

GV-Panoramic PTZ Camera

User's Manual



Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

PPTZ-UM-A



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Note: No memory card slot or local storage function for Argentina.

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March 2018

Preface

Welcome to the *GV-Panoramic PTZ IP Camera User's Manual*.

This Manual is designed for the following models and firmware versions:

Model	Model Number	Firmware Version
Panoramic PTZ Camera	GV-PPTZ7300	V1.02
	GV-PPTZ14021 / PPTZ14031	V1.01

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Naming and Definition

GV-VMS	GeoVision Video Management System for IP cameras.
GV-Recording Server	GeoVision video streaming server designed for large-scale video surveillance deployments which can record up to 128 channels while transmitting up to 300 channels.

Note for Connecting to GV-VMS

The GV-Panoramic PTZ Camera is designed to work with GV-VMS, a video management system. Note the following when the camera is connected to GV-VMS:

1. By default, the images are recorded to the memory card inserted in the GV-Panoramic PTZ Camera.
2. Once the camera is connected to the GV-VMS, the resolution set on the GV-VMS will override the resolution set on the camera's Web interface. You can only change the resolution settings through the Web interface when the connection to the GV-VMS is interrupted.

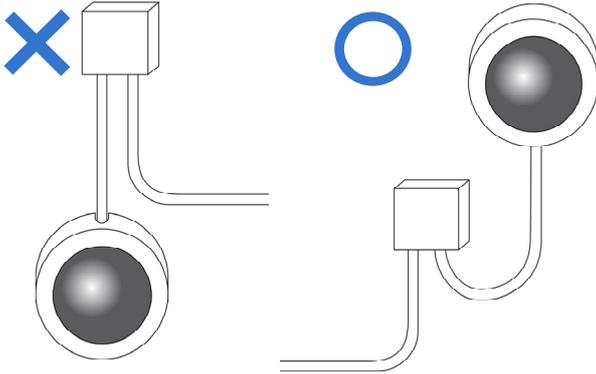
Note for Recording

1. By default, the images are recorded to the memory cards inserted in the GV-PPTZ Camera. Make sure the **Write recording data into local storage** option (see *4.1.1 Video Settings*) is enabled. If this option is disabled, the camera will stop recording to the memory card while the live view is accessed through Web browsers or other applications.
2. Mind the following when using a memory card for recording:
 - Recorded data on the memory card can be damaged or lost if the data are accessed while the camera is under physical shock, power interruption, memory card detachment or when the memory card reaches the end of its lifespan. No guarantee is provided for such causes.
 - The stored data can be lost if the memory card is not accessed for a long period of time. Back up your data periodically if you seldom access the memory card.
 - Memory cards are expendable and their durability varies according to the conditions of the installed site and how they are used. Back up your data regularly and replace the memory card annually.
 - To avoid power outage, it is highly suggested to apply a battery backup (UPS).
 - Replace the memory card when its read/write speed is lower than 6 MB/s or when the memory card is frequently undetected by the camera.
3. It is recommended to use Micro SD card of MLC NAND flash, Class 10 for optimal performance.

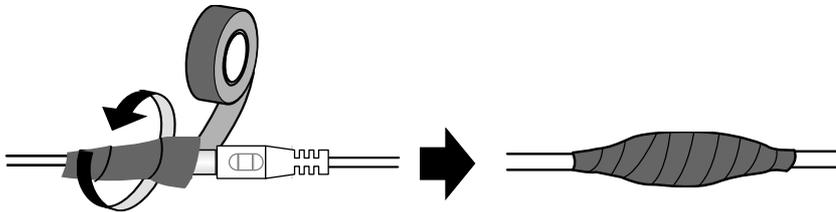
Note for Installing Camera

When installing **GV-Panoramic PTZ Camera**, be sure that:

1. The camera is set up above the junction box to prevent water from entering the camera along the cables.



2. Any PoE, power, audio and I/O cables are waterproofed using waterproof silicon rubber or the like.



3. The screws are tightened and the cover is in place after opening the camera cover.

Note for Silica Gel Bags

1. The silica gel bag loses its effectiveness when the dry camera is opened. To prevent the lens from fogging up, use the supplied adhesive tape and replace the silica gel bag every time you open the camera, and conceal the gel bag in the camera within 2 minutes of exposing to open air.
2. When the camera is shipped, a silica gel bag is included inside the camera. For first-time users, replace the silica gel bag prior to the installation to avoid foggy live view.

