

CMS USER MANUAL

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Preface

Central management software is a typical client management program providing a common platform to centralize all devices to attain a single unified system. This greatly improves the efficiency of control and operation for all digital video recorders, IP-camera, DVS, etc through the network. This manual will help you to familiarize with the software and master its operation methods. Here we will take DVR connection for example.

The users can use this feature rich CMS to control, monitor and manage multiple DVRs remotely user friendly GUI.

1 Introduction

Central Management Software is a client application designed especially for embedded digital video recorders, network video servers, IP-camera and software compressed cards for remote centralized management of multiple devices. In the video surveillance system, the administrator can control video input devices and configure cameras, PTZ, etc, view live images, record, take backups etc. It possesses three main functions: Preview the live site, System configuration and Video search, (covered in section 4).

2 Installation

2.1 System Requirement

- Supported Operating System:

Operating system	Comments
Windows XP	Windows XP SP2 or latest, Directx 9.0c or higher
Windows 2000	Windows 2000 SP4; Directx 9.0c or higher
Windows 2003	Windows 2003 server; Directx 9.0c or higher
Windows Vista	Windows Vista; Directx 10.0c or higher
Windows 7	Windows 7 SP2; Directx 10.0c or higher

- Supported Browser

Operating system	Comments
Microsoft Internet Explorer v6.0	IE 6.0 with most updated service pack
Microsoft Internet Explorer v7.0,	IE 7.0 with most updated service pack

2.2 Computer Hardware Requirement

- Recommended PC Specifications – 4 channels

Item	Specification
CPU	Intel Pentium 3.0 GHz or AMD 3000+
Memory	1GB
HDD	160GB

- Recommended PC Specifications -8 channels:

Item	Specification
CPU	Intel Core 2 Duo 1.8 GHz or AMD Dual core 3800+
Memory	1GB
HDD	250GB

- Recommended PC Specifications -16 channels:

Item	Specification
CPU	Intel Core 2 Duo 2.2 GHz or AMD Dual core 3800+
Memory	2GB
HDD	250GB

Note:

- The mentioned specifications are provided considering CIF real-time resolution.
- The AMD chip hyper-3800+ and X64 series are not tested.
- For real-time live view with CIF resolution, max 25 channels can be played concurrently.
- For real-time view with D1 resolution, max 6 channels can be played concurrently.

2.3 Installation Process

- We would recommend that the anti-virus software is disabled before initiating the installation. In addition, the setting of your IE browser must be enabled to download activeX components.
- Run the 'Setup.exe' from software CD, the next menu will pop up;



Fig 2-1 Welcome Screen

Click 'Next' to enter the next step;

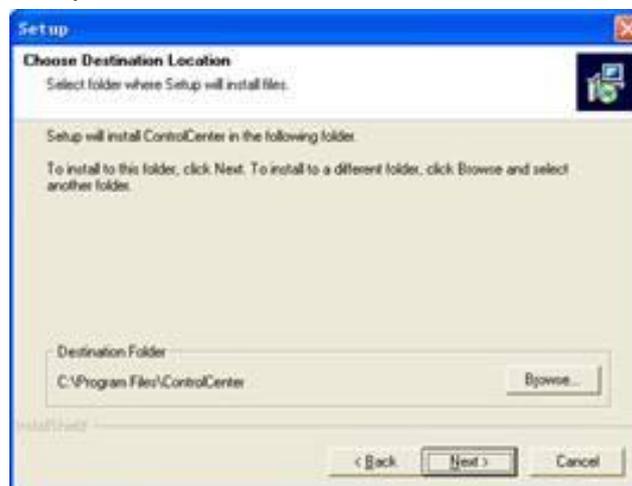


Fig 2-2 Choose the installation destination

The default destination folder for installation is 'C:\Program Files', user can use 'Browse' button to change the destination path. Once the path is selected, click 'Next' to enter the next step.

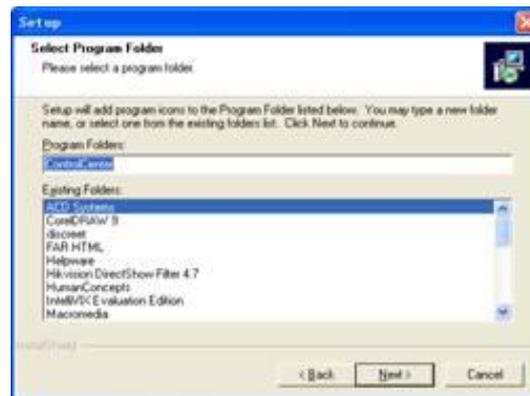


Figure2-3 Type a new folder name or select an existing folder to install

Click 'Next' to start the installation,

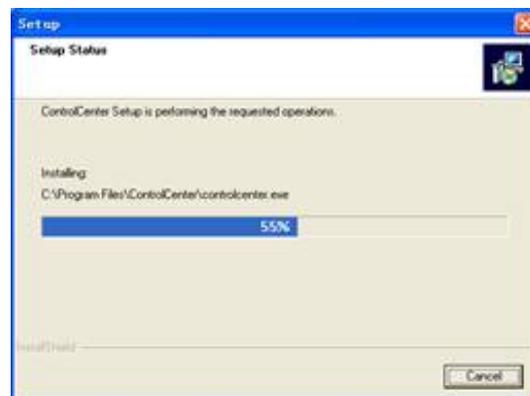


Fig 2-4 Installation Progress Status

The installation is completed.



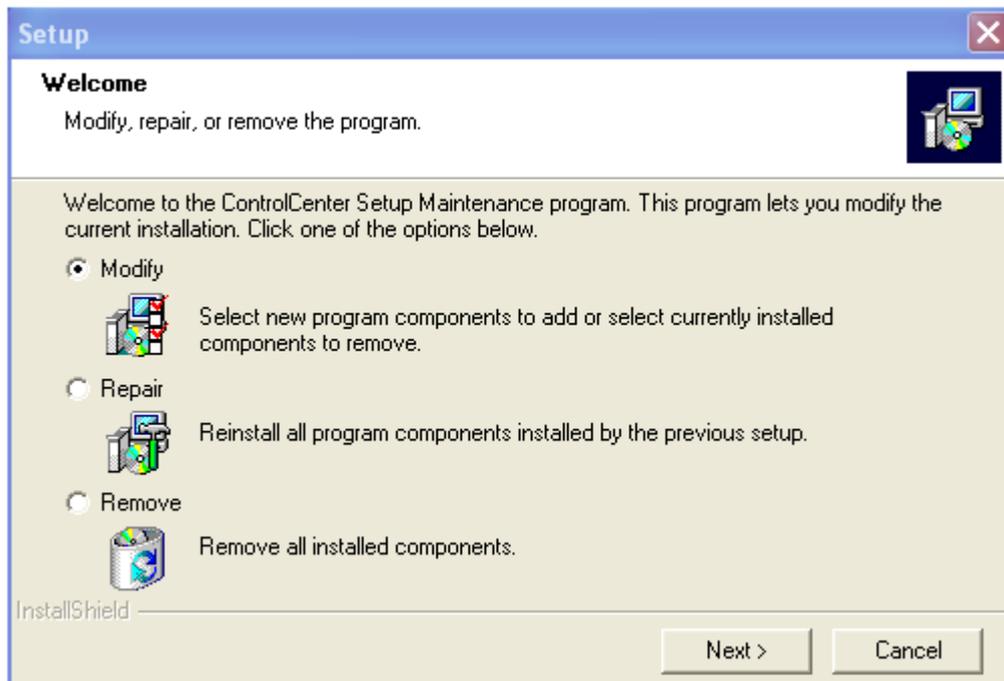
Fig 2-5 Setup Complete

2.4 Uninstalling the Software

There are three methods to remove the software.

1. Users can uninstall the software from Add or Remove programs.
2. The user can remove the software by using 'Uninstall' icon from the windows menu e.g. Start→Programs→ControlCenter→Uninstall

3. The programmed can also be removed by running the software setup and then opting for 'Remove' option.



3 Login and Exit

3.1 Login

After setting up the Network Video Surveillance System and installing the Control Center program, the user would need to login to the Control Center for configuring the devices.

Steps for logging in are described as below:



Double-click  icon on the desktop, it will pop up 'create SYSTEM password ' dialog box, referred to Figure3-1.



Figure 3-1 Create SYSTEM password

The default username is 'SYSTEM'. A user can create an alphanumeric password (max password

length is 32 characters)

Click on the options button to expand the window. An administrator can register an email for receiving an auto generated email with the password in case the password is lost (In order to retrieve the password, the PC would have to be connected to internet)

Click OK button to enter the Login interface, refer to Fig3-2, and input the password in the password text box. If the user doesn't remember the password, he/she can press 'Get System Password' button, the password would be mailed to the preconfigured email address.



