

# **IT-PMC-1100M**

## **10/100M Managed Ethernet Media Converter**

### **Managed system User manual**

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## Part 1 Manageable system overview

### 1. Contents of system

**The main contents of managed system is listed below:**

#### 1.1 Net manageable module

It is the key-unit of the system, used to collect the relational information from the media converters installed in the chassis, and manage the functions of media converters. It has one general 10/100M RJ45 port and one general RS232 console port.

#### 1.2 Full range of Intellisystem manageable media converters or other manageable cards.

#### 1.3 17 slots rack-mounted chassis

19 inch 2U rack-mount chassis, with 17 slots, can support 1 pc Net manageable module and 16 pcs manageable media converters. Normally it will be installed in center, so that the user can manage it easily. It has dual power supply, support NMS function. The fans can be managed.

#### 1.4 Manageable stand-alone media converters in remote end.

### 2. Manageable functions over view

wView manageable system supports full range of standards such as HTTP, SNMP, TFTP, TELNET ...etc . The system has proper interface for each.

#### 2.1 Support WEB based management

Our manageable system supports the management based on WEB. It is easy to be understood and used, no need install special software, so that it is easier for the users.

#### 2.2 Support SNMP management

Fully support SNMP, the users can manage the relational devices via any operating system, such as HP-OpenView.

#### 2.3 Support Console management when emergency

Support local command-string management via Console port, the users can manage the devices via other networks such as Telephone System, in case the Ethernet networks failed.

#### 2.4 Support TELNET

#### 2.5 The software can be upgraded online via TFTP.

## PART 2 Units of the manageable system

### 1. Manual of Net Manageable Module.

#### 1.1 Checking list.

Before you start installing the net manageable module, verify that the package contains the following:

- Net manageable module (1 pc)
- RS232 serial cable (1 pc)

Please notify your sales representative immediately if any of the aforementioned items is missing or damaged.

#### 1.2 Introduction of functionality

The net manageable module is used to collect the information from the media converters installed in the system and manage the functions. The software support online upgraded via TFTP. It supports 4 normal managements as follows: 1. Use IE explorer to check and manage the status of the devices via WEB pages from remote end. 2. Use general SNMP management. 3. Use the Windows Terminal Modes to do local management via the Console interface. 4. Use TELNET to do command-string management.

#### 1.3 Connectors & LED functions

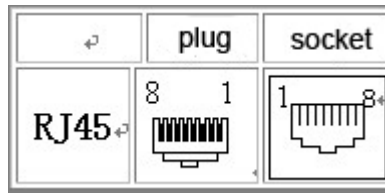


##### **Connectors:**

- ✧ **ETHERNET:** 10/100M RJ45 port for Internet connecting, so that the users can manage the system by WEB /SNMP / TELNET.
- ✧ **CONSOLE:** RS232 interface for local management via Windows Terminal Modes command-string.
- ✧ **LED :**
- ✧ **PWR:** LED for power status.
- ✧ **LNK/ACT:** LED for Internet connection status.

## 1.4 Pins function of connectors.

### 1.4.1 RJ45 connector for Ethernet



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RJ45 pin	
Pin	Signal
1	Transmit (positive)
2	Transmit (negative)
3	Receive (positive)
6	Receive (negative)
Straight cable	Crossed cable
1 - 1	1 – 3
2 - 2	2 – 6
3 - 3	3 – 1
6 - 6	6 - 2

Please chose straight cable when connect to switch or Hub and chose crossed cable when connect to PC.

### 1.4.2 Console connector

Pin	Signal
1	TXD
2	NC
3	RXD
4	NC
5	GND
6	NC
7	NC
8	NC

## 1.5 Installation

Before you start installing the net manageable module into the rack-mount chassis, please check the units carefully and notify your sales representative immediately if any of the aforementioned items is missing or damaged. Please note, the net manageable module can only be installed into the right brim slot, or it will can't work. Use UTP Cat 5 cable to connect the RJ45 connector of the net manageable module into Internet, such as Ethernet switch. The turn on the power. If the LED LINK/ACT become ON, it shows the connection is valid OK. Or you need to recheck the problems on the cable / connectors / relational devices, then solve it until the LINK/ACT become ON. If you can not solve it, please kindly get in touch with your sales representative.