Chapter 1 Introduction

The GV-Panoramic PTZ Camera is a 2-in-1 hybrid camera that includes a 5 / 12 MP fisheye panoramic camera and a 2 MP IP Speed Dome. The fisheye camera allows you to monitor all angles of a location, while the speed dome can instantly point toward an area with just one click on the fisheye live view.

Without installing any software, you can watch live view and utilize functions such as motion detection, privacy mask, and alert notification through the Web interface.

The Web Interfaces

The GV-Panoramic PTZ Camera has three Web interfaces:

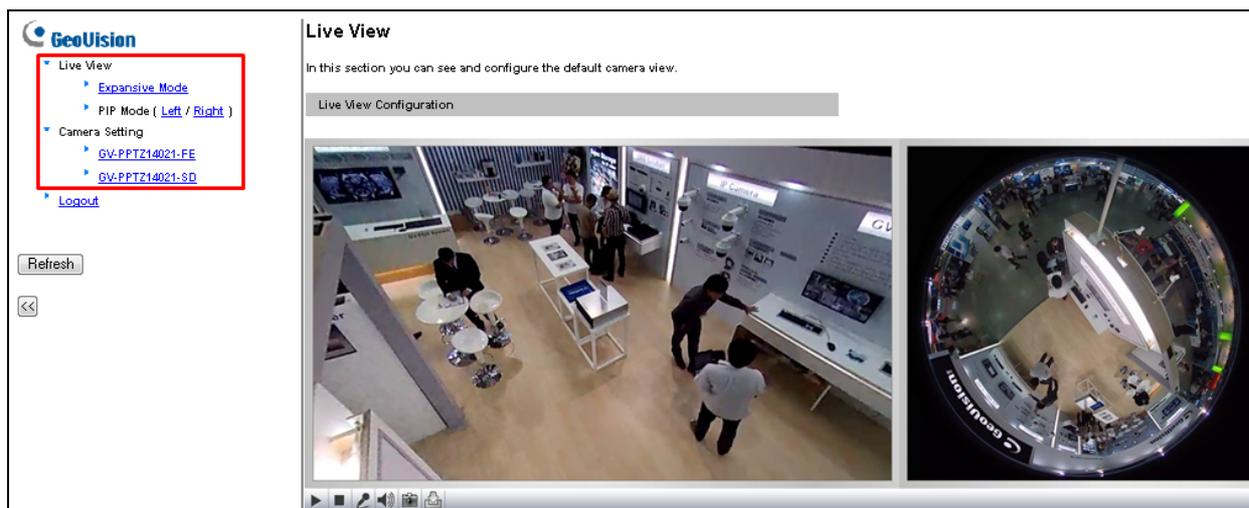


Figure 1-1

1. The **Integrated interface** shows the live views of both the speed dome and the fisheye camera. Once the fisheye setting is enabled, you can click on the fisheye live view and the speed dome will point toward the selected location.

Integrated Live View-Expansive Mode



2 MP Speed Dome

**5 / 12 MP
Fisheye Camera**

Integrated Live View-PIP Mode



2 MP Speed Dome

5 / 12 MP Fisheye Camera

Figure 1-2

2. The **fisheye interface** allows you to see the fisheye live view and configure the settings that apply to the fisheye part, as well as general settings for the entire camera.



Figure 1-3

3. The **speed dome interface** allows you to see the speed dome live view and configure the settings that apply to the speed dome part only.



