Software
IP Video Control Center

User's Manual

1 Getting Started

Recommended System Requirements

Minimum recommended system requirement for IP Video Control Center include:

CPU	Intel Pentium-4 3.0G or above (FSB 800)
RAM	≥1 GB DDR2-533 Memory
Motherboard	915 chip set or above
VGA Display Card	ATI PCI-Express Card (128MB on board, ATI MX300 GPU)
LAN Card	10/100 Mbps (Intel Chip Set)
OS	Windows XP SP2 Windows 2000 with SP4 or above
IDE HDD	Seagate 40 GB 7200 RPM
CD-ROM	32X
Required Utilities	FFDShow, DirectX 9.0b or later hardware acceleration
Video Resolution	SVGA or XGA with 1024x768 resolution, 32-bit color

IMPORTANT: For security reason, the operating system has to be patched with latest security updates. Refer to http://www.microsoft.com/security for latest security updates.

NOTE: Required utilities can be accessed in the bundled CD.

Start IP Video Control Center

To start IP Video Control Center™, double-click the IP Video Control Center icon on the desktop.

IMPORTANT: To avoid problems and conflicts in the video subsystem, run only one IP Video Control Center at a time. Do not run multiple IP Video Control Center's concurrently.

After double-clicking IP Video Control Center icon on the desktop, you will see a message, please input User ID and Password to login.

Figure 1. Input User ID and Password

1. **Please input the User ID and Password to login. Default User ID is Admin, password is 123456.**

Exit IP Video Control Center

To exit IP Video Control Center™, click the button or hit **ESC** key.

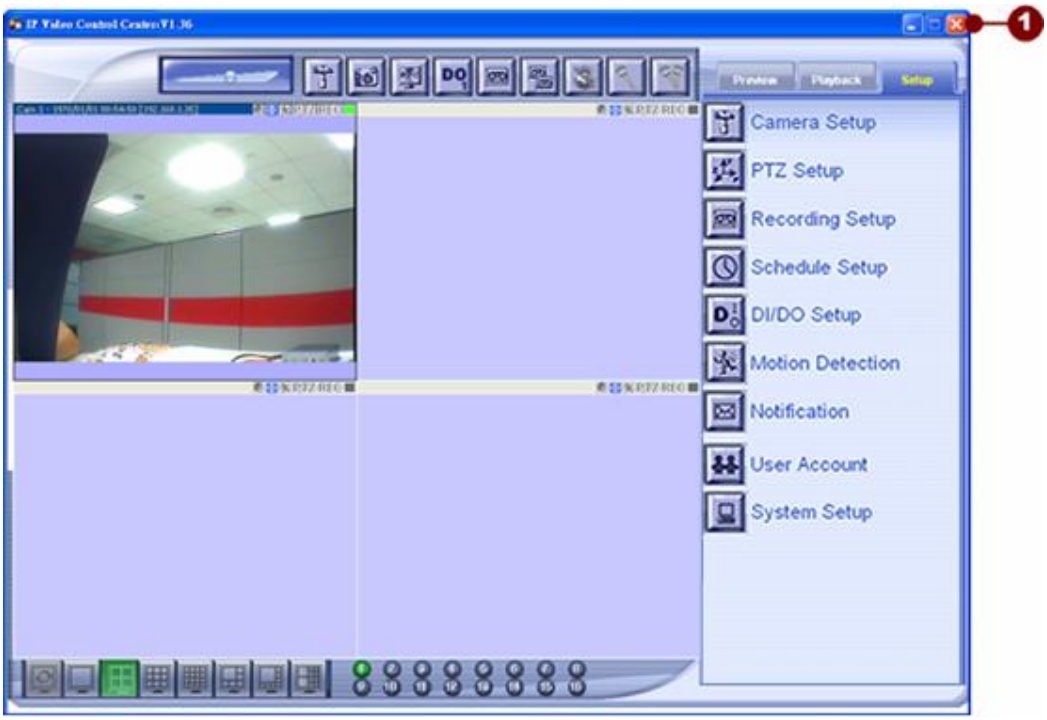


Figure 2. Exit IP Video Control Center

Check IP Video Control Center Version

It’s important to know your Control Center version. You can use this version number and find out its function and limitation of this version. Beside, be sure to give your technical contact your software version number any time you report a problem.

Figure 3. Check IP Video Control Center Version

1. **Click on the here to check version**
2. **About US Dialog Box**
3. **Version Number**
4. **Released Date**

2 User Interface

IP Video Control Center is designed with an user-friendly interface, and deployed with minimal training. It is consisted 3 different screen: Preview screen, playback screen and setup screen. You can select these screen from the at the upper right corner of Control Center.

Understanding the Preview Screen

IP Video Control Center preview screen consists of several items.

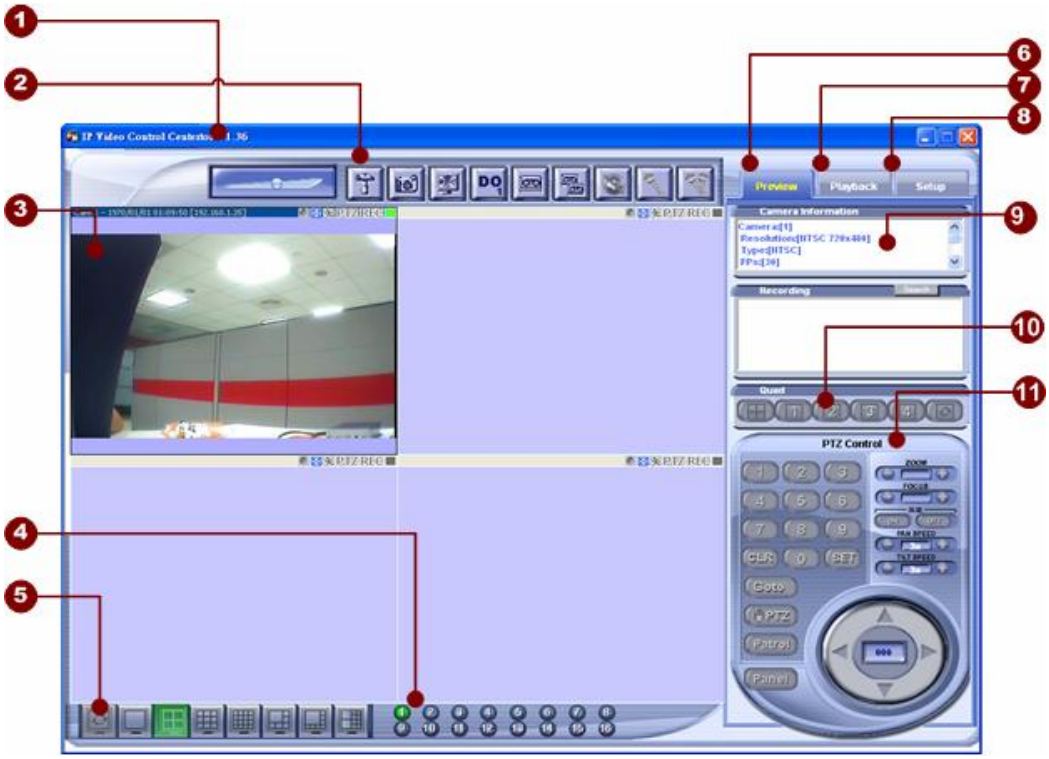


Figure 4. IP Video Control Center Preview Window

1. **IP Video Control Center version**: This panel displays related information on the IP Video Control Center version.
2. **Active Media Manager**: This panel operates on the active media window.
3. **Media Window**: This window links to the media source, including a live video stream from network or video stream from file.
4. **Media Quick-launch Button**: Indicates the listing of connected media source; by clicking the button, the selected media source will be activated.

5. **View Manager**: Change different view template.
6. **Preview Panel**: Change to preview mode.
7. **Playback Panel**: Change to playback mode.
8. **Setup Panel**: System configuration and setups.
9. **Camera Information**: Lists the information about the camera selected.
10. **Quad Control Panel:** When connected to an IP Speed Dome server, you can use this panel to control the video display.
11. **PTZ Control Panel:** Sends PTZ command to connected device.

Understanding the Playback Screen

IP Video Control Center playback screen consists of several parts.

Figure 5. IP Video Control Center Playback Window

1. **Thumbnail**: The window lists the thumbnail files captured by the user.
2. **Bookmark**: This window lists the bookmark files defined by the user.
3. **Media Playback Panel**: Media playback panel contains basic and advanced operation over media file, including play forward, rewind, play speed, frame-by-frame play forward and rewind.

TIPS: Alarm/Event includes **Motion Detection Event è**, **Digital I/O Event è** I/O, **Alarm è**, **and Bookmark Event è**.

Operate on Preview/Playback Window with Mouse

Click Left Mouse Key: Activate Window

This action will activate the preview or playback window.

Click Right Mouse Key: Enable / Disable Toolbar

This action will enable or disable the preview window toolbar.

Figure 6. Enable / Disable the Toolbar

1. **Enable the Toolbar**
2. **Disable the Toolbar**

Double Click Left Mouse Key: Enlarge Window

This action will enlarge the window or restore the enlarged window to its original size.

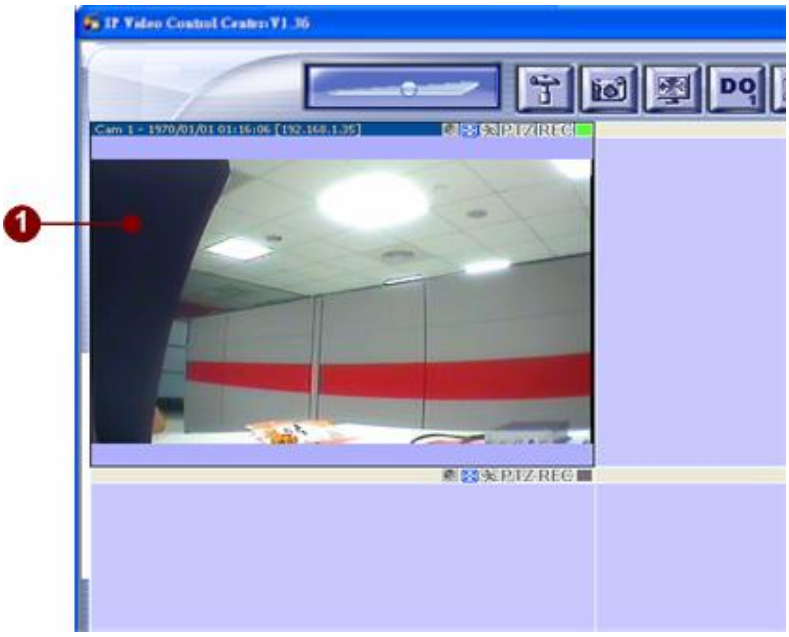


Figure 7. Double Click on the Video Screen to Enlarge Window

1. **Click on the video screen to enlarge window**

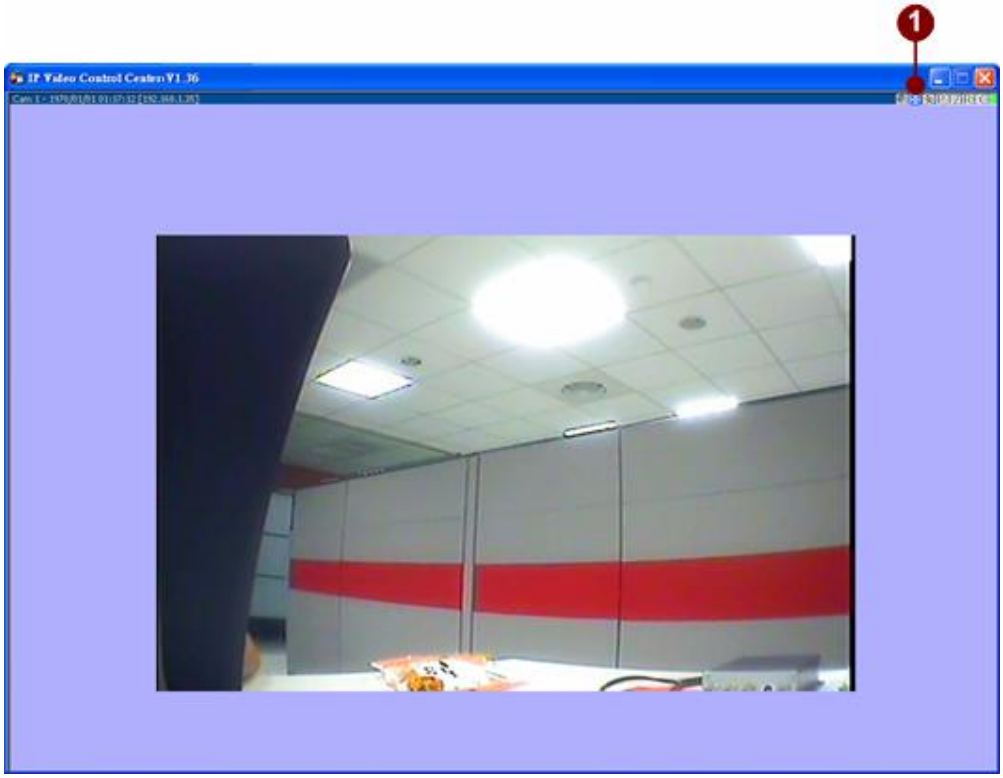


Figure 8. Enlarge Window

2. **Click on the stretch button to stretch the video size to fit the window size**

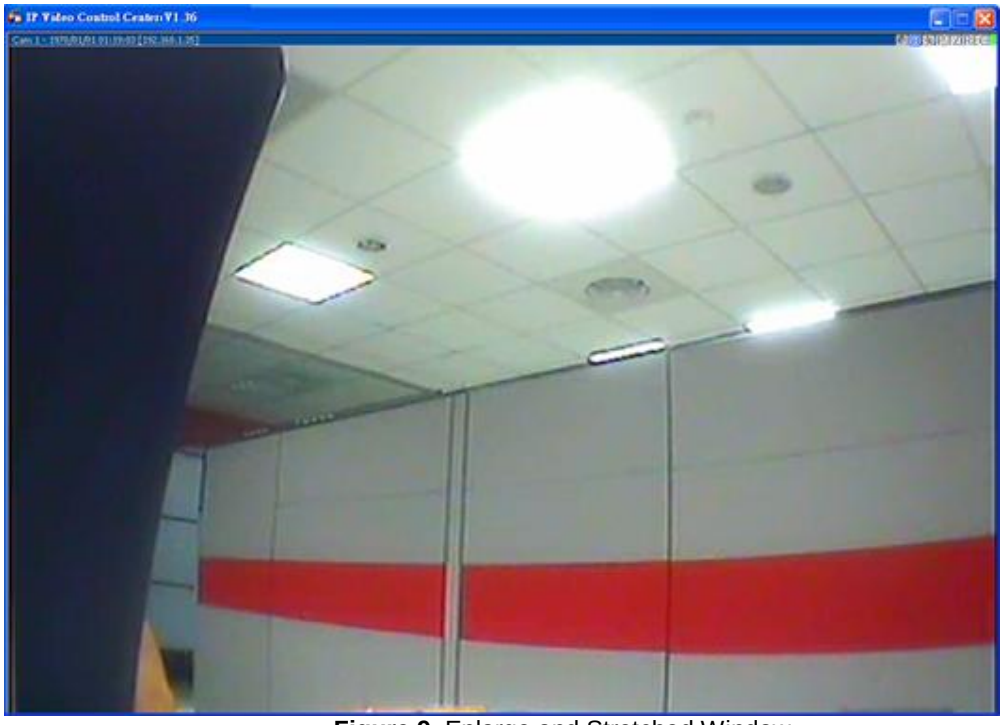


Figure 9. Enlarge and Stretched Window

IMPORTANT: When the preview window is stretched and enlarged, the CPU loading will be increased to decode the MPEG-4 stream.

3 Jump Start IP Video Control Center

Before using IP Video Control Center, the user has to setup the necessary configurations in IP Video Control Center. This section starts with adding a camera.

Assign a camera to a preview window

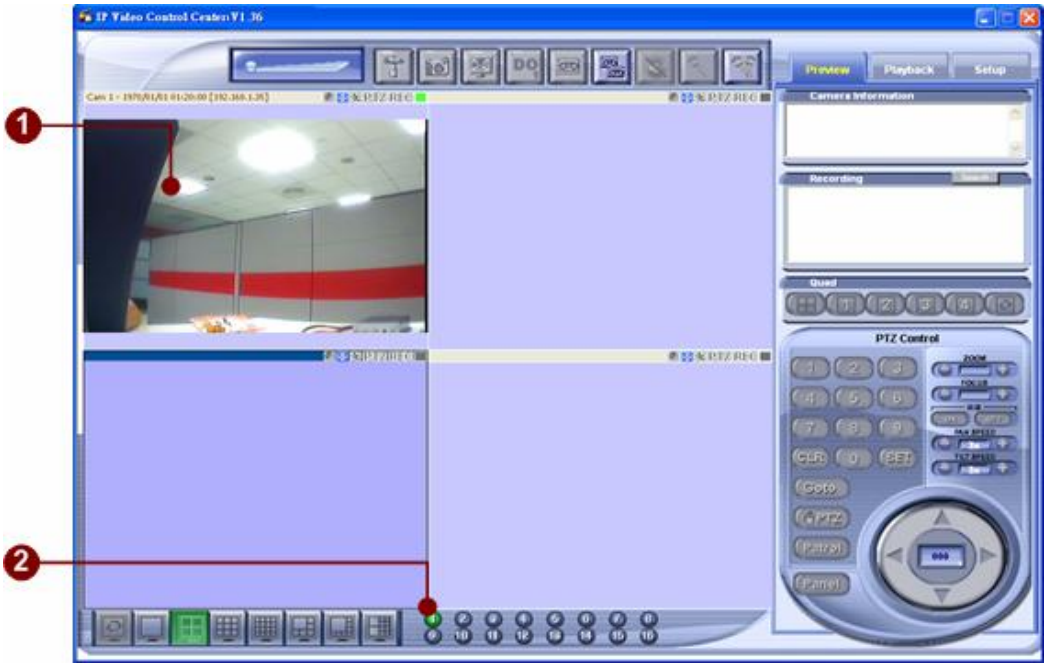


Figure 10. Select Preview Window and Camera

1. Click a preview window
2. Click on the camera number

Camera Connection Status

To check if a preview is connected with a camera, please check the camera connection status.