Fig 3-2 Login Interface

Click 'OK' button to enter the Control Center. The Control Center Interface is shown as Figure3-3.



Figure 3-3 Control Center Interface

3.2 Exit

There are two ways to exit control center normally.

1. Click  button, and then a confirm dialogue will pop up. If confirmed the application would be exited..
2. The user can click  button to exit.

4 Functions and Operations

This chapter is divided into 4 parts for the ease of understanding the following features

1. Basic Functions
2. Preview
3. System Configuration
4. E-Map
5. Video Search & Backup

In this chapter we will divide four parts to instruct the functions and specific operations of this software. Users can enter the control center to watch locale through Internet, to set parameters, to enable the record, to playback the record files, and to backup the record and so on.

4.1 Basic Functions

After entering the Control Center, users can operate following functions.

4.1.1 Lock & Unlock



'Lock & Unlock' button.



indicates that the Operation Interface is in 'Unlock' state,  indicates the Operation Interface is in 'Lock' state.

When current operation interface is in 'Lock' state, the user would need to enter the password to unlock and use the Control Center. The user can lock the interface by clicking the lock icon.

4.1.2 Minimize & Maximize

Click  to maximize 'Control Center' window. Click  to minimize 'Control Center' window or re-size the 'Control Center' to original size.

4.1.3 Alarm Display

In the alarm display interface, a user can view information pertaining to the alarms. It includes: Alarm Type, Device Name, Camera Number and Alarm Time, events like video loss, motion etc. Alarm Display List is shown as Figure4-1.

Alarm type	Device name	Channel NO.	Time
Stop Motion Alarm	DVR	CAM8	2011-11-04 10:31:39
Stop Motion Alarm	DVR	CAM7	2011-11-04 10:31:39
Stop Motion Alarm	DVR	CAM6	2011-11-04 10:31:38
Stop Motion Alarm	DVR	CAM5	2011-11-04 10:31:38
Stop Motion Alarm	DVR	CAM3	2011-11-04 10:31:38

Figure4-1 Alarm Display List

When sensor alarm is triggered, there will be a blue square twinkling as  icon. The digital number in this square means the amount of alarm event. Double click this icon to pop up the detail information of these alarm events as shown below:

Alarm event ✕

Device name	Alarm type	Time	Status
name	Sensor1 Alarm	2011-11-03 16:48:54	New
name	Sensor1 Alarm	2011-11-03 16:50:24	New

Select one alarm event and click “Verify” button to pop up a dialog box.

Verify password ✕

User Name :

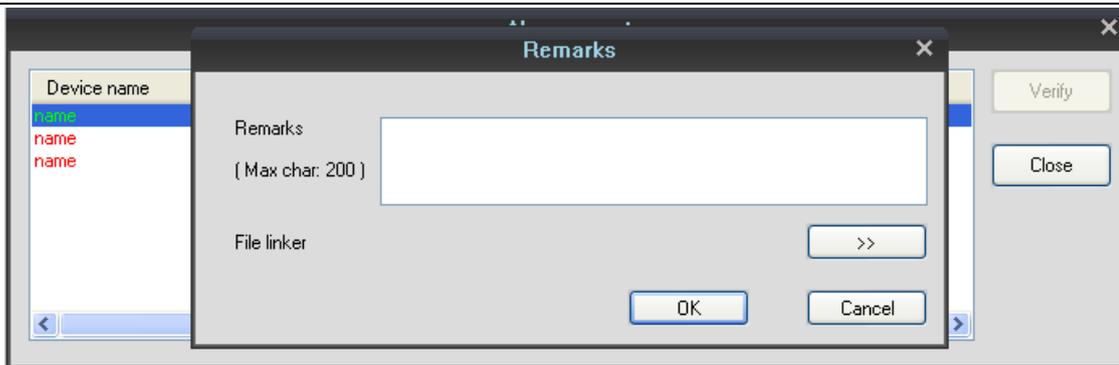
Password :

Please input the password to handle this alarm event.

Alarm event ✕

Device name	Alarm type	Time	Status
name	Sensor1 Alarm	2011-11-03 16:48:54	Verified
name	Sensor1 Alarm	2011-11-03 16:50:24	New

After this event is verified, please click “Close” button and then verify password again to input remarks.



Then click “OK” button.

4.1.4 System

The system tab displays the Camera Display List, which is used to display the added devices. User may Click 'Device List' or 'Camera Group' page to switch to display mode.

Figure4-2 refers to the DVR aligned according to the device list. User may drag device from the Device List to the operation area for the GUI setup. Figure4-3 displays the DVR aligned according to the camera list. User may drag the group to operation area for watching all camera of this group.

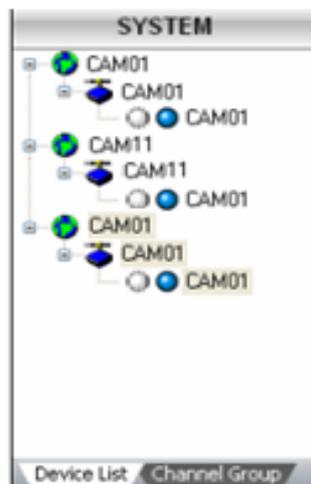


Figure4-2 Device list

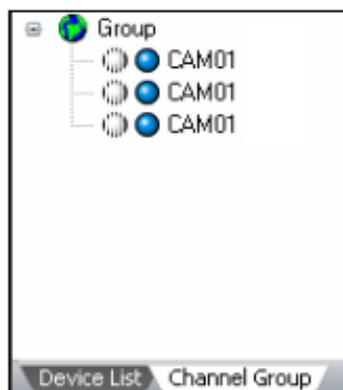


Figure4-3 Camera group

Please refer to section 4.3.1 for adding regions, group or devices etc

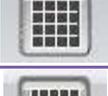
Notice: Before switching the display mode, user needs click  button first to turn off the live display of images.

4.2 Preview

The Live section of the interface provides toolbars for viewing the different channels, and controlling PTZ cameras.

Local View

In the operation area, users can view live images, select automatic dwell, take snapshots and close all previews, etc. The toolbar buttons are described as in the following table.

No.	Buttons	Meanings	
1		Single Picture Preview button. Click this button to watch camera in single picture preview mode.	
2		4 Picture Preview button. Click this button to get the display in four picture preview mode.	
3		9 Picture Preview button. Click this button to get the display in 9-picture mode.	
4		16 Picture Preview button. Click this button to get the display in 16-picture mode.	
5		25 Picture Preview button. Click this button to get the display in 25-picture mode.	
6		36 Picture Preview button. Click this button to get the display in 36-picture mode.	
7		6-picture	Click this button to get the display in 6-picture mode
		8-picture	Click this button to get the display in 8-picture mode
		13-picture	Click this button to get the display in 13-picture mode
		49-picture	Click this button to get the display in 49-picture mode
		64-picture	Click this button to get the display in 64-picture mode.
		100-picture	Click this button to get the display in 100-picture mode.
		256-picture	Click this button to get the display in 256-picture mode.
8		Turn on audio button. Click this button to turn on the audio signal	
		Snapshot button. Click this button to take snapshot of the selected camera. A maximum of 10 pictures can be taken in one go. Click 'Snap' button to pop up a dialog, referred Figure2.	
8		Close All Preview button. Click this button to turnoff the live video. Before switching display modes, a user must turn off the live images.	

9		<p>Dwell button. This can be set from a single channel mode to a maximum of 9 channel mode.</p> <p>5 Dwell means to display live images from different cameras in a sequence according to sequence of the DVR in Camera Group. The images may be displayed as a single channel or in a grid fashion from different cameras.</p> <p>6 The Dwell icon/feature would be activated only when the current display mode is not able to display the all the cameras listed under a particular camera group.</p>
10		<p>Dwell Group button.</p> <p>Notice:</p> <ul style="list-style-type: none"> ● Dwell Group means to view the images of a group of cameras. ● This is activated only if the Dwell Setup is done in System Config ● If used the interface would dwell between the image groups as per the setup done in System Config
11		<p>Pre-Group/Next Group button.</p> <p>The Pre-Group/Next Group buttons are used to toggle between the channels of a group when the set display mode is not able to display all the channels of the group</p> <p>Setup steps: Enter into 'System Config' interface, add devices on the left window first, and then add multiple groups under Channel group column and add channels for each group. Click' , select groups to dwell and then set up the time to dwell. Switch to Preview interface→Channel Group, double click channel group or drag the channel group to the right window to preview all images of channels. Select screen mode(less than 64 screen modes). Now user can see all images of channels in this group through 'Pre-Group'/'Next Group' button.</p>
12		<p>Manual alarm button. You shall self-define it first in the local basic config tab (Enter into System Config→Local Config→Local Basic Config tab, check the user-define box in the field of Local alarm config, input the alarm name and check the alarm out box). Then go back to the Live interface. Now, the manual alarm button will be seen. Click this button to realize manual alarm.</p>

Users can right-click on the live preview picture for the following operations

- Turn off the live: To turn off the live picture display from current channel
- Start Manual Record: To start recording for the current channel. If the preview is stopped then the recording of the channel would also stop.
- Stop Manual Record: Stop recording for the current channel.
- Enable Audio: Enable audio for the current channel.