Figure 1-4

1.1 Key Features

1.1.1 GV-PPTZ7300

- Panoramic fisheye camera (FE) integrated with a PTZ speed dome (SD)
- Image sensor

GV-Panoramic PTZ Camera	Image Sensor
Panoramic – FE	1/2.5" progressive scan CMOS
Panoramic – SD	1/2.86" progressive scan CMOS

- Dual streams from H.264 or MJPEG
- Frame rate

GV-Panoramic PTZ Camera	Frame Rate
Panoramic – FE	Up to 10 fps at 2560 x 1920
Panoramic – SD	Up to 30 fps at 1920 x 1080

- Day/Night function

GV-Panoramic PTZ Camera	Day/Night Function
Panoramic – FE	Electronic
Panoramic – SD	With removable IR-cut filter

- Wide Dynamic Range

GV-Panoramic PTZ Camera	WDR
Panoramic – FE	WDR
Panoramic – SD	WDR Pro

- Vandal Resistance (IK10 for metal and polycarbonate casing)
- Ingress protection (IP67)
- Wide temperature tolerance (-40°C ~ 50°C / -40°F ~ 122°F)
- 2 built-in micro SD card slots (SD/SDHC) for local storage (1 each for FE and SD)
- 4 sensor inputs and 1 alarm output
- Fisheye: provides 360°panorama view
- Speed Dome: 10x optical zoom and 32x digital zoom
- Speed Dome: pan 355° and tilt from -15° to 195°

- Speed Dome: preset speed at up to 460°/sec
- Speed Dome: PTZ movement (Preset, Sequence, Auto Pan, Cruise and Tour)
- DC 24V / AC 24V / High PoE (PoE++, 40 W)
- Two-way audio
- 2D noise reduction
- Defog
- Tampering alarm
- Privacy mask
- Visual automation
- Text overlay
- 31 languages on Web interface
- ONVIF (Profile S) conformant
- More storage option - [NAS](#)

1.1.2 GV-PPTZ14021 / PPTZ14031

- Panoramic fisheye camera (FE) integrated with a PTZ speed dome (SD)
- Image Sensor

GV-Panoramic PTZ Camera	Image Sensor
Panoramic – FE	1/1.7" progressive scan low lux CMOS
Panoramic – SD	1/3" progressive scan low lux CMOS

- Dual streams from H.265 (SD Only) H.264 and MJPEG
- Frame Rate

GV-Panoramic PTZ Camera	Frame Rate
Panoramic – FE	Up to 15 fps at 4000 x 3000
Panoramic – SD	Up to 30 fps at 1920 x 1080 (60 Hz), 50 fps at 1920 x 1080 (50 Hz)

- Day / Night function

GV-Panoramic PTZ Camera	Day / Night function
Panoramic – FE	Day and night (Electronic)
Panoramic – SD	Day and night (with removable IR-cut filter)

- Wide Dynamic Range

GV-Panoramic PTZ Camera	WDR
Panoramic – SD	Wide Dynamic Range Pro (WDR Pro)

- Vandal resistance (IK10 for metal casing)
- Ingress protection (IP67)
- Wide temperature tolerance (-40°C ~ 50°C / -40°F ~ 122°F)
- FE: 1 built-in Micro SD card slot (SD/SDHC/SDXC/UHS-I, Class 10) for local storage
- SD: 1 built-in SD card slot (SD/SDHC/SDXC/UHS-I, Class 10) for local storage
- 4 sensor inputs and 1 alarm output
- DC 24V / AC 24V / High PoE (PoE++, 53 W)
- FE: Provides 360° panoramic view

- Optical and digital zoom

GV-Panoramic PTZ Camera	Optical and digital zoom
GV-PPTZ14021 – SD	20x optical zoom and 32x digital zoom
GV-PPTZ14031 – SD	30x optical zoom and 32x digital zoom

- SD: pan 360° and tilt from -15° to 195°
- SD: Preset speed at up to 460°/sec
- SD: PTZ movement (Preset, Sequence, Auto Pan, Cruise and Tour)
- Two-way audio
- 2D noise reduction
- Tampering alarm
- Privacy mask
- Visual automation
- Text overlay
- 31 languages on Web interface
- ONVIF (Profile S) conformant