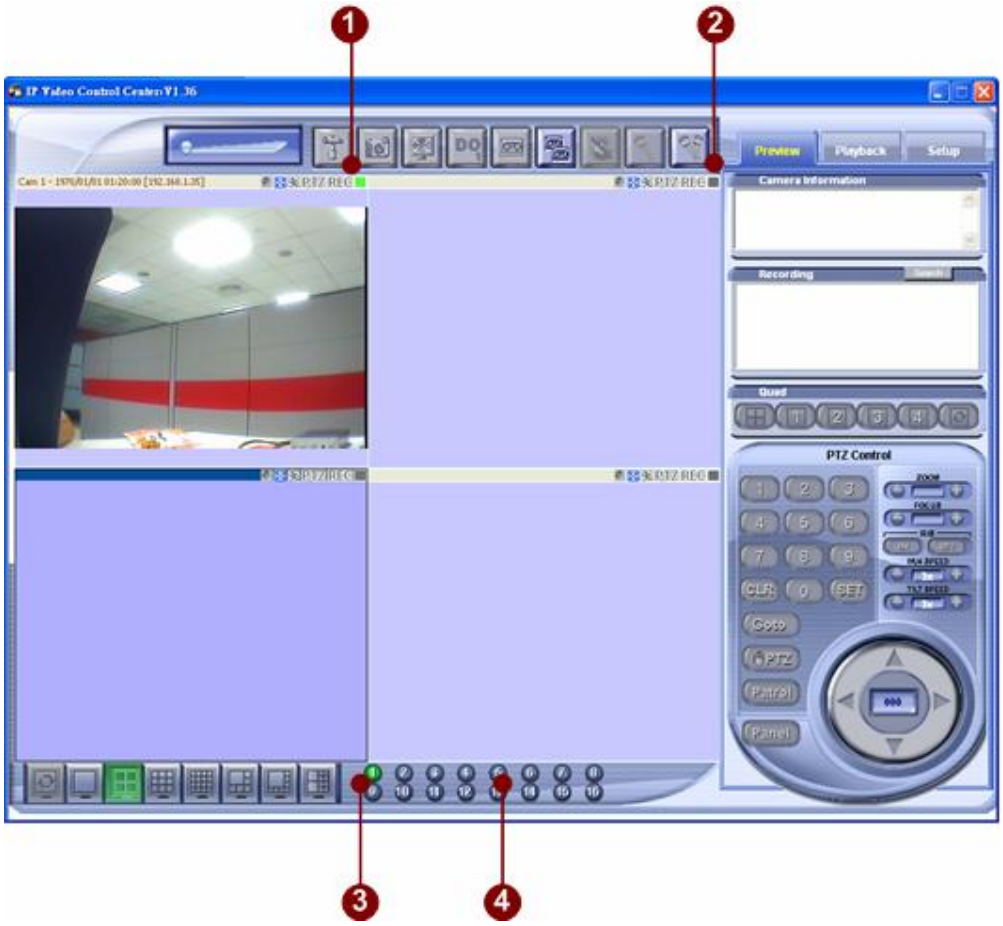


Figure 11. Camera Connection Status

1. indicates that the preview window is connected to a window
2. indicates that the preview window is not connected to a window
3. indicates that the preview window is connected to a camera
4. indicates that the preview window is not connected to a camera

Camera Disconnection Status

If the network loses when previewing, a message will be at the top of the preview shown indicating the status.

NOTE: System will try to reconnect to IP Speed Dome after 20 sec, if failed, System will continue to reconnect every 20sec..

Figure 12. Message Indicates Disconnection Status

Camera Video Loss Status

If Video loss occurs, an indication message will be shown.

NOTE: System will try to check video every 20 sec before the video is back.

Figure 13. Message Indicates Video Loss

1. Title bar displays `Video Loss Detect.`
2. The `Video Loss` event is triggered and logged.

Configure a camera

This section shows you how to configure the camera information.

Click Configure Camera Button

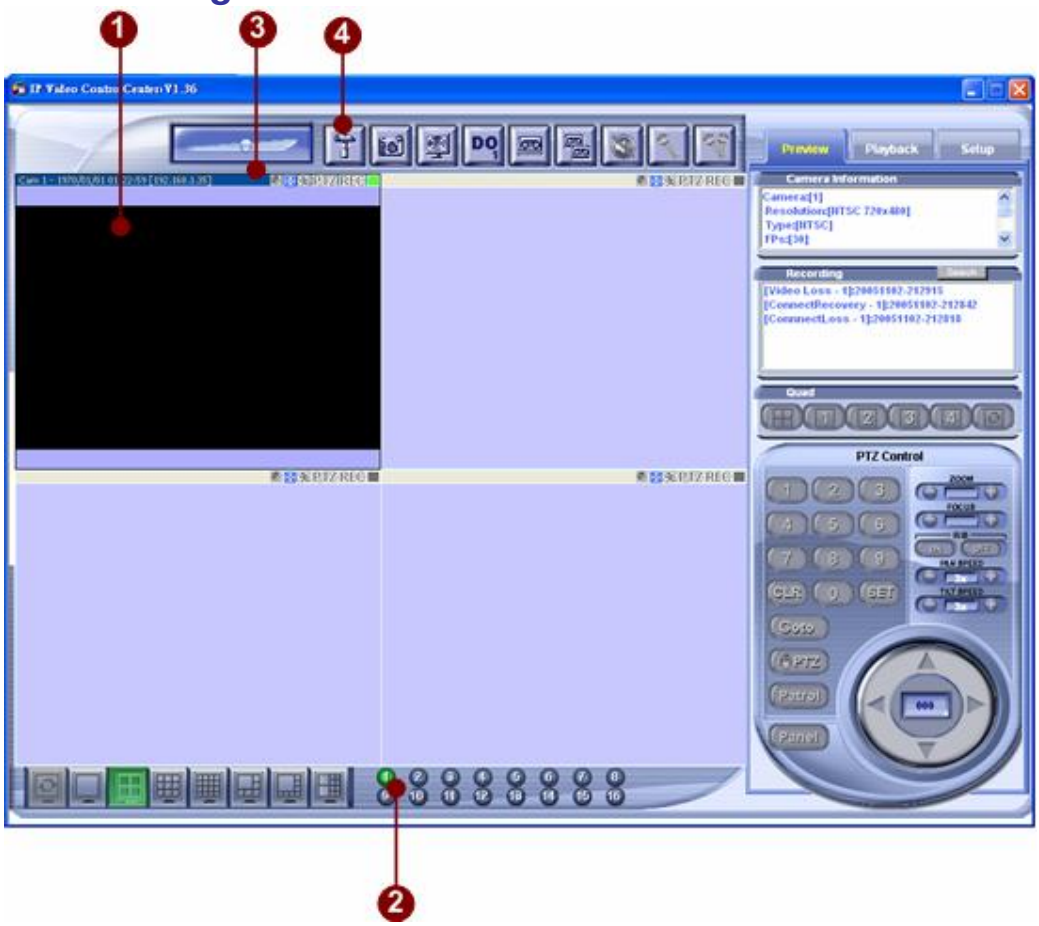
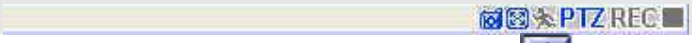


Figure 14. Click Configure Camera Button

1. Activate a preview window by clicking on the designated preview window
2. Click on camera number  to activate the preview window
3. When the preview window is activated, the toolbar will be displayed in blue color

TIPS: Active preview window:

Non-active preview window:



4. Click on the Configure Camera button  to configure the camera information

TIPS: If no camera is selected, then a pop-up window will displayed and ask user to load Setup Page.

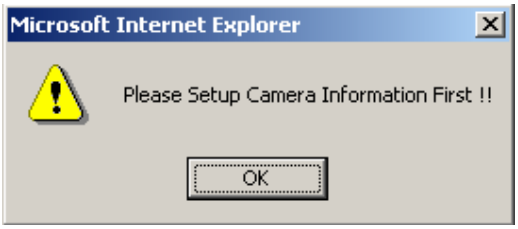


Figure 15. Please Setup Camera Information First

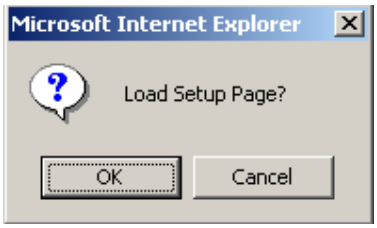


Figure 16. Ask User to Load Setup Page

Camera Configuration

This chapter describes how to change basic camera settings in the setup window. For advanced setup, pleaes refer to Chpater 9 for more information.

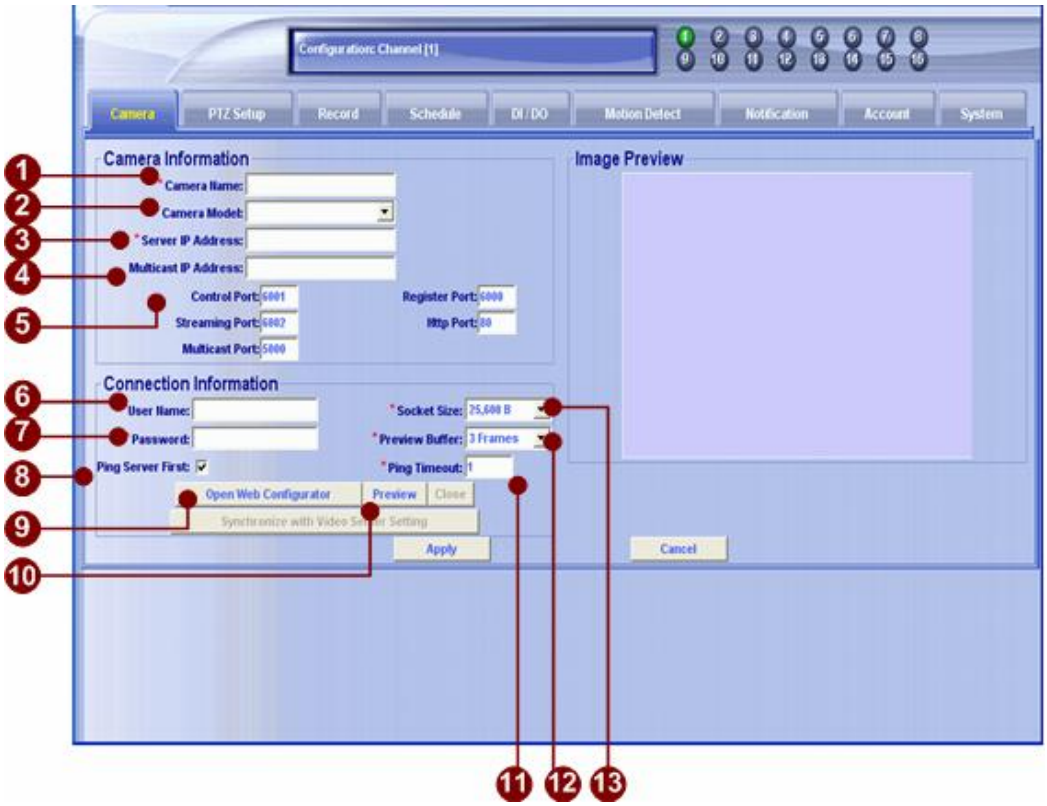


Figure 17. Camera Setup Dialog Box

1. **Camera Name***: Input a camera name or description to describe the

NOTE: The content of the camera name will be displayed on top of the preview media window.

camera.

2. **Camera Model***: Choose the camera model within a selection list; featuring:
   - **IP Speed Dome**
   - **IP Camera**
   - **IP Speed Dome**
   - **IP Speed Dome**
3. **Server IP Address***: Connect to the IP Speed Dome with unicast (TCP) connection

NOTE: You may enter host name address in this field as well. Make sure the host name can be resolved by DNS (Domain Name Server) in your network environment. This operation can also be verified by using ping command:

`C:\>ping hostname.`domain.com

4. **Multicast IP Address**: Subscribe to a multicast network to retrieve video packets.

NOTE: If Multicast IP address is entered without Server IP address, then the preview window can only perform preview function.
If Multicast IP address and Server IP address are keyed in, then the preview window can perform preview and Digital I/O and PTZ operations. The limit of concurrent connection is 15 users.

5. **Port Setup** : the port number to be authorized by the IP Speed Dome
6. **User Name**: the account to be authorized by the IP Speed Dome
7. **Password**: the password to be authorized by the IP Speed Dome
8. **Ping Server First**: If this check-box is checked, then IP Video Control Center will send ICMP packets (ping the IP address or host name) before it starts to register to the IP Speed Dome.

NOTE: If the IP address is behind firewall and firewall will block the ICMP packets, then IP Video Control Center cannot ping this IP device successfully, and will not register to the IP Speed Dome.
In this case, please do not check the check box.

9. **Open Web Configurator** button: click this button to open IP Speed Dome's Web Configurator directly
10. **Preview** button: click this button to see the preview window and adjust frame rate and video quality.
11. **Ping Timeout**: set the timeout value to ping the IP device. If we set it to 3 seconds, then, the maximum timeout value is 3 seconds..

NOTE: During the timeout period, the application will hang. We suggest that you set it to 1 second for the timeout.

12. **Preview Buffer**: select the video preview buffer size; the unit is number of frames. Default is 3 frames.

NOTE: If you set this value to a larger value, then the video display will be smoother; however, the video latency will enlarge..

13. **Socket Size**: choose the network transport socket size, if your network is very busy or you use the wireless network, you can choose the socket size to let our software get package to be better performance. Default is 25,600 Byte.

NOTE: If the network bandwidth is not stable, please set the socket size to a smaller one, say 1000 bytes. In this case, the packet will be transmitted faster and will not re-send by the TCP protocol layer.

Figure 18. Preview Window Toolbar

Motion Detection Setting

1. **Enable Motion Detection**: Enable or disable the motion detection function

NOTE: When the motion detection function is enabled, the media window's MD indicator will display in blue color.

Figure 19. Motion Detection Indicator Enabled

NOTE: When the motion detection function is active, the media window's MD indicator will display in Red color.

Figure 20. Motion Detection Indicator Enabled

PTZ Control Setting

1. **Enable PTZ**: Enable or disable PTZ function

NOTE: When the PTZ function is enabled, the media window's PTZ indicator PTZ will display in blue color. PTZ

2. **Baud Rate**: Select the baud rate to communicate with PTZ devices. The default value is set to 9600 bps.

3. **Protocol**: Pelco-P protocol is supported.

NOTE: For advanced PTZ control, please refer to chapter 51

For advanced PTZ setup, please refer to chapter 74

NOTE: Now, we support the user defined PTZ Protocol.

Figure 21. PTZ Indicator On

Disconnect the camera

To disconnect the connection to the camera, click on the connection status button on the active preview window

Figure 22. Disconnect the Camera

1. **Click on the connection status button**: Click on the connection status button to disconnect the camera. The preview will be terminated as well, and the connection status button will become .

4 Preview Mode

Preview Window

User may switch different preview modes by selecting on preview mode buttons.

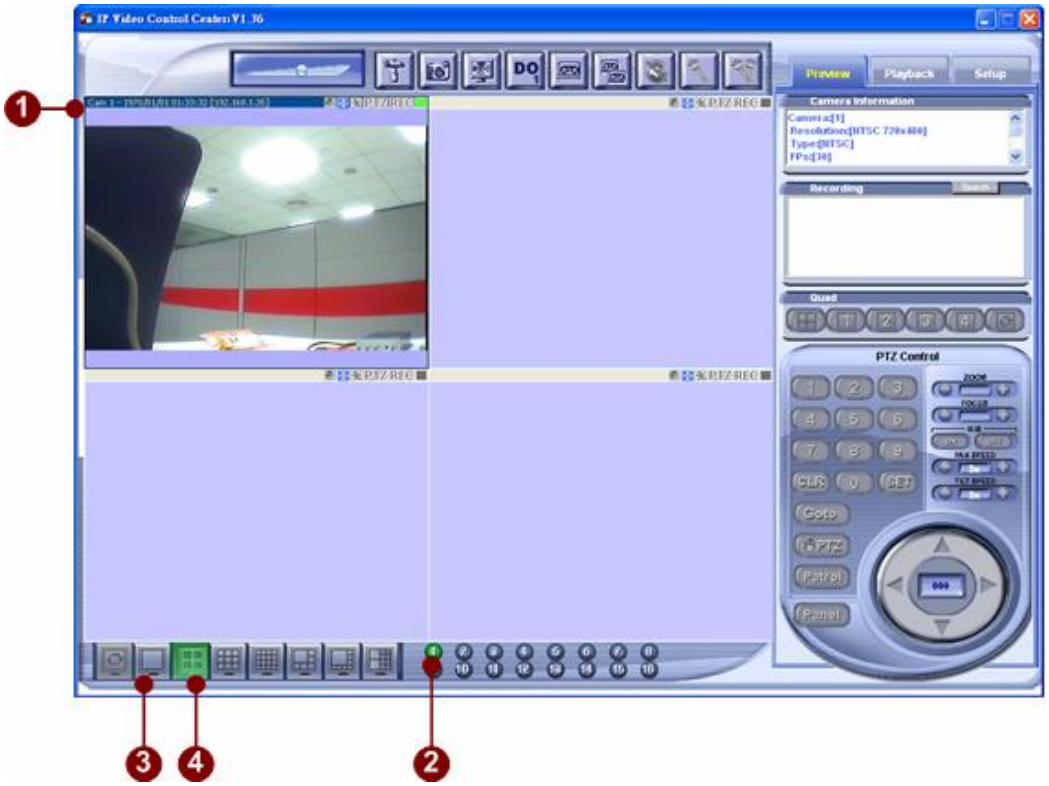


Figure 23. Preview Window Operation

1. When a channel is activated, the preview window will be displayed with **blue** title bar
2. The camera ID will be displayed in **green** color
3. Click on 1-channel preview, IP Video Control Center will enlarge the active window to maximum size
4. Click on 4-channel preview, IP Video Control Center will display 4-channel at the same time

Activate the Media Window

To operate over a media window, you have to activate the media window first.

