

# Chapter 1 Software Instruction

## 1.1 Summary

This is a Central Control Software with powerful function and Distributed Architecture,integrate many windows,users,languages,bidirectional Talk,video conference,Classic of electronic map,alarm center,be compatible with Other extended products and single directly connected devices surveillance system as one.

This software is only for connecting different devices (DVR,DVS etc...),the manual only descrip the software,for specific equipment features,pls refer to related product manuals.

## 1.2 Features

### 1.2.1 User and Authority management.

Support N level organization management,user management and authority setup.

### 1.2.2 Data interface technology adopted.

All datas adopt data interface technology,so it can support every database sizes very Flexibility,such as SQL,MYSQL,XML data and so on.

### 1.2.3 Support EXCEL edit to add device.

The platform support the user adopt Excel to add and edit devices,it's very convenience for user to maintain quantities of devices,improve system's useability and greatly reduce many works for maintenance

### 1.2.4 Intelligent Video Transport Protocol.

Intelligent Video Transport Protocol can do Maximize the use of network bandwidth,especially on the condition of Front-end network bandwidth limited,when to assure system based on high quality Image in very low network bandwidth,it can work well.

### 1.2.5 Scalable distributed network architecture.

Support multi servers running Coordinated,Intelligent load balancing,Flexibility to add server and Enhance the system capacity Effectively on the condition of Integrity assurance.

### 1.2.6 Perfect video monitoring.

While real time monitoring,system support alarm,recording,auto monitoring record,playback and so on,it can exactly control each channel recording status.

### 1.2.7 Dynamic regulation decoding buffer.

Flexibility in adjusting the Fluency/real-time of video images when real time monitoring which can meet different users need.

### 1.2.8 Adopting shelf technology

Modular Development and flexibly assembled applications.

### 1.2.9 Central management.

Centralized management of data throughout the system and Forwarding of data to provide the perfect multi-user real-time monitoring program.Remote users can real time monitor,record and playback through network.

### 1.2.10 Easy operation

In access control,Users can easily control and set each monitor point through the system,it also could integrates E-map.

### 1.2.11 High integration level

The system integrates other related informations,like Alarm and Voice etc...

### 1.2.12 High reliability

The system designs a special Fault tolerance measures to assure data Integrity and system runing dependability.

### 1.2.13 Good scalability

The system designs for Service,has good Scalability and Adaptability to maximumly protect user investment.

**1.2.14 Support Network management and load balancing.**

**1.2.15 Support multi devices upgrade volumely via network.**

**1.2.16 Support User DIY interface and multi languages.**

**1.2.17 Support 4 channels real time playback.**

**1.2.18 Support connecting multi devices and view many videos(real time monitoring and playback)**

**1.2.19 XML data storage**

# Chapter 2 Installation instruction

## 2.1 Enviroment request of running

### 2.1.1 Hardware.

CPU P4/2.0G

Graphics must support hardware scaling(such as ATI,TNT2 and PRO,but suggest ATI9800 or above,dual channels,Memory(over 128M)/128bit

Note: it needs good configuration for memory,graphics and CPU If many screens need to be decompressed.

Netcard:100/1000M

### 2.1.2 Software.

This CMS can run under Vista,Winxp,Win2000,Win2003 and Win2007,it's not suggestion for windows 98.

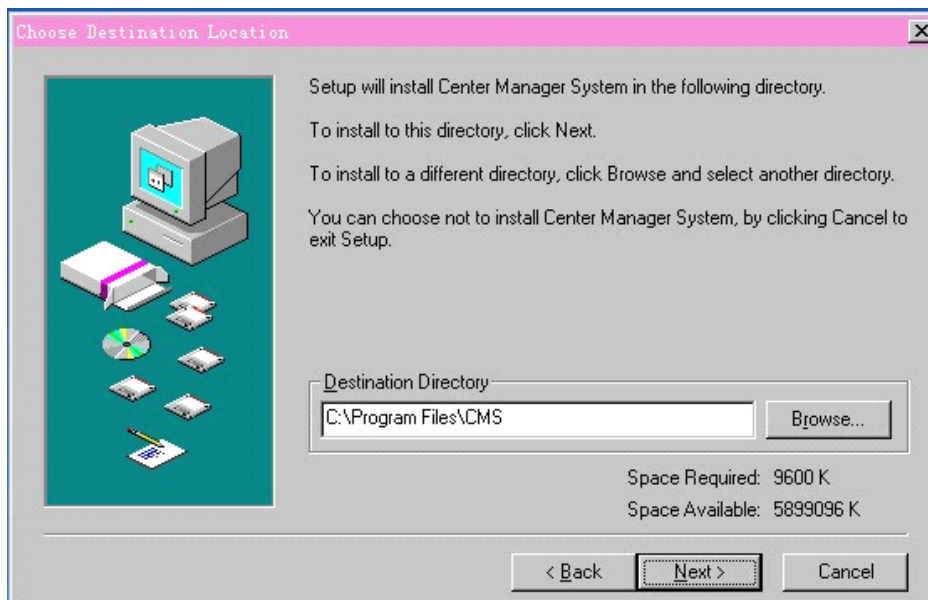
Pls close all Antivirus Software and firewalk so that it can write running program correctly and completely in the control center before installing the software,or it will not search any devices.

## 2.2 Installation step

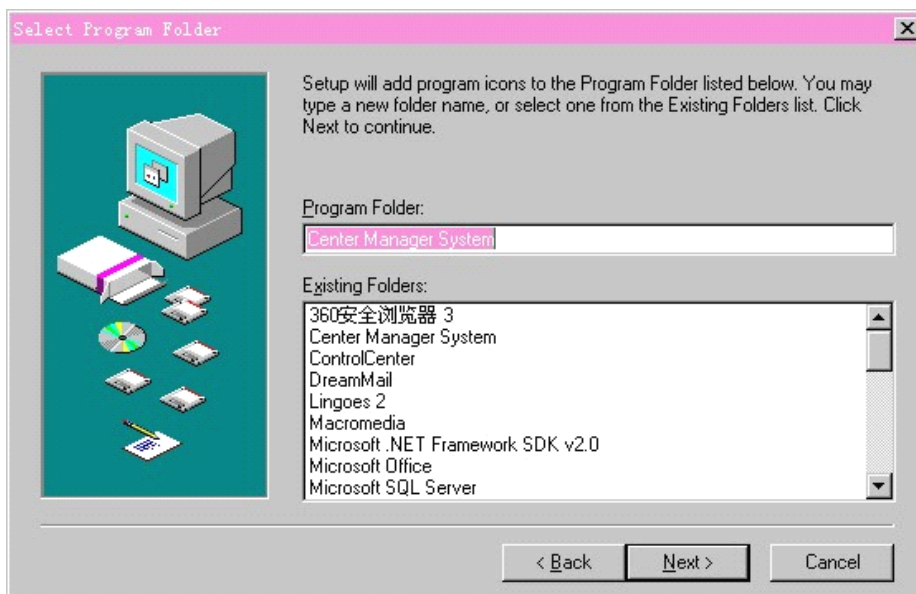
### 2.2.1 Find "CMS\_ChEng\_V1.0.0.6.T.20090315.Exe" in the CD and run it like below pic.



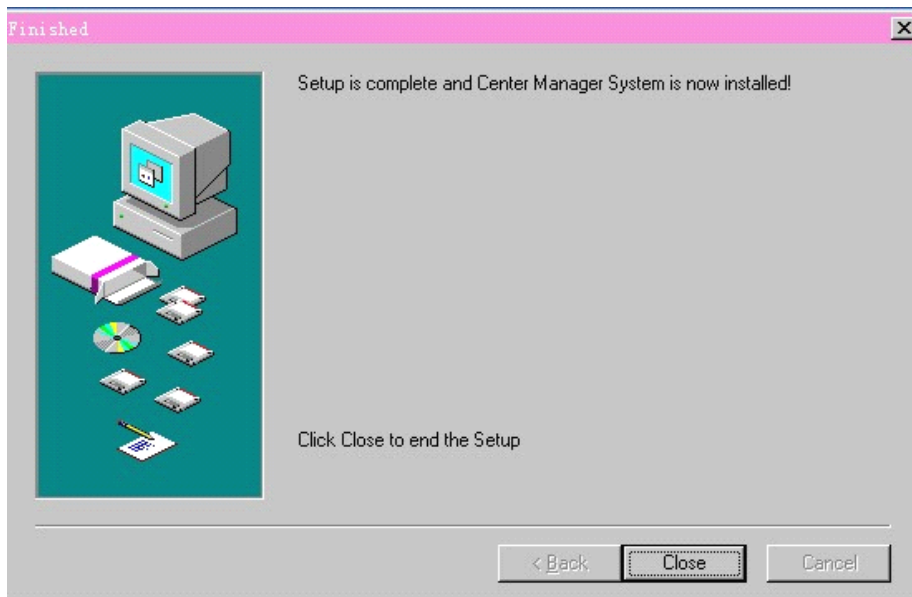
### 2.2.2 Click "Next",then go the below pic.