1.2 Packing List

1.2.1 GV-PPTZ7300

- Panoramic PTZ Camera



- Data Cable



- Mounting Bracket



- Mounting Cap



- Tube



- 2 mm Hex Key



- 3 mm Hex Key



- 5 mm Hex Key



- Rubber ring



- RJ-45 Connector



- Desiccant Pack x 2
- Download Guide
- Warranty Card

1.2.2 GV-PPTZ14021 / PPTZ14031

- Panoramic PTZ Camera



- Data Cable



- Pendant Tube



- 3 mm Hex Key



- 4 mm Hex Key



- 5 mm Hex Key



- Torx Wrench



- RJ-45 Connector



- Rubber ring



- Download Guide
- Desiccant Pack x 2
- Warranty Card

1.3 System Requirement

To operate the camera through a web browser, make sure your network connection is active, and the following system requirements are met:

For GV-PPTZ7300

OS	64-bit	Windows 7 / 8 / 8.1 / 10 / Server 2008 R2 / Server 2012 R2
GV-VMS		V15.10.1.0 with patch files or later versions
Browser		<ul style="list-style-type: none"> • Internet Explorer 7.x or later • Firefox • Google Chrome • Safari

For GV-PPTZ14021 / PPTZ14031

OS	64-bit	Windows 7 / 8 / 8.1 / 10 / Server 2008 R2 / Server 2012 R2
GV-VMS		V16.11.0.0 with patch files or later versions
Browser		<ul style="list-style-type: none"> • Internet Explorer 8.x or later • Firefox • Google Chrome • Safari

Note:

1. If you are using Microsoft Internet Explorer 8.0 or later, additional settings are required. Refer to *Settings for Internet Explorer 8 or later* in *Appendix A*.
 2. When using non-IE browsers,
 - A. Certain functions are not supported by non-IE browsers. To see the functions available on live view windows using non-IE browsers, see *Figure 3-13*.
 - B. RTSP streaming must be enabled. By default, RTSP streaming is enabled. See *4.3.8 RTSP/ONVIF* to see details on RTSP settings.
 - C. Only MJPEG codec is supported.
-

1.4 Optional Accessories

Optional devices can expand the capabilities and versatility of your GV-IP Camera. Contact your dealer for more information.

Name	Details
GV-PA901	The GV-PA901 is a Power over Ethernet (PoE) adapter designed to provide power to the IP device through a single Ethernet cable.
GV-Mount Accessories	The GV-Mount Accessories provides a comprehensive lineup of accessories for installation on ceiling, wall and pole. For details, see <i>GV-Mount Accessories Installation Guide</i> online.
GV-POE Switch	The GV-POE Switch is designed to provide power along with network connection for IP devices. The GV-POE Switch is available in various models with different numbers and types of ports.
Power Adapter	Contact our sales representatives for the countries and areas supported.

1.5 Physical Description

1.5.1 GV-PPTZ7300



Figure 1-5

No.	Name	Function
1.	Status LED	Flashes when the camera is booting up and loading default settings.
2.	Default Button	Resets all configurations to default factory settings. See <i>7.3 Restoring to Factory Default Settings</i> .
3.	Speed Dome SD Card Slot	Inserts a micro SD card (SD/SDHC, version 2.0, Class 10) to store recording data from the speed dome.
4.	Fisheye Lens	Receives image input.
5.	Speed Dome Lens	Receives image input.
6.	Desiccant Pack	Keeps the camera housing dry.
7.	Fisheye SD Card Slot	Inserts a micro SD card (SD/SDHC, version 2.0, Class 10) to store recording data from the fisheye camera.