The operations can be applied in the media window are: **Volumn adjust, Media Setup, Create Snapshot, Zoom Media Window; Send DOI, 1-channel Recording; multi-channels Recording; Mute; Enable microphone and audio broadcast.**

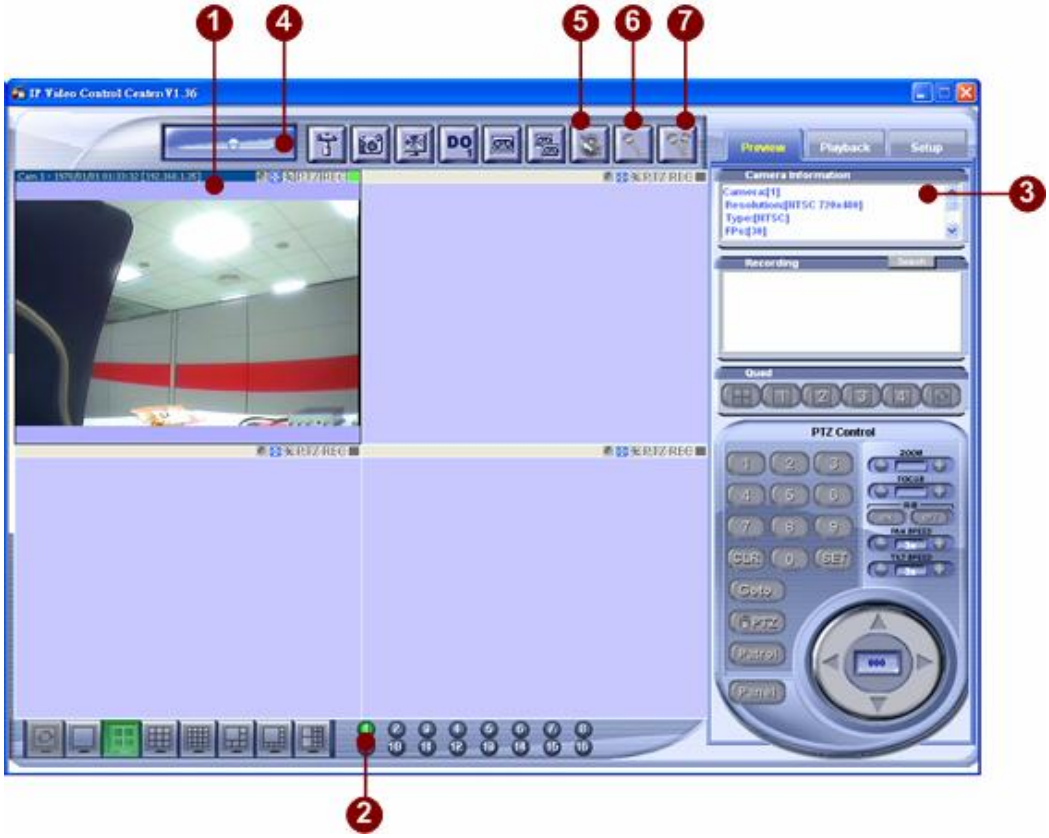


Figure 24. Activate a Preview Window

There are two ways to activate a media window:

1. Click on the media window in the video panel. When a media window is activated, the media window will be displayed with **blue** title bar
2. Click on the channel number in the "**Media Quick-Launch Button**"; click the one with green light. will bring up the video stream from connected camera.
3. **Camera Information Window**: This window displays current camera configuration, including camera ID, camera name, video resolution, FPS, etc.

Operations over preview window

There are many function button on the Active Media panel. Click on these button will activate some certain functions. Please refer to the introduction below.

TIPS: The Active Media window will enable only function at the preview window you currently selected.

Figure 25. Active Media Manager

1. **Volume Adjustment Bar**: If the selected channel is equipped with audio capability, then user may use this volume adjustment bar to adjust the volume.
2. **Camera Setup**: Setup the camera-related information, including IP address, FPS, Bit-Rate, recording settings, etc.
3. **Create Snapshot**: IP Video Control Center creates snapshot image on-the-fly. This will also create a "**Manual-Thumbnail**" event to the system.

NOTE: Current snapshot images support **BMP** file format. The file location is configured in "Recording Setup" button.

4. **Toggle Full-screen Mode**: The active media window will be stretched up to the full window, when clicked a second time, the active media window will be reset to normal proportion of the video window.

NOTE: The stretched-up video will be distorted; it may not comply with correct proportion of original video setting.

5. **Send DO1:** Use this button to trigger DOI manually.
6. **Toggle 1-channel Recording:** Starts or stops recording manually. When the active window is recording, this button will become .
7. **Toggle Multi-channels Recording:** Starts or stops recording manually. When the active windows are recording, this button will become .

NOTE: When user clicks Multi-channels Record button, the channels in the setup window will be recorded. For example, if user setup channel 1, channel 3, channel 5 in the camera setup, then these three channels will be recorded.

8. **Mute Button:** Click on this  button will turn audio off directly.
9. **Speak Button:** Click on this  button to transmit audio to the remote device.
10. **Broadcast Button:** Click on this  button to transmit audio to all remote devices that is currently connected and in preview mode.

NOTE: Speak and Broadcast button only valid on 2-way audio devices. Broadcast button only take effect when the channel is connected and under preview mode.

Preview Window

Media window is the essence of the IP Video Control Center system. Media window can serve as the live video stream from a IP Speed Dome or the media playback device from storage.

Media Indicator

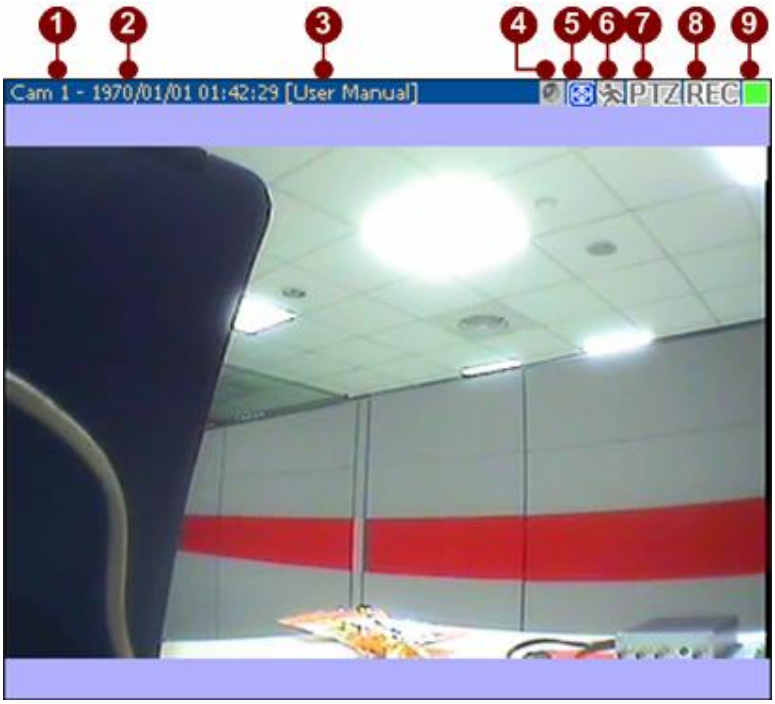


Figure 26. Preview Window Indicators

1. **Camera ID**: Indicates current camera ID
2. **Digital Time Code**: Displays the timestamp from the IP Speed Dome. This format is digital time code embedded in video stream.

NOTE: Digital time code is embedded in the video stream, and can be applied as watermark of the video stream.

3. **Camera Name**: Indicates current camera name. This value is setup in the camera name in camera configuration by clicking
4. **Audio Indicator**: Indicates current audio status; either audio mute or audio enabled status.
5. **Enlarge Screen Button**: Click this icon to stretch and enlarge current window. After the window is enlarged, click this icon to restore to its original size.

NOTE: You may also double-click on the left mouse key to enlarge the preview window. Another double-click on the left mouse key may restore the enlarged preview window to its original size.

IMPORTANT: When the preview window is stretched and enlarged, the CPU loading will be increased to decode the MPEG-4 stream.

6. **Motion Detection Indicator**: icon (Blue) indicates that this camera is setup with motion detection function. Icon indicates that this camera is not setup with motion detection function. This value is setup in the camera name in camera configuration by clicking
7. **PTZ Indicator**: PTZ icon (Blue) indicates that this camera is setup with PTZ control. PTZ Icon indicates that this camera is not setup with PTZ control. This value is setup in the camera name in camera configuration by clicking
8. **Recording Indicator**: REC icon (Red) indicates that this camera is recording. REC icon indicates that this camera is not recording.
9. **Connection Status Button**: icon (Green) indicates that this preview window is connected. icon indicates that this preview window is not connected.

NOTE: When click on this button, the connection to the camera will be closed.

IP Speed Dome preview display

The preview of the IP Speed Dome is different from others. Pleaes refer to the picture and description below.

Figure 27. Preview Window Indicators

1. **DO status**: Indicates the current DO status of IP Speed Dome.
2. **DI status**: Indicates the current DI status of IP Speed Dome.
3. **Time**: Indicates the time settings of the IP Speed Dome.
4. **Date**: Indicates the date settings of the IP Speed Dome.
5. **Camera name**: Displays the camera name of IP Speed Dome channel. Whenever there is an event, the camera name will be covered by a blue square.

Stretch Video Size to Fit Preview Window

Following methods may let users to enlarge the preview window:

- Click on the button to enlarge preview window
- Double click on the left mouse key

Figure 28. Stretch Video Window to Fit Preview Window

IMPORTANT: When the preview window is stretched and enlarged, the CPU loading will be increased to decode the MPEG-4 stream.

Following methods may let users to restore the preview window to its original size

- Click on the button to enlarge preview window
- Double click on the left mouse key

Capture Screenshot

Following method may let users to capture screenshots:

Figure 29. Capture Screenshot

1. **Capture Screen Button**: Click on the  button to capture active preview window into an image file.
2. **Event List**: Event list will display the screen-capture event as **Manual-Thumbnail** event.

IMPORTANT: If you want to capture the original size, click  button or click  button or double click on left mouse key to enlarge the video size before capture the screen shot.

Advanced Preview

If you want to view more than 3CH D1 images at the same time, you have to select “Auto frame” at each channel. Then you will preview 30fps image at one channel (the one currently clicked by your mouse) and preview 1fps for all other channels. This is due to the PC’s CPU computing power limitations.

Figure 30. Camera Setup

1. Click on Camera Setting.
2. Input camera name, camera model, server IP address, user name, password and then click on “Preview” button.
3. On the FPS column, choose “Auto Frame”. (You can choose Auto Frame on Constant and Variable frame rate mode.)
4. Click on “Apply” button.
5. Choose other camera number, set it as same as this.

Figure 31. Advanced Preview Window

1. Go to Preview Mode, and then click on the camera number to preview.
2. Choose the video screen, it has the active mode, and has 30 FPS to preview.
3. The unselect video screen is 1 FPS to preview.

Arrange preview window with cameras

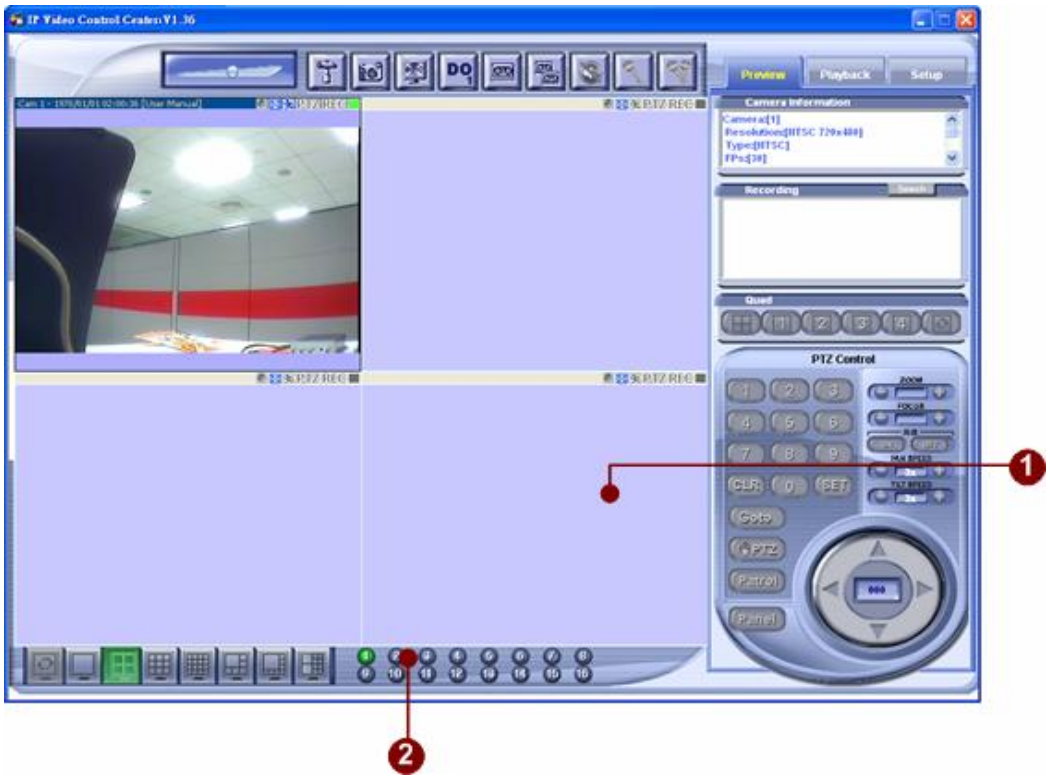


Figure 32. Assign a Camera to a Preview Window

1. **Select a preview window**: Use mouse to select a preview window.
2. **Select the camera**: Then select the camera to be assigned to the preview window

NOTE: If user assigns a camera to a preview window that is already connected with a camera, then that preview window will be re-connected to the new camera ID assigned. The previous camera will still be connected, but without preview.

NOTE: If the camera has not been connected yet, e.g. 3 , then the camera configuration page will be displayed for user to setup the camera configuration.

View Manager Panel

This section describes the preview mode available in preview functions.

Figure 33. Preview Mode

1. **Patrol Preview Toggle Button:** To enable or disable patrol preview function. Click on this button  start patrol preview function, and the button will become  . Click on this button again to stop patrol preview function.
2. **1-window preview Mode**: Click on this button  to set the whole window tiled with 1 preview window.
3. **4-window preview Mode**: Click on this button  to set the whole window tiled with 4 preview window.
4. **Reconnect to connected Camera** : Click on this button  to reconnect this camera in existing or new window.
5. **Connect to unconnected camera** : Click on this button  to connect this camera in existing or new window.

5 Record Mode

This chapter describes the operations on the playback panel. Playback panel operates with search function closely as well.

Record Mode

In this release, there are four recording modes, including Manual Recording, Background Recording, Schedule Recording and Repeat Recording.

Manual-recording is the mode that user may click to start and stop manually.

Background-recording is the mode that let user to record channels without preview them. This recording will save a lot of CPU loading comparing with manual recording.

Schedule-recording is the mode that user may setup several independent schedules, and when the scheduled time reached, background recording will start recording and stop recording according to the schedule setup.

Repeat-recording is the mode that user may specify a threshold, so that when the hard disk space is not enough, older files will be deleted.

Manual Record Operation

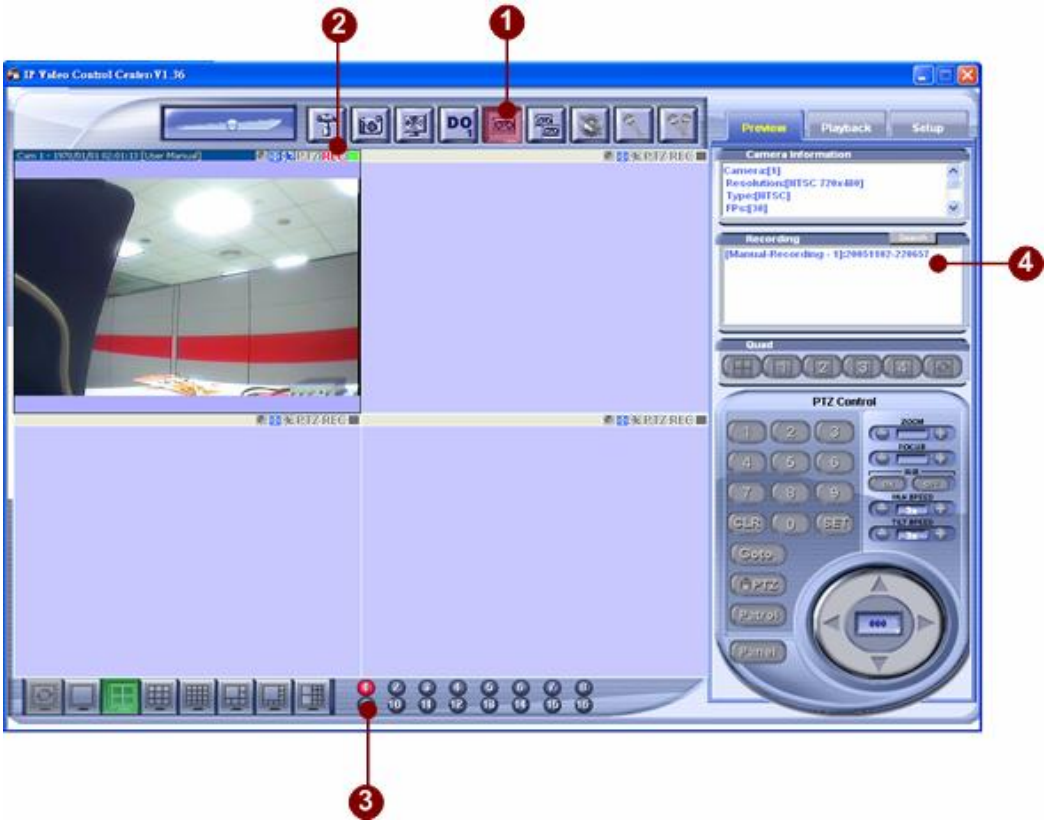


Figure 34. Manual Recording Operation

1. Click recording toggle button  to start or stop manual-recording.  Indicates that the specified camera is manual-recording at this moment.
2. When REC indicator is displayed (in **red** color), it indicates that this preview window is manual-recording. REC Indicates that current window is not manual-recording.
3. When the preview window is manual-recording, the channel indicator  will be displayed in **red** color
4. Recording event list: In the event list; there will have a new record for this manual-recording event.