If you need to set the Ethernet functions (f.e .to set the IP address), you can use the local Console port to do it. More detailed information will be advised in coming pages. (Page 21-23)

## Part 3 Illuminating of manageable function

### 1. WEB MANAGEMENT

#### 1.1 Overview

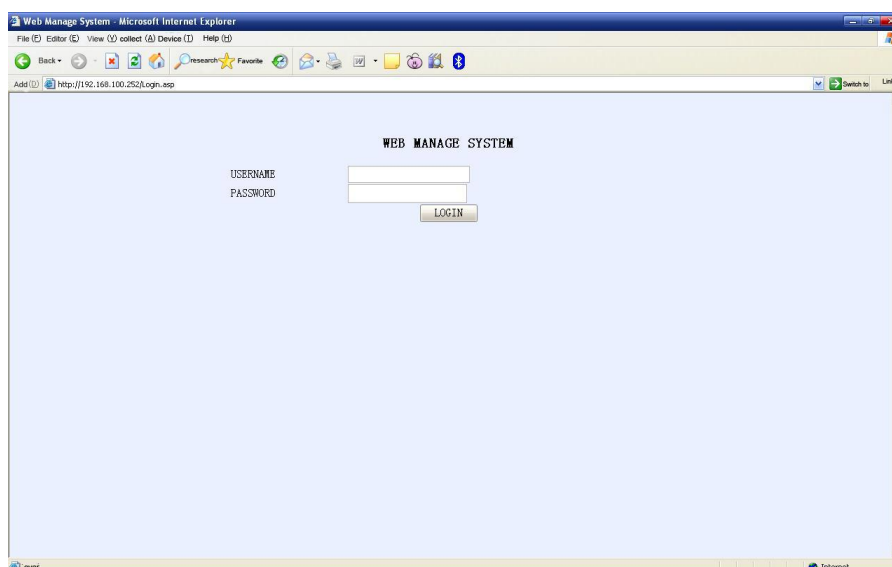
Our manageable system support WEB management No need install special software it is easy to be learn and use. The users can set the functions of the system or check & manage the media converters installed in the chassis. The detailed introduction is listed below.

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#### 1.2. Manual of WEB management

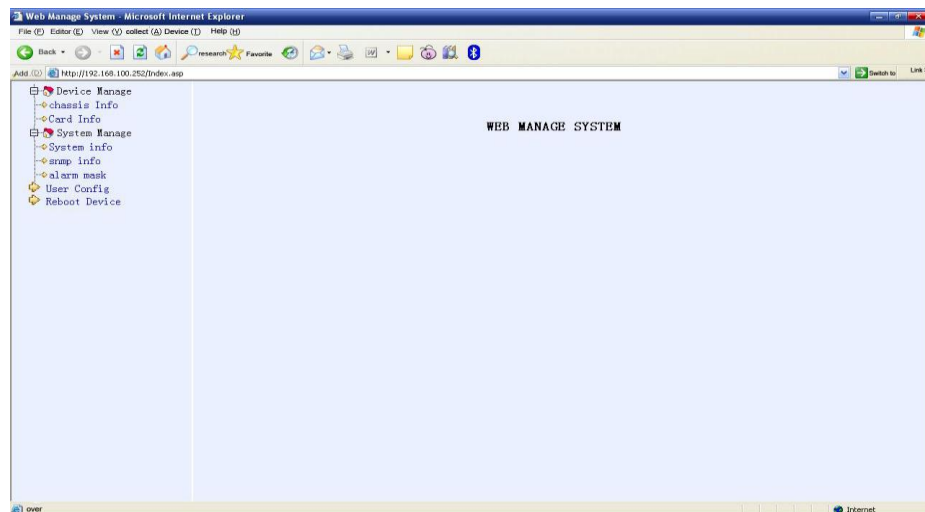
##### 1.2.1 Logging in

Enter the IP of the net manageable module in the Internet Explorer you will see the interface as follows:



##### 1.2.2 Main page view

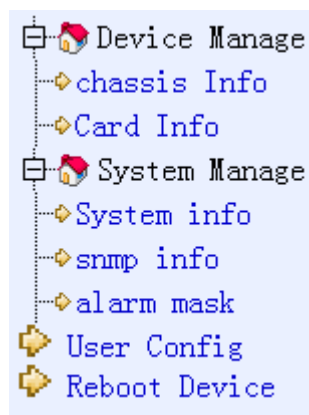
Enter the correct user name and pass word (the default user name is: admin, the default password is: manager), go to the main interface of WEB management as follows:



As showing in the above picture, the interface is divided into 2 parts. The left part is directory tree, where the users can select the item they would like to view or operate. The right part is the result of your operating.

### 1.2.3 Directory tree

The directory tree listed below is the main interface of the manageable system, It is hyperlink. By clicking the proper item, the users can check the status of the system from the right part.