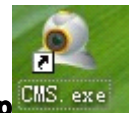
**2.2.3 Click "Browser" to select setup path(default path "C:\Program Files"),then click "Next" to select Start Menu folder like below pic.**



**2.2.4 Click "Next" to start setup and end setup like below pic.**

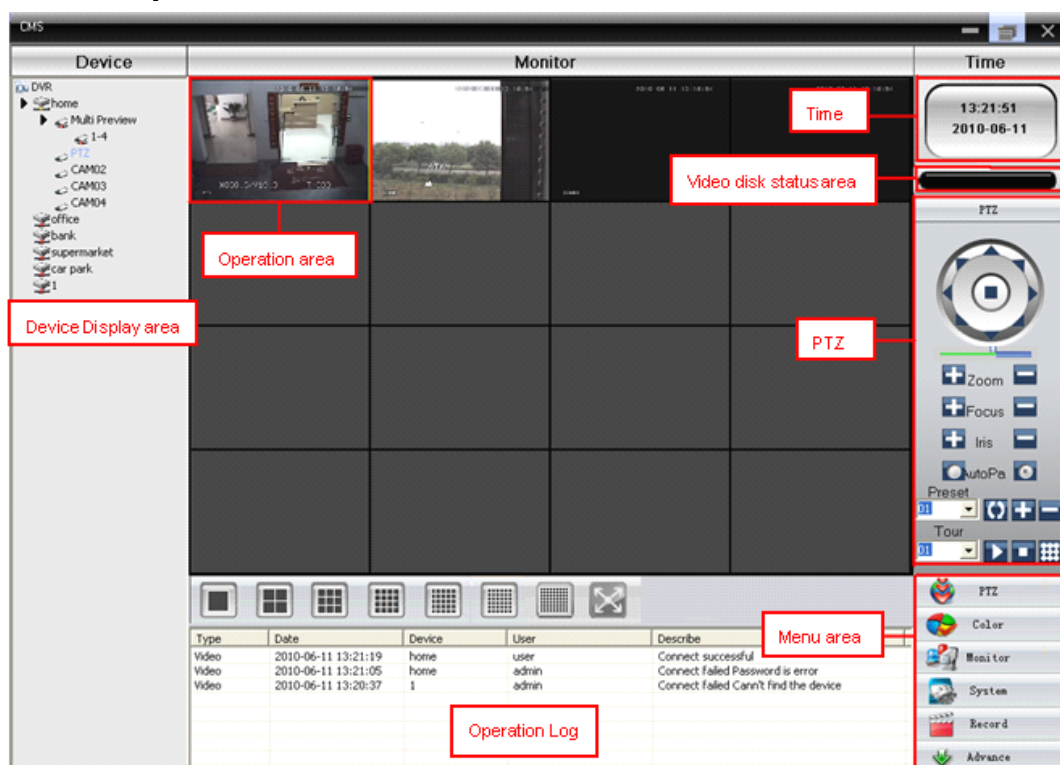


**2.2.5 Click "Finish" to end the setup,at the time it will come up this icon in the desktop  
Pls follow Chapter 3,4,5 instructions to operate this software after finish installation.**



## Chapter 3 Introduction of basic functions

### 3.1 CMS Operation Main Menu



#### 3.1.1 Device display area

In this area, you can preview live screens by device and super account administrator setting, click device name or channel group to change channels.

#### 3.1.2 Operation area

You can preview live screens, and setup parameters when system configuration and video searching in this area.

#### 3.1.3 Time

#### 3.1.4 Video disk status area

It can display the rest disk spaces where video files store

#### 3.1.5 PTZ

#### 3.1.6 Operation log

It will display any operation informations when setup and operating.

#### 3.1.7 Menu Area

Users could set single menu and sub-menu in this area, select relevant menus to operate video surveillance system in the control center.

**Diagram 1 Menu Configuration**

No.	First Menu	Second Menu	Third Menu	Function & Instruction	Operating right
1	Preview			Click preview button "Monitor" to choose a preview of the screen, touring & switching among all channels and snapshot pictures of the screen. Shup down/open preview menu	Admin/User
2	PTZ			Controlling the speed cameras to go up, down, left, right and stop by operating panel, adjusting speed, zoom, focus, iris and auto pan, preseting and touring.	Admin/User

3	Color			Set brightness,contrast,saturation and hue for video screen	Admin/User
4	System	Device manager	Add zone	Add zone for all devices	Admin/User
			Add device	Add video surveillance devices	Admin/User
5			Modify	Modify device name,ip address,user name and password	Admin/User
6			Delete	Delete video surveillance devices	Admin/User
7		Local Config	Base config	Select disk,disk list and logs maintenance	Admin/User
8			Alarm setting	Enable audio activated by alarm	Admin/User
9		Account	Group	Add and delete users' operating rights	Admin
10			User	Add,delete and manage users: Set user name,password and operating rights of menu	Admin
11		Local Log		Search alarm log and operation log in set time area.	Admin/User
12	Record		Playback	Search record file and playback	Admin/User
13			Record Plan	Set record time for every day	Admin/User
14	Advance	Decoder		Set DVR and decoder	Admin/User
15		Map		Using this map,it can visually show every cameras location and find current monitoring page directly	Admin/User









## Chapter 4 Monitor

In the menu area,click "Monitor",it will turn to preview screen.

Monitor functions: Preview,PTZ and video specification configuration.

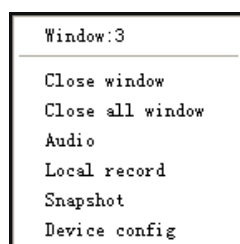
### 4.1 Preview

Diagram 2 Functions and instructions of preview

No.	Button	Meanings
1		click it to preview full screen for every channel
2		click it to preview 4 screens
3		click it to preview 9 screens
4		click it to preview 16 screens
5		click it to preview 25 screens
6		click it to preview 36 screens
7		click to to preview 64 screens
7		click it to enter full screen interface

### 4.2 Right-click Menu

At operating area,user can do below operation by right-click:



Close window: close the current screen

Close all window: close all the current screens

Audio: click it and hear the voices from preset screens

Local record: click it to record at current channel and save the record at the relevant disk.

Snapshot: Capture pictures from current channel at any time and save it to relevant disk.

Device config: click it and go to device configuration interface.


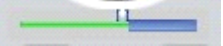
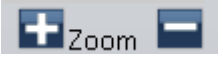


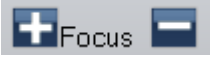


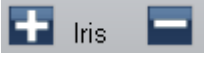





### 4.3 PTZ Control

When speed cameras are connected with DVR,user can control it at this center,turn up,down,left and right,stop running,adjust turning speed,zoom,focus and iris,preset and tour configuration.When user enable touring function,the

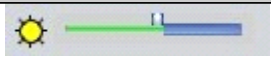
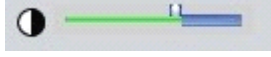
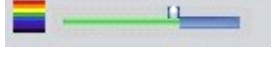
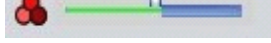


speed cameras will tour according to preset.

Function:

No.	Button	Meanings
1		▲ means "turn", ■ means "stop turning"
2		Drag this pole to adjust speed rate
3		Click  to zoom in; Click  to zoom out
4		Click  to focus in; Click  to focus out
5		Click  to iris it; Click  to iris out
6		
7		Set a location for the preset, calls the preset points, PTZ automatically turns to the setting position, add, delete and config preset point
8		Multiple preset points connected tour lines, call touring between points, the PTZ run around on the line

## 4.4 Color

No.	Button	Meanings
1		Brightness
2		Contrast
3		Saturation
4		Hue

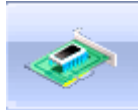
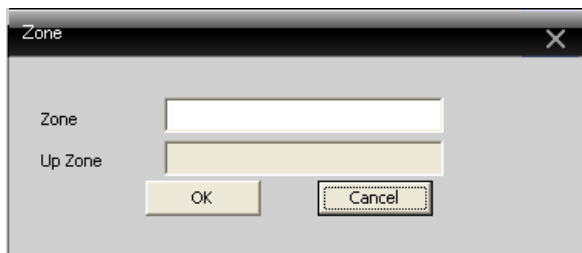
Picture 4-3 Color

**Note:** Click  to resume Initial values

# Chapter 5 System

## 5.1 Device manager

**5.1.1 Click**  **to add zone, see below:**



**5.1.2 Click** to add device, see below picture:

Device Name: Device name

Domain: Domain name by external network such as xxxx.3322.org; xxxx.dyndns.org; xxxx.oray.org etc...