- Full screen: This would display the image in full screen mode. When in the full screen mode, double click or right-click to exit the full screen mode. A user can choose to output the signal on a secondary monitor by selecting [\\.\DISPLAY2](#). When output is displayed on the secondary monitor, the user can continue with other activities on primary monitor.



Figure 4-4 Camera preview

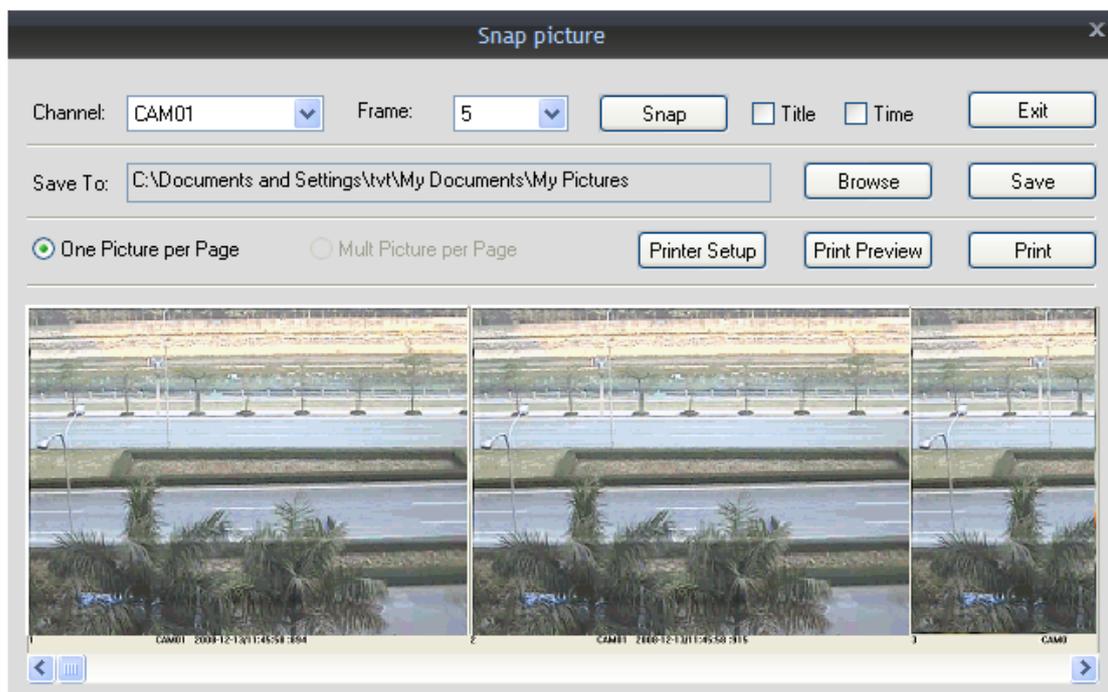


Figure4-5 'Snap' Dialog Box

4.2.1 PTZ Configuration

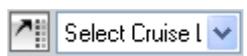
A PTZ camera can be controlled from the Control Center. User can move the dome up, down, right,

and left, stop rotating, adjust rotation speed, Iris, zoom, focus the dome, set the presets and cruise lines etc.

4.2.2.1. Dome Control

From the 'PTZ Configuration' toolbar, the user can control rotation and speed of the dome. Function buttons of the Dome Control are described as Table4-2

Table1 Function Buttons & Explanation of PTZ Configuration

No.	Buttons	Meanings
1		▲ to rotate up. ▼ to rotate down. ◀ to rotate left. ▶ means the dome to rotate right. (■) to stop rotating.
2		Drag the bar to adjust rotating speed of the dome.
3		'Iris' button. Click + - button to adjust the Iris.
4		'Zoom' button. Click + - button to adjust the zoom.
5		'Focus' button. Click + - button to adjust the focus,
6		Go to the preset
7		Select and do auto cruise
8		Track

In the device list box, right click a certain channel, a shortcut menu will be shown as follows:

Stream: Enable the master stream. This machine supports master stream and second stream. Master stream has higher frame rate, max 25FPS for every channel, but it needs higher network bandwidth. Second stream has low frame rate, max 6FPS for every channel, it requires low network bandwidth. Therefore, user can select the stream according to their bandwidth.

Turn off the live: Click this option to stop displaying the live images

Start Manual Record: Select a channel and click Start Manual Record, this will start recording the channel. Click 'Stop Manual Record' to stop recording.

Enable audio: Click this to activate the audio for the channel.

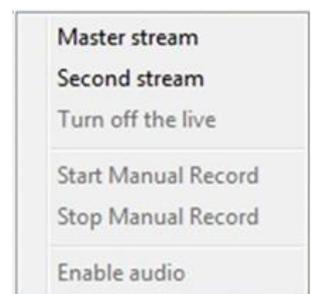


Fig4-6 Right key sub-menu

4.3 System Configuration

The 'System Config' tab provides an interface for system configuration. This includes Device Manager, Local Configuration, Server Configuration, E-Map, User Manager, Log Query and Decoder Card.

Function List

- Device Manager
- Local Configuration
- Server Configuration
- Map Config
- User Manager
- Log Query
- Export& Import Local Config

4.3.1 Device Manager

User can add regions, groups and devices to manage all DVRs in the network. Once the regions, groups and devices are added, they would be displayed in 'Device List'

Function List

- Add Region
- Add Group
- Dwell Setup
- Add Device
- Modify
- Delete

4.3.1.1 Add region

Users may set regions. A region is used to indicate the location of a particular device.

Configuration Steps:

- i. Click 'Device Manager'  in system configuration menu, it will display 'Device Manager' interface.
- ii. Click  button, it will pop up 'Add Region' dialog box. Input the region name in 'Region' textbox.
- iii. Click 'OK' button, it will display the added region in Device List.

Note: In order to add a sub region the user would first have to select the parent region and then add the sub region, by default a new region is added under Global region.

4.3.1.2 Add Group

Chanel Group is used to create a group of cameras

Configuration Steps

- i. Click  button in 'Device Manager' interface to pop up 'Add Group' dialog box.
- ii. Input group name in 'Group Name' textbox.
Click 'OK' button to create the group. Once the group is added, it would be displayed in

'Device List'.

4.3.1.3 Dwell Setup

Dwell Setup allows setting dwell function for channel groups.

