Pro-CMS
User's Manual
(for WindowsXP/2003/Win7/Vista)

Document edition:V1.1

Edition suits for all IP cameras made in our company.

Preface

Thank You for Using our company's products.

Pro-CMS also named Center Management software which is designed to realize integrated surveillance, storage, management and control of all front-end equipments (including Digital Video Server, IP Camera, etc.). This management software can manage up to 1728 front-end network surveillance devices at the same time, performing set, control and remote upgrade functions to any of the equipments. It supports 1/4/9/16/25/36 displays in one screen, two-way intercom, electronic map, log retrieval, alarm controlling, long-distance retrieval and playback. Powerful functions, friendly interface, simple operation, all of them provide great advantages for users to realize networking application of large-scale and long-distance network surveillance.

Statement:

● Contents in this manual may be different from the edition that you are using. Should any unsolved

  problem occur given that the product is used according to this manual, please contact our technical

  support department or your product suppliers.

● The content of this manual may be updated at irregular intervals without prior notice.

Readship:

  This manual is suitable for engineers as follow:

● System planning person

● Support and maintenance person

● Administrator

● User

Notes:

● "NVS" mentioned in this manual refers to front-end device(network camera or network video server).

● Device,encoder,front-end device mentioned in this manual refers to front-end encoder device(network

  camera or network video server).

● Click: Press the left mouse button once.

● Double-click: Press the left mouse button twice.

● "[ ]":Window name, menu name and datasheet.

● NVS: Network Video Server

  IPC/IPCamera: Network Camera

Modify record：

Recording the corresponding update, the latest document include all of the content in previous editions.

Modify date	Edition	Explanation

Table of Contents

1 **Overview**

1.1 **Software Overview**

Central Management Software is designed to realize integrated surveillance, storage, management and control of all front-end equipments (including Digital Video Server, Digital Storage Video Server, IP Camera, etc.). This management software can manage up to 1728 front-end network surveillance devices at the same time, performing setup, control and remote upgrade functions to any of the equipments. It supports 1/4/9/16/25/36 displays in one screen, two-way intercom, electronic map, log retrieval, alarm controlling, long-distance retrieval and playback. Powerful function, friendly interface, simple operation, all of them provide great advantages for users to   realize networking application of large-scale and long-distance network surveillance.

1.2 **Main Functions of the Software**

◆   Manage 1728 channels of audio and video simultaneously (48 groups)

◆   Central Management Software can manage all front-end equipments (including DVS, IP Camera and so on) to realize integrated surveillance, storage, management and control.

◆ Electronic- map function

◆ Image Preview, Surveillance alternation

◆ Audio volume can be manually adjusted

◆ Audio talkback and broadcast

◆ Image recording (pre-recording, manual recording, alarm linkage recording and record schedule)

◆ Retrieval and playback of records according to channel and date

◆ PTZ control (Support over 40 kinds of decoder protocols), Preset, Recall , Track Recall.

◆ Supports the recalling of preset position by linkage alarm.

◆ Supports video loss, video motion, abnormal network interruption and front-end detectortriggered alarm.

◆ Log management (Supports system operation records and alarm records query)

◆ Front-end & back-end snapping

◆ Passive Connection Mode (DVS Active Connection Mode)

2 Install Software

2.1 Getting software

Put the companion CD in the package of IP camera or DVS into the CD driver, find "NVS Center" setup file from central management software catalog, copy it to your PC, double click it to run installation. After the installation completes, find Search NVS software via below path: "Start Menu" —> "All Programs" —> Profession-CMS V3.2—>Pro-Search。

2.2 Software Running Environment

🔘 Operation system

◆32-bit and 64-bit Simplified Chinese & English editions of Windows2000, Windows2003, WindowsXP, Win7, Windows Vista, etc.

🔘 Recommended configuration of hardware environment

◆CPU: Pentium 2.6Mhz

◆System Memory:512MB

◆Graphics Card:Nvidia Geforce FX5200 or ATI RADEON 7000(9000) series 128M Display Card Memory (Graphics Card needs to be hardware scaling supportive)

◆Sound Card: necessary for audio surveillance and talkback

◆Hard Disk: minimum 40G capacity required for image recording.

🔘 Software Environment

◆DirectX8.0 version or above

◆TCP／IP

🔘 Definition supported

◆Adaptive resolution equal or greater than 1024*768

🔘 System Requirement

◆The PC installed with this software requires a graphics card that supports the color change and zoom of image，now the graphics card that has been tested are: Nvidia Tnt/Tnt2、Geforce Mx200/400/420/440 Fx5200/5600 series, ATI Radeon 7000/7200/7500/8500/9000/9200/9500/9600 series, MatroxG450/550 and INTEL845G/865G series. Please note that the graphics card driver must be hardware scaling supportive.

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2.3 Software Installation

Find the setup file of digital surveillance central management software named Pro-CMS.exe and double-click it, a window appears as follow:
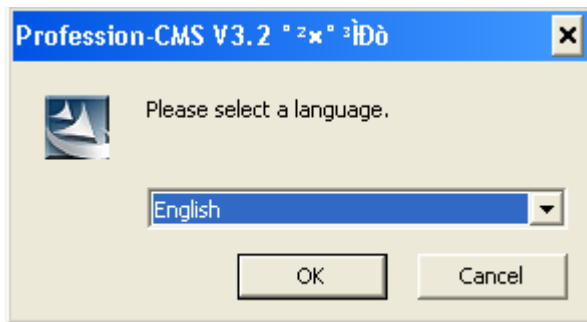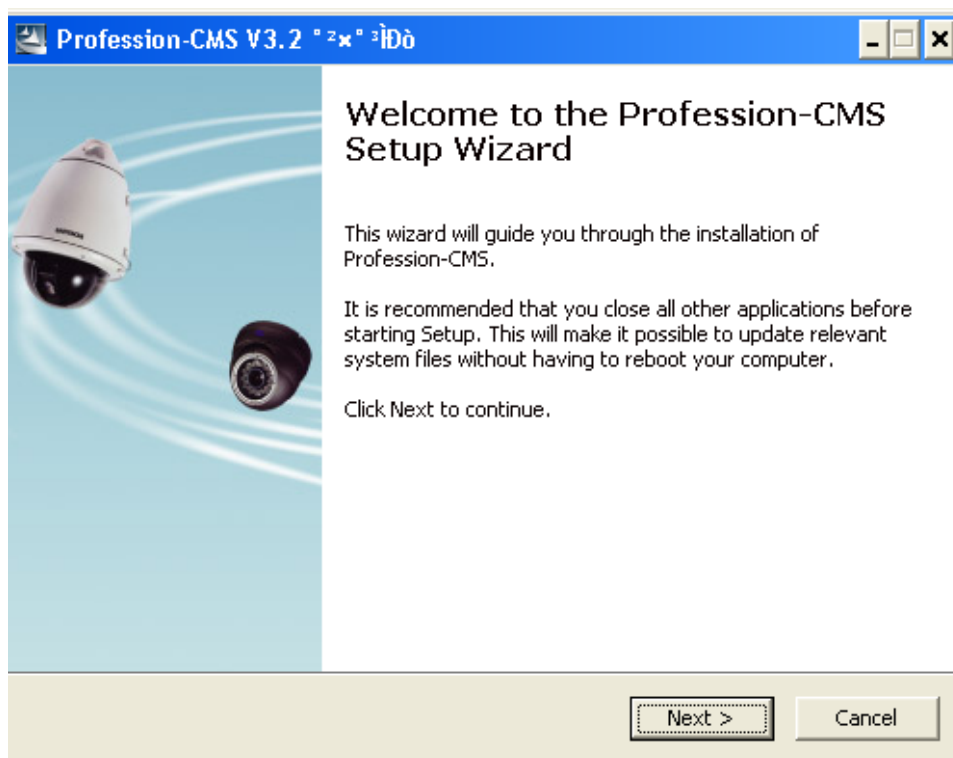

Figure 1 choose language

Figure 2 install program

Follow the instruction, click "Next" icon until "Finish" icon appears, then click "Finish" to complete installation.

The default path of the software is C:\Program Files\Pro-CMS\Pro-CMS Vn.nn.

2.4 Uninstall Software

There are two ways to uninstall the software at user's end:

◆ "Start"→"Programme"→" Pro-CMS " →"Uninstall".