### 1.2.4 Devices management

#### 1.2.4.1 Checking the operating status of the chassis

Click on the picture to see the current network management module rack information, the rack information on the current major power status, fan status, voltage current rack, rack the current parameters such as operating temperature. As follows:

### Chassis Info

Hardware Version	1.0
Description	16 slot media converter
Power A	Off
Power B	Off
Fan A	Off
Fan B	Off
Temperature	33° C
Refresh	

<3.1.2.4>

#### 1.2.4.2 Checking the operating status of media converters

In order to facilitate the user to view the entire rack of transceiver operating parameters, the web management provides a centralized view to the work of the state of transceiver pages. Show the contents as follows:

### Card Info

Local Card:						Remote Card			
Card NO.	TxLink	FxLink	Speed	Duplex	Auto	TxLink	Speed	Duplex	Auto
card 6	Down	Down	100M	Half	On	Down	10M	Half	Off
card 10	Down	Down	100M	Half	On	Down	10M	Half	Off
card 12	Down	Down	100M	Half	On	Down	10M	Half	Off
Refresh									

< 3.1.2.5 >

**Remark: only show the existence of the contents of the transceiver.**

## 1.2.5 Media converters management

### 1.2.5.1 Checking the on-line status of media converters

Name	Converter card15	
Descript	media converter local to remote	
	Local Info	Remote Info
Tx Link	Off	Remote not link
Tx Speed	100M	
Tx Duplex	Half	
Tx auto-negotiation	On	
Tx flow control	Enable	
Tx input Rate Control	Full	
Tx output Rate Control	Full	
Fx Link	Off	
Fx Duplex	Full	
Fx flow control	Enable	

< 3.1.2.6 >

### 1.2.5.2 Managing the media converters

Config Local End

Tx Settings	Adaptive ▼	<input type="button" value="Set"/>
Tx Up BandWidth	Full ▼	<input type="button" value="Set"/>
Tx Down Bandwidth	Full ▼	<input type="button" value="Set"/>
Fx Flow Control	ON ▼	<input type="button" value="Set"/>
Tx Flow Control	ON ▼	<input type="button" value="Set"/>
<input type="button" value="Reset"/>		<input type="button" value="Loop test"/>

[Back](#)

< 3.1.2.7 >

## 1.2.6 System management

### 1.2.6.1 System information

System information support the IP of the management modules, subnet mask, Gateway disposition. The page as following:

The system information

**System Info**

<b>Device Name:</b>	host
<b>IP address:</b>	192.168.100.252
<b>net mask:</b>	255.255.255.0
<b>Gateway:</b>	192.168.0.1
<b>Software version:</b>	Net Manage System1.0.0, Jul 28 2009.

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< 3.1.2.8>

Marks: you need to enter the new IP when the network reseted.

#### 1.2.6.2 SNMP functions setting SNMP Management disposition

SNMP Management disposition using in SNMP management, contrain read, write, SNMP send to the Destination address

**SNMP Config**

SNMP Community Configuration		
SNMP Community	Access Right	Valid
public	Read Only	<input checked="" type="checkbox"/>
private	Read/Write	<input checked="" type="checkbox"/>
is+dead	Read Only	<input checked="" type="checkbox"/>
is+dead	Read Only	<input type="checkbox"/>

SNMP Trap Configuration		
Ip Address	Trap Community	Valid
192.168.100.251	public	<input checked="" type="checkbox"/>
192.168.100.168	public	<input checked="" type="checkbox"/>
192.168.0.1	public	<input checked="" type="checkbox"/>
0.0.0.0	public	<input type="checkbox"/>

< 3.1.2.9>

Remarks: the Destination address which send by the SNMP Trad at most four units, about the contents, you can check the trad manual in SNMP management.

### 1.2.6.3 Alarm filtration

In order to manage expediently, the specifcation content of media converter can be choosed in SNMP Trad, only the ones which have choosed are the useful trap options, the options can be the appointed media converter concretely.

The page as following:



**SNMP Trap Fitrer**

SNMP Trap Filter	
Card NO.	01 <input type="button" value="v"/>
Trap Item Status	
Local Card	<input checked="" type="checkbox"/> TxLink <input checked="" type="checkbox"/> FxLink <input checked="" type="checkbox"/> CardPower
Remote Card	<input checked="" type="checkbox"/> TxLink
<input type="button" value="Modify"/> <input type="button" value="Reset"/>	

< 3. 1. 2. 10 >

### 1.2.7 Users management

The user disposition in the WEB management ways is consistent with the user disposition in console management that will introduced as following;



**USER CONFIG**

Delete user

admin

Add user

username:

password:

< 3. 1. 2. 11 >

The operation of user management as following:

- (1) you must attention to the small, big letter of user name and password , Blank space cannot appeared
- (2) The user name cannot repeat.
- (3) The user name cannot canceled
- (4) The wrong prompt page would appear when you operated wrongly

### 1.2.8 System reposition



< 3. 1. 2. 12 >

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## 1.3 Other guidance of WEB management

### 1.3.1 The security of net-page

In order to guarantee the security of web management, user need to close the window of Browser after visited finished

## 2. NORMAL SNMP MANAGEMENT

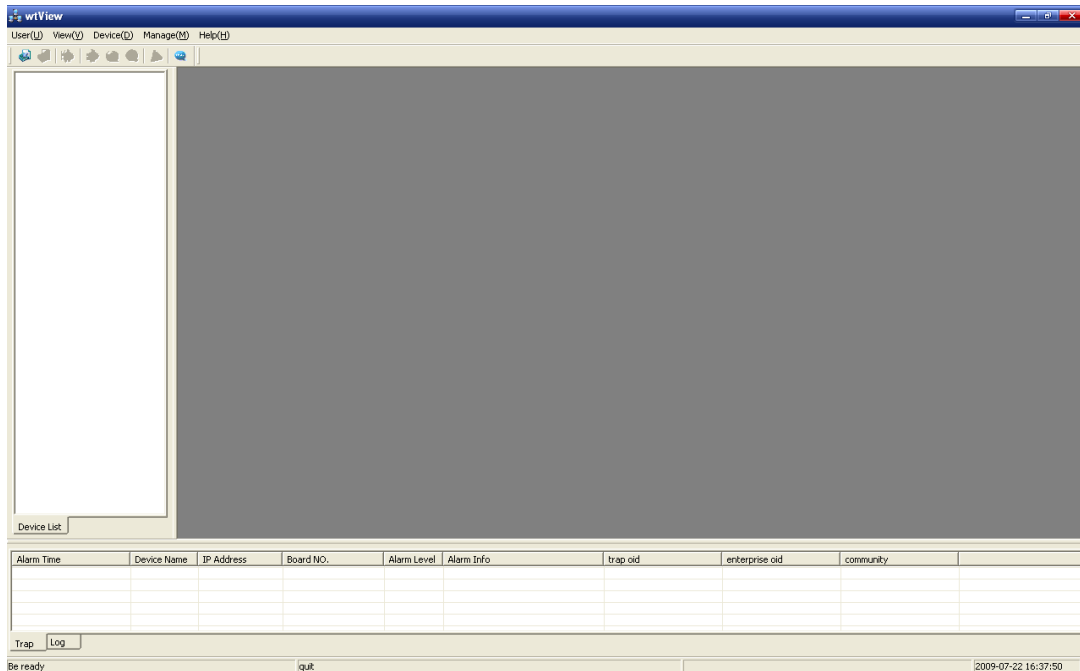
### 2.1 Over view

Management support SNMP, network auto-Analysis situs. The user can control and monitor the device via SNMP.

The customer side can use our Wview that developed by ourself, you can use other SNMP management software too .for example, the openview from HP, SNMPc from castle Rock, MG-SOFT from MG-SOFT.

### 2.2 wView system over view

wView management system's functions are: Registering, searching, Inquiry, Warning, management, helping. The function of registering can distinguish the user. It can make the system safe. The function of searching can add the management device more quickly. The data management and warning searching can manage the note that made by devices convenient. You can choose local and remote database. The function of management offers the way to manage the users.



## 2.3 Main functions

Run wView.exe, and finish the installing as wizard. Run the program “InstallDatabase” from “Start” —“wView”. Logging in the user name and pass word in the user interface show as follow, then click “OK” , and run again the program “wView” from “Start” —“wView”.



### 2.3.1 Logging in / out

User just can do all operation after enter in. if you have not entered in, you can not do any operation



**User Login**

User Name:

Password:

OK Cancel

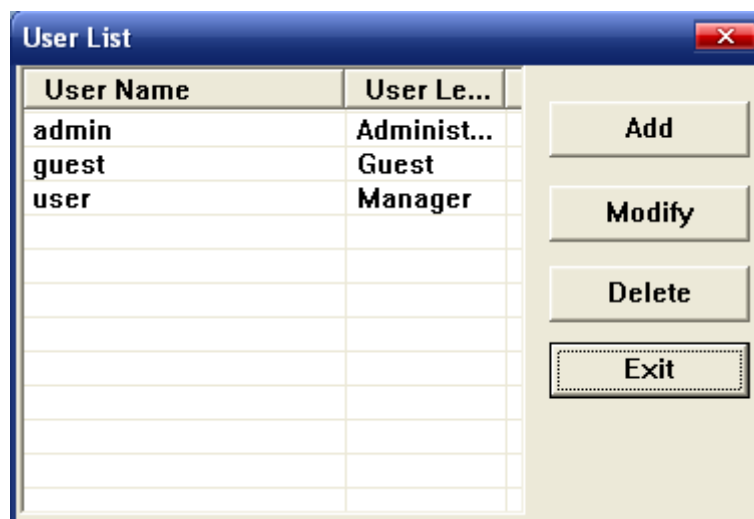
User use this manual to do the operation of Registering. pls add user name when you using. then add the password rightly

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All manual's color change gray to bright after you registerd in system, the original user name is admin, password is vacant

### 2.3.2 Users management

The management of user function contrain add user, delete user, amend user



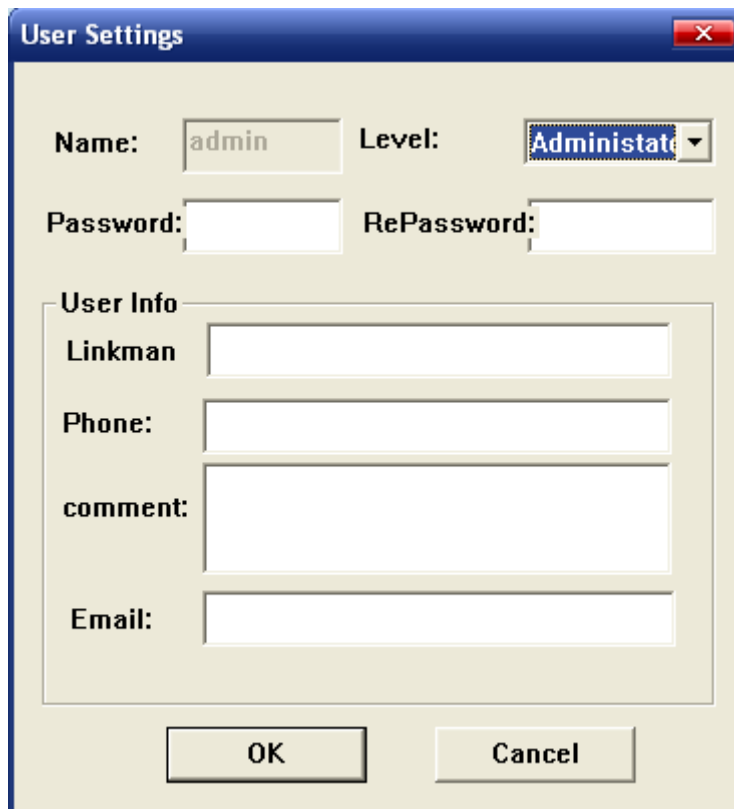
User Name	User Le...
admin	Administ...
guest	Guest
user	Manager

Add Modify Delete Exit

Add user

This function can add the user who have the popedom to this system.

User can add the name of user, and enter in the same password.



The 'User Settings' dialog box contains the following fields and controls:

- Name:** Text box containing 'admin'.
- Level:** Dropdown menu with 'Administrato' selected.
- Password:** Text box.
- RePassword:** Text box.
- User Info** section containing:
  - Linkman:** Text box.
  - Phone:** Text box.
  - comment:** Text box.
  - Email:** Text box.
- OK** and **Cancel** buttons at the bottom.