Configuration Steps

1. In the 'Device Manager' interface, click  button, it will pop up 'Dwell setup' dialog box. Refer to below picture:

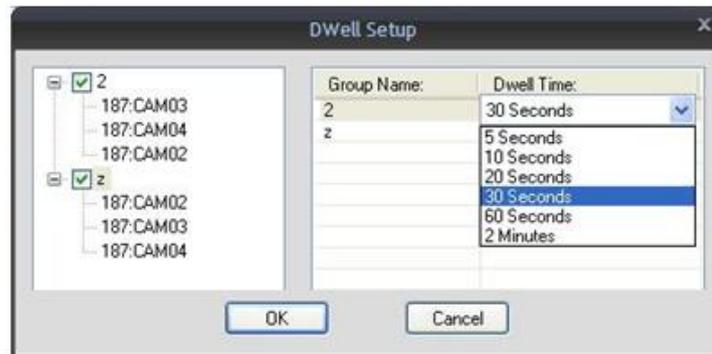


Fig 4-8 Dwell Setup

2. After selecting groups, user can set the dwell time for each group (options 5/10/20/30/60 seconds or 2 minutes).

3. In the 'Live' interface, click 'Dwell'  icon to dwell. Refer to below picture:

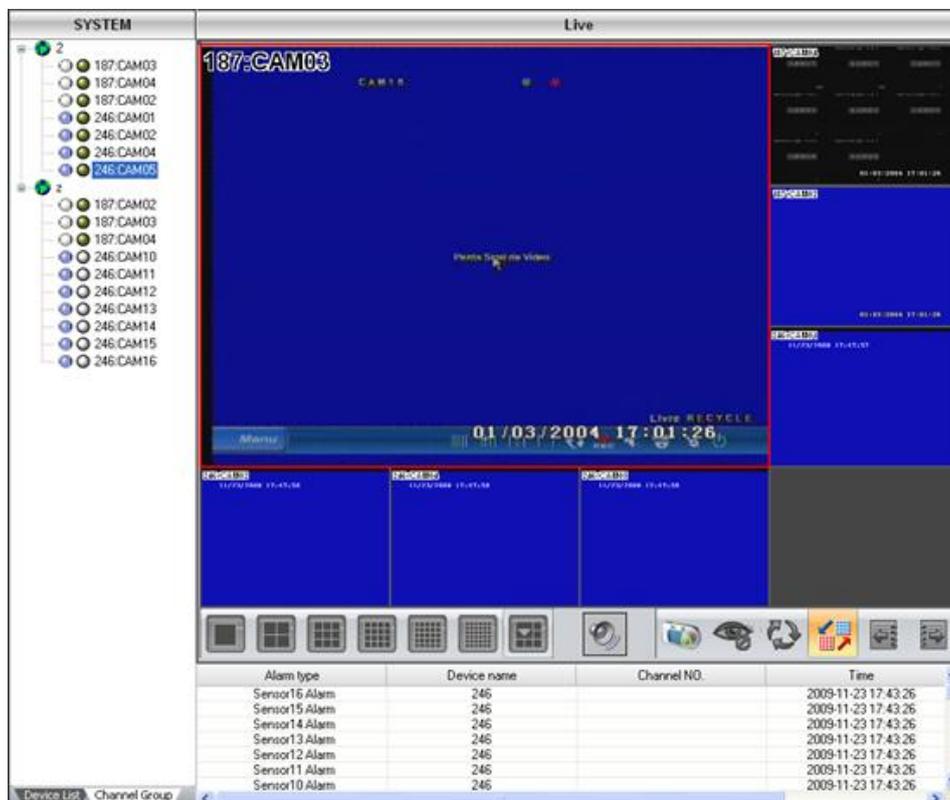


Fig 4-9 Live- Dwell

4.3.1.4 Add Device

A region or a group should be created before adding a device (DVR). User should select a region or group to add the DVR. Below is an example of adding a DVR to a region,

- i. In 'Device Manager' interface, select the region in Device List and click  button; it will pop up 'Add Device' dialog box.
- ii. Click 'Search Device' button, it will pop up 'Device Search' dialog box. The search tool would search and display the DVRs available on the network.
- iii. Double-click the DVR in device list box to select the DVR and to go back to 'Add Device' dialog box (to add the device).
- iv. Select IP of the DVR in 'IP Address' dropdown list.
- v. Input username and password of the DVR in 'User Name' and 'Password' fields.
- vi. Input the data port of the DVR.

Notice: If the DVR is in LAN, user may use the default port: 9008. If the DVR is in WAN then the user would need to mention the port number for every DVR.

- If the DVR is in WAN, user would need to modify port number in 'Server Configuration->Net Configuration', refer to 'Network Setup' of the DVR manual
- vii. Click 'OK' button, the added DVR would now be listed in the 'Device List'.

Please refer to the following instructions for adding device.

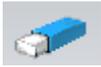
- i.  This icon denotes region or group;  it denotes a device;  it denotes channel
- ii. Once a device has been added, users can add the channels of the device to the relative channel group, by selecting the channel group in 'Channel Group' box and clicking  button. User will have to turn off the live view first and then add the channel to the group.
- iii. Channels of every added device would be listed below the device name.

4.3.1.5 Modify

Users can modify region, group, device and channel names.

Steps

i. Modify Region

- In device list, select the region and click  button, it will pop up 'Modify Region Info' dialog box.
- Input new region name in 'Region' textbox.
- Click 'OK' button to modify the Region name.

ii. Modify Group

- In camera group list, select the group and click  button, it will pop up 'Modify Group Info'

dialog box.

- Input new group name in 'Group Name' textbox.
- Click 'OK' button to modify the group name.

iii. Modify Device

- In device list, select the device and click  button, it will pop up 'Modify Device Info' dialog box.
- Input new device name in 'Device Name' textbox.
- Click 'OK' button to modify the device name.
- The user can also modify the username and password for the device.

iv. Modify Channel

- In device list, select group name and click  button, it will pop up 'Modify Channel Info' dialog box.
- Input new channel name in 'Channel Name' textbox.
- Click 'OK' button to modify channel name.
- The user can also select the network stream for the channel using the dropdown box (Master/Second stream)

Parameters and explanations to modify region names, group names, device names and channel names refer to table below.

4.3.1.6 Delete

Users can delete regions, groups, devices and channels.

Steps

- Select the region, the group, the device or the channel to be deleted.
- Click  button, a confirmation box will pop up.
- Click 'Yes' button to delete the item.

4.3.2 Local Configuration

Click 'Local Configuration' to enter the submenu. This interface has 3 tabs,

- Local Basic Configuration
- Local Schedule Configuration
- Local Alarm Configuration

4.3.2.1. Local Basic Configuration

The screenshot displays the 'Local Basic Configuration' interface with the following sections and settings:

- Local Basic Config** (selected tab):
 - Live Config:** Dwell Time: 10 Seconds; Snap picture number: 5; Format: JPG; Title: Device&Channel Nan.
 - Record Config:** Recycle Record: checked. Record partition table:

Partition	Free Space	Total Size
<input checked="" type="checkbox"/> C:\	24.28 G	37.56 G
<input checked="" type="checkbox"/> D:\	44.53 G	58.59 G
<input checked="" type="checkbox"/> E:\	43.46 G	58.59 G
<input checked="" type="checkbox"/> F:\	62.78 G	78.12 G
 - Local Alarm Config:** Alarm Holding Time: 30 Seconds; Post-alarm time(S): 1 Minute; Alarm processing function: checked; Sensor & Motion alarm: selected. User-def: name; video loss; Alarm out1: checked.
 - Log List Maintain:** Alarm log list save: Half a Month; Operator log save: One Week; Show Alarm Event list: checked.
 - Other Config:** Serial Port: NULL; Baud Rate: 4800; Time: 3/ 7/2012 9:32:15 AM; Synchronize with PC time: checked; Synchronize button.
 - PC Restart Config:** PC Auto Restart: unchecked; User Name: hongjing; Per day: 1 Days; Password: ; Restart Time: 9:32:15.

Fig 4-10 Local Basic Configuration

In the 'Local Basic Configuration' interface, users can configure parameters for live image display, recording, local alarm, log list, PC restart. The user can also view the version of the software.

Configuration Steps

- i. In the 'System Config' menu, click 'Local Config' icon.
- ii. The 'Local Config' screen would be displayed.
- iii. Select 'Local Basic Configuration' tab.
- iv. In the 'Live Config' box, set values for 'Dwell Time', 'Snap picture number and format' as well as 'Title'
- v. In the 'Record Config' box, users can enable or disable the record recycle and select the default partition for saving the recorded files.
- vi. In the 'Local Alarm Config' box, set 'Alarm Holding Time' , 'Post-alarm record time', 'Alarm processing function' and user define .
- vii. In the 'Log List Maintain' box, set the parameters for alarm and operator logs.
- viii. In the 'Other Config' box, user can do settings for serial port and time
- ix. Users can set control center time by manually, or select 'Synchronize with PC time'
- x. The PC Restart Config 'box allows setting parameters for restarting the PC automatically. If activated, the user would be able to input 'login user name' and 'password' of the PC and the frequency and time for restarting the PC.

4.3.2.2. Local Schedule Configuration

Schedule recording means recording as per a fixed schedule. In 'local Schedule Config' interface, users can set weekly schedules for each channel. The user can set time periods for each day of a week.

Configuration Steps

4.3.2.2.1 Week Schedule Configuration

- i. On 'Local Configuration' interface, select 'Local Schedule Config' tab, it will display 'Local Schedule Config' interface.
- ii. Select a camera from the device list to configure the schedule, and click  button.
- iii. Select a day of the week and then drag the mouse to select a time zone. The user can create multiple time zones for a particular day.

Note:  means 24 hour one of a day, the least time frame that can be selected is 15 minutes.

4.3.2.2.2 Holiday Schedule Configuration

User can also set certain dates as holidays and configure the time zone for the same.

- i. Select the camera from the device list
- ii. Add a date in 'Holiday'
- iii. Click  button, and use the mouse to set the schedule for the holiday.

4.3.2.2.3 Local Alarm Configuration

A user can configure the CMS for recording based on a motion detection, sensor alarm or video loss alarm.

Configuration Steps

- i. In the 'Local Configuration' interface, select 'Local Alarm Config' tab.
- ii. Select a channel from the device list.
- iii. Select the 'Alarm Type'

Note: In order to select sensor based recording/alarm, select the device from the device list and the sensors would be displayed in the 'Alarm type' box

- iv. Once an alarm type has been selected, the user can trigger 'PC Audio Alarm', Channel Recording or link it to E-Map (applicable to motion and video loss alarm only)

Note:

- Alarm Trigger: Local Sound Alarm, E-Map Alarm and Trigger Channel Alarm

A particular alarm can be set to trigger a local sound alarm on the CMS. Sound alarm can be triggered by sensor alarm, motion detection or video loss.