Background Record Operation

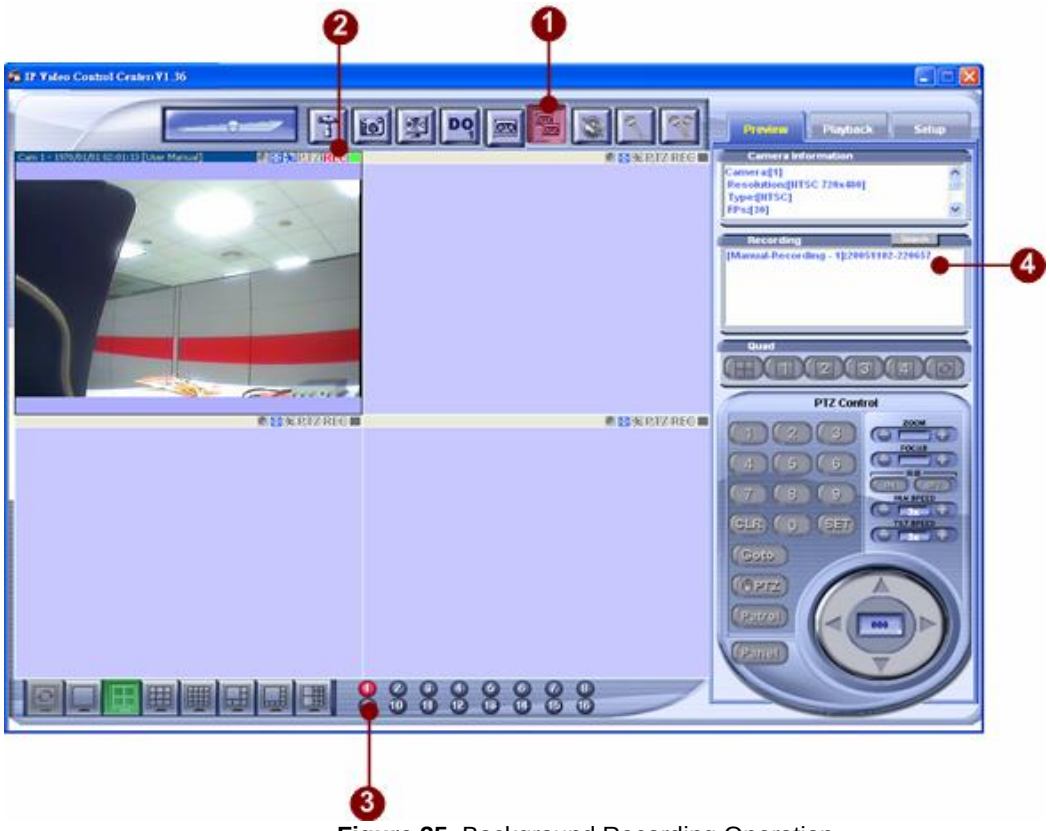


Figure 35. Background Recording Operation

1. Click record all toggle button  to start or stop background-recording.  indicates that the specified cameras are background-recording at this moment.

NOTE: When user clicks Record All button, the channels successfully set in the setup window(please refer to page 錯誤! 尚未定義書籤。 for camera setup) will be recorded. For example, if you have successfully setup channel 1, channel 3 and channel 5 in the camera setup, then these three channels will be recorded during background-recording.

NOTE: Due to the CPU performance, and network connection time, there will have 5 seconds initialization time, before all channels start recording.

.

NOTE: The files recorded by background-recording locate at the same directory as the file path recorded by manual-recording.

2. The REC indicator is displayed, and it is not in **red** color during background–recording mode.

3. When the preview window is background-recording, the channel indicator  will be displayed in **green** color, it will not change into **red** color.
4. Recording event list: In the event list; there will be all background-recording channels for recording event.

Schedule Record Operation

User may specify several schedules independently on each channel. IP Video Control Center will perform background-recordings according to the schedules. (Please refer to page 76 for recording setup details)

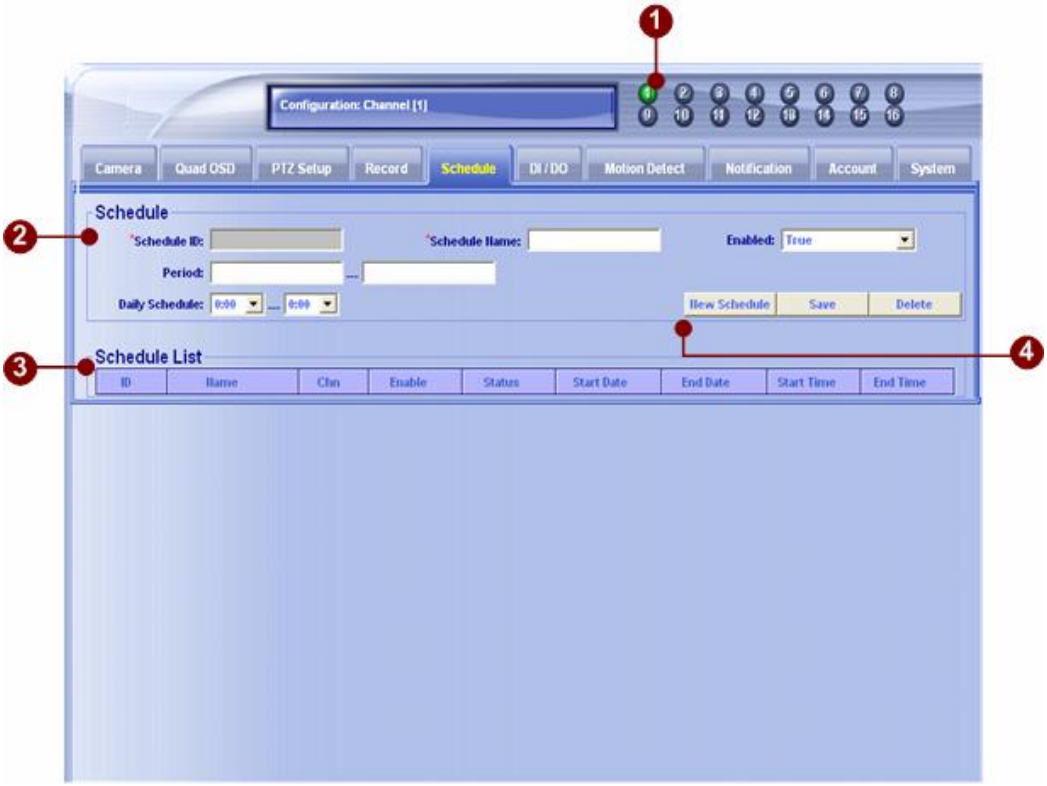


Figure 36. Schedule Recording Operation

1. Click on the camera number.
2. Input the schedule
3. Click on “Save” button to save and click “New schedule” to input new.
4. All schedules are listed here.

NOTE: Schedule-recording function will only work when the IP Video Control Center is on. If the IP Video Control Center is not on, nothing will be recorded even if it’s in the recording schedule.

Repeat Recording Operation

In this release, there is a new option in the recording setup. User may specify the lowest hard disk space threshold, if the threshold is reached, then some older files will be deleted according to your choice. Please refer to Page 76 for setup detailes.

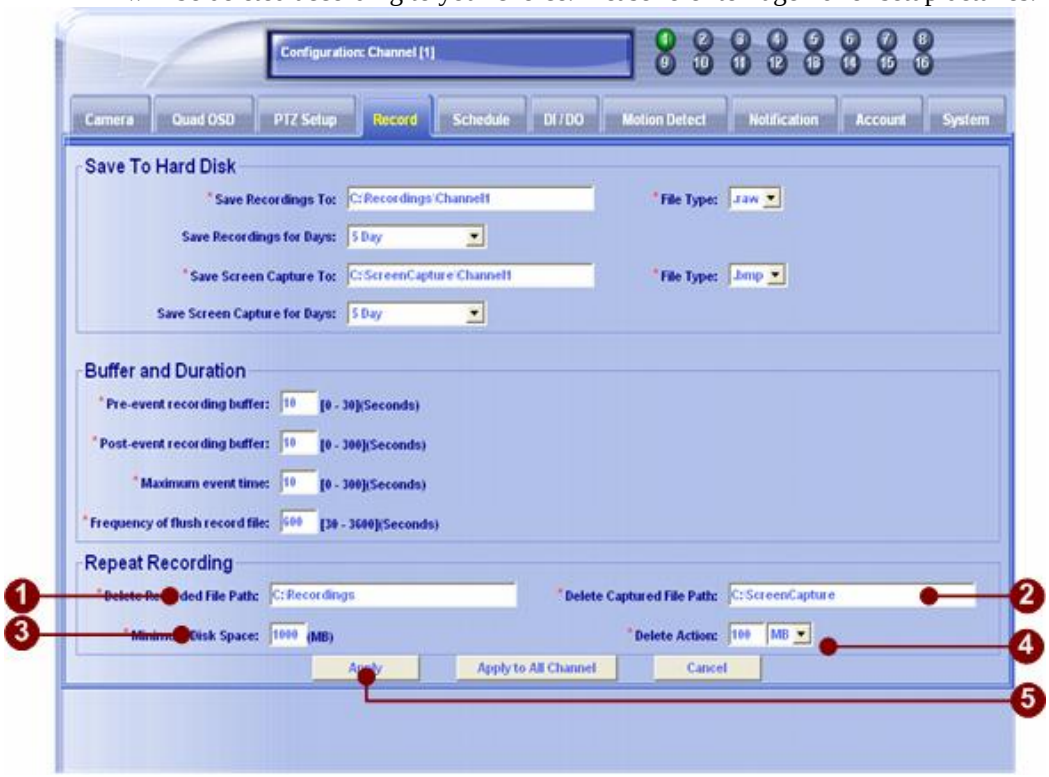


Figure 37. Repeat Recording Operation

1. Delete File Path: The IP Video Control Center will start to delete files in this folder and the subfolders of this folder.

NOTE: All sub-directories under this directory will be enlisted, and older files will be deleted.

2. Minimum Disk Space: the minimum disk space threshold.
3. Delete Action: when the Minimum Disk Space is reached, it will start to delete according to your setup here.the action will be taken

NOTE: Repeat Recording works with Manual Record Mode, Background Record Mode and Schedule Recording.

4. Click on “Apply” button to save...

6 Playback Mode

This chapter describes the operations over playback panel. Playback panel operates with search function.

Playback Panel

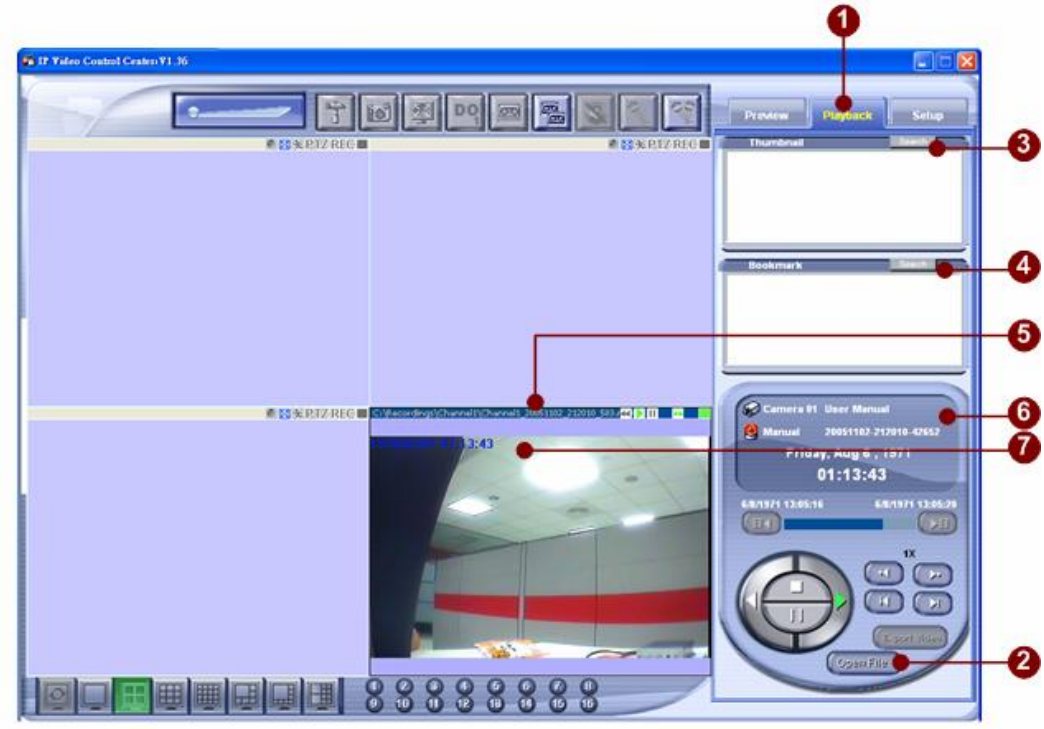


Figure 38. Playback Panel

1. **Playback Tab**: Click on the playback tab to invoke the playback mode
2. **Open File Button**: Click on the Open File button to open a dialog box to open a recoded file.
3. **Thumbnail**: Click on the Search button to display Event Search window.
4. **Bookmark**: Click on the Search button to display Event Search window.
5. **Active Playback window**: This window displays the playback video files
6. **Media Playback Panel**: Operates playback mode on the active playback window

Open Video File

The fastest way to start playback a media file is to use open file function. By clicking the Open File button, a "Open File Dialog Box" will pop up.

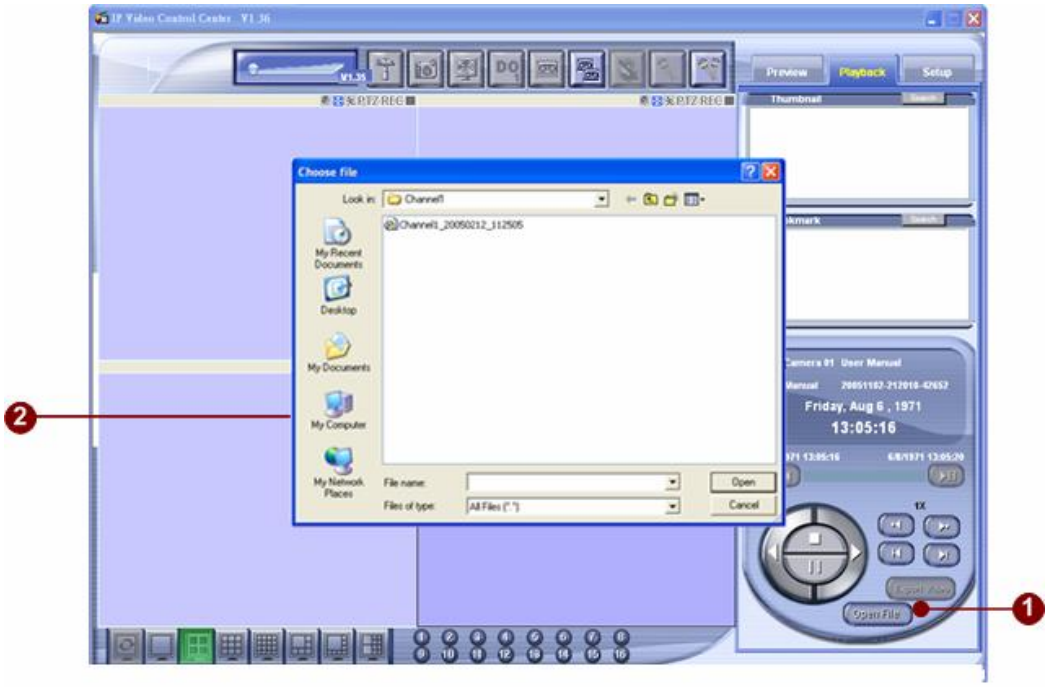


Figure 39. Open Media File

1. **Open File**: Click on the Open File button to open a pop-up file-browse window
2. **Browse File Button**: Click on the Browse File button to browse and select the media file to be played.

Media Control Panel Operations

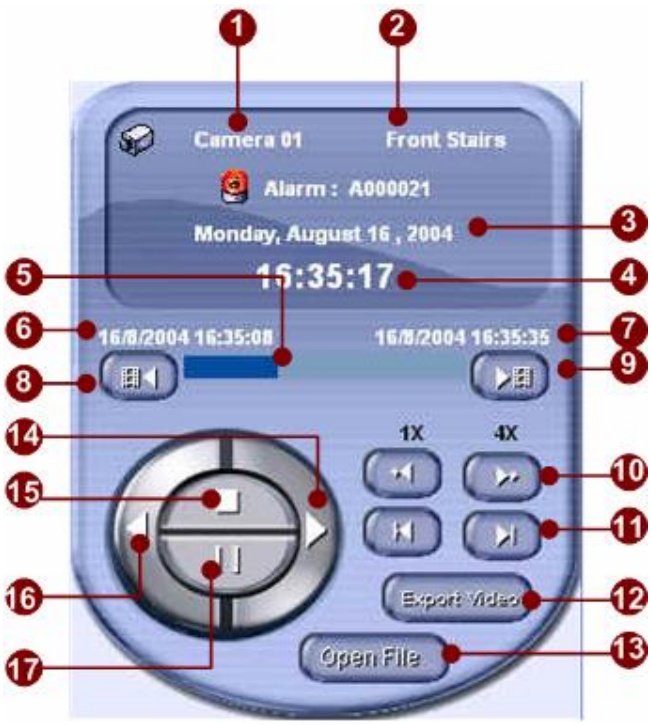


Figure 40. Media Control Panel

1. **Camera ID**: Displays the camera ID
2. **Camera Name**: Displays the camera name or camera description
3. **Date Stamp**: Displays the date stamp.
4. **Time Stamp**: Displays the time stamp
5. **Play Status Indicator**: Indicates current play indicator

NOTE: By clicking on the play status bar, you may reset the position to the point you click.