Amend the user information

Amend the appointed user information

Delete user

### 2.3.3 Devices management

User can set the IP and SNMP to add the devices

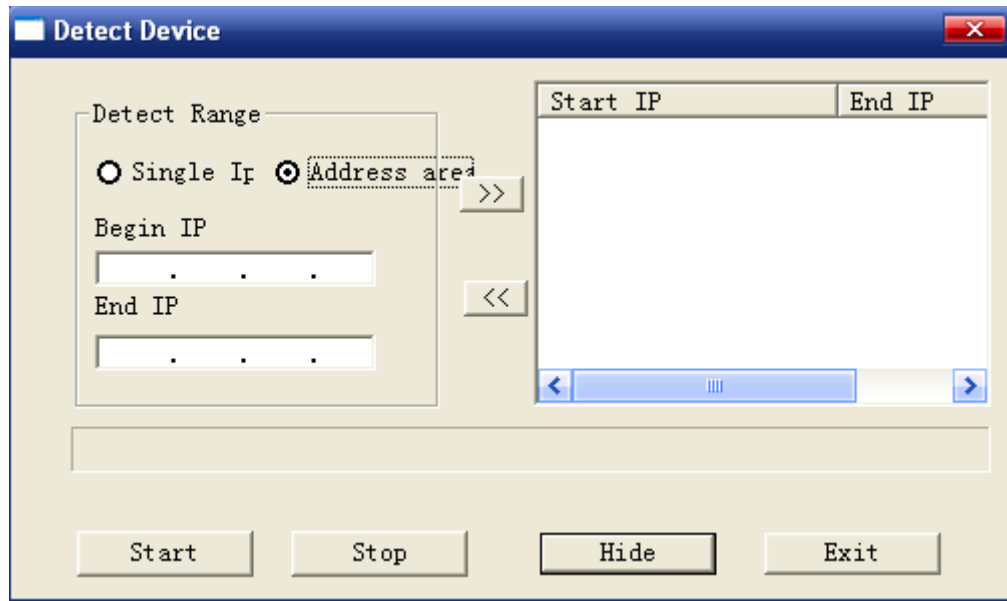


The 'User Login' dialog box contains the following fields and controls:

- User Name:** Text box containing 'admin'.
- Password:** Text box.
- OK** and **Cancel** buttons at the bottom.

Search equipment

According to the set address range, u can search the Managed device.



### 2.3.4 Trap alarm management

Search the concerned entry in the record of the alarm, u can sub-device node address, device node number or the extent of inquiry.

The users click on the select button of the IP address or device node number can be carried out input; users also can set the query time (decided by the time from the start and termination), also the users can choose the warning types to classify query (Hold down the Ctrl key when clicking the entry can be completed more than one election).

Query results will be displayed in the dialog column, users can browse search results.

The users can also keep the results of the search button then the results will be saved to file.

[illegible]

### 2.3.5 System log file checking

The history of the use of inquiry system, including when the user login the system, operation order, exit the system, shut down the system.

**Log Query**

Begin Time: 2009- 7-2 0:00:00 Query

End Time: 2009- 7-2 16:49:45 Cancel

NO.	user	type	information	
0	admin	Login	succeed	20
1	admin	quit	succeed	20
2	admin	Login	succeed	20
3	admin	quit	succeed	20
4	admin	add note	add devic...	20
5	admin	Login	succeed	20
6	admin	Login	succeed	20
7	admin	Login	succeed	20

Save Result

## 2.3.6 Topological operations

### Tree regional operations


wView - Topology - [Device Lists]

User(U) View(V) Device(D) Manage(M) Window(W) Help(H)

Device Lists

- Group
  - 192.168.100.254
  - 192.168.100.252
- Default Group
  - 192.168...
- New Device

Add device  
Device Settings  
Delete Group  
Show Topology



Device List

Alarm Time	Device Name	IP Address	Board NO.	Alarm Level	Alarm Info	trap oid	enterprise oid	community

Trap Log

Be ready quit User : admin 2009-07-22 16:54:11

Users can select by clicking the right of the mouse button function to operate on the configuration of the operation region. When the user clicks on the right side of the node will show the specific