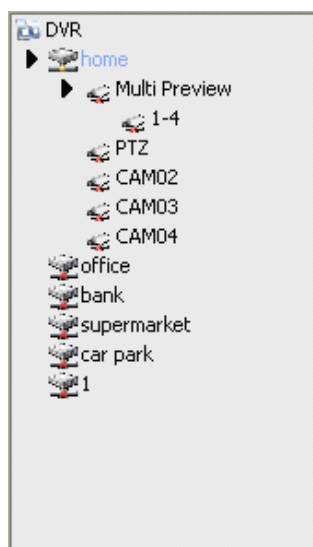
IP Address: IP address

Port: TCP port

User Name: User name

Password: Password

Click "OK" after you have done above parameters, see below picture, you could only doubleclick to open this device.



Note: Choose only one of Domain name and IP address



### 5.1.3 Click to modify device, see below picture:

Edit

Device Name: home

☐ Domain: xxxxx.dyndns.org

IP Address: 10 . 6 . 2 . 89

Port: 34567

User Name: admin

Password: xxxxxx

Zone: DVR

OK Cancel

After finishing all the modifications, click "OK"

### 5.1.4 Delete device



Choose the devices which you want to delete, then click

Note: Please make sure the device is disconnected before modifying and deleting it.

## 5.2 Local Device

### 5.2.1 Base Config

See below picture:

Base Config Alarm Setting

Record Set

☐ Overwrite Length: 15

Disk List

Storage	Total Size(MB)	Used Size(MB)	Free Size(MB)	Free Percent
<input type="checkbox"/> C:\	29989	9534	20455	% 68
<input type="checkbox"/> D:\	91000	9702	81298	% 89
<input type="checkbox"/> E:\	92005	3344	88661	% 96
<input type="checkbox"/> F:\	92224	2598	89626	% 97

Log Maintenance

Alarm log keep days: 30 ☒ Show alarm log

Operation log keep days: 30

☐ Automatically connect with the last m

Picture DIR: E:\CMS-LOGO\Picture

Record DIR: E:\CMS-LOGO\Record

☐ Save local record as AVI

Sync time with PC

Every Sun At 00:00

Version Info	
Video: 1.0.0.4	Net: 1.0.0.0
Decoder: 1.0.0.3	Playback: 1.1.0.16
Device Config: 1.1.0.24	
Language: <span>English</span>	

Overwrite: Click it, then it will cover the old records when HDD is full

Length: Time length for 1 record file

Disk List: C,D,E,F

Log Maintenance: Alarm and Operation log keep days

Picture DIR: Picture storage location by snapshot

Record DIR: Record storage location by local recording

Sync time with PC: Adjusting device and PC in order to make both at the same time

Version Info: CMS's version(video,net,decoder,playback and device config)

Language: Choose language for CMS

## 5.2.2 Alarm setting

Device list: Choose 1 device to set alarms

Alarm Enable: Click it to make sure all alarm functions available

Alarm Prompt Sound: Select any alarm prompt sound which you like

Sound File Path: Browse and choose prompt sound

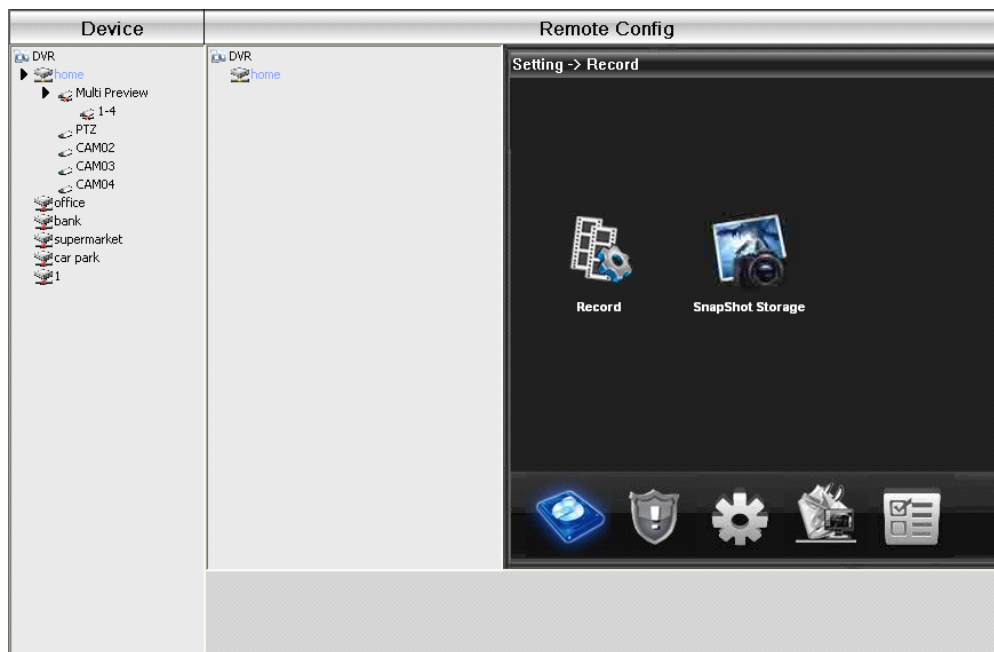
Auto Watch Warn: Choose it to add following channels by alarm activated

Note: Please go to choose alarm type first

I/O Trigger	Video Motion	Video Blind	Video Loss
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## 5.3 Remote Config

Select a device first, then set its configurations, see below picture:



**5.3.1 Record:** Click to go into record interface



Set record length, period, type etc...see below picture:

**Setting -> Record -> Record**

Channel  Redundancy ☐

Length  Min PreRecord  Sec

Record ☒ Timing ☐ Manual ☐ Stop

Week  Regular Detect Alarm

Period	Start Time	End Time	Regular	Detect	Alarm
Period1	0 : 0	8 : 1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Period2	8 : 1	18 : 0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period3	18 : 0	24 : 0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Period4	0 : 0	24 : 0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Copy Paste Refresh OK Cancel

**Snapshot Storage:** Set presnapshot,snapshot type and period,see below picture:

**Setting -> Record -> SnapShot Storage**

Channel

PreSnap  Pictures

Record ☒ Timing ☐ Manual ☐ Stop

Week  Regular Detect Alarm

Period	Start Time	End Time	Regular	Detect	Alarm
Period1	0 : 0	24 : 0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Period2	0 : 0	24 : 0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Period3	0 : 0	24 : 0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Period4	0 : 0	24 : 0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Copy Paste Refresh OK Cancel



**5.3.2 Alarm:** Click to go into alarm configuration,see below picture.



Alarm activation configuration(motion detect,video blind,video loss and alarm in),see below picture.

The screenshot displays the "Alarm activation configuration" settings window. It includes the following fields and controls:

- Channel:** A dropdown menu set to "1".
- Enable:** A checked checkbox.
- Sensitivity:** A dropdown menu set to "Middle".
- Region:** A button labeled "Setting".
- Period:** A button labeled "Setting".
- Interval:** A numeric input field set to "1" with the unit "Sec".
- Alarm Output:** A numeric input field set to "1".
- Delay:** A numeric input field set to "10" with the unit "Sec".
- Record Channel:** A row of four buttons labeled "1", "2", "3", and "4".
- Tour:** A row of four buttons labeled "1", "2", "3", and "4".
- Snapshot:** A row of four buttons labeled "1", "2", "3", and "4".
- PTZ Activation:** A button labeled "Setting".
- Delay:** A numeric input field set to "10" with the unit "Sec".
- Show Message:** An unchecked checkbox.
- Send Email:** An unchecked checkbox.
- Buzzer:** An unchecked checkbox.
- Buttons:** A row of five buttons labeled "Copy", "Paste", "Refresh", "OK", and "Cancel".

