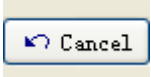
In the device parameter set window, the user may select any item in the module parameter set columns., then click



to enter the module parameter modify status as Pic. 5.9.

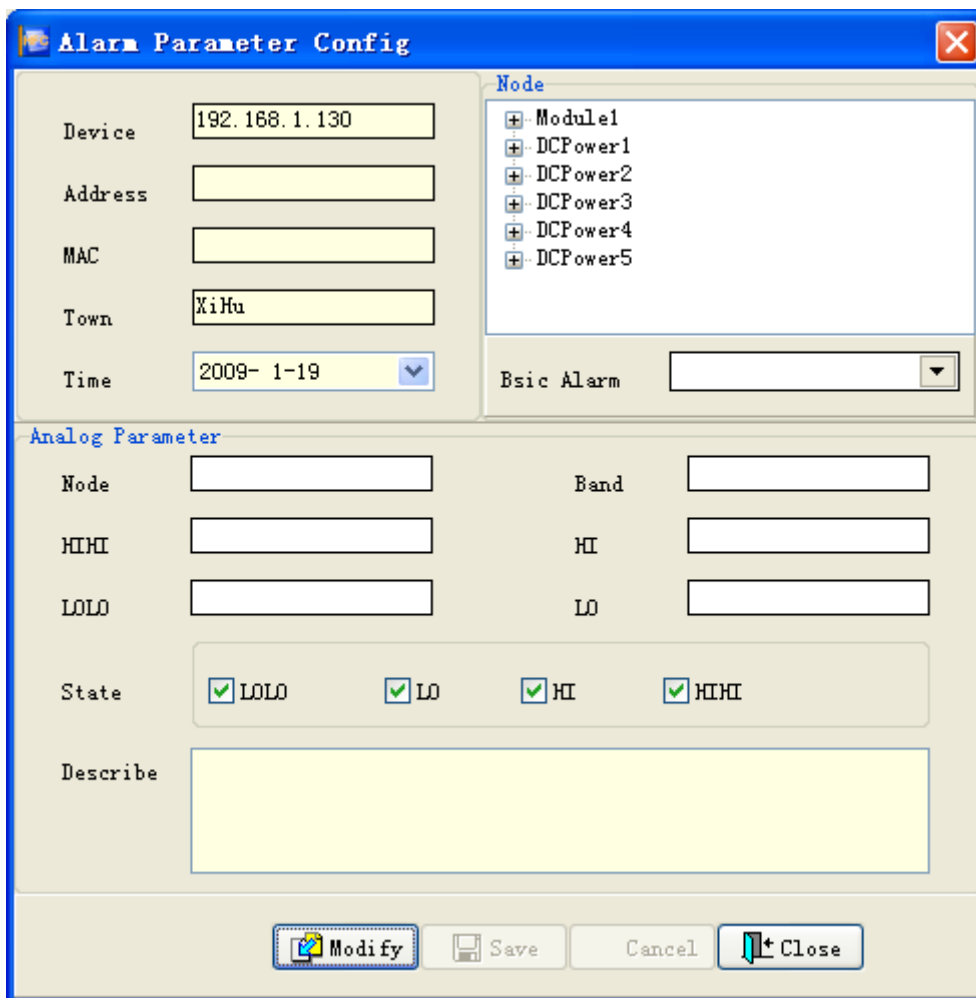


Pic 5.9、 Device parameter set

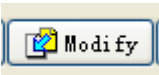
Users can fill parameter in the basic can read-write item, then click  button, achieve parameter setup and save. If you need to cancel parameter modify, please click  button.