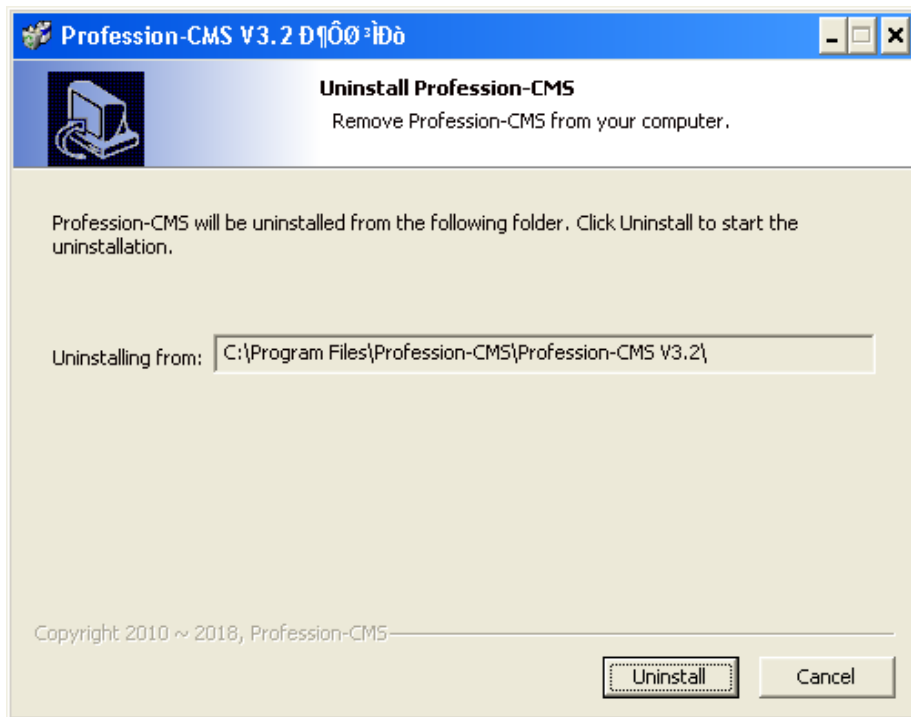◆ Open "Control Panel", choose "Add/Del Programme", delete "Pro-CMS" from the programme list.

Figure 3 uninstall software

3 Operation of Pro-CMS

3.1 Login

Click ![Pro-CMS icon] to start the program, the initial user name is admin and password is blank.

System detects that the password of the administrator "admin" is blank as the program starts, the main interface appears (See Picture 6).The password can be changed via this route: Local Setting->Common Setting->Local User Administration.

If a password has been set for "admin", user login window will pop up when running "Pro-CMS.exe":
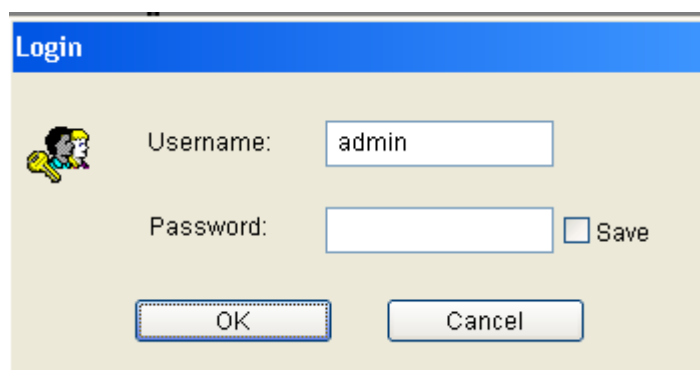

Figure 4 login window

Enter user name and password into the login window, click [OK], the main interface of Pro-CMS appears as Figure 6.3.3 Software main interface and function
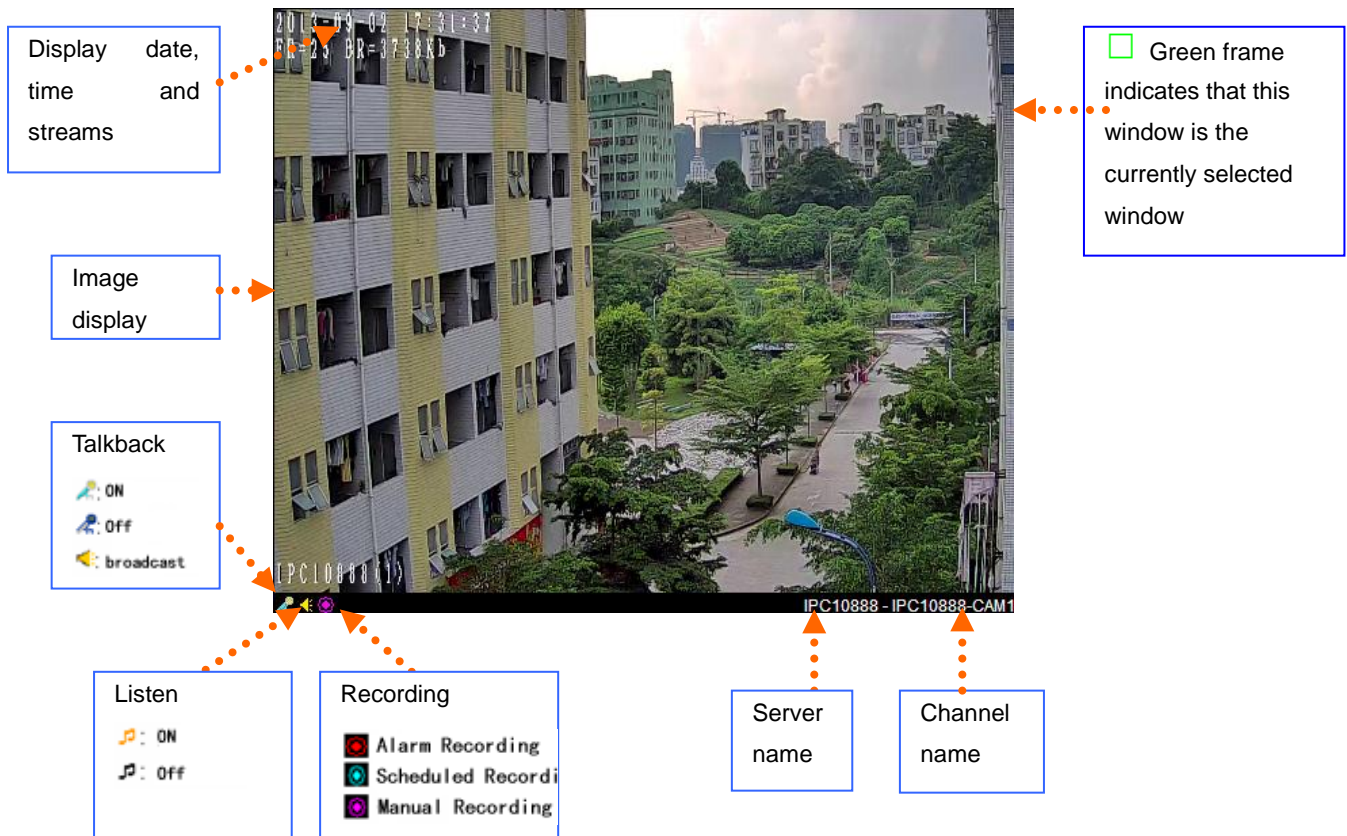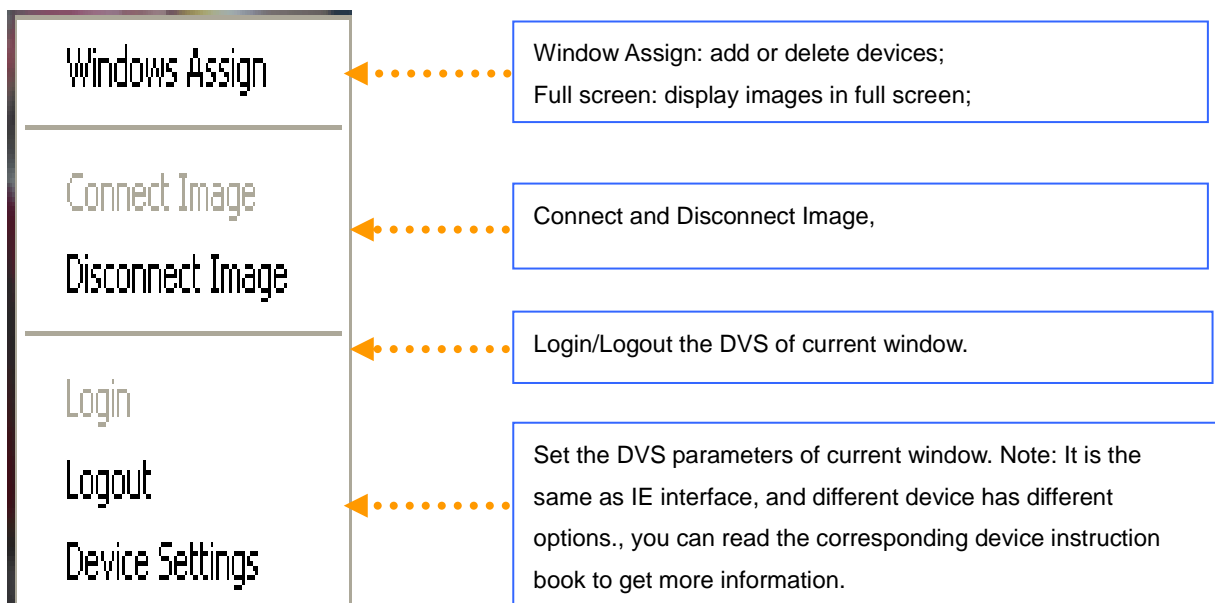
3.2 Main Interface