E-Map Alarm refers to triggering an alarm on the E-Map. Once an alarm has been linked to an E-Map, the selected channel/camera would appear in alarm state in the E-Map.

For further details, please refer to section 4.3.4.1.6 'Set Camera'

The user can also trigger recording of channels using alarm inputs. From the device list select the device and configure the Alarm Input (Sensor) and the trigger mode. This can be set to raise a PC Audio Alarm or/and record channels.

4.3.3 Server Configuration

The customer can configure a DVR using the Server Configuration interface. Please refer to DVR's manual as configuring the DVR through CMS is similar to the manual configuration.

4.3.4 Map Configuration

A user can upload maps of the area, associate different cameras with different regions of the map/area and set alarms. This provides a GUI which helps the user to relate it to the actual site/locations.

In the System Configuration, click 'Map Config', to access the interface.

In 'Map Configuration', users can add or delete e-maps, modify map names.

Functions List

- Add Maps
- Add Sibling Nodes
- Add Sub Nodes
- Modify Map Names
- Delete Sub Nodes
- Set Camera

4.3.4.1.1 Add Maps

Users can add several E-Maps in the E-Map.

Configuration Steps

- i. In the ' System Config' menu, click 'Map Config'  button, and then right-click on the 'Map' tree to access the sub menu.
- ii. From the sub menu, select 'Add Map', and enter the name of the map in the textbox.
- iii. In the 'Path' box, click  button, and the 'Open' dialogue box will pop up.
- iv. Select the path of E-Map, and click 'Open' button to confirm path.
- v. Click 'Confirm' button to add E-Map in Control Center.

4.3.4.1.2 Add Sibling Nodes

Users can add E-Maps under the same parent map as Sibling .

Configuration Steps

- i. In the 'Map config' interface, right-click on an existing map.
- ii. Select 'Add Sibling Node' and then a dialogue of 'Add Map' will pop up.
- iii. Input name of the map.
- iv. In the 'Path' box , click  button, and the 'Open' dialogue will pop up.
- v. Select the path to save the E-Map, and click 'Open' button to confirm the path.
- vi. Click 'Confirm' button to add map in the map control center successfully.

4.3.4.1.3 Add Sub Nodes

A sub node can be added to an existing E-Map.

Configuration Steps

- i. In the 'Map Config' interface, right click on an existing map.
- ii. Select 'Add Son Node', 'Add Map' dialogue will pop up.
- iii. Input the name of the map.
- iv. In the 'path' box, click  button, 'Open' dialogue will pop up.
- v. Select the path to save E-Map and click 'Open' button to confirm the path.
- vi. Click 'Confirm' button to add map in the map Control Center.

4.3.4.1.4 Modify Map Names

Users can modify E-Map names.

Configuration Steps

- i. Right click on a map and select 'Modify Node Name'
- ii. Modify the name of the map and click to save the modifications.

4.3.4.1.5 Delete Sub Nodes

A user can also delete Sub Nodes

Configuration Steps

- i. Right click on an E-Map and select 'Delete'.
- ii. A confirmation box would pop up, confirm to delete.

Note: *Deleting a Map would automatically delete all sub nodes.*

4.3.4.1.6 Set camera

Users can set a camera in the E-Map as per the actual map of the area.

Configuration Steps

- i. In the 'Map Config' interface, select the map to add camera.
- ii. Select a camera from the device list and drag it to the E-Map on a suitable location.

Note:

- Once the setup is complete, the user can enter into the E-Map interface to watch live pictures and map alarm (Please refer to chapter 4.4 E-Map for more details).

4.3.5 User Manager

An administrator can add several users and set the access rights for each user.

To add users to operate the CMS, please enter Into ‘System Configuration→User Manager’ interface.

Function List

- Add user
- Modify Password
- Delete Users

4.3.5.1 Add User

Configuration Steps

- i. In ‘System Config’ menu, click  ‘User Manager’ button.
- ii. Click ‘Add User’  button, and the dialogue of ‘Add User’ will pop up.
- iii. Input user name and password in the text boxes.
- iv. Click ‘Confirm’ button to add user successfully.
- v. Set authorization for the added user, such as PTZ, local playback and backup, local record, E-map and so on.

4.3.5.2 Modify Password

An administrator can reset the password of a user to the default password. However in order to change the password, a user would need to login from his/her account and then modify the password from User Manager. The following will introduce the steps to modify the password. (from user login).

Configuration Steps – for modifying a user password from the user login

- i. Login from the user’s account.
- ii. In the ‘User Manager’ interface, click ‘modify’  button, and the dialogue box of ‘modify password’ will pop up.

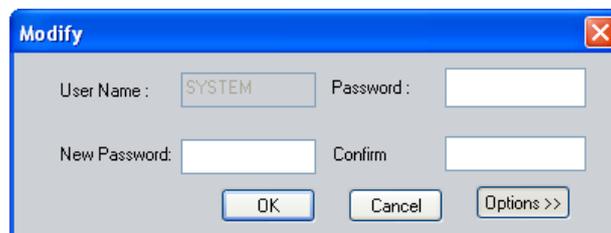


Fig 4-11 Local basic config

- iii. Input current password, new password and confirm the same in the respective fields.
- iv. Click ‘OK’ to change the password.

To reset a password of a user from an administrator account,

Select the user from the user list click 'Change Password'  button, and confirm to reset the password to default value.

4.3.5.3 Delete Users

The administrator can delete the users

Configuration Steps

- i. In the 'User Manager' interface, select the user to be deleted.
- ii. Click 'Delete'  button and confirm to delete the user.

4.3.6 Log Query

A user can check logs pertaining to alarms and CMS operation. Following is an example of log query.

Configuration Steps

- i. In the 'System Config' menu, click 'Log Query'  icon, to access the 'Log Query' interface.
- ii. Select Log Type as 'Alarm';
- iii. Select an alarm type from the 'alarm' dropdown box.
- iv. Select the date and time for the records to be checked. Note: Users can query the data for one date at a time
- v. Click  icon, to select a particular channel for the query.
- vi. Select the required channels and 'Control Center Log' as per the requirement.
- vii. Once selected click  button, the interface would search the information as per the set parameters and display the same on the screen.

4.3.7 Export & Import Local Config

A user can export or import local configuration. Following is an example.

Configuration Steps

- i. In the 'System Config' menu, click 'Export & Import Local Config'  icon to access the "Export & Import Local Config" interface.
- ii. Click "" icon to choose the path to save the export file or to import the configuration file.
- iii. Click "Export" or "Import" button to export or import the configuration file.

- iv. After finishing the above operation, click “Exit” button to escape the current interface.

4.4 E-Map

E-Map is used to stimulate an area under surveillance using pictures and maps.

4.4.1 Change Icon

Configuration Steps

- i. Click  E-Map button to enter into E-Map interface.
- ii. Select a camera on the map, right click and choose change ‘Change Icon’
- iii. A ‘Change Icon’ dialogue box would popup, select an icon and click ‘OK’ to change the icon of the camera.

4.4.2 Delete camera

Configuration Steps

- i. Click  E-Map button to enter into E-Map interface.
- ii. Select a camera on the map, right click and choose change ‘Delete’
- iii. Click ‘Yes’ on the confirmation box to delete the camera from the map

Note: The above-mentioned steps must be made after a user has added E-map and camera in the map configuration interface.

4.4.3 Map Alarm

Map alarm refers to a visual alarm in the E-Map. Once set the camera (in the map) , it would blink when in an alarm condition. However, this would involve linking of camera with the alarm/event in the ‘Local Config’ and the schedule for the alarm type should be set in ‘Server Config’.

Configuration Steps

- i. Enter into ‘E-Map’ interface
- ii. Select a map from the map tree.
- iii. Double click on the blinking camera to view the live images.
- iv. Click ‘Exit’ button to exit the display of live images.

If a user selects ‘Auto preview when alarm’ item in the map configuration interface, the live image will automatically pop up when in an alarm condition. Only 16 alarm pictures are allowed to pop up. If a user select ‘Auto switch alarm map’ item in the map configuration interface, the alarm map will be displayed when you enter into the E-map interface.

Users can right-click on the map alarm display area for the following operations:

Return to parent map: return to parent map from a sub-map

Full Screen: For a full screen mode, it can be displayed on the primary monitor or the secondary monitor.

Exit Full screen: click ‘Exit Full screen’ to exit from full screen mode.