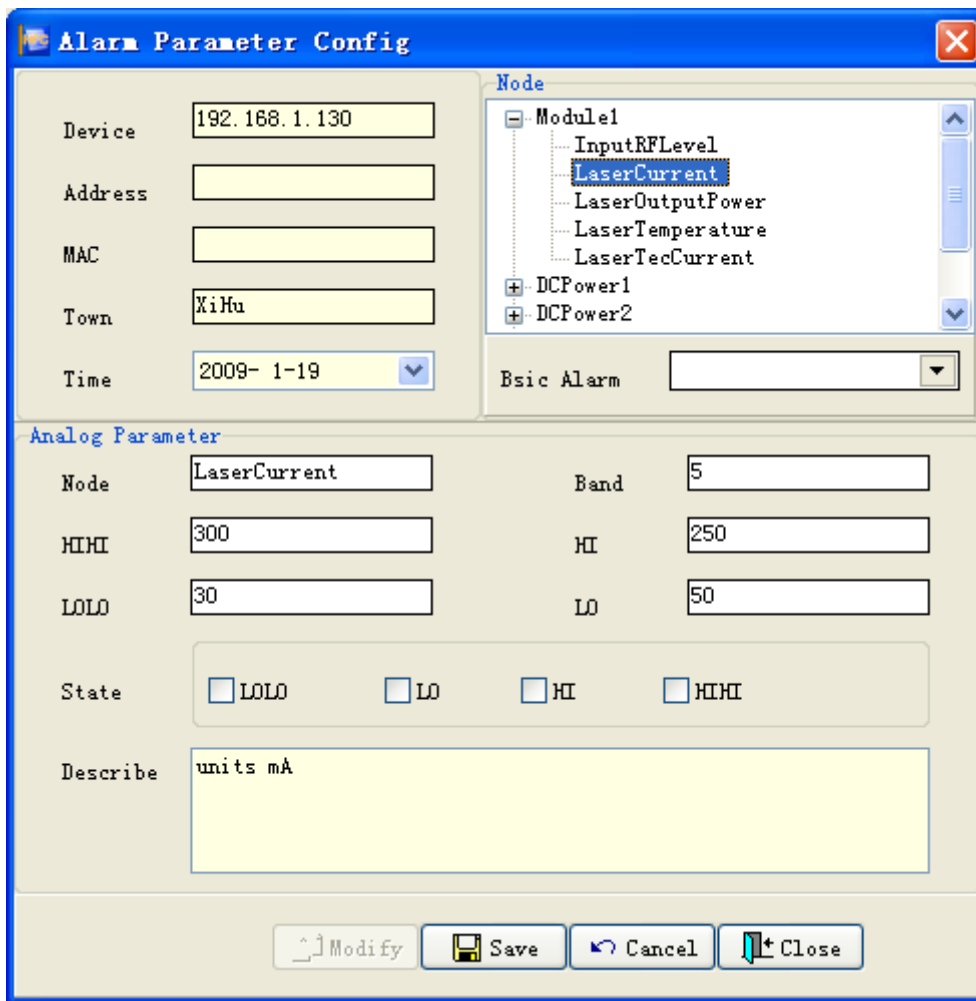
5. 3. Alarm parameter

Click Alarm Config, if pitch on certain device from device list in main interface, will dap out device alarm parameter config window, see picture 5.10. If you don pitch on device, it will not dap out window. Note: equipment alarm parameters must be specified (selected) of the specific equipment.



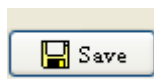
Pic 5.10. Device alarm parameter config

Click  button, access to modify alarm parameter state, see picture 5.11.

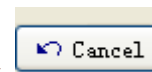


Pic 5.11、 Alarm parameter modify state

Under the status of "alarming parameter modifying" , all the modules are listed in the "module parameter configuration " , under each module, there are sub-nodes of parameter which can be configured. user needs to expand the module sub-node, select the parameter sub-node, and configure each alarming value in "imitation parameter feature", click

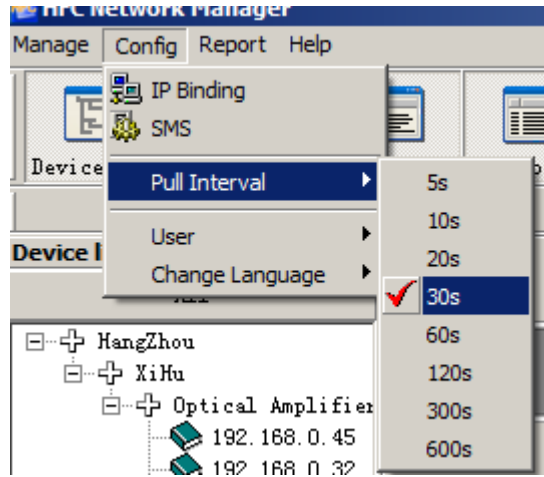


after the configuration is completed. or click





withdraw.

5. 4、 polling device reconfiguration config

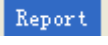


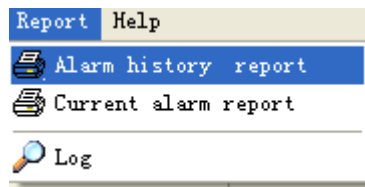
Pic 5.14、polling device reconfiguration config

System default is not process polling device reconfiguration config, choose  Turn-On start to polling device reconfiguration config, and choose  stop polling device reconfiguration config. How to choose time of polling device reconfiguration config see picture 5.14,

VI、 Query

Function of query: inquiry current alarm information, history alarm information and running log of system.