3.2.1 Main Interface

Main Function

Date Time

System info，cpu usage

Group list

Liveview

IO、PTZ LENS control

listen，volume control

Image display control

link/logout 、record 、device settings

Figure 5 Main interface

3.2.2 Image Display Window

Display date, time and streams

Image display

Talkback
🔑: ON
🔑: Off
📢: broadcast

□ Green frame indicates that this window is the currently selected window

Listen
♪: ON
♪: Off

Recording
🔴 Alarm Recording
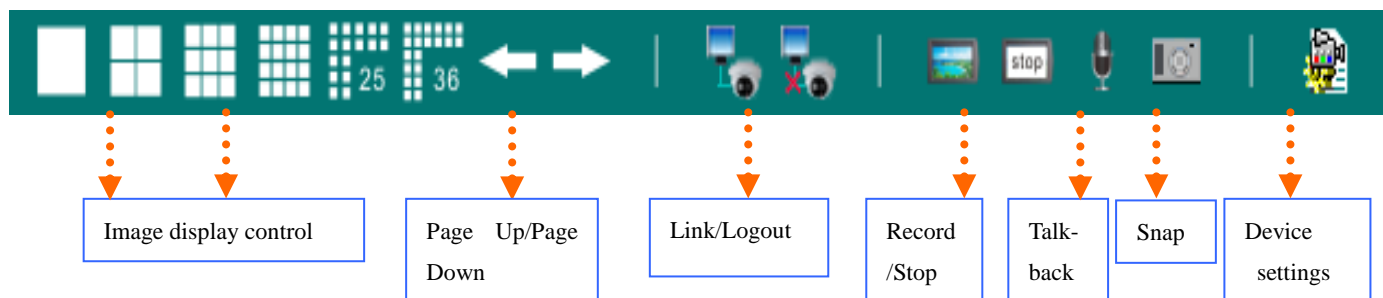🔵 Scheduled Recordi
🟣 Manual Recording

Server name

Channel name

Double-click display window, the selected window will be magnified. Double-click again to return to normal mode.

Right click display window, a menu appears as follow (the modes of menus can be different as the mode of windows vary):

Windows Assign

Connect Image

Disconnect Image

Login

Logout

Device Settings

Window Assign: add or delete devices;
Full screen: display images in full screen;

Connect and Disconnect Image,

Login/Logout the DVS of current window.

Set the DVS parameters of current window. Note: It is the same as IE interface, and different device has different options., you can read the corresponding device instruction book to get more information.
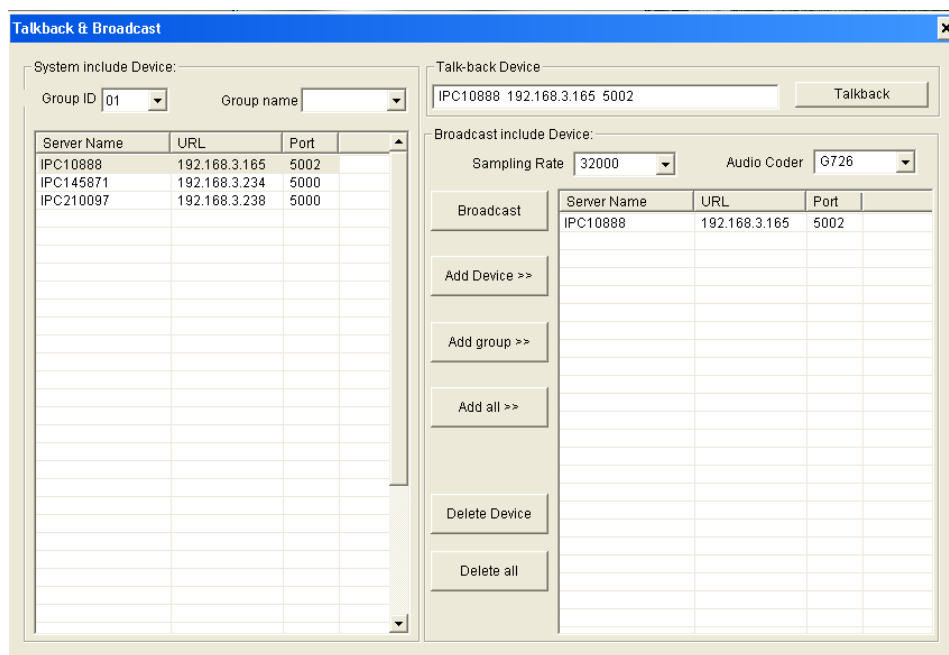
3.2.3 Operation

【Image display control】 1/4/9/16/25/36 Image display。

【Page Up/Page Down】 is for the scrolling display of current page (invalid for 36 Image Mode).

【Link/Logout】 Connect/Disconnect all channels.

【Record/Stop】 Record manually，the record video stocked on local PC.
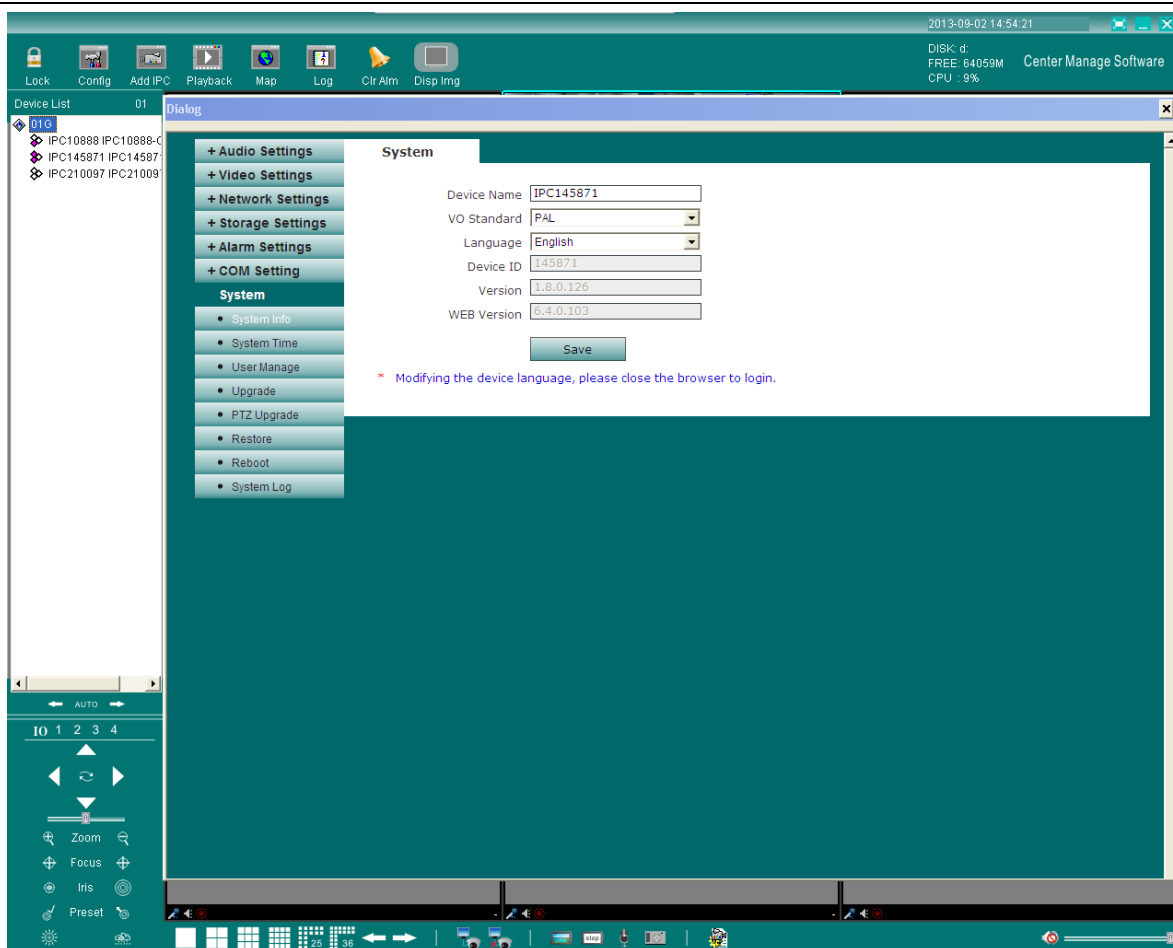
【Talk-back】 An window appears as follow after click　　　icon：

You can select Device then perform talkback or select multi-Device to start broadcasting.

【Snap】 Snap manually，the image stocked on local PC.