6. **Media Start Time Stamp**: Displays the starting time stamp of the media
7. **Media End Time Stamp**: Displays the ending time stamp of the media
8. **Play frame-by-frame in backward direction**: Play previous frame 
9. **Play frame-by-frame in forward direction**: Play next frame 

NOTE: If you want to play frame by frame you must pause the media file first.

10. **Fast forward**: Fast forward  , available speed are: 1X, 2X, 4X,
11. **Go to End of File**: Click the  button to jump to end of file, and click the  button to jump to begin of file.
12. **Export Video**: If you select multiple files, then you may click the button to merge multiple files into one AVI file.
13. **Open File Button**: Click the 

button to open a media file
14. **Play**: Click the button to play a media file
15. **Stop**: Click the button to stop playing a media file
16. **Play Backward**: Click the button to play a media file in backward direction
17. **Pause**: Click the button to pause playing a media file

Media Playback Window

Media playback window displays current media files. This window can be operated and controlled by Media Control Panel as well.

Figure 41. Media Playback Window

1. **Media File Name**: Indicates the media file name to be played
2. **Enlarge / Shrink Window Button**: Click this button to enlarge and stretch the video size to fit the playback window size. Click this button again to reset the enlarged video size to its original size.

Capture Playback Screenshot

Following method may let users to capture screenshots when playing file:

Figure 42. Capture Playback Screenshot

1. **Capture Screen Button**: Click on the  button to capture active preview window into an image file.
2. **Event List**: Event list will display the screen-capture event as **Manual-Thumbnail** event.

IMPORTANT: If you want to capture the original size, click  button, click  button or double click on left mouse key to enlarge the video size before capture the screen shot.

IMPORTANT: You may only capture the screen from specific files that is the files must be recorded in the database. If you want to upgrade your software, please don't forget to backup your database file.

Search Playback Files by Events

Users may find a recorded file by date, time and event lists.

Figure 43. Search Event

Event Search List

Event Search dialog box looks like following:

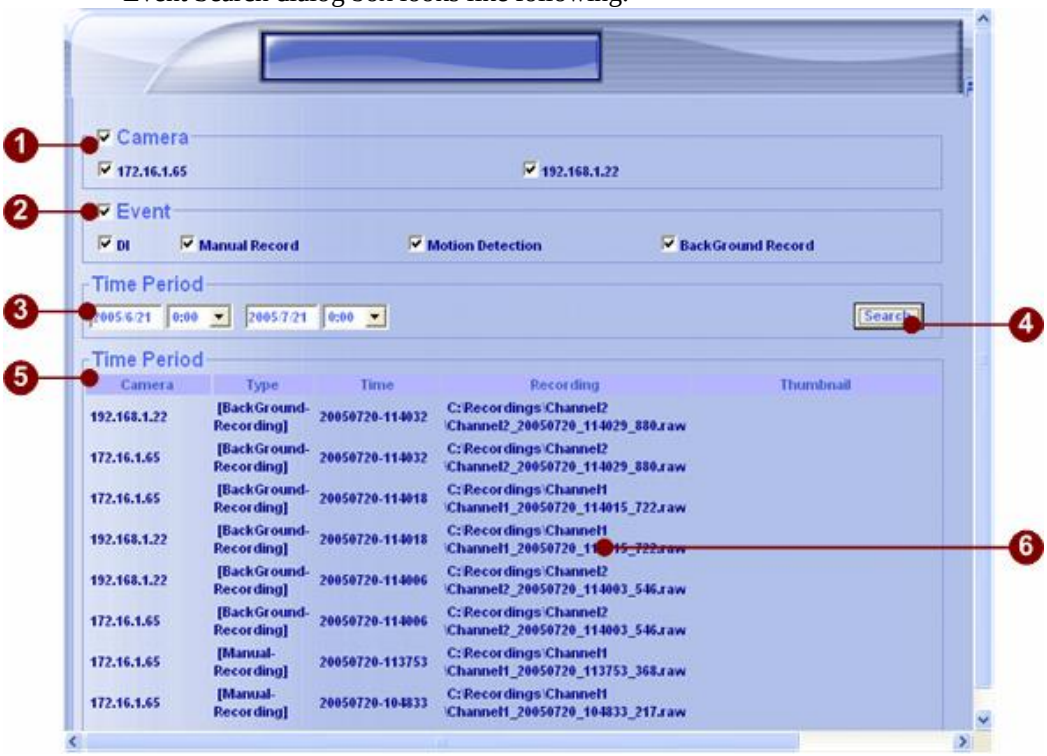


Figure 44. Event Search List

1. **Camera**: Lists the cameras connected. Click on `Camera` check box to select or de-select all cameras.
2. **Event**: Lists the Event list for search. Available events are `DI, Manual Record, Motion Detection, and Background Record.` Click on `Event` check box to select or de-select all events.
3. **Time Period**: Select a start and end time period.
4. **Search Button**: Click this button to start search events
5. **Event Search List**: This list displays the recorded files that match the criteria.
6. **Event Detail**: Click on the event detail to start playing video.

7 PTZ Control Panel

This chapter describes the operations over PTZ Control panel and how to add new PTZ Protocol.

Pan, Tilt, Zoom Operation

IP Video Control Center's PTZ control follows **Pelco-P** protocol. User may operate PTZ Control panel to operate the PTZ devices with Pelco-P protocol.

Figure 45. PTZ Control Panel

1. **Zoom function**: click to zoom in the view; click to zoom out the view
2. **Focus function**: click to sharpen the focus on the view; click to loosen the focus on the view
3. **IRIS function**: click ON to open the IRIS; click OFF to close the IRIS
4. **PAN Speed function**: click to increase the speed of pan operation; click to decrease the speed of pan operation
5. **TILT Speed function**: click to increase the speed of tilt operation;

click  to decrease the speed of tilt operation

6. **Tilt operation function**: click  to tilt up; click  to tilt down
7. **Pan operation function**: click  to pan right; click  to pan left
8. **Camera indicator**: indicates current active camera ID
9. **Remote control panel function**: Click this button to enable the remote control panel function. Remote control panel function transmits the control data from a control panel (connected to this PC) to the remote PTZ device (ex: IP speed dome or any PTZ device connected IP Speed Dome).

PTZ Preset Position Operation

IP Video Control Center's PTZ control has following functions on preset position operation:

- Save position
- Clear position (This function is currently researved)
- Go to position
- Patrol on preset position
- Mouse PTZ function

Figure 46. PTZ Preset Panel

1. **Position Indicator**: indicates current position
2. **Key Pad**: click on the number key pad to set the position indicator. Position indicator is formed in 3-digit number.
3. SET **button**: save the position to the position indicator
4. CLR **button**: clear the position set in current position indicator
5. Goto **button**: go to the position set in current position indicator
6. PTZ **button:** toggles mouse PTZ mode. With mouse PTZ mode, user may click on the screen to do pan and tilt operation
7. Patrol **button:** toggles patrol mode. By clicking this button, IP Video

Control Center will starts patrol with preset positions.

8.  **button:** Click this button to enable the remote control panel function. Remote control panel function transmits the control data from a control panel (connected to this PC) to the remote PTZ device (ex: IP speed dome or any PTZ device connected IP Speed Dome).

 **NOTE:** Maximum umber of preset position is 8

 **NOTE:** To setup the position for Pelco_P or Pelco_D as follow:

Move to the point à Key in the NO à 

 **NOTE:** To setup the position for Linlin as follow:

Key in the NO à  **à Move to the point à** 

Add New PTZ Protocol

IP Video Control Center's PTZ control supports user defined PTZ Protocol. There are 3 steps required. First: Add a new PTZ protocol. Second: Select the protocol for specified camera. Third: Go to preview mode and control.

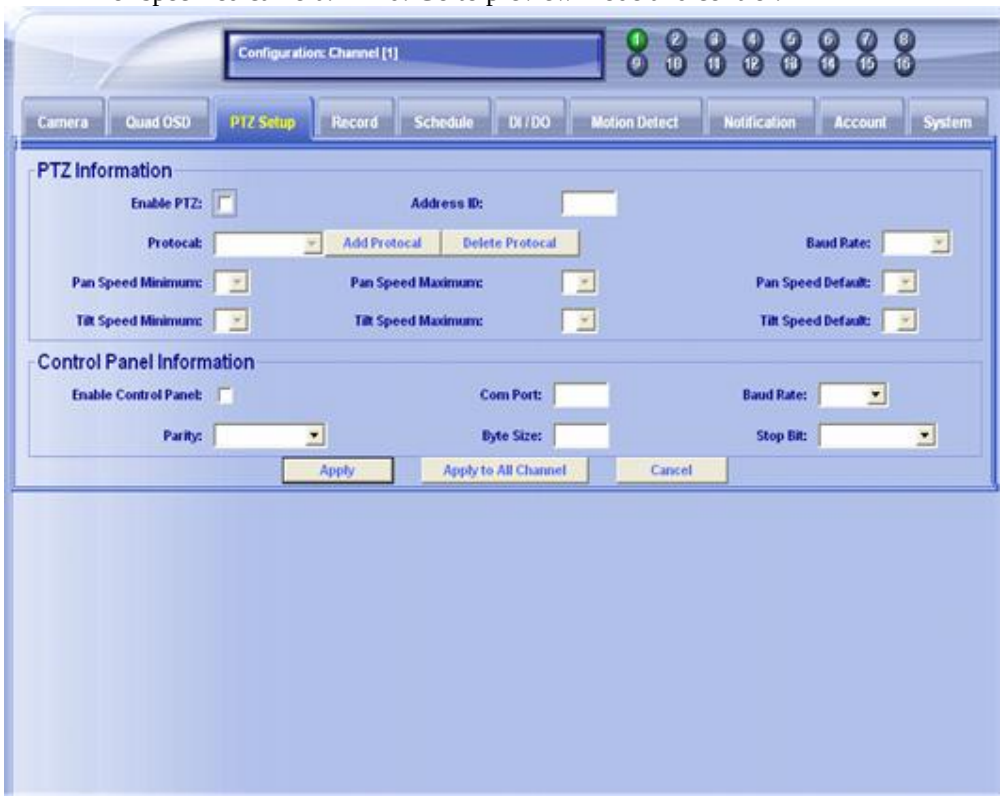


Figure 47. Add New PTZ Protocol Setup

First: Add a new PTZ protocol.

1. First, add a protocol.ptz file (ex. samsung.ptz).
2. Click on PTZ Setting.
3. Click on "Add Protocol" button.

About the protocol.ptz file, you can see the Appendix-A at page **錯誤! 尚未定義書籤。** for details.

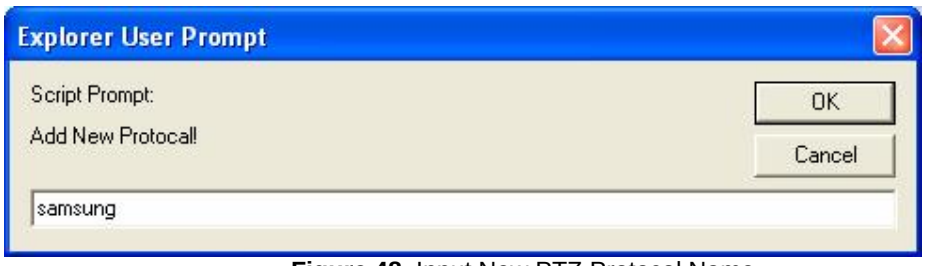


Figure 48. Input New PTZ Protocol Name

1. You can see this message.
2. Input the new protocol name (ex.samsung).
3. Click on “OK”

Second : Select the protocol Pelco D .

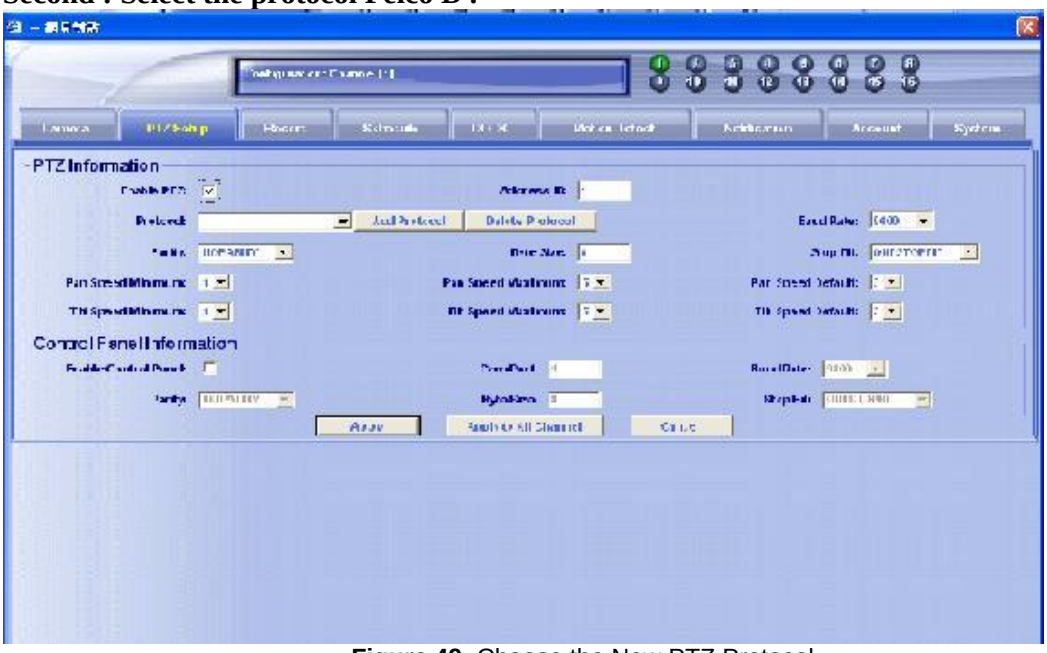


Figure 49. Choose the New PTZ Protocol

1. Copy the Samsung.ptz file to C:\Program Files\IP Video Control Center\
2. Run IP Video Control Center software, and Go to PTZ Setting.
3. Enable PTZ, then you can see Samsung protocol.
4. Setup the PTZ information. Pan speed minimum, maximum, default; Tilt Speed minimum, maximum, default; address ID, Baud Rate.
5. After input, Click on “apply” button.

Third: Go to preview mode and control

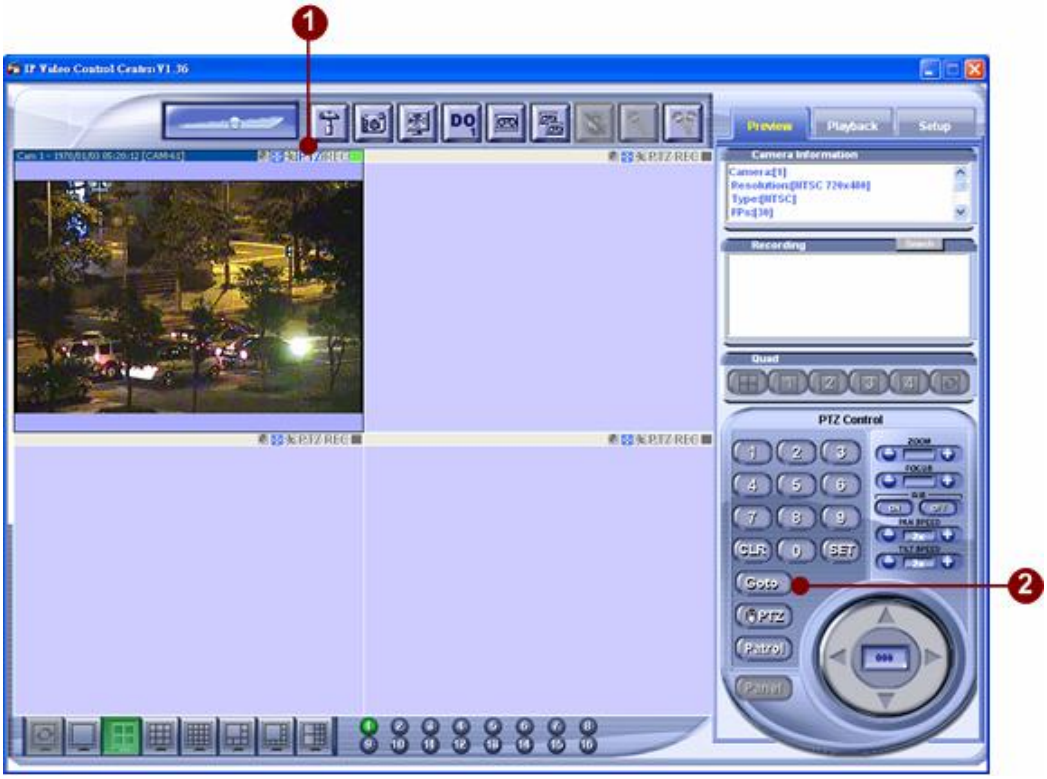


Figure 50. Go to Preview Mode and Test New PTZ Protocol

1. Go to Preview mode. You will see the PTZ indicator is on.
2. Reconnect to the camera by clicking on the camera number. Then you can use the PTZ function.

8 Motion Detection

This chapter describes the operations over Motion Detection Setup. There are two types of setup page, one is for IP Speed Domes, the other is for Normal IP cams and IP Speed Domes. Please follow the procedure below to setup.

Motion Detection Setup, step by step

IP Speed dome

Figure 51. IP Speed Dome motion Detection Setup Box

1. Before you start the setup. Please **disconnect all preview channels**.
2. Select Motion Detection to Setup
3. Press “Get Server Motion Setting” button to image preview
4. Enable the Regional Motion Detection I
5. Then Click “Full Screen” button
6. Auto-Enter the sensitivity numbers.
7. Change sensitivity setting (Default is 50).
8. After a successfull setup, you will see the video screen with a red frame.