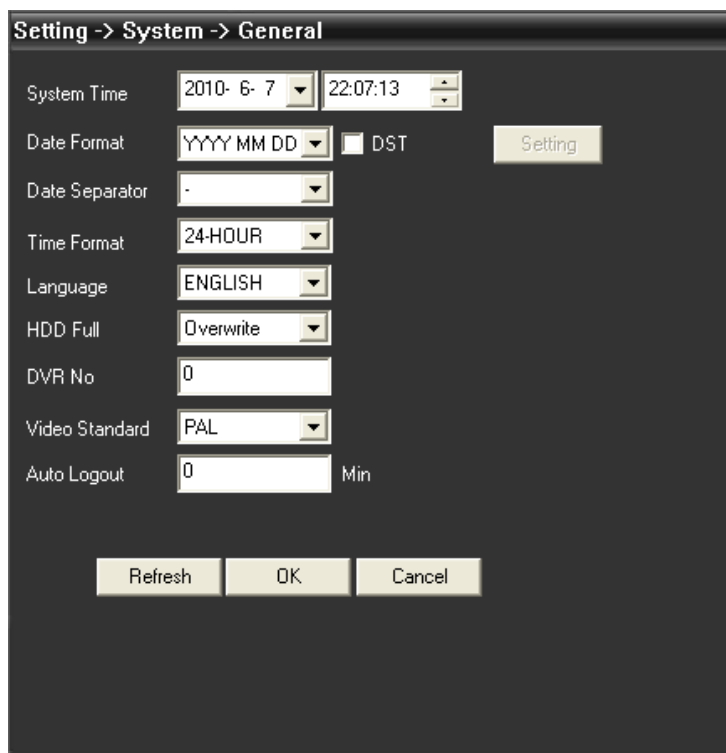
### 5.3.3 System



Click to go into system set interface,see below picture.



**General:** Set system time, language, video standard, DVR No., auto logout and so on, see below picture.



**Encode:** Set dvr specifications of resolution, FPS, video quality etc... see below picture.



**Setting -> System -> Encode**

Channel	1	Combine Encode	<input checked="" type="checkbox"/>
Compression	H.264	Mode	NarrowBand
Resolution	D1(704x576)		CIF(352x288)
FPS	25		16
Bit Rate Type	VBR		VBR
Quality	Good		Good
Bit Rate(Kb/S)	1536		355
I Frame Interval	2		2
Video/Audio	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		

Copy Paste Refresh OK Cancel

**Network:** Set IP address,port,DNS etc...in order to remote monitor by network and mobile,see below picture:

**Setting -> System -> Network**

Net Card: Wire Netcard ☐ DHCP Enable

IP Address: 10 . 6 . 10 . 10

Subnet Mask: 255 . 255 . 0 . 0

Gateway: 10 . 6 . 0 . 1

Use DNS server address below-----

Primary DNS: 221 . 12 . 1 . 227

Secondary DNS: 221 . 12 . 33 . 227

TCP Port: 34567

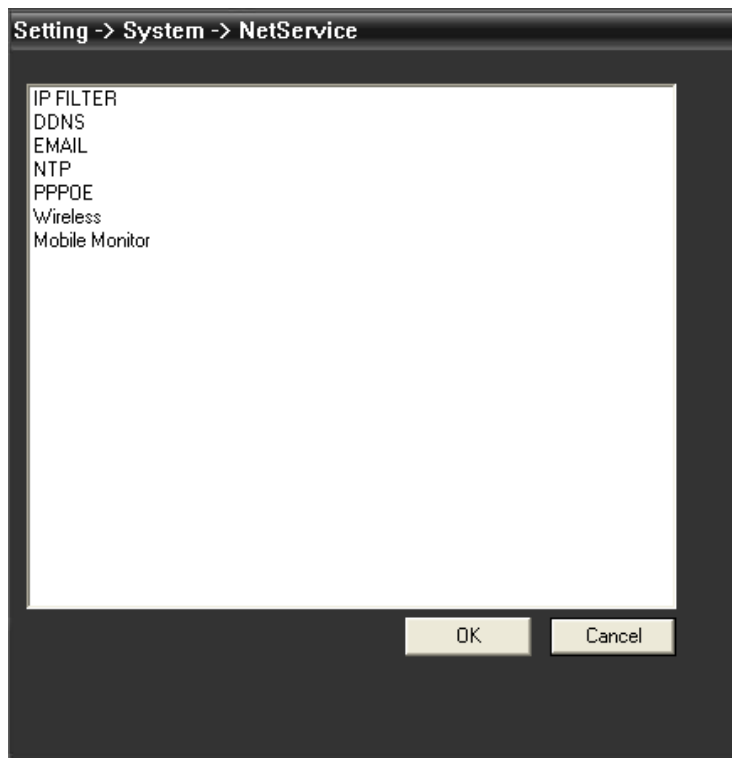
HTTP Port: 80

☐ High Speed Download

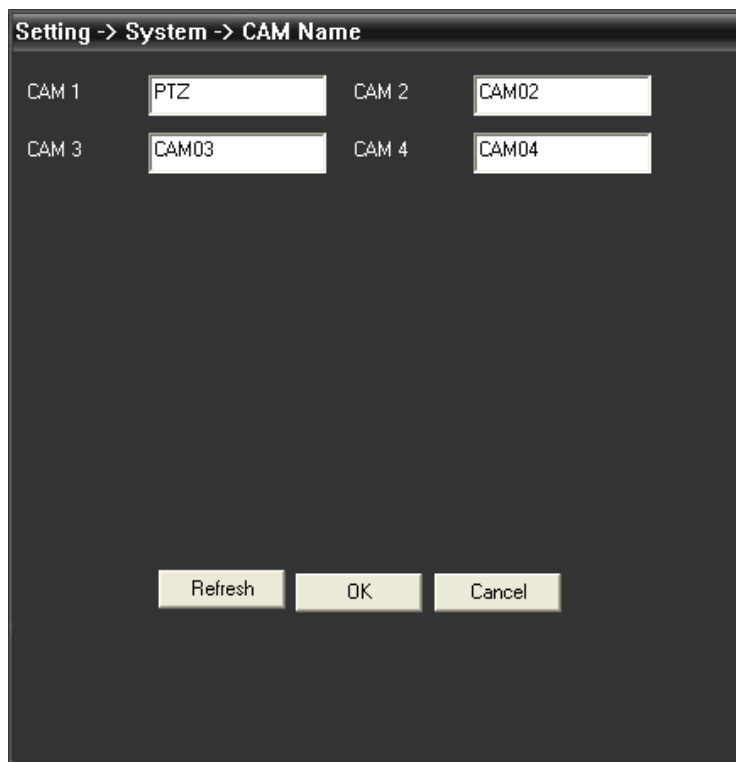
Transfer Policy: Fluency Preferred

Refresh OK Cancel

**NetService:** Set IP filter,DDNS,Email etc...see below picture



**CAM Name:** Add or modify camera name by your need, see below picture



**PTZ config:** Set PTZ parameters to make sure the same as speed cameras.

Setting -> System -> PTZ Config

Channel	1
Protocol	PELCOD
Address	3
Baudrate	9600
Data Bits	8
Stop Bits	1
Parity	None