【Device settings】 An window appears as follow after click　　　icon：

For more operations on device settings，please see 《IE Browser User's Manual V1.1-IP camera》。

3.2.4 Listen、Volume control

Click button，open monitor，the speed bar is to control the volume of listen and talk-back。

3.2.5 System information

The remaining capacity of the current used hard disk

the current used hard disk
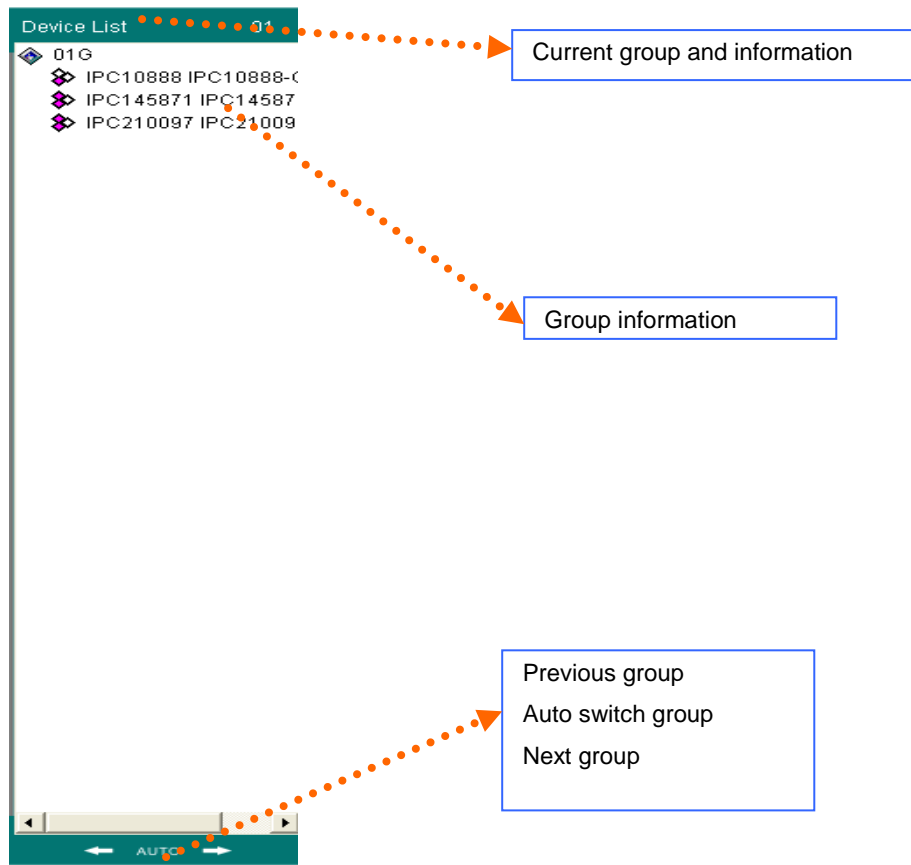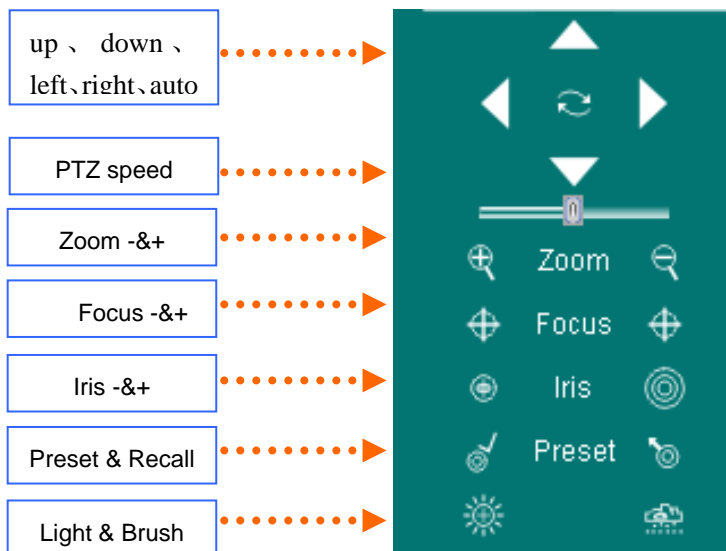
Detect the cpu usage of PC

3.2.6 Output Control

Each video server has four relay outputs, they can be enabled when alarm is triggered in a linkage alarm setting; you can also open or close them manually via the function buttons provided in the main interface (see below picture).
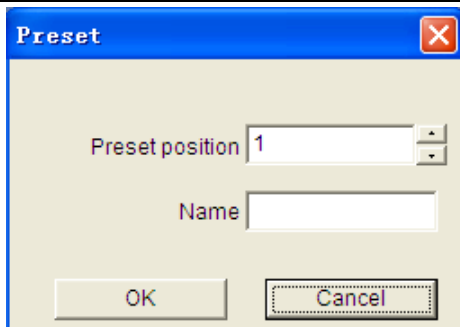

13/35

3.2.7 Grouping Operatio

Current group and information

Group information

Previous group
Auto switch group
Next group

3.2.8 PTZ and LENS control

up、 down、
left、right、auto

PTZ speed

Zoom -&+

Focus -&+

Iris -&+

Preset & Recall

Light & Brush

3.2.9 Set and recall preset position

1、**Set preset position**

Select correct channel and press [button icon] button, a window pops up as follow:

Choose the preset point and set its name, press "OK".

2、Recall preset position

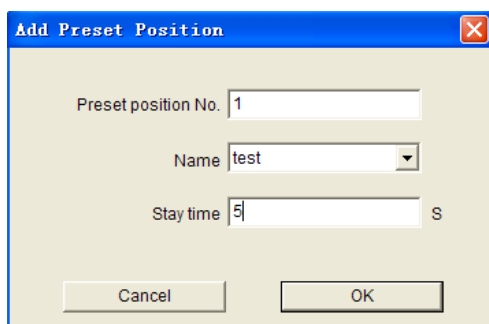Press button, a window pops up as follow:

Recall mode:

（1）**Recall by preset point:** choose preset point number or its name, press "OK", the preset scene can be recalled.

（2）**Recall by track mode:** Choose the serial No. of track, press OK.

Set Track Mode:
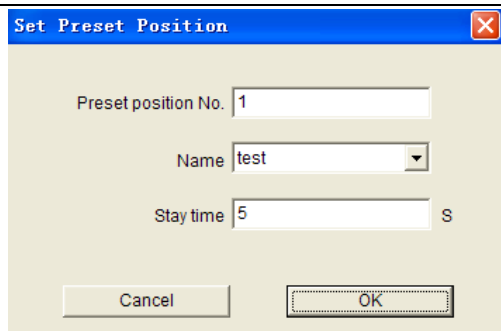
(1) Choose the serial No. of the track, press "Add" button. See the following picture:

Add the preset position of the track, set stay duration of the preset position (1~120000s).Then press "OK".

(2) Choose the serial No. and preset position of the track, press "Add" button. See the following picture:

Fill in preset point or choose its name, set stay duration (1~120000s).Then press "OK".

(3) Choose the serial No. and preset position of the track, press "Delete" button to delete the preset position.

 Note：

　(1)If the device of PTZ control is high speed megapixel dome, the operation of preset and recall point can be done in dome control;

　　(2)The function of dome control is the same as IE interface's, you can read the corresponding instruction book to get more details.
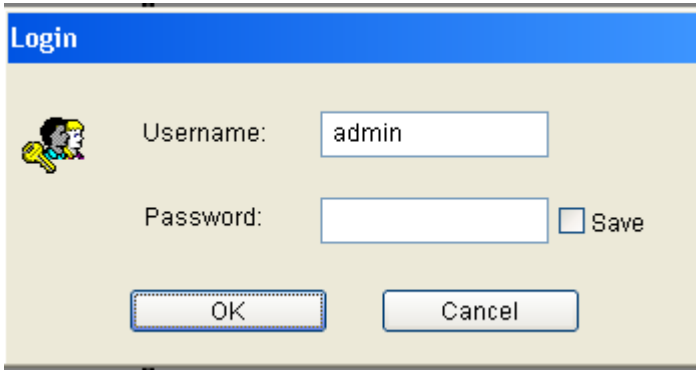

3.3 Function Button

Main functions：Lock/Unlock、Config、Add IPC、Record playback、Map、LOG、Clear Alarm、Display image，See the following picture:

3.3.1 Lock / Unlock

Click [Lock] icon button , system will be locked up, you will be asked to input user's name and password, you can not do any operation until the user's name and password are correctly entered.

3.3.2 Add IPC

Click on the "Local settings" button，the local settings interface will pop up as follow:

【Search】Click this icon, it search out all of the DVSs and corresponding information on the network and display them in list 2.

【Add】Click this icon to add DVS in list 2 to list 1.

Select one entry from list 2, click "Add" or double click it to add it into list 1.