9. Select the response action once the Motion Detection is triggered. (Ex: Trigger DO1, Add Thumbnail, Start Recording, Send an E-mail, Send file to FTP)
10. Click on the Apply button.

IMPORTANT: If the video image does not show up, it means that this IP PTZ cannot be connected correctly or the account / password to access this IP Speed Dome is not correct.

1. "Save successfully" message will appear on the screen.

Figure 52. Save Successfully

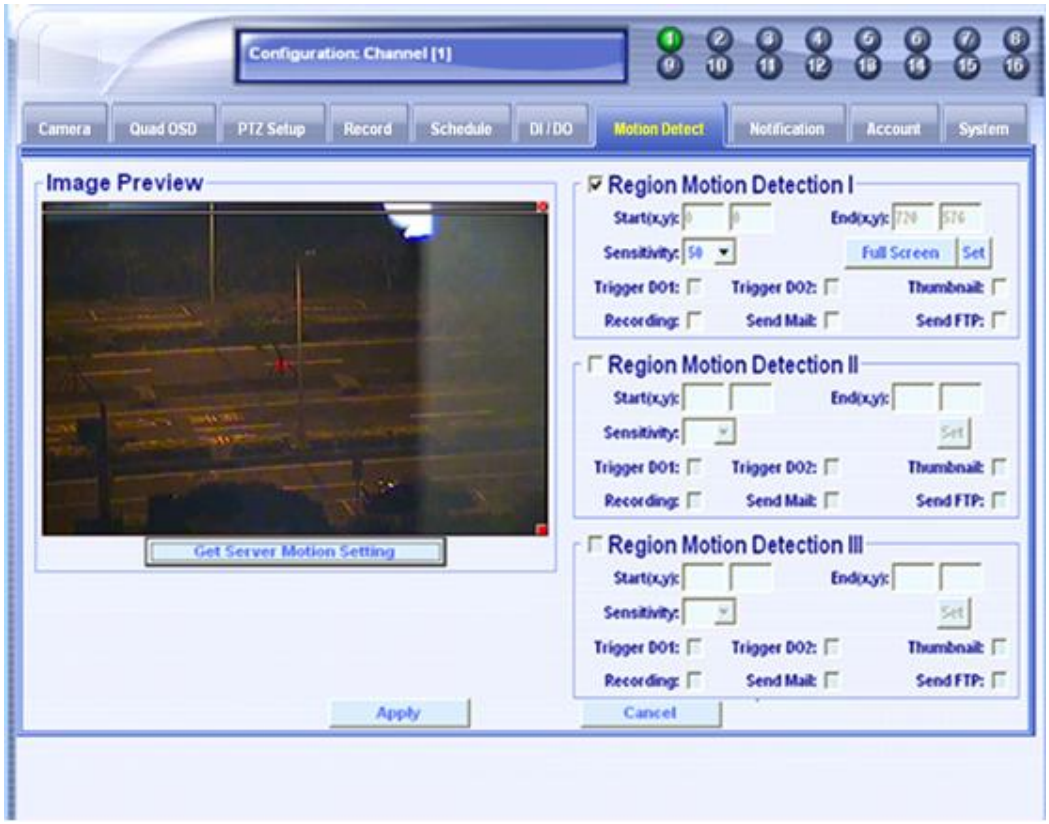


Figure 53. Motion Detection Setting is saved to Firmware

1. Our Motion Detection setting is saved to the firmware.

Figure 54. Motion Detection Preview

1. Go to preview.
2. Click on the camera.
3. You can see the blue icon on the bar.

When the Motion Detection function runs, you can see a **red frame** on video screen, and the little icon will be change to **red**.

Figure 55. Motion Detection Function Running

Example A: A correct Motion Detection Setup

Here are some examples on how to set Motion Detection:

Indoor (TCP Connect): Full Screen / Sensitivity: 50 or higher

Indoor (Multicast Connect): Full Screen / Sensitivity: 70 or higher

Indoor

Figure 56. Enable Indoor Full Screen Motion Detection Function

1. Enable Region Motion Detection I.
2. Press “Full Screen” button.
3. Then click “Apply” button to save.

Figure 57. Enable Indoor Regional Motion Detection Function

4. Or you may set the regional motion detection on the entrance.

Outdoor (TCP Connect): Full Screen / Sensitivity: 60 or higher

Outdoor (Multicast Connect): Full Screen / Sensitivity: 70 or higher

Outdoor

Figure 58. Enable Outdoor Motion Detection Function

1. Enable Region Motion Detection I
2. Press “Set” button
3. Sets the regional motion detection on the entrance
4. then click “Apply” button to save

Figure 59. Regional Motion Detection Function Running

Examples B: Motion Detection III Setup Correctly

Indoor (TCP Connect): Full Screen / Sensitivity: 50 or higher
Indoor (Multicast Connect): Full Screen / Sensitivity: 70 or higher
Outdoor (TCP Connect): Full Screen / Sensitivity: 60 or higher
Outdoor (Multicast Connect): Full Screen / Sensitivity: 70 or higher

Figure 60. Enable Regional Motion Detection I and II

1. Select the Motion Detection Setup
2. Click on “Get Server Motion Setting” button to Image Preview
3. Enable Region Motion Detection I, click on “Set” button, and then you will see the first red frame.
4. Enable Region Motion Detection II, click on “Set” button, and then you will see the second red frame.
5. Click on “Apply” button to save.
6. If you can see “Save Successfully” message, your setting is successful.

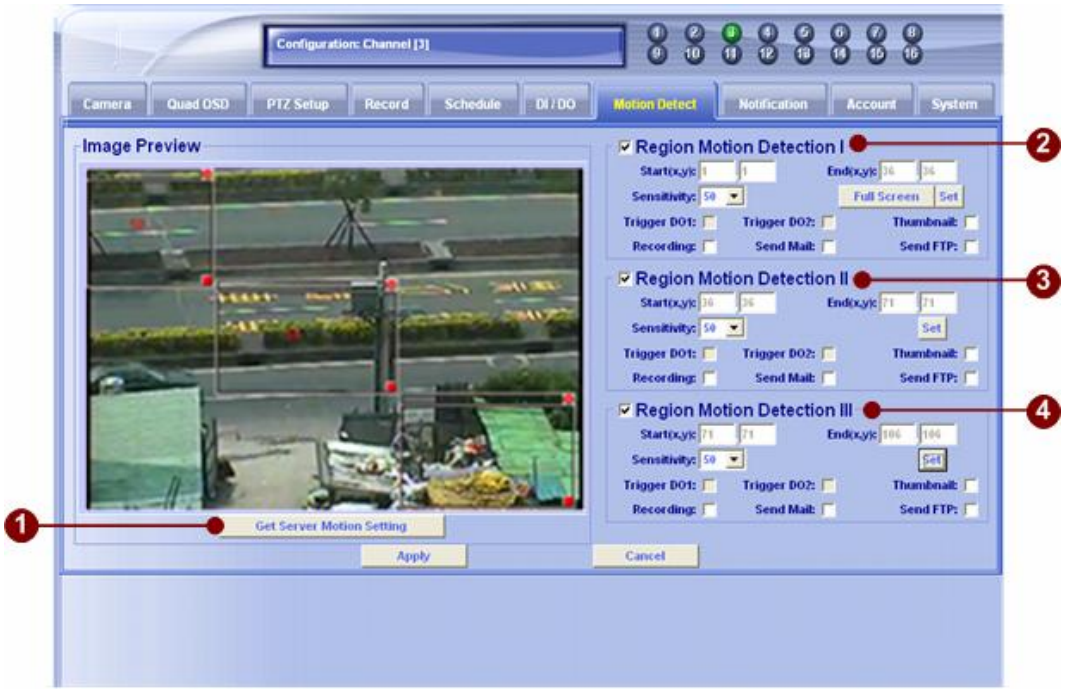


Figure 61. Enable Regional Motion Detection III

1. Click on “Get Server Motion Setting” Button to check MDI and MDII.
2. Enable Region Motion Detection III, click on “Set” button, and then you will see the third red frame.
3. Click on “Apply” button to save.
4. If you can see “Save Successfully” message, your setting is successful. And it is done.

9 Setup IP Video Control Center

This chapter describes the setup procedures in IP Video Control Center.

Setup Dialog

To setup the parameters in IP Video Control Center, click on the Setup tab.

Figure 62. Setup IP Video Control Center Parameters

Setup Category

IP Video Control Center setup parameters are organized into the following categories.

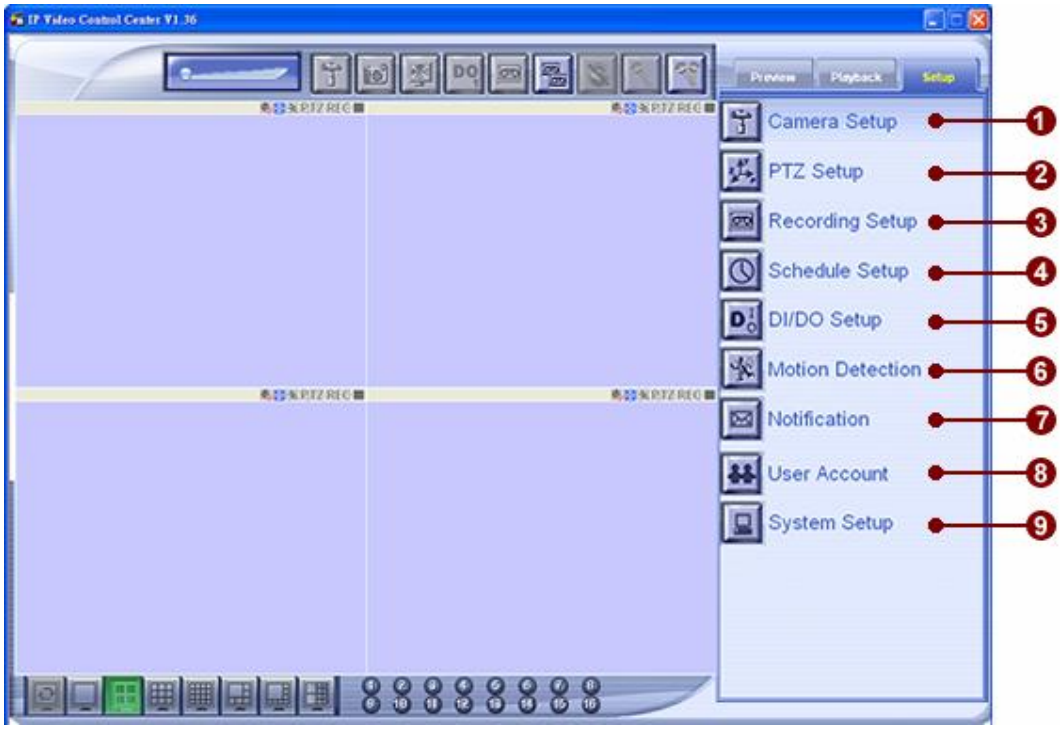


Figure 63. Setup Category

1. **Camera Setup**: Click on this button to setup camera information.
2. **PTZ Setup**: Click on this button to configure connected PTZ devices.
3. **Quad Setup**: Click on this button to configure the quad settings of the IP Speed Dome. (This setup works on IP Speed Dome only).
4. **Recording Setup**: Click on this button to setup recording parameters.
5. **Schedule Setup**: Click on this button to setup Schedule recording parameters.
6. **DI/DO Setup**: Click on this button to configure digital input and digital output devices.
7. **Motion Detection Setup**: Click on this button to setup motion detection information.
8. **Notification Setup**: Click on this button to setup event notification mechanism.
9. **User Account**: Click on this button to setup User Account permission.
10. **System Setup**: Click on this button to setup system overall parameters.

Setup Category Dialog Box

This chapter describes how to operate in a setup dialog box.

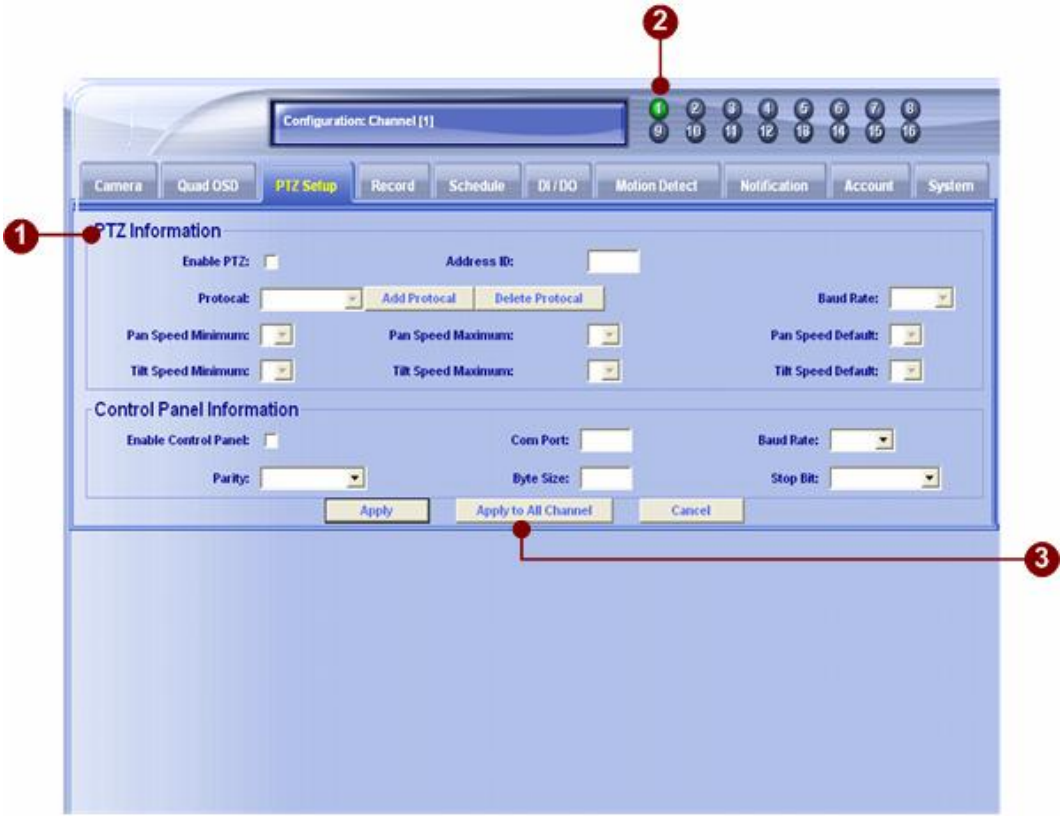


Figure 64. Setup Dialog Box Operation

1. **Function Category Tab**: Click on tab to choose the category of function for setup
2. **Channel Selection**: Click on channel number to switch to any channels directly
3. **Apply to All Channel button**: Click on `Apply to All Channel` button to apply this settings to all channels at the same time

Camera Setup Dialog Box

This chapter describes how to operate in a setup dialog box.

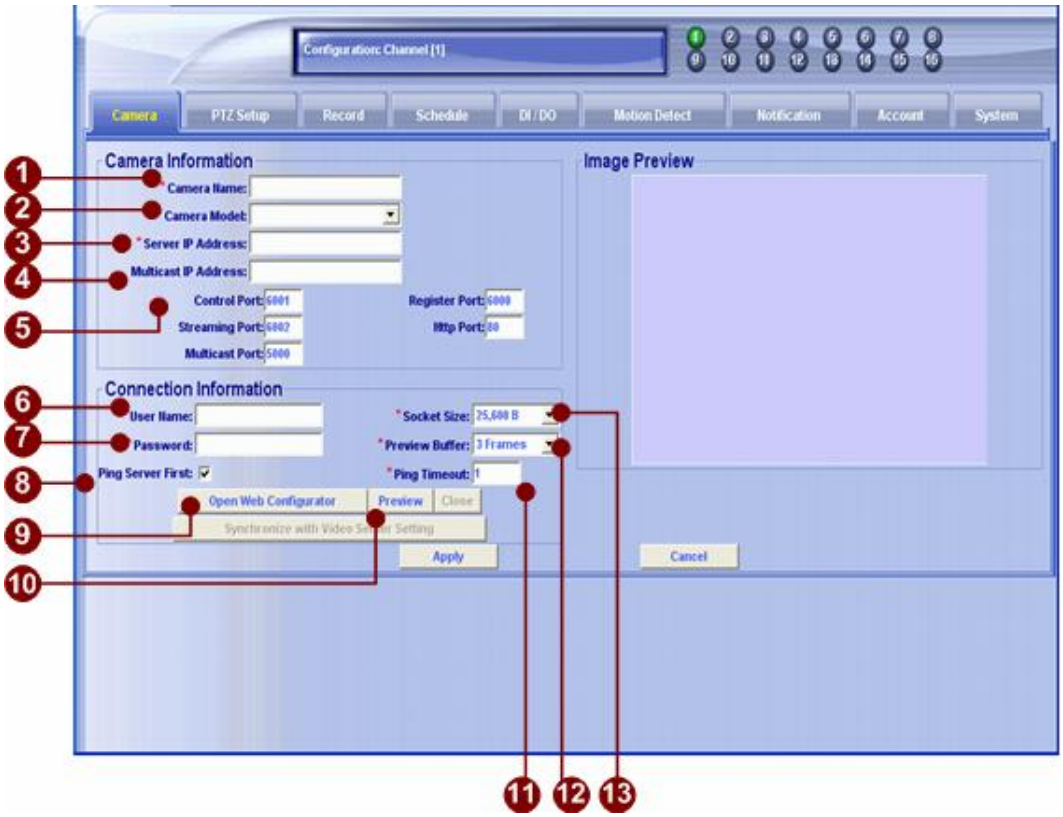


Figure 65. Camera Setup Dialog Box

1. **Camera Name***: Input a camera name or description for the camera.

NOTE: The camera name will be displayed on top of the preview media window.

2. **Camera Model***: Choose the camera model within a selection list; including:
   - **IP Speed Dome**
   - **IP Speed Dome**
3. **Server IP Address***: Connect to the IP Speed Dome with unicast (TCP) connection

NOTE: You may enter host name address in this field as well. Make sure the host name can be resolved by DNS (Domain Name Server) in your network environment. This operation can also be verified by using ping command:

`C:\>ping hostname.`domain.com

4. **Multicast IP Address**: Subscribe to a multicast network to retrieve video packets.