Copy Paste Refresh OK Cancel

**RS232:** Set RS232 port configurations, see below picture.

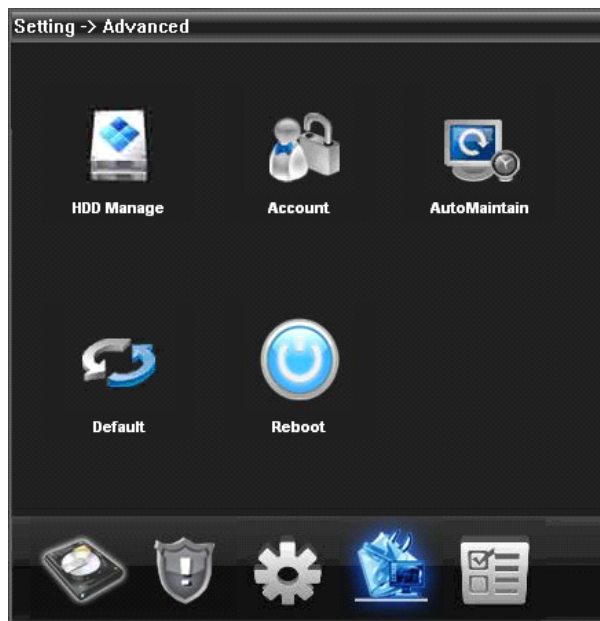
Setting -> System -> RS232

Function	Common Typ
Baudrate	115200
Data Bits	8
Stop Bits	1
Parity	None

Refresh OK Cancel

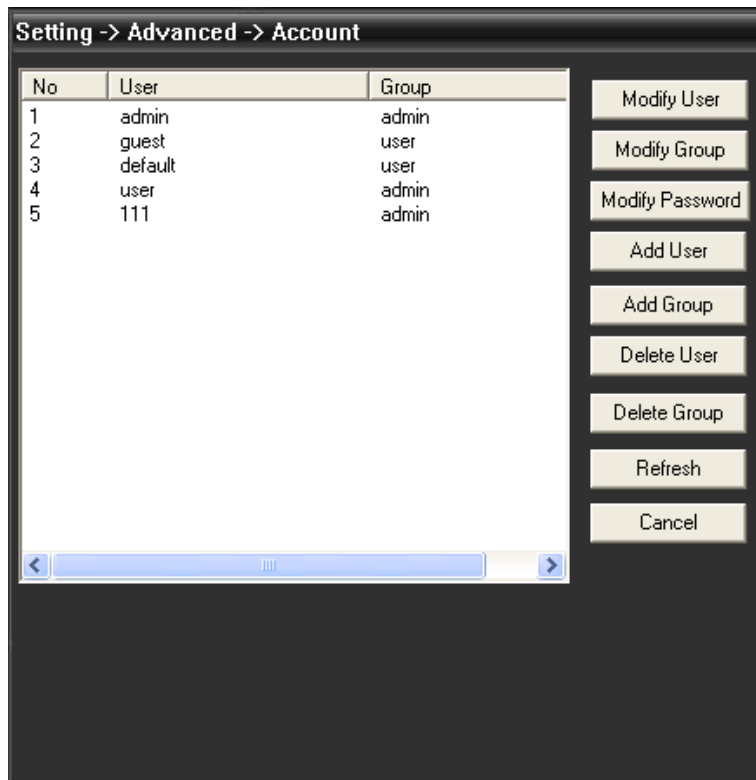


**Advanced:** Click to go into advanced interface, see below picture.



### HDD manage

**Account:** Modify User,group,password,add user,group etc...see below picture:



**AutoMaintain:** Set Auto-Reboot time and files management,see below picture

**Setting -> Advanced -> AutoMaintain**

Auto-Reboot System

Every Tue At 01:00

Auto-Delete Old Files

Never

Refresh OK Cancel

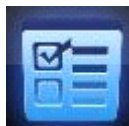
**Default:** Restore to factory settings

**Setting -> Advanced -> Default**

Please select setting entries that you want to default

Select all	<input type="checkbox"/>
General	<input type="checkbox"/>
Record	<input type="checkbox"/>
Network	<input type="checkbox"/>
GUI Display	<input type="checkbox"/>
Account	<input type="checkbox"/>
Encode	<input type="checkbox"/>
Alarm Set	<input type="checkbox"/>
NetService	<input type="checkbox"/>
PTZ Config	<input type="checkbox"/>

OK Cancel



**Info.** Click to go into system info interface, see below picture:

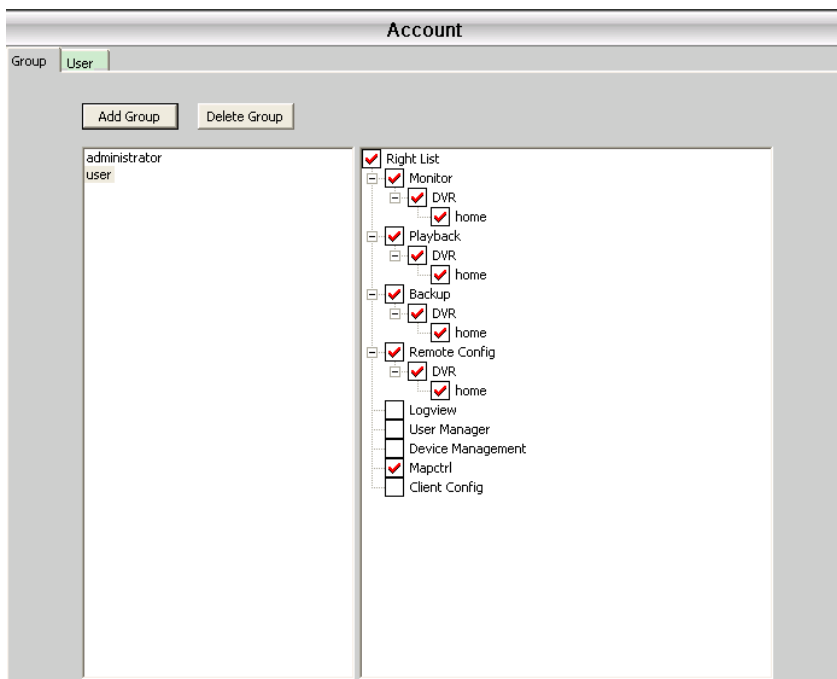


In system info,there are HDD info,LOG and Version.

## Chapter 6 Account

### 6.1 Group

Add&delete group and set group right,see below picture:



### 6.2 User

Add&delete user and modify password

The screenshot displays the 'Account' management interface. At the top, there are tabs for 'Group' and 'User'. Below these are three buttons: 'Add User', 'Delete User', and 'Modify Password'. A table lists existing users, with 'super' in the 'User' column and 'administrator' in the 'Group' column. A modal dialog titled 'User' is open, featuring a 'Group' dropdown menu set to 'administrator', and input fields for 'User Name', 'Password', and 'Confirm'. 'OK' and 'Cancel' buttons are at the bottom of the dialog. A blue progress bar is visible at the very bottom of the screen.

## Chapter 7 Local Log

User could search menu operation log,alarm log and other logs by time,see below picture.

[illegible]





# Chapter 8 Record

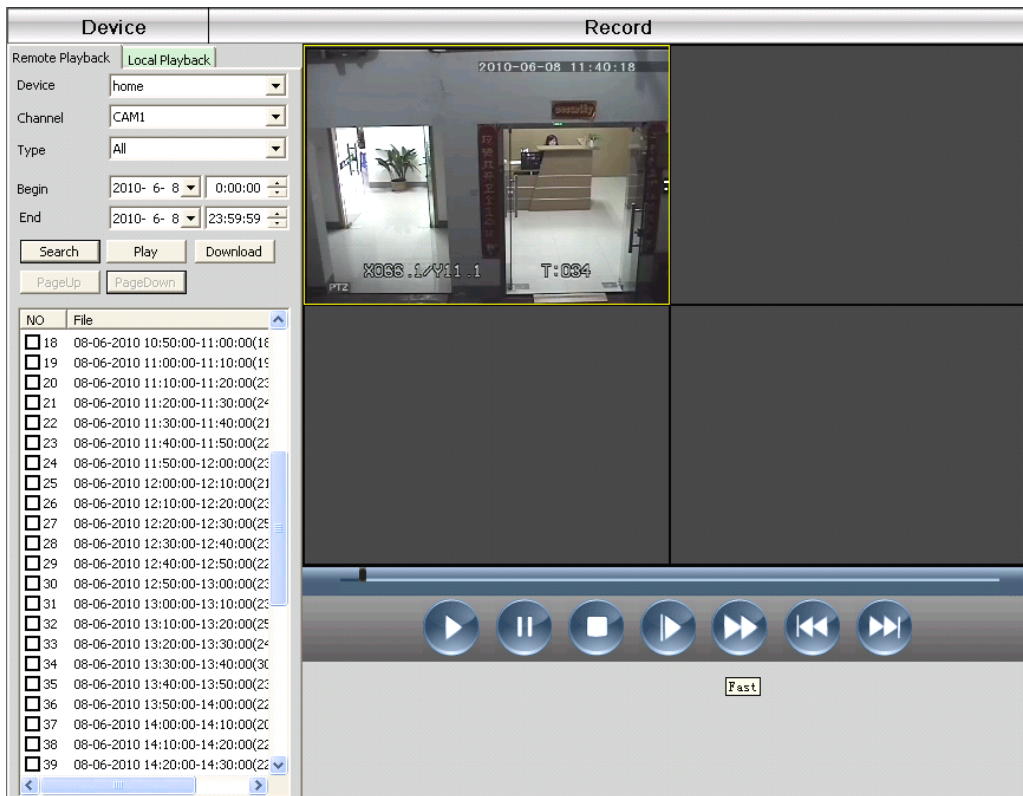
## 8.1 Playback

There are 2 playback modes---Remote playback and Local playback.

Remote playback: Playback at Device-side.

Local playback: Playback at Client-side.

User could playback record files of any times,max playback channels are 4.