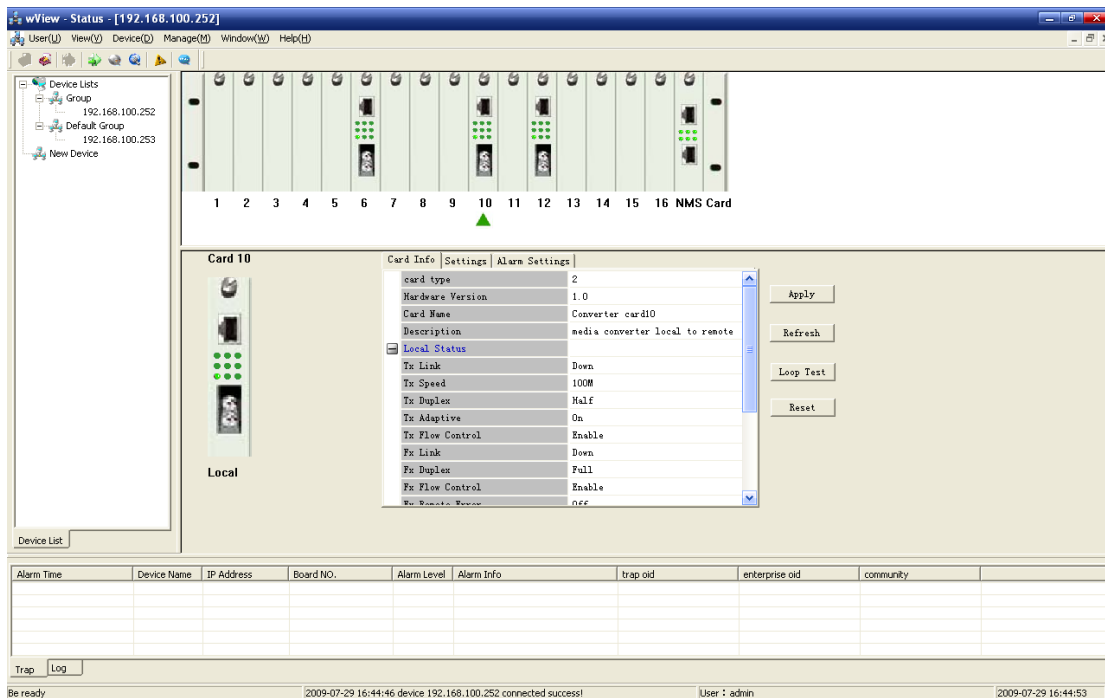
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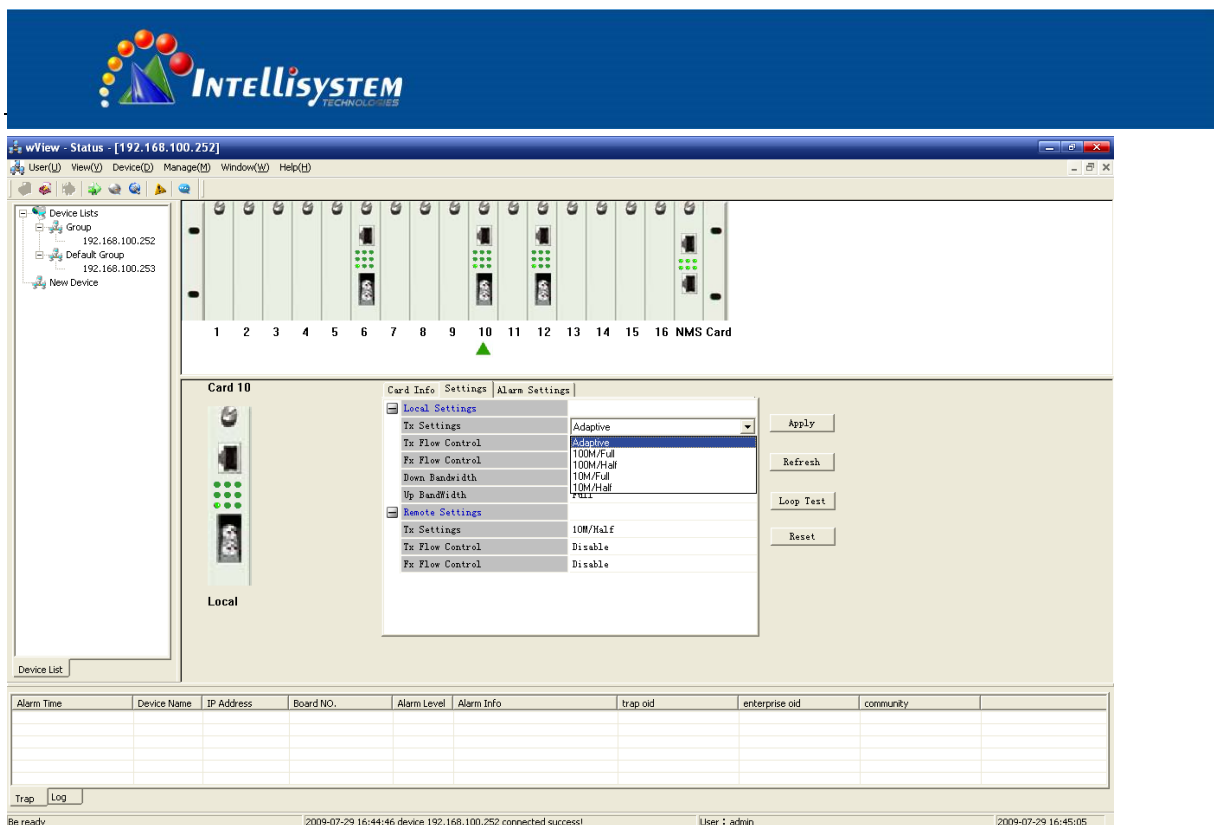
icon interface.

In the three type area when the mouse move to the device node, the column of the mouse would prompted show the location of the equipment and referred to specific information. The pulled equipment can move to the other equipments. Selected node and then click left of the mouse to modify the node name.