NOTE: If Multicast IP address is entered without Server IP address, then the preview window can only perform preview function.
If Multicast IP address and Server IP address are keyed in, then the preview window can perform preview and Digital I/O and PTZ operations. The limit of concurrent connections is 15.

5. **Port Setup** : the port number to be authorized by the IP Speed Dome
6. **User Name**: the account to be authorized by the IP Speed Dome
7. **Password**: the password to be authorized by the IP Speed Dome
8. **Ping Server First**: If this check-box is checked, then IP Video Control Center will send ICMP packets (ping the IP address or host name) before it starts to register to the IP Speed Dome.

NOTE: If the IP address is behind firewall and firewall will block the ICMP packets, then IP Video Control Center cannot ping this IP device successfully, and will not register to the IP Speed Dome.
In this case, please do not check the check box.

9. **Open Web Configurator** button: click this button to open IP Speed Dome's Web Configurator directly
10. **Preview** button: click this button to see the preview window and adjust frame rate and video quality.
11. **Ping Timeout**: set the timeout value to ping the IP device. If we set it to 3 seconds, then, the maximum timeout value is 3 seconds..

NOTE: During the timeout period, the application will hang. We suggest that you set it to 1 second for the timeout.

12. **Preview Buffer**: select the video preview buffer size; the unit is number of frames. Default is 3 frames.

NOTE: If you set this value to a larger value, then the video display will be smoother; however, the video latency will enlarge..

13. **Socket Size**: choose the network transport socket size, if your network is very busy or you use the wireless network, you can choose the socket size to let our software get package to be better performance. Default is 25,600 Byte.

NOTE: If the network bandwidth is not stable, please set the socket size to a smaller one, say 1000 bytes. In this case, the packet will be transmitted faster and will not re-send by the TCP protocol layer.

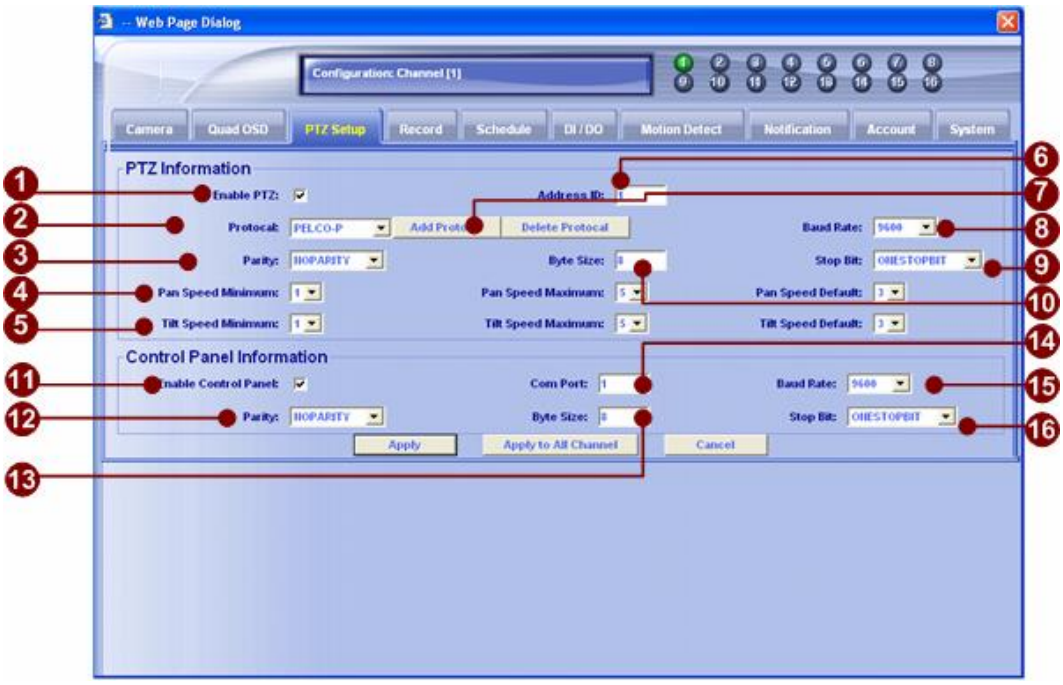


Figure 66. PTZ Setup Dialog Box

IP Video Control Center PTZ setup

1. **Enable PTZ**: Click to enable or disable the PTZ control function on this camera.
2. **Protocol**: Supported PTZ protocols are `Pelco-P(type1)`, `Pelco-P(type2)`, `Pelco-D`.
3. **Parity**: Select the parity type of your PTZ device command. Please refer to your PTZ device manual. Normally it should be Noneparity.
4. **Pan Operation Settings:** Select your maximum, minimum and default pan speed. The speed varies from 1 (minimum) ~5(maximum).
5. **Tilt Operation Settings** Select your maximum, minimum and default tilt speed. The speed varies from 1 (minimum) ~5(maximum).
6. **Address ID**: Setup Speed Dome Address ID. The Address ID just supports 001.
7. **Add / Delete Protocol**: Supports Customer's defined PTZ Protocol.
8. **Baud Rate**: Select the baud rate of your PTZ device command. Please refer to your PTZ device manual.
9. **Stop pit** : Select the Stop bit of your PTZ device command. Please refer to your PTZ device manual. Normally it should be 1.

10. **Byte length**: Select the Byte length of your PTZ device command. Please refer to your PTZ device manual. Normally it should be 8.

Control Panel setup

11. **Enable control panel**: Click to enable the Control Panel remote control function..
12. **COM port**: Select the com port connected to the control panel..
13. **Parity**: Select the parity type of your control panel command. Please refer to your PTZ device manual. Normally it should be Noneparity.
14. **Baud Rate**: Select the baud rate of your control panel command. Please refer to your PTZ device manual.
15. **Stop pit** : Select the Stop bit of your control panel command. Please refer to your PTZ device manual. Normally it should be 1.
16. **Byte length**: Select the Byte length of your control panel command. Please refer to your PTZ device manual. Normally it should be 8.

Recording Dialog Box

This section describes the setup in relation with recording.

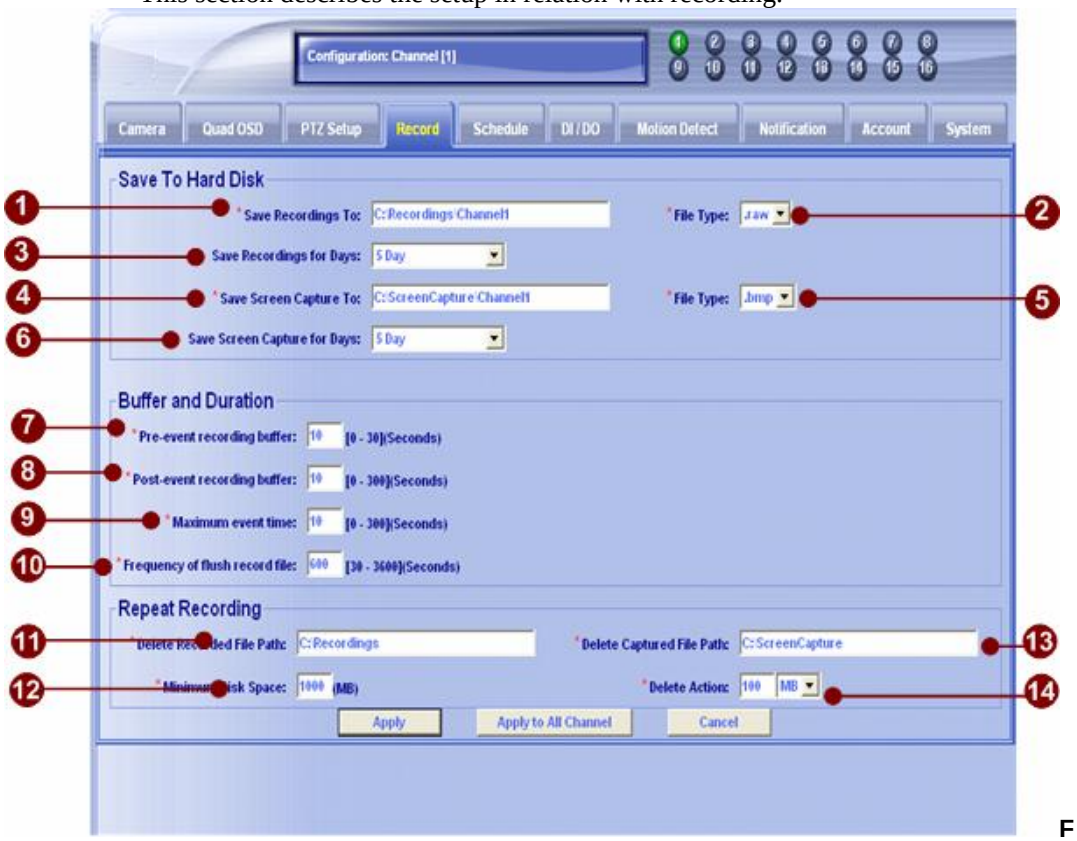


Figure 67. Recording Setup Dialog Box

1. **Save Recordings To**: The directory to save the recorded files.

NOTE: If you choose "Apply to All Channel", all the recording files will be saved in the same directory.

NOTE: The directory can be a local hard-disk, RAID storage, NAS storage or mounted storage linked with NetBEUI. Following command is a sample to link a virtual drive with NetBEUI.

```
C:\>net use G: \\nas-server\D$\Recording
```

2. **File Type**: Supported file type are `raw` now.

NOTE: The content of the AVI format is standard MPEG4 raw data. In order to view this AVI file, on the local machine, user has to install FFDSHOW (MPEG4 Codec for DirectX platform) which can be retrieved from the bundled CD.

3. **Save Recordings for Days**: The recorded files will be removed after the number of days specified in this field. If this field is left as blank, then the recorded files will not be removed.
4. **Save Screen Capture To:** The directory to save the screen capture image files. Refer to `Save Recordings To` notice for advanced configuration.
5. **File Type:** Specifies the image file type for the screen capture file; supported format is `BMP`.
6. **Save Screen Capture for Days**: The saved screen capture image files will be removed after the number of days specified in this field. If this field is left as blank, then the saved files will not be removed.
7. **Pre-event recording buffer (seconds):** Specifies a buffer (seconds) to retain before a certain event occurs.

NOTE: This value works with motion detection event, digital in event.

8. **Post-event recording buffer (seconds):** Specifies a buffer (seconds) to retain after a certain event occurs.
9. **Maximum event time (seconds):** This value specifies that within a certain period of time, all events generated will be ignored.

NOTE: For example, if an event occurs repeatedly in a short period of time, this value is to prevent the system from recording a new event file every second.

10. **Frequency of flush record file (seconds):** This value specifies that a new file will be generated after the amount of time specified in this field.
11. **Delete File Path:** Delete File Path is the path that IP Video Control Center will start to delete files.

NOTE: All sub-directories under this directory will be enlisted, and older files will be deleted.

12. **Minimum Disk Space:** the minimum disk space to be kept in the hard disk.
13. **Delete Captured File Path:** Delete Captured File Path is the path that IP Video Control Center will start to delete files.
14. **Delete Action:** when the Minimum Disk Space is reached, it will delete an amount (size) of previously saved files according to your selection here.

NOTE: Repeat Recording works with Manual Record Mode, Background Record Mode and Schedule Recording.

Schedule recording

This section describes how to setup schedule recording.

Figure 68. Schedule recording Dialog Box

1. **Schedule ID:** This is the schedule ID given by the IP Video Control Center, this number will show up once you input other columns. This ID is not changeable.
2. **Schedule Name:** You can input any words for you to remember this schedule with ease.
3. **Enable:** Click to select True(enable) or False(disable)
4. **Period:** Click to select the start date and the end date of this schedule recording.
5. **Daily schudule:** Click to select the start time and the end time of this schedule recording in a day.
6. **New schedule:** Click to to start a new schedule.

   Save: Click to save this schedule.

   Delete: Click to delete this schedule.
7. **Schedule List:** Show all schedule listing.

NOTE: Be sure to save your desired schedule. Your schedule will work only after you saved it.

Digital I/O Dialog Box

This section describes how to setup digital I/O and other related notification mechanisms. The functions available on the screen varies from the devices connected. For example: you will see DO1 and DO2 when connected to a IP Speed Dome, but you will only see DI1 and DO1 when connected to a IP Speed Dome.

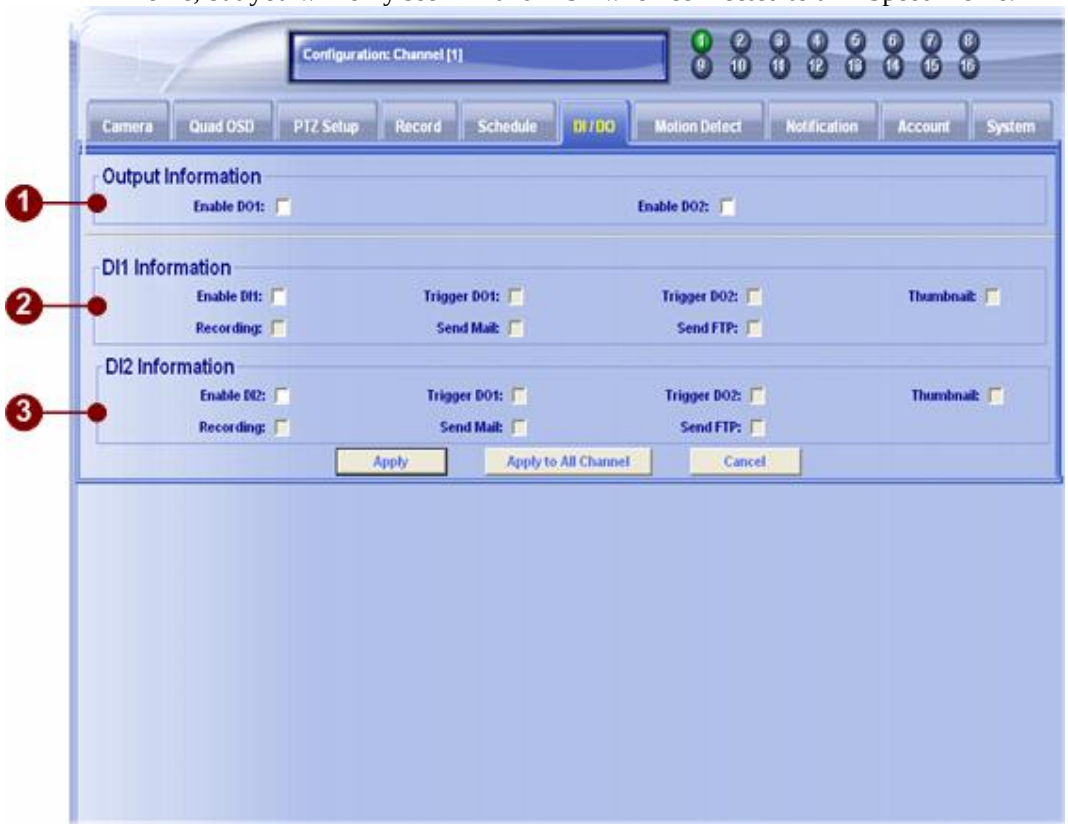


Figure 69. Digital I/O Dialog Box

8. **Output Information:** Enable or disable DO1 and DO2.
9. **DI1 Information:** Specifies digital IN 1 related information; including options to
   - `Trigger DO1`: triggers Digital Output 1 relay when a digital input event occurs
   - `Trigger DO2`: triggers Digital Output 2 relay when a digital input event occurs
   - `Create Thumbnail`: capture image to a thumbnail; the size of the thumbnail is the same as the resolution of the streaming.
   - `Create Recordings`: record video clips; the `pre-event` and `post-event recording` buffer is defined in `Recording Tab`.
   - `Send Mail`: send mail with thumbnail image attached; the SMTP setup is specified in `Notification Tab`

- `Send FTP`: FTP the thumbnail image to a FTP server; the FTP setup is specified in `Notification Tab`

10. **DI2 Information:** Specifies digital IN 1 related information; refer to DI1 information for the related options

Motion Detection Dialog Box

This section describes how to setup motion detection and related notification mechanisms. IP Speed Dome's motion detection setup is different from other products. Please refer to the description below for details.