### Button instruction

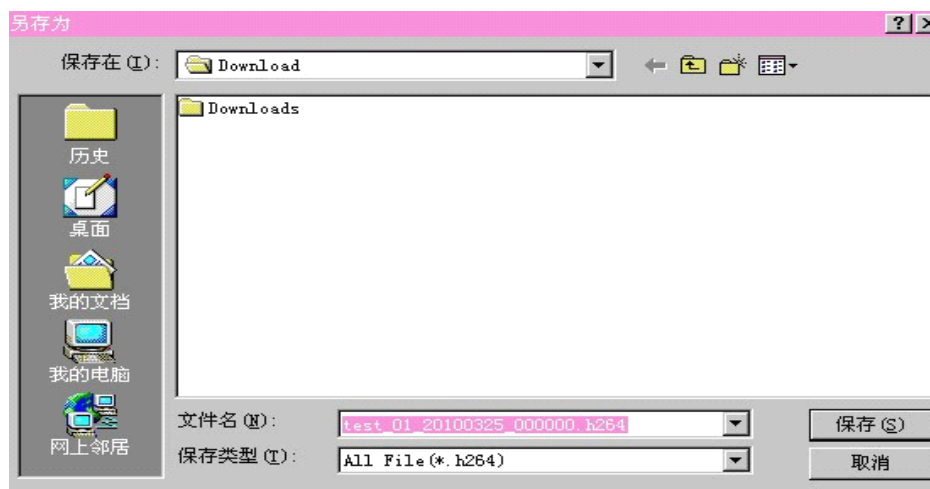
No.	Button	Meanings
1		Play
2		Pause
3		Stop
4		Slow play
5		Fast play
6		Last frame
7		Next frame

## 8.2 Downlaod & Backup

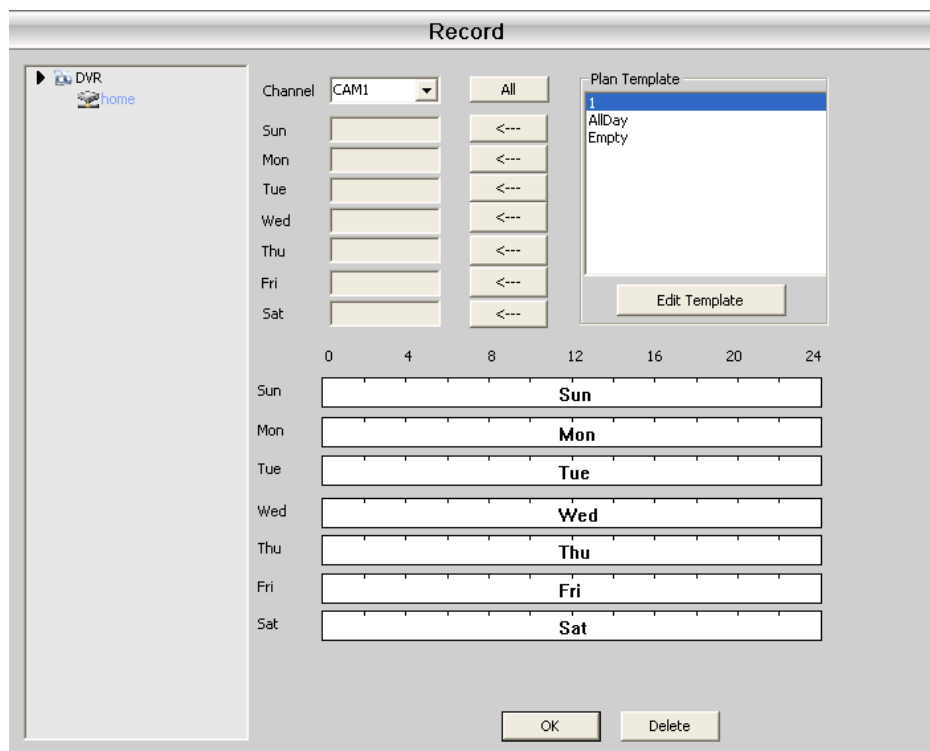
User could playback record files at set time and channels,select record fines,click "Download/Backup" and select "save directory".

**Note:** Remote playback----Download

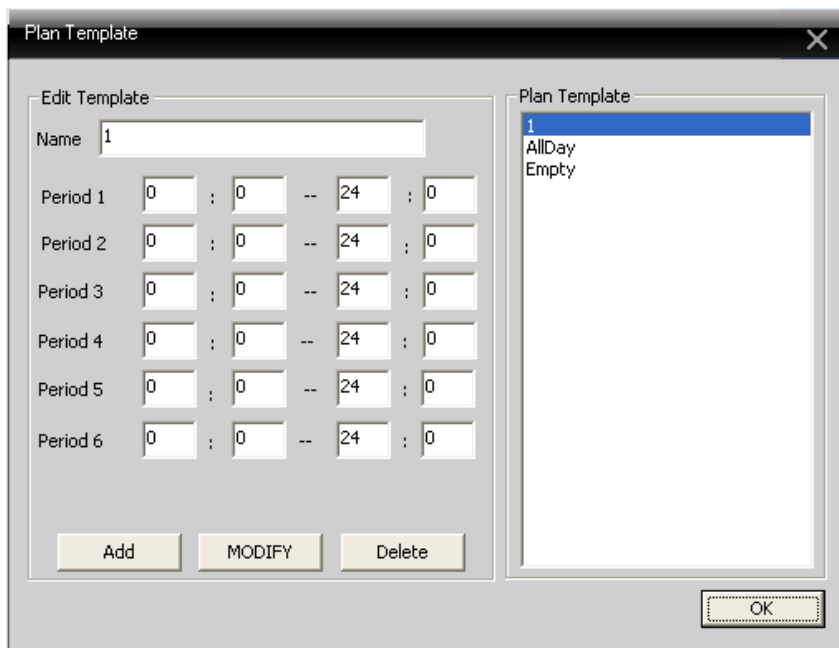
Local playback---Backup



**8.3 Record plan:** Set your record plan on any clocks and days,see below picture:



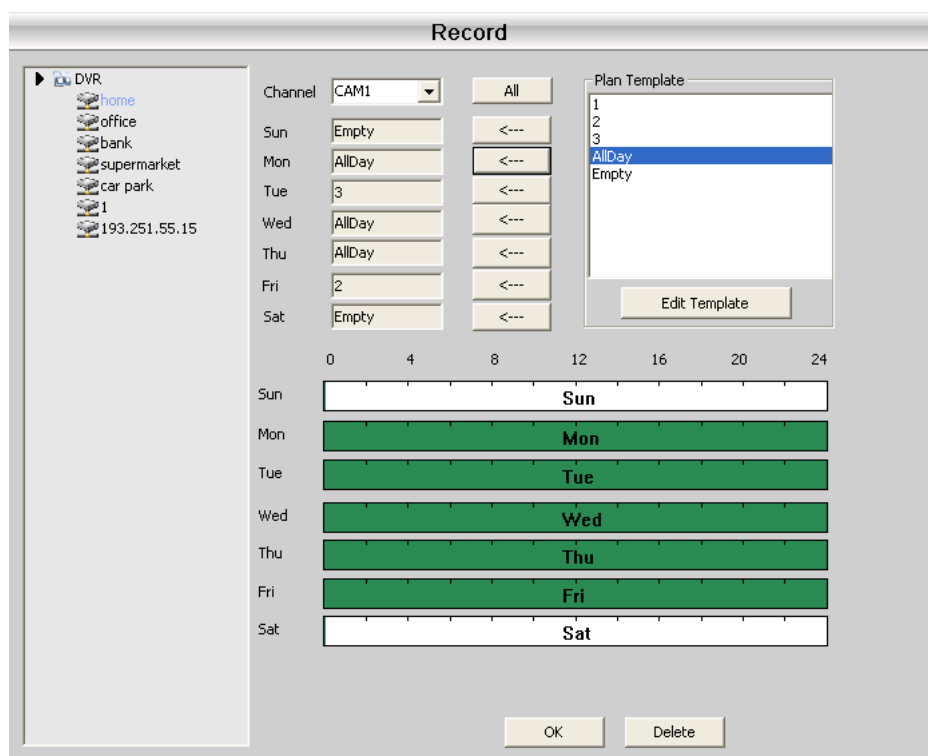
Edit Template,see below picture:



The 'Plan Template' dialog box is used to create a new recording plan. It features an 'Edit Template' section on the left with a 'Name' field set to '1' and six 'Period' rows. Each period row contains four input fields for start time, end time, duration, and a checkbox, all currently set to 0. Below these are 'Add', 'MODIFY', and 'Delete' buttons. On the right, a 'Plan Template' list shows '1', 'AllDay', and 'Empty', with '1' selected. An 'OK' button is at the bottom right.

After set name,then click "add" and "OK"

Choose "channel" first,then go to set record time from Monday to Sunday.



The 'Record' dialog box is used to configure recording settings. On the left, a 'DVR' tree shows locations like 'home', 'office', 'bank', 'supermarket', 'car park', '1', and '193.251.55.15'. The 'Channel' dropdown is set to 'CAM1'. A table shows recording status for each day of the week: Sun (Empty), Mon (AllDay), Tue (3), Wed (AllDay), Thu (AllDay), Fri (2), and Sat (Empty). To the right, a 'Plan Template' list shows '1', '2', '3', 'AllDay', and 'Empty', with 'AllDay' selected. Below this is an 'Edit Template' button. At the bottom, a 24-hour timeline (0 to 24) is shown with colored bars for each day: Sun (white), Mon-Fri (green), and Sat (white). 'OK' and 'Delete' buttons are at the bottom.