### 2.3.7 Device Management.



Use the mouse to click the business board, it will shows the veneer status.  
 U can query and set the veneer information



## Part 4 Local console interface setting

### 1. Over view

Console port management for network failure or when the initial installation and configuration management systems, the main features of two parts, first, to manage system parameters, such as users, network configuration, etc.; Second, the system of the transceiver management, including view the work of state, such as setting operating parameters. Console port management and the use of web site management, the fuction of SNMP management is the same.

### 2. Console interface connection

Incidental use of a random cross console serial port cable connected to the PC serial port. Use the Windows of HyperTerminal (Start menu / program / accessories / communications / super terminal), If there is no, pls install from the Windows disc.

The opened HyperTerminal setting as follows:

Baud rate (Baud Rate): 9600 bps

Data bit (Data Bits): 8

Parity (Parity): None

Stop bit (Stop Bits): 1

Enter the HyperTerminal then click the landing u can view the login inform messages (If you can't view this information, please check the settings and HyperTerminal connect whether it is correct.)

### 3. Console command-string

Enter the correct user name and password follow the prompts, order information can be seen below, the terminal information management is super-major order, the majority of the command is completed by command mode. But some complex commands required complete step by step by the system prompt.

```
login: admin
password:
NMS>
```

Description of order:

- 1> all the commands are not separate capital or minuscule;
- 2> for a command with parameters, just enter the command, the system will give information promptly, pls operate in accordance with a message
- 3> create a user in accordance with step-by-step tips, examples of operation are as follows:  
After the operation pls return to the command, u can view the created results by show. The description about the user management part, please refer to web management of user management, the two ways are share a user's system, the management of both are the same effect.

#### 3.1 Config command-string

Description of function:

Enter the network management system configuration mode. Use format:

NMS # config

NMS (config) # hostname \_WORD\_ set system hostname, \_WORD is for user set hostname

NMS (config)# ipaddr \_ipAddress\_ \_Mask\_,set system IP address and subnet mask

NMS (config)# renew equipment to restore factory settings

NMS (config) # show host show basic information about the host

NMS (config) # show slot display transceiver information

NMS (config) # show snmpcmnty show snmp community

NMS (config) # show snmpserver show snmp server

NMS (config) # show version display software version number

NMS (config) # snmp community add / del \_WORD\_ add or delete the designated community

(\_WORD\_)

NMS (config) # snmp server add / del \_IpAddress\_ add or delete the trap to send the IP address

NMS (config) # slot set transceiver parameters

```
NMS(config)#
NMS(config)#
NMS(config)#slot 2

1:TP port loop-back test
2:TP port Settings
3:TP port flow control
4:Fiber port flow control
5:TP port input Rate Control
6:TP port output Rate Control
7:Remote TP port loop-back test
8:Remote TP port Settings
9:Remote TP port flow control
0:Remote Fiber port flow control
Others:Exit -
```

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### 3.2 filesystem command-string

Description of function:

Access to file system maintenance mode

Use format:

NMS # filesystem

NMS (fs) # backupcfg \_IpAddress\_ backup system configuration files to the tftp server ,\_IpAddress\_ should back up the ip address of tftp server

NMS (fs) # creatfile \_WORD\_ create a file called \_WORD\_

NMS (fs) # del \_WORD\_ delete a file called \_WORD\_

NMS (fs) # dir list files and directories

NMS (fs) # restorecfg \_IpAddress\_ recovery system from the tftp server configuration file

NMS (fs) # downlord \_IpAddress\_ \_WORD\_ copy files from the tftp server

### 3.3 user command-string

Description of function:

To enter user maintenance mode

Use format:

NMS # user

NMS (user) # adduser \_WORD\_ \_0\_2\_ add a user, \_WORD\_ specified user name, \_0\_2\_ specify user-level

NMS (user) # deluser \_WORD\_ delete a specified user (\_WORD\_)

NMS (user) # passwd    modify user passwords

### 3.4 ping command-string

Description of function:

Send ICMP ECHO\_REQUEST packets to the network host for determine whether the network between the hosts is normal.

Use format:

NMS # ping \_IpAddress\_ \_IpAddress\_ the ping with the host IP address

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### 3.5 reboot command-string

Description of function:

Restart the system

Use format:

NMS # reboot restart the system

### 3.6 language command-string

Description of function:

Chinese, English interface switch .

Use format:

NMS # language Chinese, English interface switch

### 3.7 exit command-string

Description of function

exit from the class interface

Use format:

NMS #    exit of the class interface

## Part 5 TELNET management

Powerful command mode, both command and console are the same way. Here will not repeat them again.