⬜ in list 2 indicates all channels of the DVS are added, ⬜ indicates only some channels of the DVS are added, white color indicates no channel is added.

【Sequencing】lick at the header of list 2 to sort the entries in ascending or descending order. To sort by "DVS Name", click the "DVS Name" header.

The following functions: "Up", "Down", "Delete" and "Setup" are for the operation of the channels selected in list 1."Up" and "Down" can change the number of the window that is linked with DVS channels.

【Up】increase the number of DVS channel window. This function is disabled when the selected DVS channel is linked to its

adjacent channels.

【Down】Decrease the number of DVS channel window. This function is disabled when the selected DVS channel

is linked to its adjacent channels.

【Delete】This function is disabled when the selected DVS channel is connected or logged in.

【Set】Pitch on the window to be set, double click or click "Set" button, the window setting interface will pop

up as follow:

【User name】The device users that are connected.

【Password】The password of the connected DVS.

【Server name】The name of the DVS connected, it is a unique identifier in the same domain, which is to be the

identifying mark when transmitting data. Repetition should be avoided while setting it up. For different channel

window in one DVS, server's Name, login user's name and password ought to be completely the same.

【Server URL】IP address or domain of the DVS connected.

【Communication port】Data port of the DVS connected, default value is 5000.

【Protocol】Network communication protocol - TCP, UDP or Multicast.

【Channel】It is to show which channel is connected to current window. Channel number begins from 1, for four-

channel DVS, the number is from 1~4.

【Camera description】Description of the camera connected to DVS channels, which is displayed in the status

bar. It can be input by users.

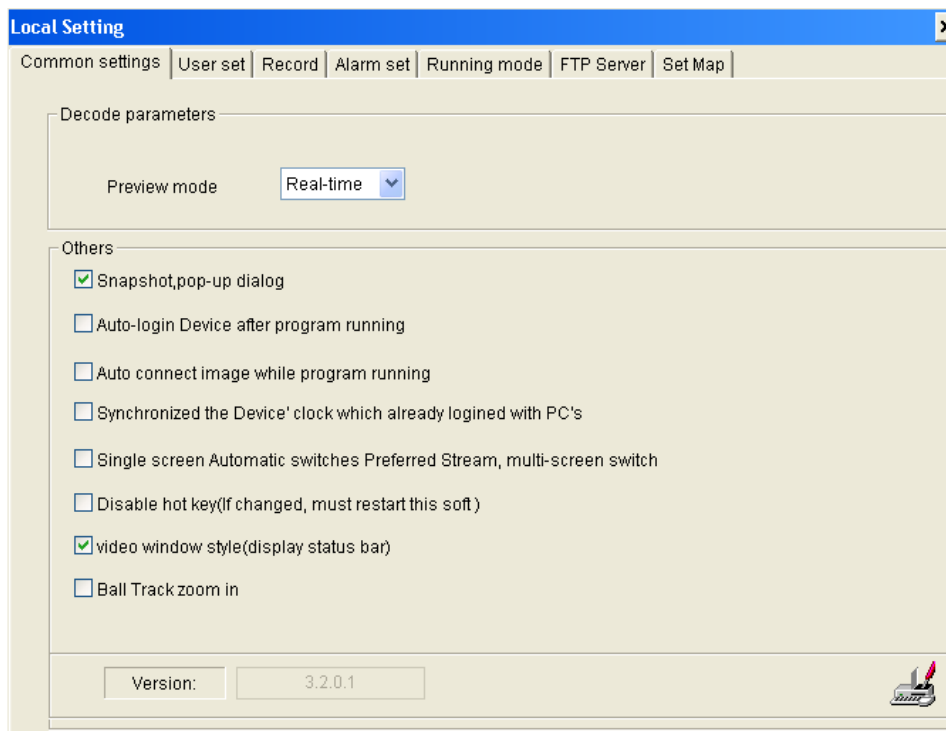【Encoder Stream】Set liveview encoder stream.

【Record Stream】Set recoder stream.

⚠ **ATTENTION：**

（1）、**For different windows on one DVS, the server name should be different, while user's name and password should be the same.**

（2）、**Above information can not be changed if video has been connected or channel has been logged in.**

3.3.3 Config——Common Settings

Click on the "Local settings" [icon] button，the local settings interface will pop up as follow:

【Select Preview Mode】Real-time Priority：no buffering;

Fluency Priority：buffering improves fluency. Frame Buffer: set buffer frame rate.

【Auto-connecting image after program starts】When the program starts, connect the image groups automatically.

【Auto login Device after program starts】When the program starts, login the image groups automatically.

【Synchronized the Device' clock which already logined with PC's】Make the Device' clock Synchronized with PC's which already logined。

【reminder window pop-up when snapping】Enable or disable reminder window pop-up when snapping;

【Single Screen Automatic swithing Mian atream】Single Screen Automatic swithing Mian stream, multi- screen

Automatic swithing alternate stream.

【Disable hotkey】Shortcut keys for screening programs, this parameter can only take effect after restarting the software;
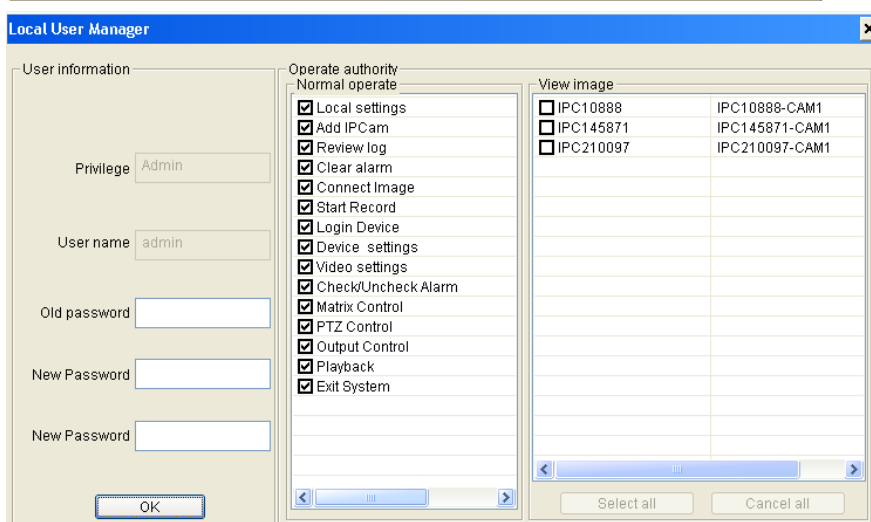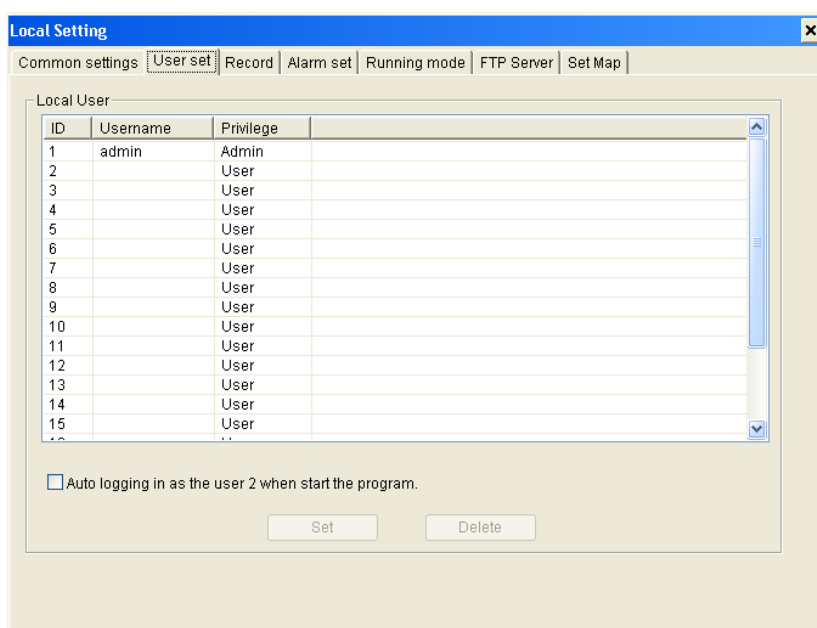
【Electronic E-map shows at another monitor】o display E-map on another monitor or not, this function requires dual graphics cards;

【Video windows style】Display status bar or not.

【Ball track zoom in】Enable or disable dome camare track zoom in.

【Version】Display the Version of the current Pro-CMS software.

3.3.4 Config——User set

【Local User Manager】Set the users of this software, altogether there are 20 operation users, the first one is administrator and others are operators.

Note：

　1、 **Administrator has the ownership right.**

　2、**Administrator can change the operator's permission of function node, add or delete operators. But it can't change the user name and password of operators. Operators can only change user name and password of its own.**

　3、 **If "Auto log in system as user 2" is checked, system starts with operator 2 logged in.**

3.3.5 Config——Record Storage

See below picture for the interface of "Record Storage Settings":

【Set record storage directory】The full path of record storage is: User Specified Directory\\Record Date\\Device IP Address（Port）\DVS Channel\

【Add】Add "User Specified Directory" to "Directory List".