**Note:** After set record plan,If it need to record,please make sure the below 3 points:

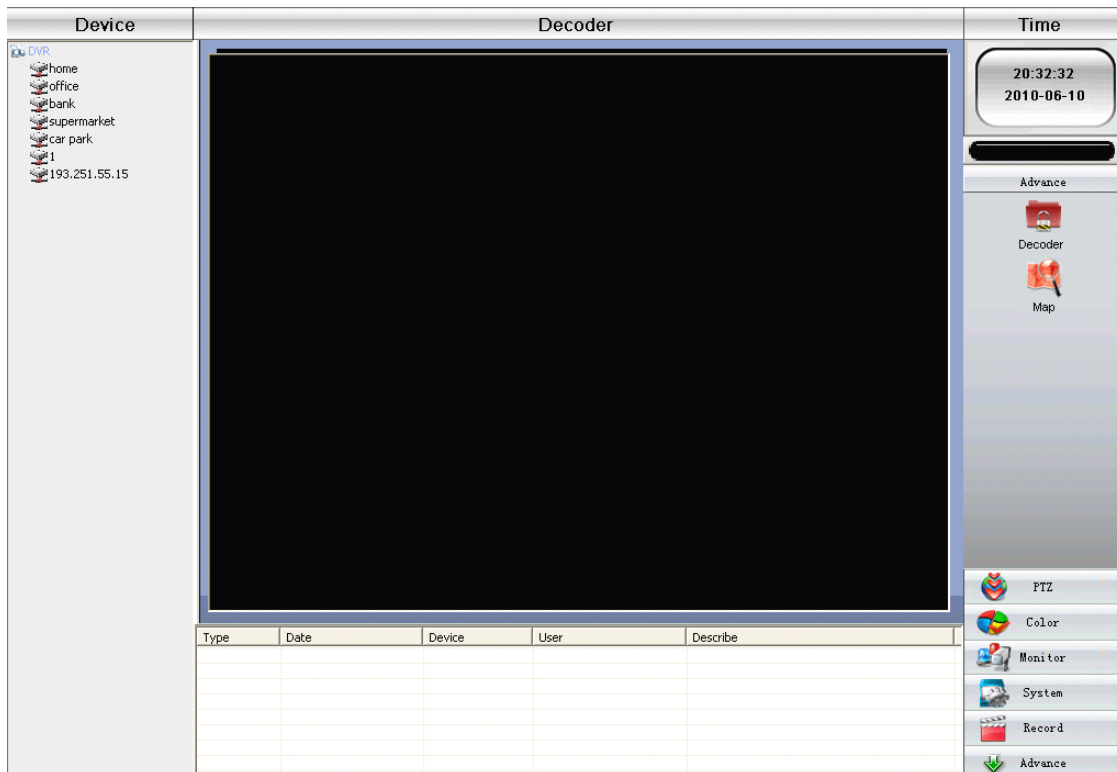
- 1.Choose disk for recording at Local config.
2. Make sure the device is connected to network.
3. Make sure local computer is always open.

## Chapter 9 Advanced

It contain two options---Decoder and Map.

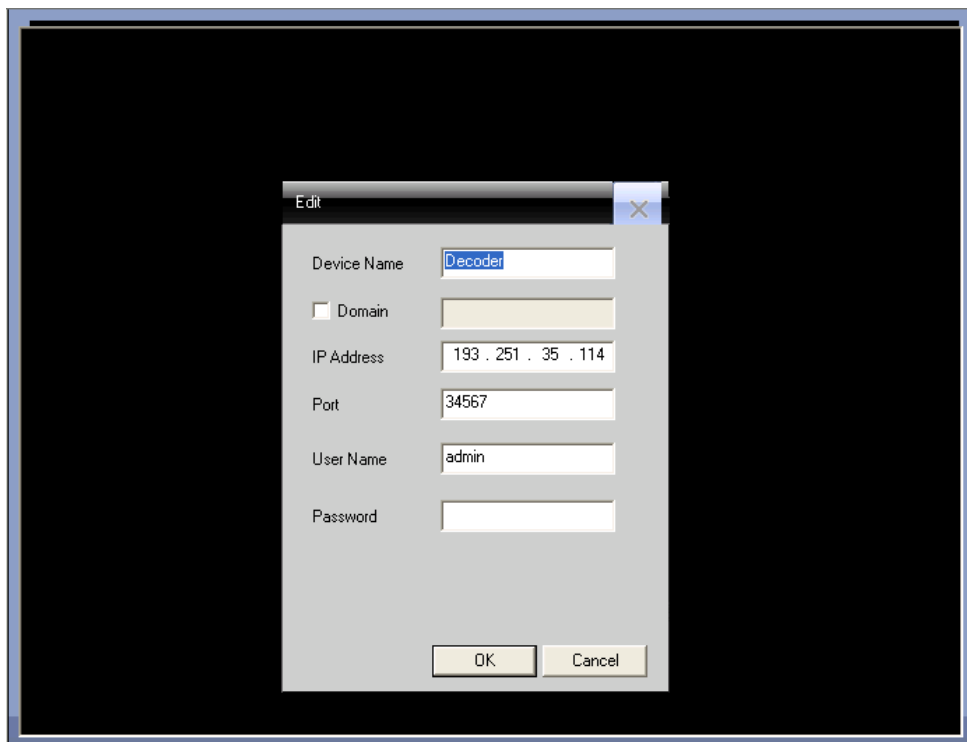
### 9.1 Decoder

It can manage and config remote decoder very easy,see below picture:



#### 9.1.1 Add decoder

Right-click to add decoder,see below picture:



Device Name: Name of decoder,it's set by yourself

Domain: Domain name of decoder

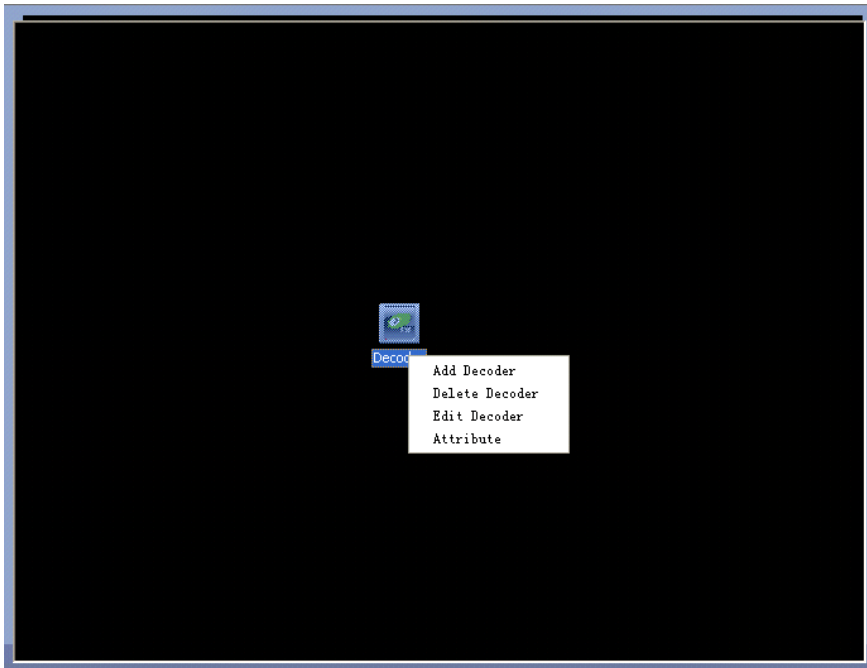
IP address: IP address of decoder

Port: TCP port,default is 34567

User Name: Login name of decoder,default is admin

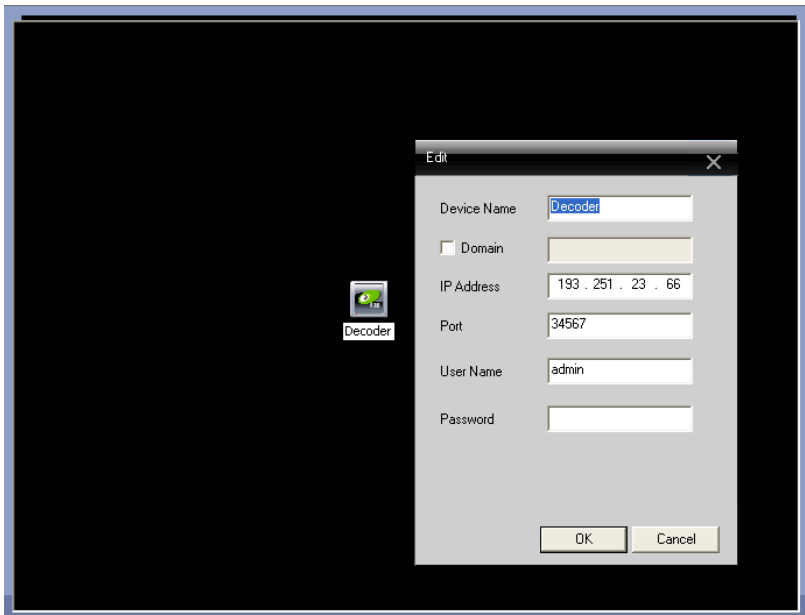
Password: Password of decoder

After you add decoder successfully,it will come out a "decoder" ico in this interface,right-click this ico to edit,delete and set attribute.