IP Speed Dome

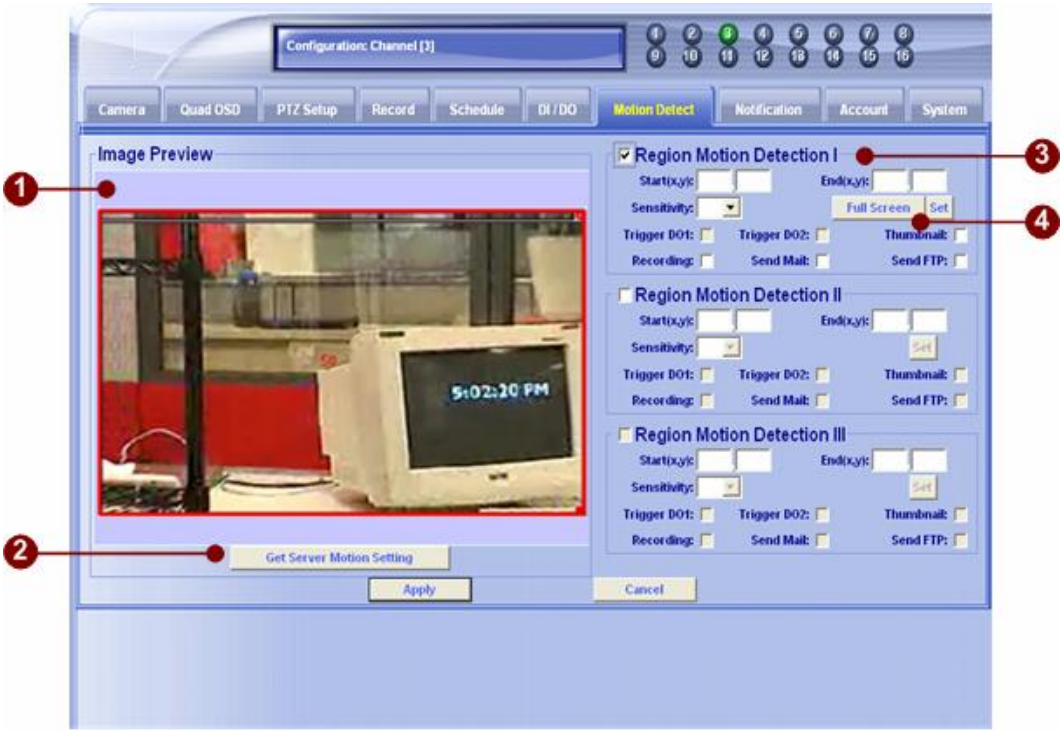


Figure 70. IP Speed Dome /IP Speed Dome Motion Detection Setup Dialog Box

1. **Image Preview:** Displays current image preview with regional motion detection block.
2. **Get Server Motion Setting:** get the motion detection setting from IP Speed Dome.
3. **Regional Motion Detection I – III:** If this option is enabled, then this regional motion detection applies to the whole image screen.
   - `Start X, Y:` indicates starting X, Y position of the region selected
   - `End X, Y:` indicates ending X, Y position of the region selected
   - `Sensitivity:` sets sensitivity on the motion detection algorithm. 100 is very sensitive.
   - `Trigger DO1:` triggers Digital Output 1 relay when an motion detection event occurs

- `Trigger DO2`: triggers Digital Output 2 relay when an motion detection event occurs
- `Thumbnail`: capture image and resize to a thumbnail; the size of the thumbnail is defined in the `Thumbnail Size` in `Output Information` section
- `Recording`: record video clips; the `pre-event` and `post-event recording` buffer is defined in `Recording Tab`.
- `Send Mail`: send mail with thumbnail image attached; the SMTP setup is specified in `Notification Tab`
- `Send FTP`: FTP the thumbnail image to a FTP server; the FTP setup is specified in `Notification Tab`

4. **Full Screen:** When you enable the Region Motion Detection I and click on this button, then the motion detection I applies to the whole image screen. And you can not enable Region Motion Detection II, III.
   - `Sensitivity`: sets sensitivity on the motion detection algorithm. 100 is maximum sensitivity.
   - `Trigger DO1`: triggers Digital Output 1 relay when an motion detection event occurs
   - `Trigger DO2`: triggers Digital Output 2 relay when an motion detection event occurs
   - `Thumbnail`: capture image and resize to a thumbnail; the size of the thumbnail is defined in the `Thumbnail Size` in `Output Information` section
   - `Recording`: records video clips; the `pre-event` and `post-event recording` buffer is defined in `Recording Tab`.
   - `Send Mail`: send mail with thumbnail image attached; the SMTP setup is specified in `Notification Tab`
   - `Send FTP`: FTP the thumbnail image to a FTP server; the FTP setup is specified in `Notification Tab`

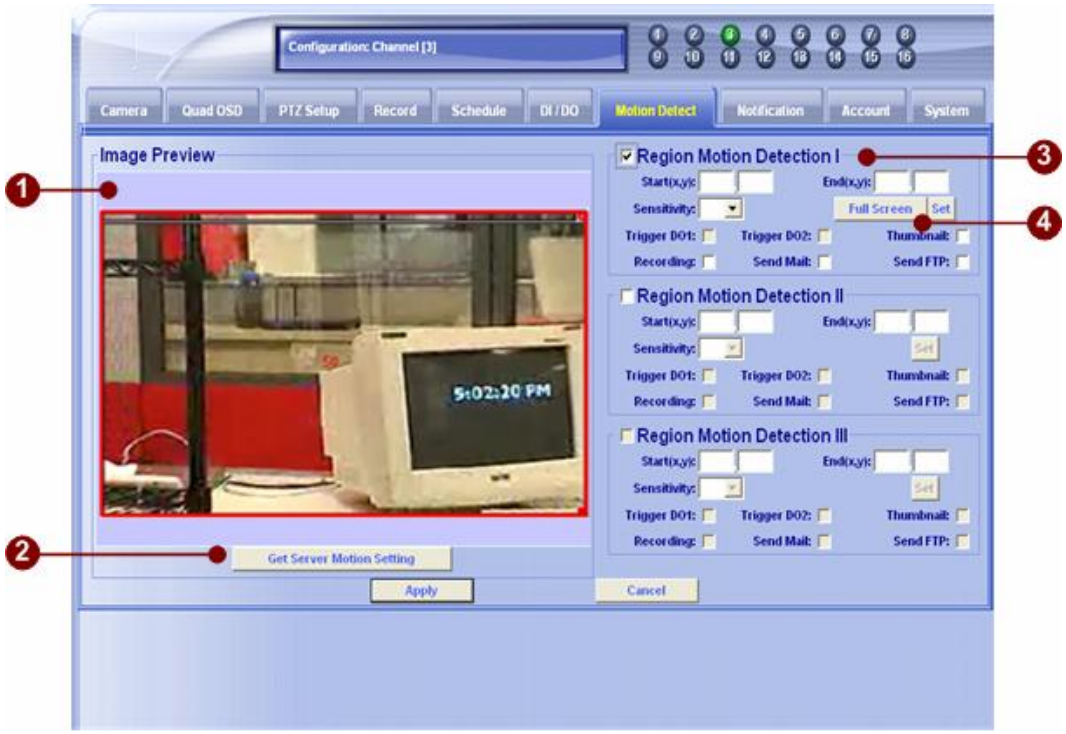


Figure 71. Full Screen Motion Detection Setup

NOTE: To enable the motion detection function you have to check the checkbox. You may also test the function by clicking the Set button in each block.

NOTE: Please follow following suggestions on the sensitivity level settings:

1. Indoor (TCP Connection): Sensitivity set to 50 or higher
2. Indoor (Multicast Connection): Sensitivity set to 70 or higher
3. Outdoor (TCP Connection): Sensitivity set to 60 or higher
4. Outdoor (Multicast Connection): Sensitivity set to 70 or higher

IP Speed Dome

For IP Speed Dome motion detection setup, please refer to page66 for more details.

Figure 72. IP Speed Dome mtion Detection Setup Box

Notification Dialog Box

This section describes how to setup motion detection and related notification mechanisms. The functions available on the screen vary from the devices connected. For example: you will see DO1 and DO2 when connected to a IP Speed Dome, but you will only see DI1 and DO1 when connected to a IP Speed Dome.

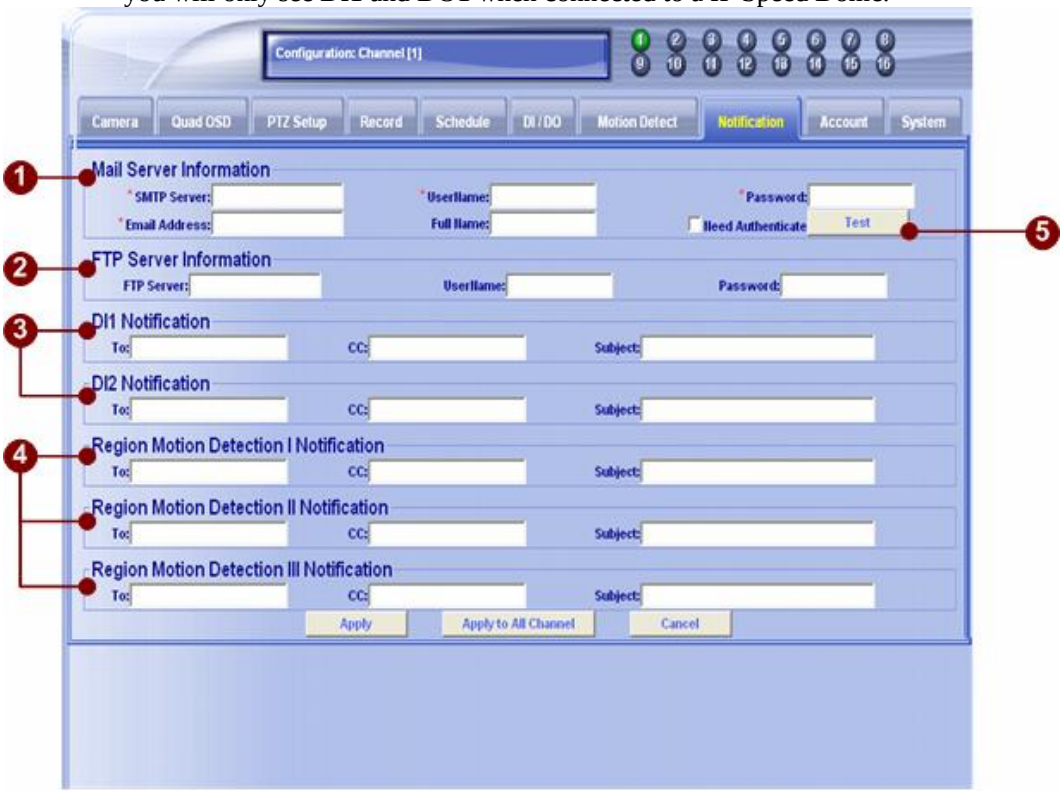


Figure 73. Notification Setup Dialog Box

1. **Mail Server Information:** Specifies the SMTP server information
   - `SMTP Server:` sets the outgoing mail server address
   - `UserName:` the account to login to the SMTP server
   - `Password:` the password to login to the SMTP server
   - `Email Address:` the E-Mail address of the sender
   - `Full Name:` the name of the sender
   - `Test` button: click on the button to test if the account/password is authorized correctly
2. **FTP Server Information:** Specifies the FTP server information
   - `FTP Server:` sets the FTP server address
   - `UserName:` the account to login to the FTP server
   - `Password:` the password to login to the FTP server

3. **DI1, DI2 Notification:** Specifies related information when digital input is triggered
   - `To`: the receiver's E-Mail address
   - `CC`: the cc recepient's E-Mail address
   - `Subject`: the subject of the E-Mail sent
4. **Full screen, regional motion detection I-III Notification:** Specifies related information when motion detection event occurs
   - `To`: the receiver's E-Mail address
   - `CC`: the cc recepient's E-Mail address
   - `Subject`: the subject of the E-Mail sent

User Account Dialog Box

This section describes how to setup user account and the permission required.

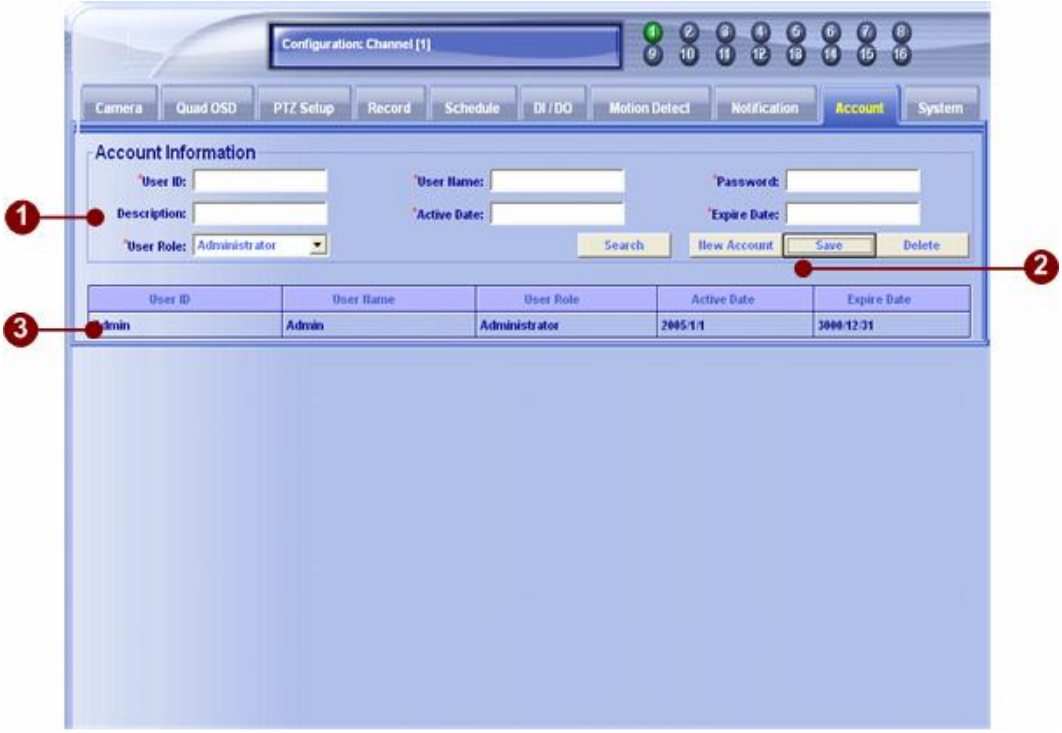


Figure 74. User Account Dialog Box

1. **Account Information:** about User Account information.
   - `User ID`: input new User ID. When you login, you need to use the ID to login.
   - `User Name`: input new user name. This name will be shown on the preview window.
   - `Password`: input the password.
   - `Description`: simple description about new account.
   - `Active Date`: the user's active date. The format is year/mouth/day.
   - `Expire Date`: the user's expire date. The format is year/mouth/day.
   - `User Role`: appoint account different group.
2. **function button:**
   - `Search Button`: input the user's ID for search, then click to search.
   - `New Account Button`: Clear all information on the column.
   - `Save Button`: save the information about new user account.
   - `Delete Button`: select the account to be deleted.
   - `Description`: simple description about new account.

- `Active Date:` the user's active date.
- `Expire Date:` the user's expire date.

3. **All account and Group Listing:** show listing about all account and Group.

NOTE: There are three groups on system default, you can not add or delete default groups.

Default Group	Default Permission
Administrator	Can Preview, PlayBack, Setup
Standard User	Preview and PlayBack, not Setup
Guest User	Only Preview

Figure 75. Default Permission Control

System Dialog Box

This section describes the steps to customize IP Video Control Center so that it may become customer's own interface.

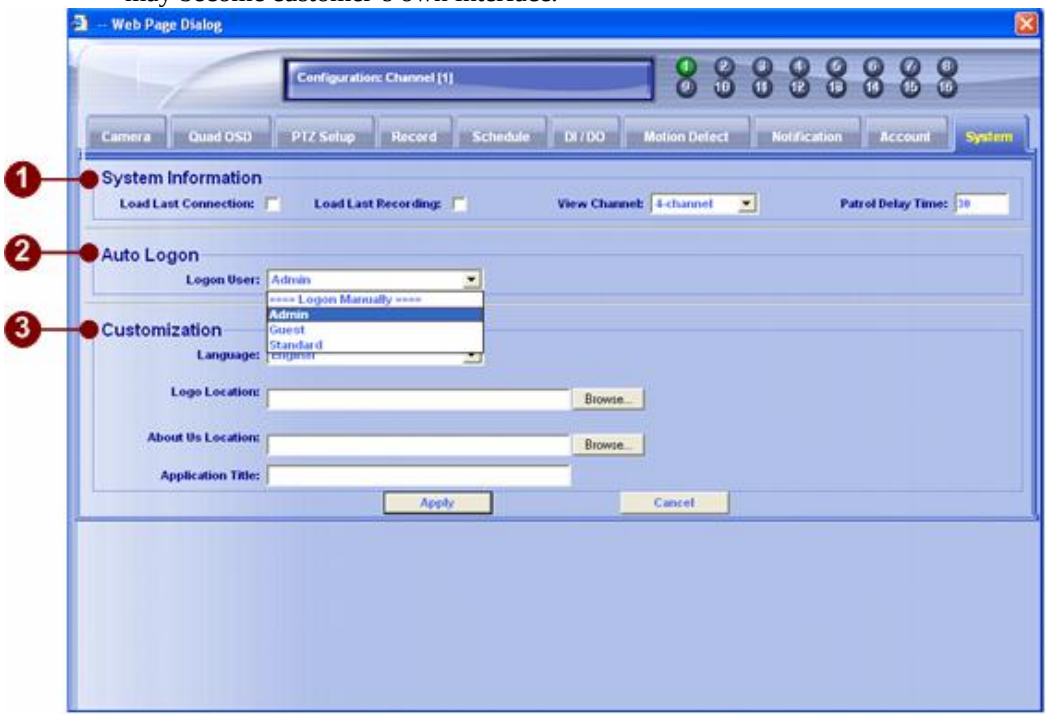


Figure 76. System Dialog Box

You may customize IP Video Control Center in following ways:

1. **System Information:** Specifies the System information
   - `Load Last Connection:` Load the last status when start up. (not include recording status).
   - `Load Last Recording:` Load the last recording status when start up.
   - `View Channel:` Specifies the number of channels when start up.
   - `Patrol Delay Time:`
     For IP Speed Dome, this parameter affects the patrol delay time of each channel.

2. **Auto Logon:** Specifies the Logon procedure. This setup will effect each

time you login.

- `Logon manually`: Each time you start IP Video Control Center, you have to manually enter the User ID and Password before you can use it.
- `Admin`: Each time you IP Video Control Center, it will auto login as an administrator user. Refer to the table below for what administrator can do.
- `Guest`: Each time you IP Video Control Center, it will auto login as a guest user. Refer to the table below for what administrator can do. Specifies the number of channels when start up.
- `Standard`: Each time you IP Video Control Center, it will auto login as a standard user. Refer to the table below for what administrator can do.

Default Group	Default Permission
Administrator	Can Preview, PlayBack, Setup
Standard User	Preview and PlayBack, not Setup
Guest User	Only Preview

NOTE: If you choose auto logon as a guest user, you will not be able to change any settings since you can't logon on as an administrator. (Every time you login, system auto login as a guest user, therefore you can't modify anything). To quit always logging on as a guest user, press **F10** key to logout and next time user login will login normally.

3. **Customization:** Specifies the Customization information
   - `Language`: Change the default language.
   - `Style`: Change the Application's UI.
   - `Logo Location`: Change the logo file. The logo file should be built with transparent gif.
   - `About Us Location`: Change the About Us file.
   - `Application Title`: Change the content on the title bar.