【Delete]】Delete "User Specified Directory" from the "Directory" list, if there are record files under the directory, it can not be deleted.

【choose record storage directory】It will take effect after being checked. Only one user specified directory under one disk partition can be checked.

【Record files packing interval】Set the packing interval of files in minutes.

【Overwrite operation】Enable or disable old file auto-deletion function. The clear function will be started to delete the files in home directory when the remain space less than the obligate space plus 6G. First delete the

files of the earliest date, if the space is less than "obligate space"*2 plus 6G, then delete the files of the earliest date but one, then go on like this if necessary. If the record files are taken on the current date, then first delete the files of the earliest hour. But files of the current hour cannot be deleted, if the disk gets full in one hour, the device will stop recording and snapping. After the one-hour session ends, system will delete the files of the hour and continue to record and snap. Obligate space default and recommended is 1G.

【Snapped image save to】Images including captured images from DVS front-end and manually captured images at Pro-CMS. [Default]: User specified directory\cmsrec\Date\DeviceIP address（Port）\Device channel\

3.3.6 Config——Record Schedule Settings

See below picture for the interface of "Record Schedule Settings":

Record Schedule setting is to set the recording time for every window, whether it is necessary to record each hour in every 24 hours. To record, select【R】, If【Same record schedule for all NVS channels】is selected, then the record schedule of every channel is the same.

【Start record schedule】enable or disable record schedule. Only when this option is enabled, the channel record schedule can be effective.

Note：

■ **color means record schedule has been set for the channel.**

3.3.7 Config——Alarm Settings

Setting what events can trigger the alarm window. The events include network interruption, video motion alarm, video loss, front-end sensor alarm, GPS alarm and so on.

【Open map when alarm】Enable or disable E-map pop-up when alarming;

【Start Alarm Recording】Enable or disable local PC alarm recording and duration of alarm recording.

【Start Audio Alarm】Enable or disable audio alarm and the duration of audio alarm. When there is alarm, the PC audio card will output alarm sound (it can be set in "Alarm Settings").

【Set the type of the Alarm Window】If "show alarm message only in alarm window" is chosen, video and emergency control function will not be displayed in the window.

【Select Alarm Sound File】Users can select local sound file, but the file must be in wav format. When alarm occurs, the surveillance center will make a correlative sound.
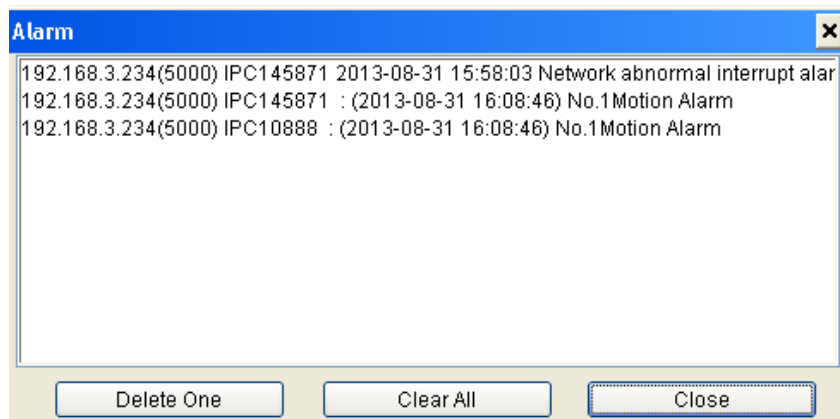
⚠️ **ATTENTION：**

Only after setting the corresponding alarm type, alarm message can be displayed when the alarm event occurs.

Alarm Information & Emergency Control

When Device has alarm inputting, system will determine whether or not to display the alarm message and alarm type according to the "alarm settings" in "local settings".

See below picture for the first type of alarm window:

【Clear】Delete all alarm messages in the list of "Alarm message".

See below picture for the second type of alarm window:

⚠ **ATTENTION: Only after Pro-CMS System log in Device, can all different kinds of warning information be sent to the control   center of Pro-CMS.**

【Emergency   Control】Device output control switch takes effect after this option is checked. Start/Stop front peripheral connected to Device through 【Output   Control 1】or 【Output Control 2】to achieve the objective of emergency control (Such as Light, Entrance Guard).

Video can be previewed real-time and emergency control can be implemented by double-click certain row of the alarm information list.

【Delete One】Delete the warning information selected.

【Clear All】Delete all information in the list.

3.3.8 Config——Running Mode

See below picture for the interface of "Running Mode":

【Active Connection Mode】The surveillance central actively searches for or manually adds DVS network information.

【Passive Connection Mode】DVS actively register network information into surveillance central.

The usage of the two modes:

【Active Connection Mode】pplies to most network.

【Passive Connection Mode】applies to wireless network or single small surveillance network. For example:Device transmits data via CDMA and GPRS. When users adopts active mode to connect mobile IP, the GPRS/CDMA gateway refuses or restricts outside visiting, so Passive Connection Mode must be adopted at this time to transmit network information and data to surveillance center.

When surveillance center adopts Passive Connection Mode, please set its service port to determine whether to validate Device user or not. Besides, the settings of front-end Device that is connected to the center must be in line with the above to ensure successful registration. Please refer to [Set Device network parameters] for Device settings.

⚠️ **ATTENTION：**

The software needs to be restarted after changing its connection mode.

3.3.9 Config——FTP Server

See below picture for the setting interface of FTP server:

Users can upload the files obtained by scheduled snapshot, recording, alarm snapshot and recording to FTP server via starting this FTP server.

【FTP User】Set user name and password of FTP server.

【FTP Port】Port of FTP server, the default port is 21.

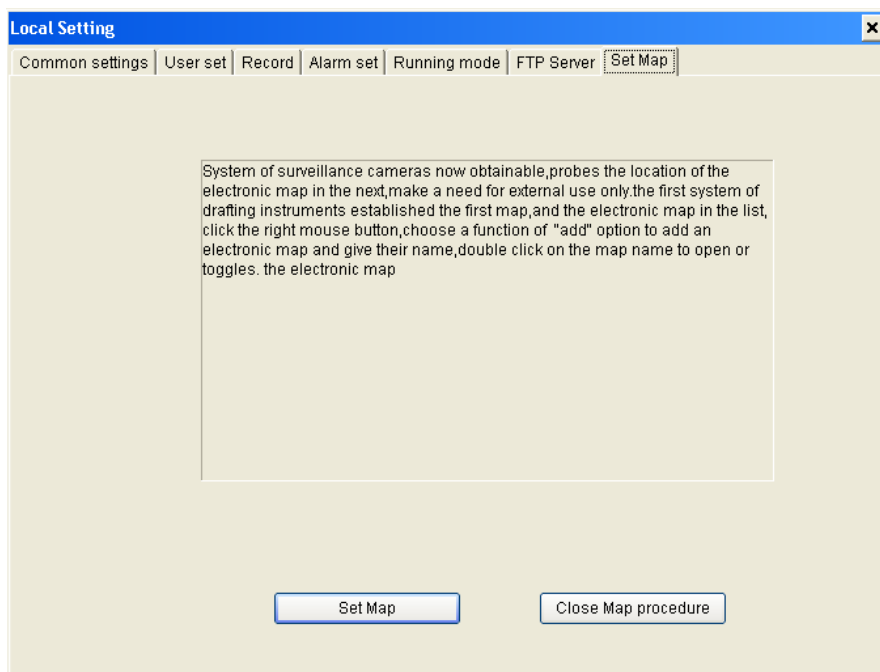【FTP Path】The path of FTP server, if the path does not exist, the device will create a directory automatically.

【Start Server】Start the server function of FTP.
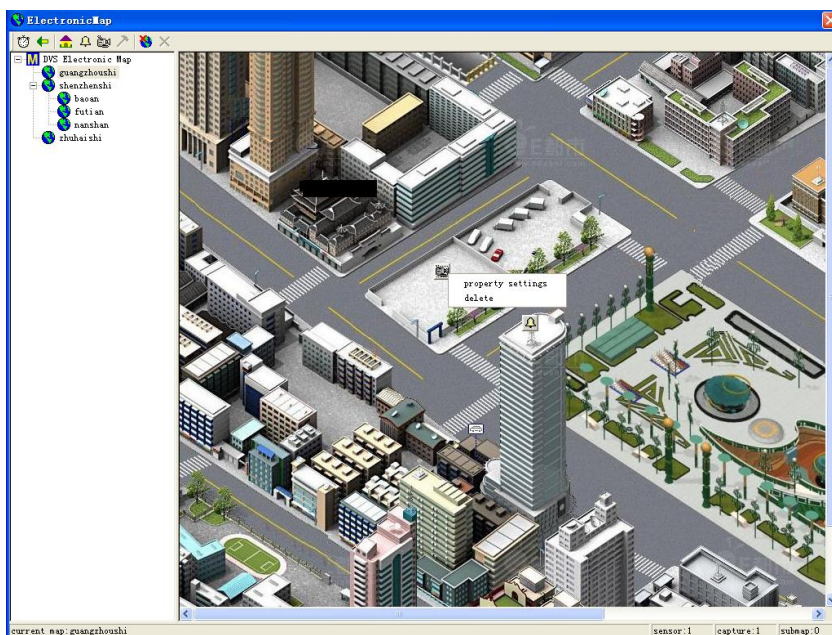
【Stop Server】Close the server function of FTP.