There is a  submenu in the main menu, it included: alarm history report, current alarm report and log, see picture 6.1.



Pic 6.1、 query

6. 1、 Current alarm information

Click  Current alarm report , dap out current alarm information window, see picture 6.2



Address	Name	IP Addr	Module	Status	Content	Value	Unit	Time
192.168.1.130		192.168.1.130	Module1	LOLO	LaserTemperature	0	°C	2009-1-19 13:49:38
192.168.1.130		192.168.1.130	Module1	LOLO	LaserOutputPower	0	Db	2009-1-19 13:49:38
192.168.1.130		192.168.1.130	DCPower1	LOLO	DCPowerVoltage	24	V	2009-1-19 13:49:38

Export Print Refresh Delete Clear Exit

Pic 6.2、Current alarm

Current alarm window display alarm information about all devices.

6. 2、Alarm history information

Click  Alarm history report , dap out alarm history information inquiry window, see picture 6.3.

Alarm history information

Conditions

Exist Deleted From: 2009- 1-19 To: 2009- 1-19

IP: LOLD c1Blue LO c1Yellow Disconnect c1Maroon

Type: All Type MIMI c1Red HI c1Lime Connected c1Gray

Device: All Device Discrete Low c1Purple Discrete High c1Teal Resumed c1Black

Export Print Search Close

Address	Name	IP Addr	Module	Status	Content	Value	Unit	Time
192.168.1.130	192.168.1.130	192.168.1.130		Disconnect				2009-1-19 12:16:10
192.168.1.130	192.168.1.130	192.168.1.130		Connect				2009-1-19 12:47:46
192.168.1.130	192.168.1.130	192.168.1.130	Fans1	Resume	FansState			2009-1-19 13:48:09
192.168.1.130	192.168.1.130	192.168.1.130	Fans1	Resume	FansState			2009-1-19 13:49:37
192.168.1.130	192.168.1.130	192.168.1.130	Module1	LOLD	LaserTemperature	0	°C	2009-1-19 13:49:37
192.168.1.130	192.168.1.130	192.168.1.130	Module1	LOLD	LaserTemperature	0	°C	2009-1-19 13:49:38
192.168.1.130	192.168.1.130	192.168.1.130	Module1	LOLD	LaserOutputPower	0	Db	2009-1-19 13:49:38
192.168.1.130	192.168.1.130	192.168.1.130	DCPower1	LOLD	DCPowerVoltage	24	V	2009-1-19 13:49:38
192.168.1.130	192.168.1.130	192.168.1.130	Fans1	Resume	FansState			2009-1-19 13:49:40
192.168.1.130	192.168.1.130	192.168.1.130	Fans1	Resume	FansState			2009-1-19 13:49:40

Pic 6.3、history record

User can identify inquiry condition through "Alarm history information inquiry" window: alarm device, alarm time, or identify the color in inquiry result for all kinds of alarm information in order to distinguish these information more intuitively.

6. 3、Running log

Click  Log, display log window, see picture 6.4.

System log

Conditions

From Date: 23/08/2009 To Date: 23/08/2009

ID Log

Search Exit

Login ID	Time	Content
admin	23/08/2009 10:01:13	Welcome admin landing of HFC Network Manager
admin	23/08/2009 10:15:22	Welcome admin landing of HFC Network Manager
admin	23/08/2009 10:18:36	Welcome admin landing of HFC Network Manager
admin	23/08/2009 10:21:27	admin modify city 'hangzhou' successful
admin	23/08/2009 10:22:21	admin modify city 'hangzhou' successful
admin	23/08/2009 10:23:17	admin modify town XiHu successful
admin	23/08/2009 10:23:35	admin modify city 'HangZhou' successful
admin	23/08/2009 10:24:54	Welcome admin landing of HFC Network Manager
admin	23/08/2009 10:25:07	admin add device 192.168.0.47 successful
admin	23/08/2009 10:25:26	admin add device 192.168.0.41 successful
admin	23/08/2009 10:34:02	Welcome admin landing of HFC Network Manager
admin	23/08/2009 10:40:23	admin add operator 'user1' successful

Pic 6.4、Log

Users can inquiry running log bases time, logging in user and log content, it could be more clear understanding of the system which occurred in the action, e especially when abnormality happened, user can easily find out the reason according to inquiry system running log.