4.5 Video Search

Click 'Video Search' tab from the main taskbar to access the interface. The main functions of video search are video Playback and Backup.

4.5.1 Video Playback

Supports Local Playback and Remote Playback

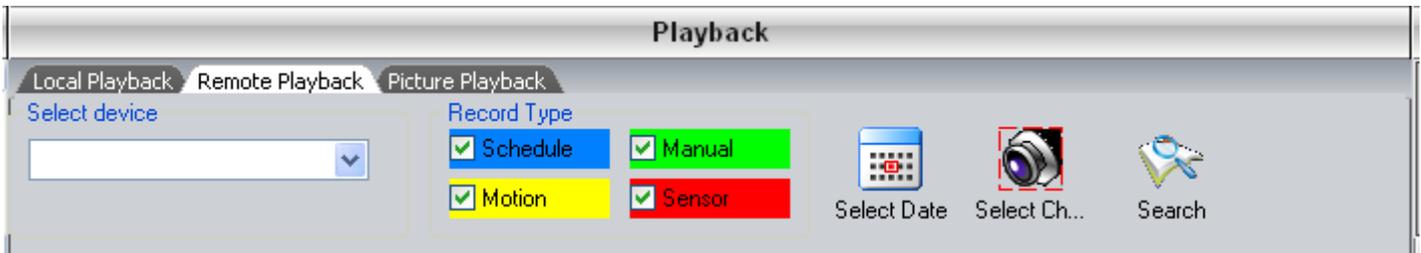


Fig 4-14 Remote playback

Users can search and playback video files of different channels for different dates. Users can select a maximum of 16 channels for simultaneous playback. This system supports local playback and remote playback. The local playback refers to playing recorded files which have been saved locally i.e. the computer. The remote playback refers to playing the recorded files from the DVR. Although these two types play recorded files from different paths, they have the same settings and control operations. Here we take remote playback for example.

Please refer GUI objects for the playbacks

Number	Buttons	Meanings
1		Play button. Once searched, select the recorded file and click this button to play record files
2		'Pause' button. While playing, click this button to stop playing. To continue playing use the Play button
3		'Stop' button. When in play or pause mode, click this button to stop playing
4		'Playing Speed' button. When playing, click this button and select playing speed with the drop down menu, available options: 1/4X, 1/2X, 1X, 2X and 4X.
5		'Next Frame' button, when in pause mode, adjust the required channel to single channel display mode, and click this button to play frame by frame.
6		Playing Scale Marker '△' Once a recorded file has been searched, a user can use this scale on the time line for a precise time for playback. Right click on the marker pointer to amplify or contract the time scale.
7		'Start of backup stamp' button. Select it to start stamping the record of a channel for backup
8		'End of backup stamp' button. Select it to end the backup stamp.

9		'Erase backup stamp' button. Select it to clear up its backup stamp
10		'Backup' button. Select it to backup the record during the period of start of backup stamp to end of backup stamp

Configuration Steps

- i. In the 'System Config' menu, click 'Record Playback'  icon.
- ii. Select the 'Record Type' from available options (Schedule, Manual, Motion, Sensor)
- iii. Click  button, select the date for the required record.
- iv. Click  button, to select the channels.
- v. Click  button, to search, once searched the record file would be displayed on the right hand side.
- vi. Drag playing scale marker for the required timeline, and click  (pointer) to amplify the time scale.
- vii. Click  button, or drag marker to play the recorded file.

Note: The default precision of time scale is 15 minutes and the range of scale is 0-24 which denotes 24 hours of a day; click '' to amplify scale for a 1 minute precision. The scale range 0-60 denotes minutes of an hour.

4.5.2 Video Backup

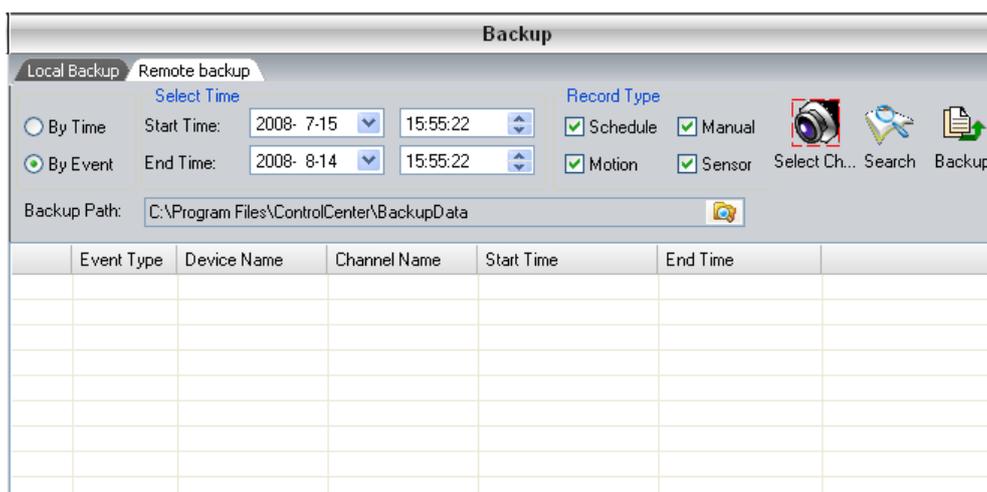


Fig 4-15 Remote Backup

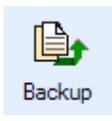
Users can backup files for a date range based on time or events. There are two types of backups: local and remote backup. The former is to take the backup of local recording (files residing on the computer) and the latter (Remote Backup) is to take backup from the remote DVR.

Configuration Steps:

4.5.2.1 Backup by Time

To backup record files by time, user needs to set the 'Start time', 'End Time' and select 'Channels'.

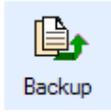
- i. On 'Video Search' toolbar, click 'Backup' ,
- ii. Select 'By Time' option to backup the record files based on date and time.
- iii. Select the required date and time for the record period.
- iv. Click  button to select the channels.
- v. Click 'OK' **button** to go back to 'Backup' Interface.

- vi. Click  **Backup** button to begin searching and backing up the record files.

Note: *The user can define the backup path as required.*

4.5.2.2 Backup by Event

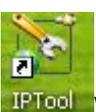
For taking backups based on events, user needs to set Start Time, End Time, and Record Type and select Channels.

- i. On 'Video Search' toolbar, click 'Backup' ,
- ii. Select 'By Event' to backup the record files based on events.
- iii. Select Date and Time.
- iv. Select the required events in 'Record Type' box. (Schedule, Manual Motion, Sensor)
- v. Click  button to select the channels.
- vi. Click 'OK' button to go back to 'Backup' Interface.
- vii. Click  button to search the record files.
- viii. Select the files required to be backed up from the listed files
- ix. Click  **Backup** button to backup the files.

Note: *The user can define the backup path as required.*

5 Use method for IP-TOOL

Note: *Do not power off or Internet failure when updating; If the upgrade fail and lead to device unable to start, which needs to retrofit.*

First, install the CMS software, IP-Tool icon  will display on desktop, double-click the IP-Tool icon, an information dialog box will pop-up as below:

Device name	IP Address	Subnet Mask	Gateway	Data Port	MAC	Device Type	Firmware version	Build	kernel	DevVer
sdifd/asdf	192.168.11.20	255.255.255.0	0.0.0.0	9008	00:18:AE:30:DD:04	IP Camera	1.1.2	90714	30222365	1.1
name	192.168.11.45	255.255.255.0	192.168.11.1	9008	00:18:AE:30:EE:0A	IP Camera	1.1.2	90806	20090609	1.1
DVR	192.168.3.57	255.255.255.0	192.168.3.1	2000	12:34:56:78:98:76	DVR	2.6.6.beta4	20090810.20080912		1.3
>DVR02	192.168.11.173	255.255.255.0	192.168.11.1	2211	00:18:AE:20:20:B3	DVR	2.6.4	20090505.20081212		1.2
>DVR04	192.168.3.109	255.255.255.0	192.168.3.1	2000	00:18:AE:20:30:58	DVR			20080912	
DVR	192.168.3.134	255.255.255.0	192.168.3.1	2000	00:34:58:78:38:12	DVR	2.7.0.beta1	20090805.20090629		1.2
name	192.168.3.205	255.255.255.0	192.168.3.1	9008	00:18:AE:30:01:89	IP Camera	1.1.2	90618	20090609	1.1
tv44ke	192.168.3.219	255.255.255.0	192.168.3.1	1160	00:14:85:5C:9A:B8	SuperDVR				
name	192.168.11.14	255.255.255.0	192.168.11.1	9008	00:18:AE:30:AE:19	IP Camera	1.1.2	90618	20090609	1.1
1234567890123456789	192.168.11.17	255.255.255.0	192.168.11.1	9008	00:18:AE:30:00:00	IP Camera	1.1.2	90714	30222365	1.1
1234567890123456789	192.168.11.48	255.255.255.0	192.168.11.1	9008	00:18:AE:30:60:49	IP Camera	1.1.2	90801	18822365	1.1
name	192.168.11.53	255.255.255.0	192.168.11.1	9008	00:18:AE:30:FF:53	IP Camera	1.1.2	90806	20090609	1.1
DVR4	192.168.11.64	255.255.255.0	192.168.11.1	2000	00:34:78:58:1F:9D	DVR	2.6.6.beta3	20090717.20080912		1.2
DVR	192.168.11.66	255.255.255.0	192.168.11.1	2000	00:18:AE:20:2E:21	DVR	2.6.6.beta3	20090710.20080912		1.2
DVR	192.168.11.68	255.255.255.0	192.168.11.1	2000	00:18:AE:51:23:44	DVR	2.6.6.beta3	20090710.20080912		1.2
name	192.168.11.69	255.255.255.0	192.168.11.1	9008	00:18:AE:30:01:38	IP Camera	1.1.2	90806	20090609	1.1
DVR	192.168.11.74	255.255.255.0	192.168.11.1	2000	00:34:78:58:10:2A	DVR	2.6.6.beta3	20090710.20090616		1.2
DVR	192.168.11.82	255.255.255.0	192.168.11.1	2000	00:34:78:58:01:23	DVR	2.6.3	20090416.20080912		1.2
DVR	192.168.11.85	255.255.255.0	192.168.11.1	2000	00:11:22:33:44:5E	DVR	2.6.5	20090616.20081212		1.3
DVR	192.168.11.110	255.255.255.0	192.168.11.1	2000	00:18:AE:32:F0:22	DVR	2.6.5	20090620.20090625		1.2
DVR	192.168.11.145	255.255.255.0	192.168.11.1	2346	00:18:AE:20:14:55	DVR	2.7.0	20090729.20090604		1.3
DVR	192.168.11.146	255.255.255.0	192.168.11.1	2000	00:18:AE:20:44:CD	DVR	2.7.0.beta1	20090807.20080912		1.2
DVR2308M	192.168.11.147	255.255.255.0	192.168.11.1	2346	00:18:AE:20:0A:E5	DVR	2.7.0	20090731.20080912		1.2
tv44-202	192.168.11.217	255.255.255.0	192.168.3.1	1160	00:01:29:D7:08:63	SuperDVR				
vb8-20090527CJ	192.168.11.221	255.255.255.0	192.168.3.1	1160	00:E0:4C:F6:5F:F5	SuperDVR				
tv44k	192.168.11.225	255.255.255.0	192.168.3.1	1160	00:24:1D:29:7C:10	SuperDVR				

Click “OK” button, start the IP-Tool, refer to below picture. The device can be searched on net; if can't search the device please check the accession of PC and device.

Device name	IP Address	Subnet Mask	Gateway	Data Port	MAC	Device Type	Firmware version	Build	kernel	DevVer
sdifd/asdf	192.168.11.20	255.255.255.0	0.0.0.0	9008	00:18:AE:30:DD:04	IP Camera	1.1.2	90714	30222365	1.1
name	192.168.11.45	255.255.255.0	192.168.11.1	9008	00:18:AE:30:EE:0A	IP Camera	1.1.2	90806	20090609	1.1

When upgrading the program and kernel, the IP address of PC and device should at the same network segment. If the network segment is different, user should change the IP address by selecting the device and right click “network setup”.

Device name	IP Address	Subnet Mask	Gateway	Data Port	MAC	Device Type	Firmware version	Build	kernel	DevVer
name	192.168.11.45	255.255.255.0	192.168.11.1	9008	00:18:AE:30:EE:0A	IP Camera	1.1.2	90806	20090609	1.1
1234567890123456789	192.168.11.48	255.255.255.0	192.168.11.1	9008	00:18:AE:30:60:49	IP Camera	1.1.2	90801	18822365	1.1
name	192.168.11.53	255.255.255.0	192.168.11.1	9008	00:18:AE:30:FF:53	IP Camera	1.1.2	90806	20090609	1.1
DVR4	192.168.11.64	255.255.255.0	192.168.11.1	2000	00:34:78:58:1F:9D	DVR	2.6.6.beta3	20090717.20080912		1.2
DVR	192.168.11.66	255.255.255.0	192.168.11.1	2000	00:18:AE:20:2E:21	DVR	2.6.6.beta3	20090710.20080912		1.2
DVR	192.168.11.68	255.255.255.0	192.168.11.1	2000	00:18:AE:51:23:44	DVR	2.6.6.beta3	20090710.20080912		1.2
name	192.168.11.69	255.255.255.0	192.168.11.1	9008	00:18:AE:30:01:38	IP Camera	1.1.2	90806	20090609	1.1

- browse with IE
- network setup
- Update Software
- Update Kernel

Modify IP address dialog box will appear as below:

Network setup

IP:

Subnet Mask:

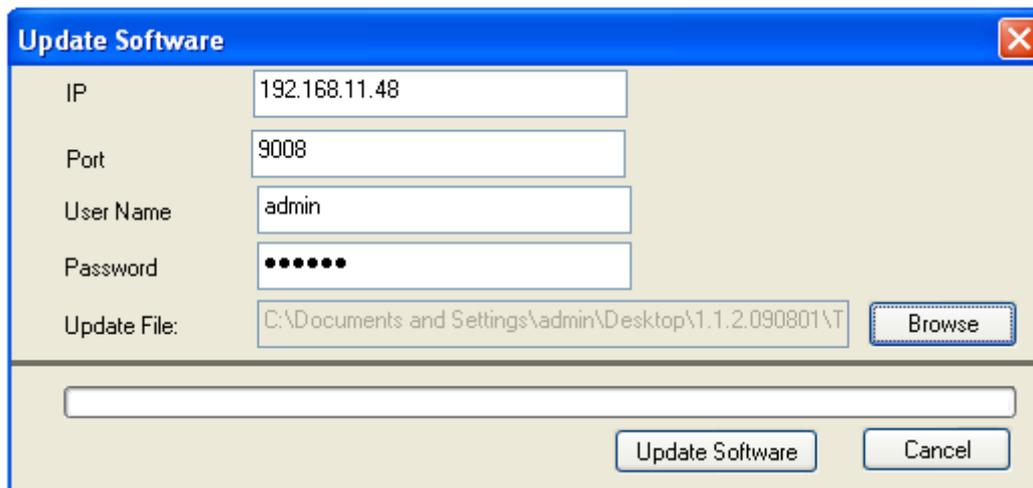
Gateway:

User Name:

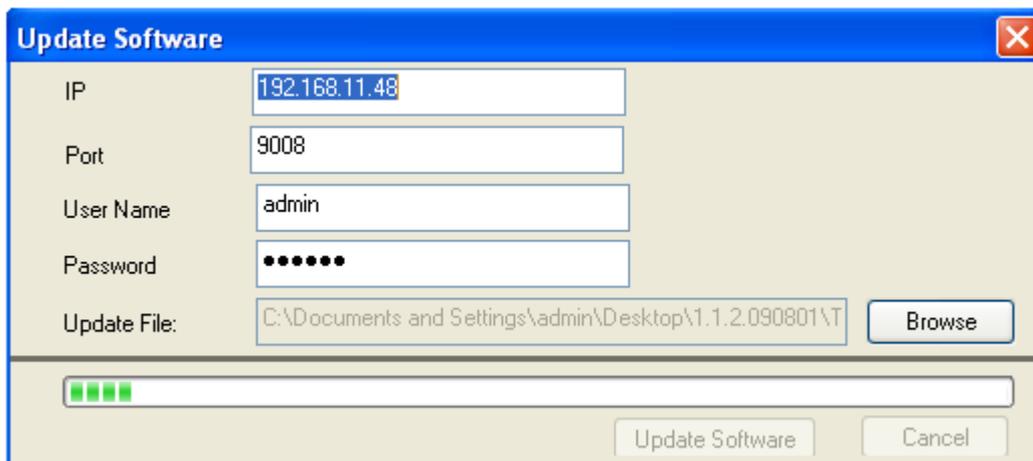
Password:

Tip: Please check if password is correct, when address setup fails

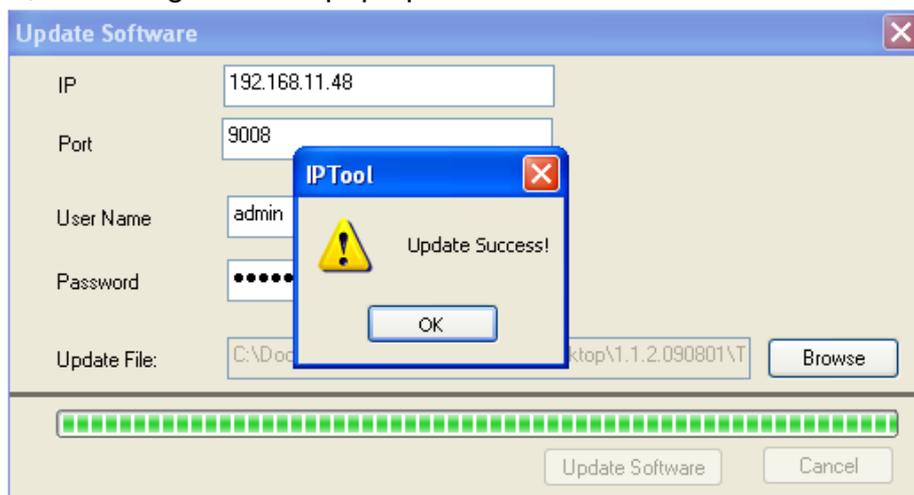
Modify IP address and click OK button to exit the dialog box, IP-Tool will display the new IP address. Select the device; right click “Update software” as below picture shows:



Click “Update”, start upgrading, the progress bar will display as below. When upgrading doesn't disconnect PC to device, make sure power is on.