【Save Settings】Save the FTP server parameters after alteration.

3.3.10 Config——Set map
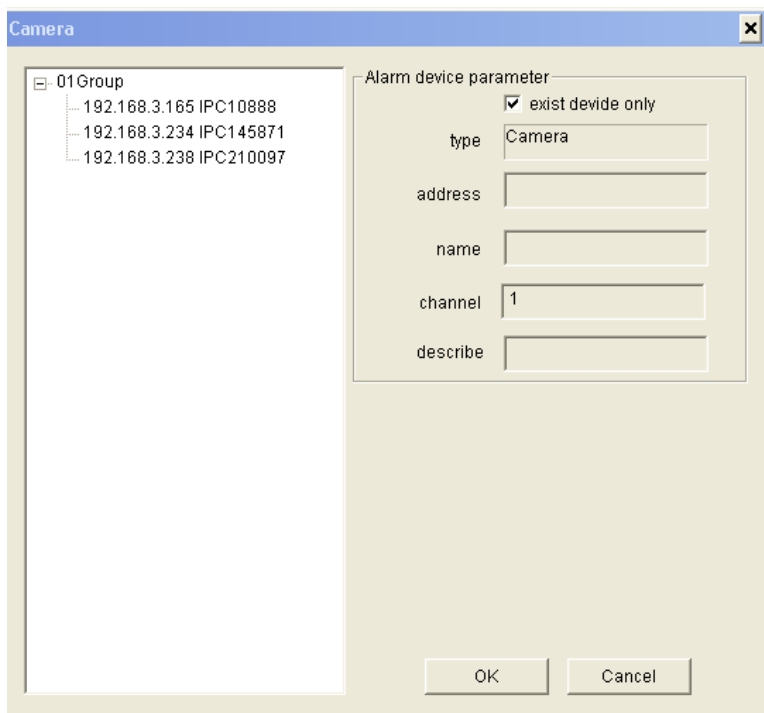
See below picture for the setting interface of [set map]:

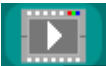Click button, the E-map interface will be displayed as follow:

Mark the position of every camera and sensor on the E-map, then it will be clear at a glance. First a planar map should be built with the drawing, then right click on the list of E-map, select "add" to complete E-map adding and name it, double-click the map name to open or switch E-map.
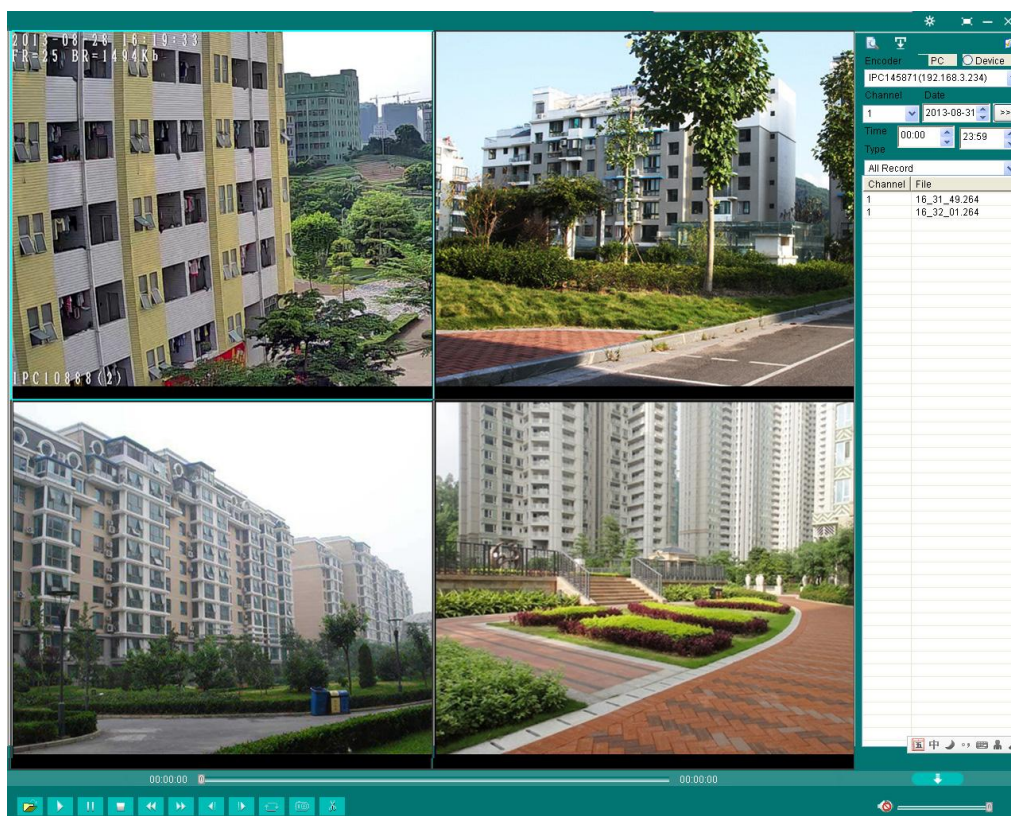
Having finished adding E-map, cameras and sensors can be established in it. Switch to corresponding window by clicking the camera in the E-map. Select camera or sensor, click caption button, a window appears as below:

Set the serial numbers of cameras and sensors on the corresponded Device and the name of the Device. After established the E-map, when there is an alarm, the E-map will pop up automatically (check the "Display E-map when alarm occurs" box in "Local Settings"), flashing of corresponding cameras or sensors indicates an alarm if cameras and sensors are marked out in the E-map.
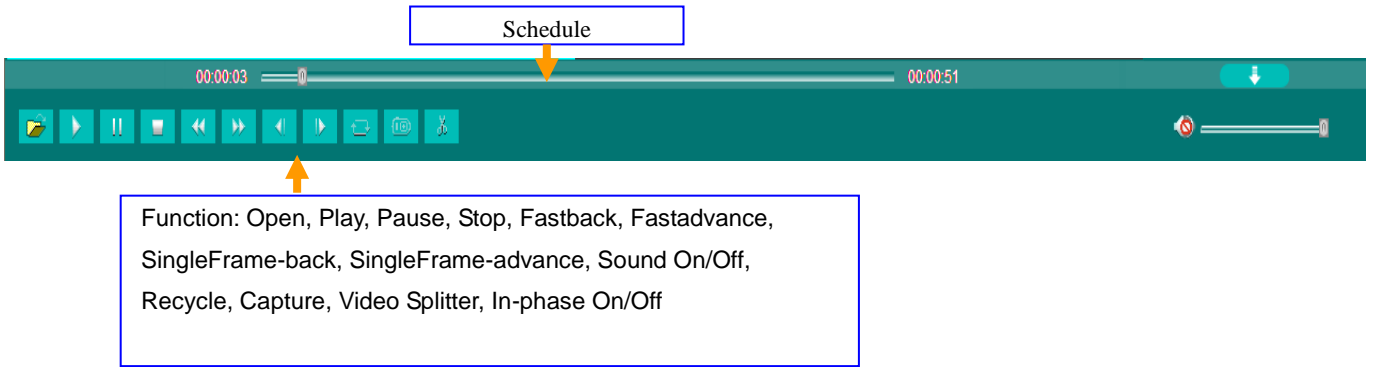
3.3.11 Record Replay

Click [Searching Playback] button, the "searching playback interface" appears as below:
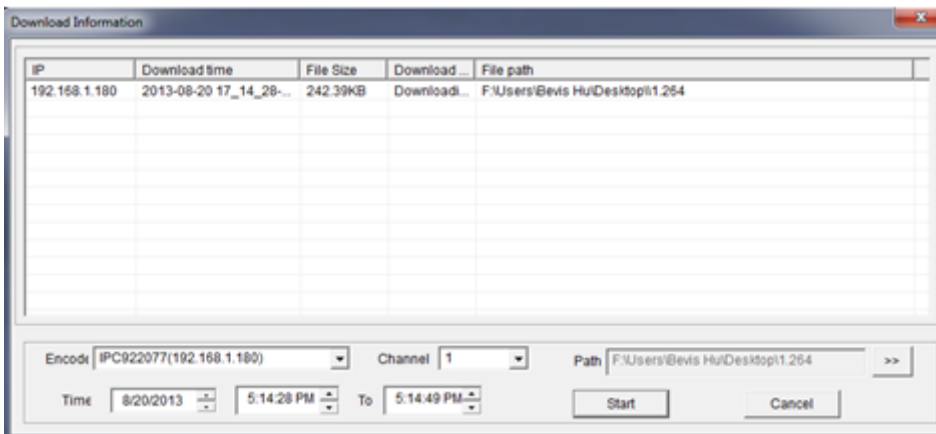
In this interface, you can search record files and images snapped:

Multi-screen can be selected to play at the same time, when there are several record files in the list, the records will be played in order until all files are played.