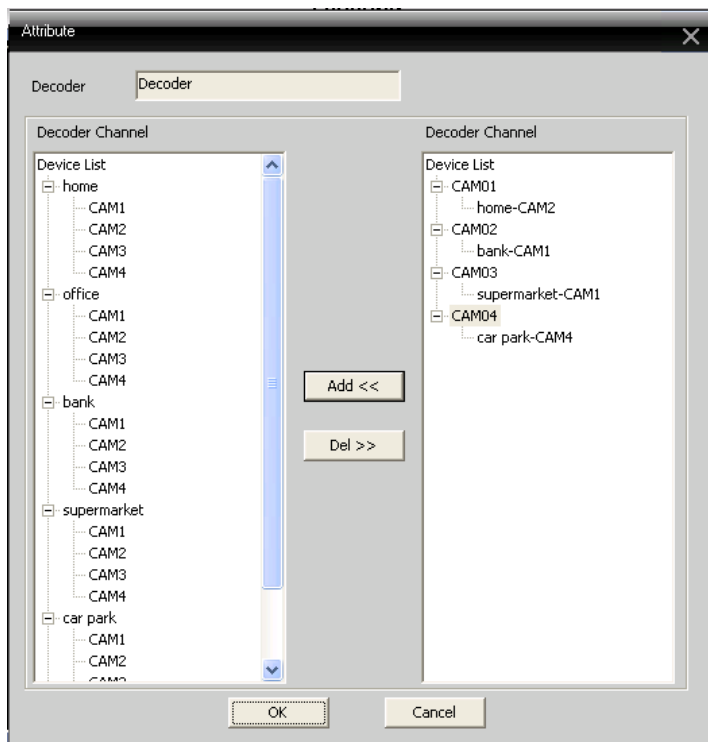
### 9.1.2 Edit

Right-click decoder ico to "edit decoder",see below pictures:



### 9.1.3 Set decoder Attribute

Right-click to click "Attribute",see below picture:



In the device list of left side,select 1 camera,then select 1 camera of right side,at last click "Add" in the center,for example:

See above picture,

Decoder CAM01 decode output for "home-CAM2"

Decoder CAM02 decode output for "bank-CAM1"

Decoder CAM03 decode output for "supermarket-CAM1"

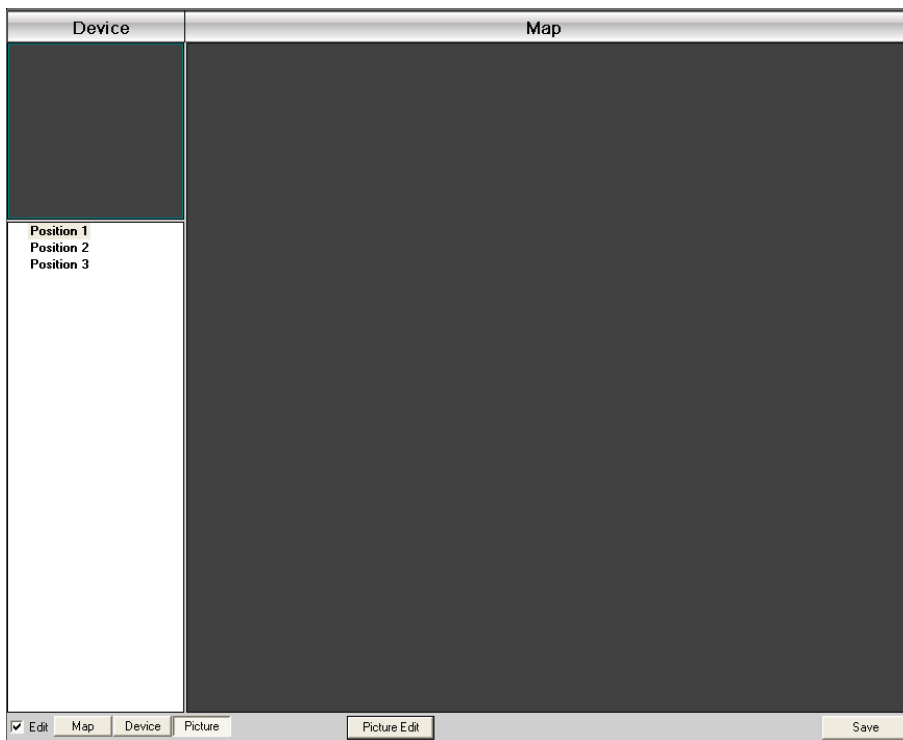
Decoder CAM04 decoder output for "car park-CAM4"

Delete decoder

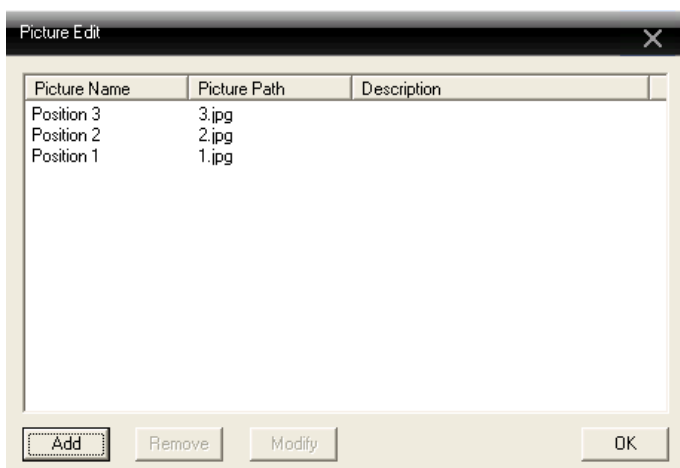
Right-click to delete decoder

## 9.2 E-MAP

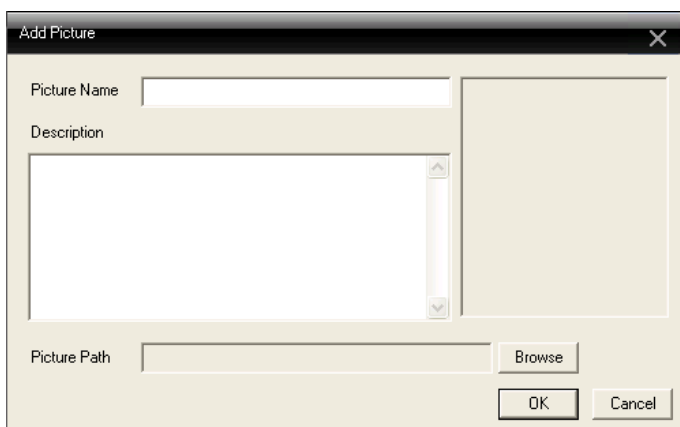
E-MAP is a plan for simulating live screen,user can use it to add & delete cameras and set e-map alarm activation,see below picture:



1.Click "Edit" first at the left bottom,then click "Picture Eidt",see below picture:



2.Click "Add" to add picture,see below picture:



3.After set picture name,description,picture path,then click "OK" back to main interface.

Click "Picture" and drag 1 picture to the right side,see below picture:



4. Click "Device" to drag device's channel to the map, then the channel name will appear at the map, double-click it to name and describe it.

## Appendix A Abbreviations

Abbreviation	Full name	Chinese meaning
CMS	center manager system	网络视频控制中心
DVS	Digital Video System	数字视频监控系统
PTZ	Pan/Tilt/Zoom	云台设备
TCP/IP	Transmission Control Protocol / Internet Protocol	传输控制协议/互联网协议



## Appendix B      Main parameters

Video Compression			H.264 main profile
Audio Compression			G711A
Video Resolution			D1/HD1/CIF/QCIF
Display resolution	Resolution	NTSC	704 x 480
		PAL	704×576
	Rate	NTSC	30FPS
		PAL	25FPS
Frame rate			30/25(NTSC/PAL) F/S
Video input			BNC input
Audio input			RCA input
Type of compressed code			Combine code
Rate of compressed code			32kbps ~ 2048kbps(adjustable)
Network Procotol			TCP/IP,static IP , DHCP , PPPoE
Net Interface			10/100M RJ45
PTZ procotol			Pelco-P/ Pelco-D/ Minking/ Linlin/ Neon/ Star/ Vido etc...
Remote Monitor			IE browse,CMS and Mobile