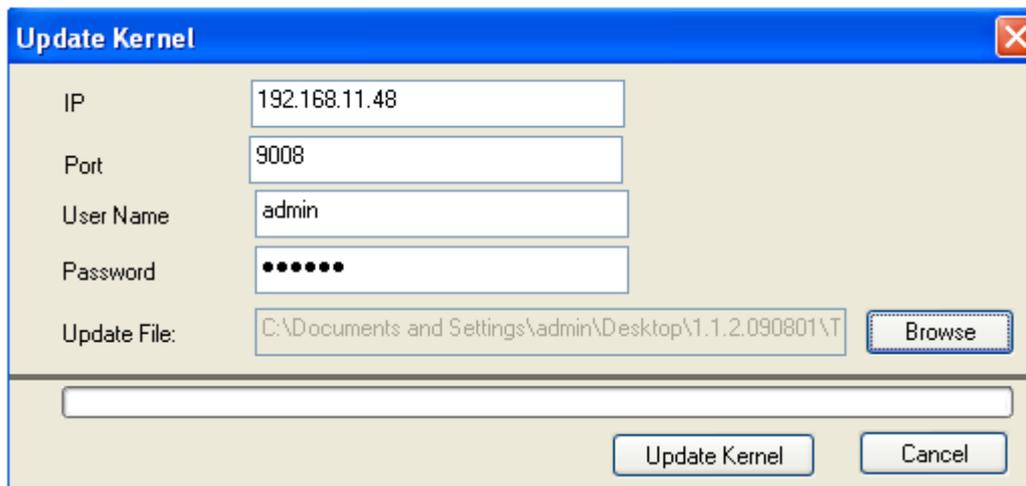


Upgrading finished, a message box will pop up as below:

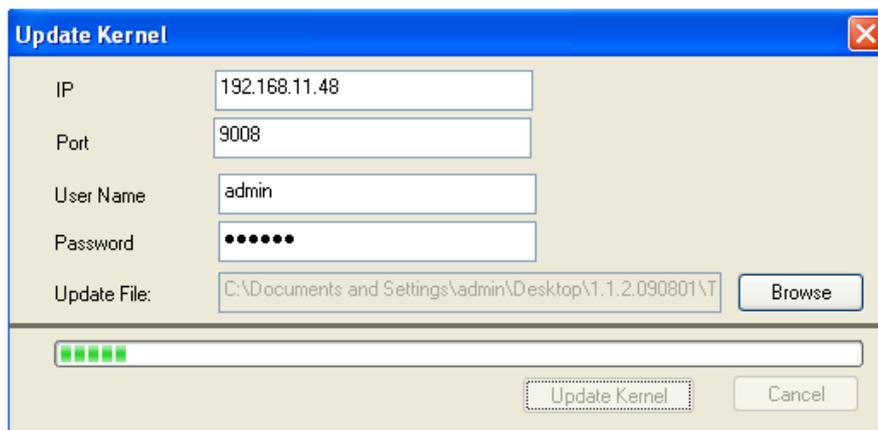


Click OK button, exit the update dialog box, the device will restart automatically. Select the device, right click “Update kernel”, a dialog box will appear as below:

name	192.168.11.45	255.255.255.0	192.168.11.1	9008	00:18:AE:30:EE:0A	IP Camera	1.1.2	90806	20090609	1.1
1234567890123456789	192.168.11.48		192.168.11.1	9008	00:18:AE:30:60:49	IP Camera	1.1.2	90801	18822365	1.1
name	192.168.11.53	browse with IE	192.168.11.1	9008	00:18:AE:30:FF:53	IP Camera	1.1.2	90806	20090609	1.1
DVR4	192.168.11.64	network setup	192.168.11.1	2000	00:34:78:58:1F:9D	DVR	2.6.6.beta3	20090717	20080912	1.2
DVR	192.168.11.66	Update Software	192.168.11.1	2000	00:18:AE:20:2E:21	DVR	2.6.6.beta3	20090710	20080912	1.2
DVR	192.168.11.68	Update Kernel	192.168.11.1	2000	00:18:AE:51:23:44	DVR	2.6.6.beta3	20090710	20080912	1.2
name	192.168.11.69		192.168.11.1	9008	00:18:AE:30:01:38	IP Camera	1.1.2	90806	20090609	1.1



Enter into Update Kernel interface dialog box, input admin in the User name text box, input 123456 in the Password text box, and click “Brower” to select the Update file (mboot8180-8180), click “Update” button to start updating. When upgrading doesn’t disconnect PC to device, make sure power is on. The update progress bar will display as below:



Update finished, a message box will pop up. After a while, the device will restart automatically.

6 Troubleshooting

1. Solutions for installing CMS system in Windows Server 2003, Windows 2007, Window XP and Vista environment.

In case the VGA driver is not installed correctly, the CMS software screen would appear to be incomplete. The screen may also flash. Below are the steps to address the same,

1) Click ‘Start’ button, enter the ‘dxdiag’ command into the Run column and press Enter button, the DirectX Diagnostic Tool interface will pop-up, refer to Fig 6-1:

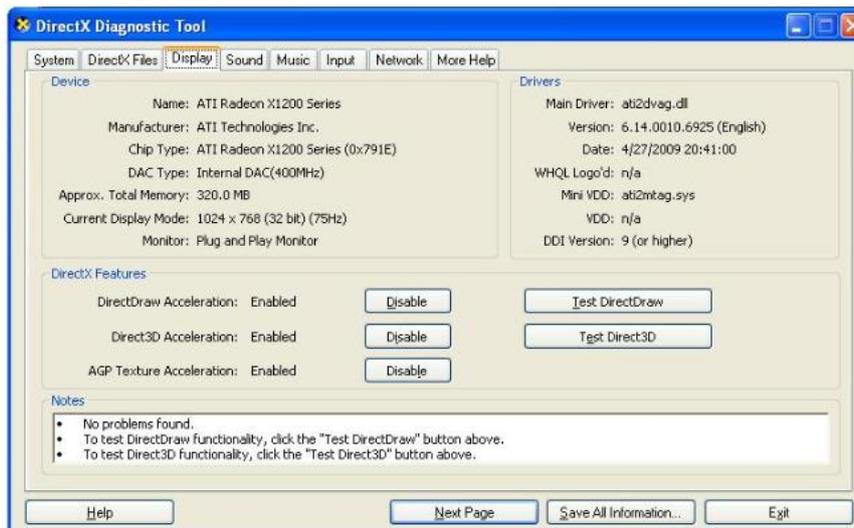


Fig 6-1 DirectX Diagnostic Tool under Window XP

Click 'Display' tab to check the VGA driver information, if the Device Information and the Driver Information is correct then make sure that the DirectDraw Acceleration and Direct3D Acceleration is Enabled.

2) Install the VGA driver in case it is not installed.

Note: The default state of DirectX acceleration of Windows2003 Server and Vista system is disabled thus the user would need to enable this function.

A. Hardware Acceleration: Right-click on the Desktop→Properties→Settings→Advanced→Troubleshoot, drag the scroll bar of the hardware to the Troubleshoot interface and press 'OK'. The screen may go blank for minute.

B. DirectX Acceleration: Click 'Start' enter 'dxdiag' command into the 'Run' column and press enter, the DirectX Diagnostic Tool interface will pop-up, and refer to Fig 6-2: Enable DirectDraw, Direct3D and AGP Texture on the Display interface.



Fig 6-2 DirectX Diagnostic Tool in Windows Vista OS