Schedule

00:00:03   00:00:51

Function: Open, Play, Pause, Stop, Fastback, Fastadvance, SingleFrame-back, SingleFrame-advance, Sound On/Off, Recycle, Capture, Video Splitter, In-phase On/Off

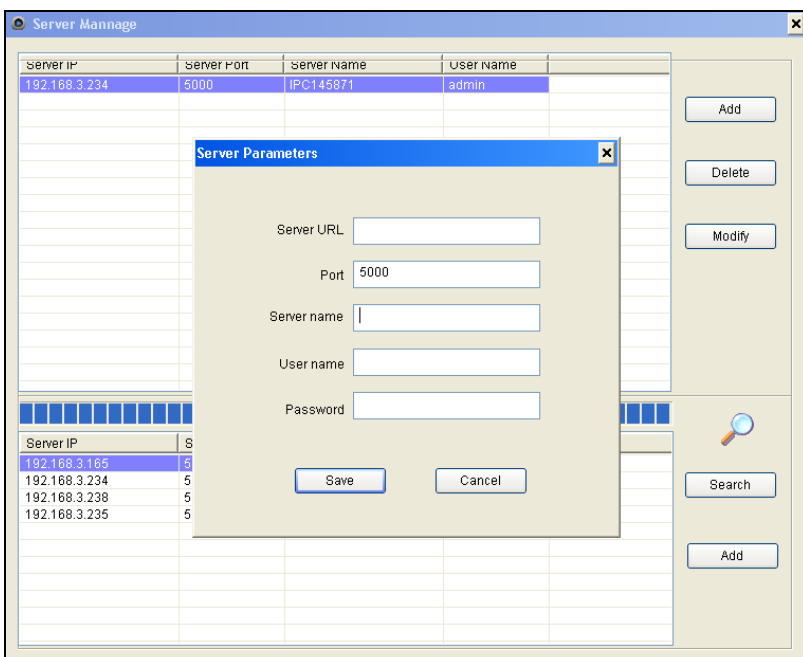【Video Splitter】click "video splitter" button　　　to start to split video that is playing, click it again and save the file, then the video can only be played via "Open With".

【Set inquiry parameter】click 　　, the interface will pop up as follow:

【Download Record】Choose device and the time section and the record file path，click【start】to begin。

【Config server】Click　　button，he interface will pop up as follow:

Click【Add】，add device mauually：

You can add, modify, delete server address, it is necessary to input "Server address" and "Port", "Server name" can be blank, username and password are the same as login the device's username and password.。

Click【Search】，search devices all the LAN automatically，then choose the device，click【Add】。

3.3.12 Map

Click【Map】 button，it will pop up the window as follow，

3.3.13 Log Inquiry

Click [Log Inquiry] button , the log inquiry interface will pop up as follow:

Choose time range of inquiry at first ,then choose the type (Operation log, alarm log), then click 【Inquiry】 button, the log of the corresponding time will be displayed in the list.
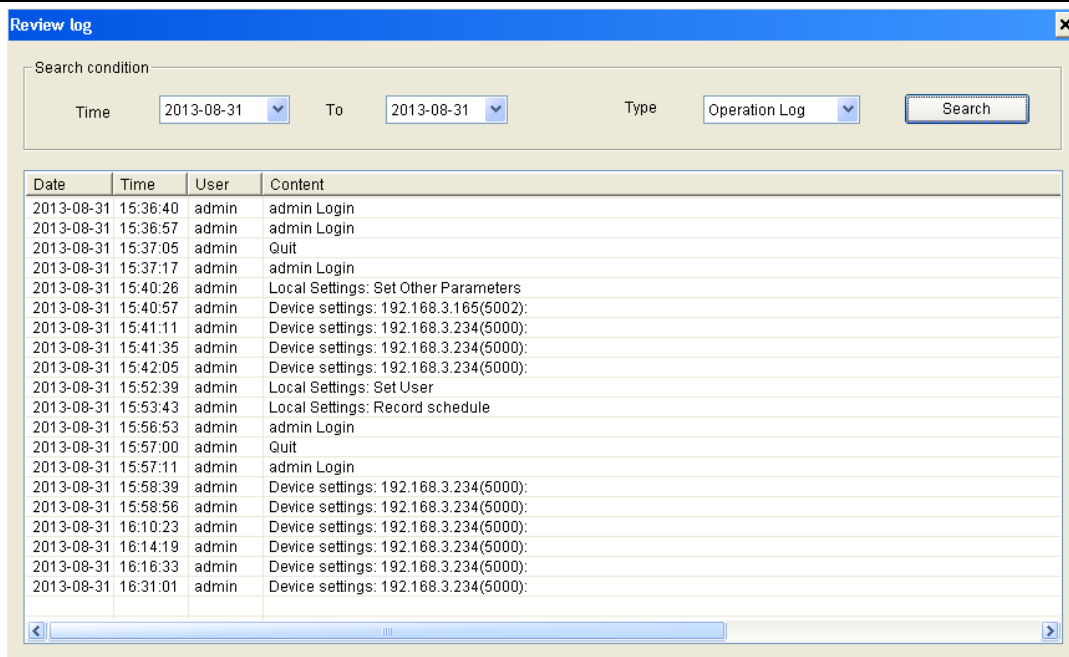
3.3.14 Clear Alarm

Click 【Clr Alm】 button，clear the information of the current interface。

3.3.15 Disp Image

Click 【Image Display Switch】 button，the displayed status after audio turns on:

this button controls the display of images on the screen, it is usually used when the CPU configuration is low and PC decoding cannot meet requirement or on the condition that only recording is needed.

Appendix 1 Default Parameters of Encoder

The default network ports of encoders are:

	80	Web port
TCP	5000	Communication port, audio/video data transmission port, talkback data transmission port
UDP	5000	Audio/video data transmission port
Multi-cast port	Multicast original port + channel number	
ONVIF	2000	

Default network parameters

```
Cabled Network:
    IP Address: 192.168.1.88        Data Port: 5000
    Subnet mask: 255.255.255.0       Web Port: 80
    Gateway: 192.168.1.1             DHCP: Off
Wireless Network:
    IP Address: 192.168.1.160       Frequency: Auto
    Gateway: 192.168.1.1             Mode: Auto
    Subnet mask: 255.255.255.0
```

Default user information

```
Default Administrator Name: admin      Password: admin

Default General User's Name: user1    Password: user1

Default General User's Name: user2    Password: user2

Note: User name and password are case sensitive.
```

Appendix 2 FAQs

1、 What are active connection mode and passive connection mode?

Active connection mode: The surveillance central actively searches for or manually adds IPC network information.

Passive connection mode:IPC actively register network information into surveillance central.

Note：When the device's default mode is passive connection, it means Pro-CMS set in active connection mode;

When the device's default mode is active connection, it means Pro-CMS set in passive connection mode.

2、 The color of images is abnormal (green or other colors).

Solution：Sometimes IPC images cannot display properly for the difference between Graphics Cards, the images appears to be green or other colors, then you should run the program Config.exe to set the following parameters of display buffer: auto-detection, used display card memory, system memory and video width, then restart the program.

3、 There is no sound while monitoring.

Possible Reason: No audio input connection

Solution: Check audio connection of the host

Possible Reason 2: The audio option of IP camera is off

Solution: Check audio parameter settings to see if you have opened the audio.

4、 SearchNVS can't find device.

Possible reason: SearchNVS software adopts multicast protocol to perform searching. But the firewall forbids multicast data packet.

Solution: Disable the firewall.

5、 Image processing doesn't work properly

Possible Reason 1: system issue, DirectX function is disabled, which will cause slow display of images and abnormal color.

Possible Reason 2: hardware issue, graphics card doesn't support image acceleration and hardware

zooming functions.(For hardware issue, the only solution is to replace graphics card)

Solution: install DirectX image drive, then Start→Run→input "DXDIAG"

⚠️ **ATTENTION：Enable DirectDraw speedup, Direct3D speedup, AGP veins speedup in DirectX function. If they can not be enabled, that means DirectX installation fails or hardware not supportive.**

END

Solution: install DirectX image drive, then Start→Run→input "DXDIAG"

35/35