1.5.2 GV-PPTZ14021 / PPTZ14031



Figure 1-6

No.	Name	Function
1.	Fisheye Lens	Receives image input.
2.	Speed Dome Lens	Receives image input.
3.	Fisheye SD Card Slot	Inserts a micro SD card (SD/SDHC/SDXC/UHS-I, Class 10) to store recording data from the fisheye camera.
4.	Speed Dome SD Card Slot	Inserts a SD card (SD/SDHC/SDXC/UHS-I, Class 10) to store recording data from the speed dome.
5.	Default Button	Resets all configurations to default factory settings. See <i>7.3 Restoring to Factory Default Settings</i> .
6.	Status LED	Flashes when the camera is booting up and loading default settings.
7.	Desiccant Pack	Keeps the camera housing dry.

1.6 Installation

The GV-Panoramic PTZ Camera can be mounted on the ceiling or on the wall by using the supplied **Straight Tube Mount (GV-PPTZ7300)** / **Pendant Tube Mount (GV-PPTZ14021 / PPTZ14031)** Make sure the ceiling has enough strength to support the camera and the mount.

1.6.1 GV-PPTZ7300



Required items:

- Screws for ceiling x 4 (Self-prepared)

Optionally extend with:

- GV-Mount702

Recommended Installation Height

It is recommended to install the camera at a height of 6.5 m (21 ft), which allows the camera to have a monitor radius of up to 25 m (82 ft).

Installation Height	Max. Horizontal Distance (Radius)
6.5 m (21 ft)	25 m (82 ft)
5 m (16 ft)	20 m (66 ft)
4 m (13 ft)	17 m (56 ft)
3 m (10 ft)	13 m (43 ft)

1. Insert the desiccants to the camera.
 - A. Remove the camera cover using the 3 mm hex key.



Figure 1-7

- B. Insert your SD cards into the SD card slots for the fisheye camera and the speed dome.

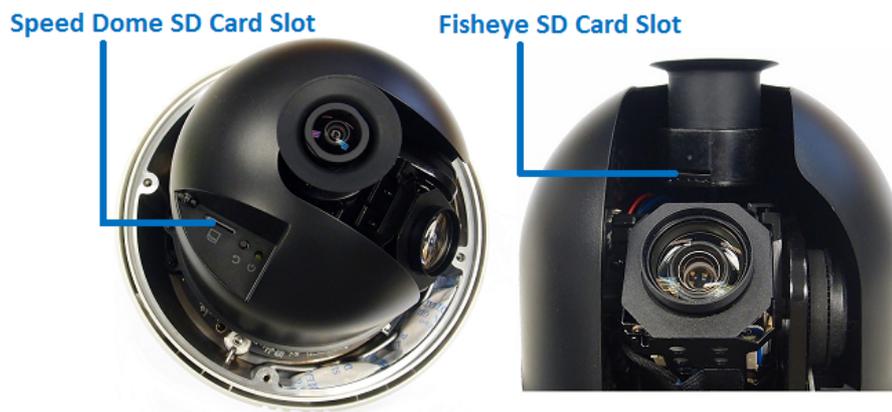


Figure 1-8

- C. Insert one set of desiccant packs to the indicated place.



Figure 1-9

IMPORTANT: Be sure the desiccants are concealed in the camera within 2 minutes of opening the desiccant packs.

- D. Secure the camera cover with the 3 mm hex key. Make sure the first two screws to be tightened are diagonal to each other.
- 2. Assemble the supplied mounting bracket, tube and mounting cap by rotating the parts together.

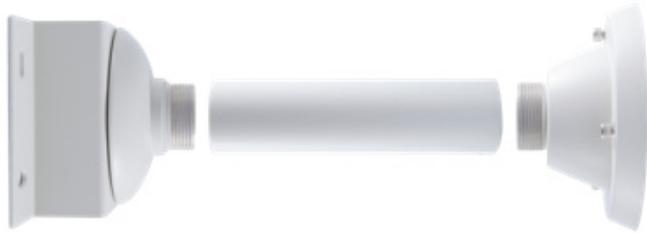


Figure 1-10

- 3. Make sure the tubes are properly screwed. Tighten the screws using the 2 mm hex key.



Figure 1-11

- 4. Connect the cables to the camera.
 - A. At the back of the camera, remove the cap and use the 3 mm hex key to remove the mounting plate.

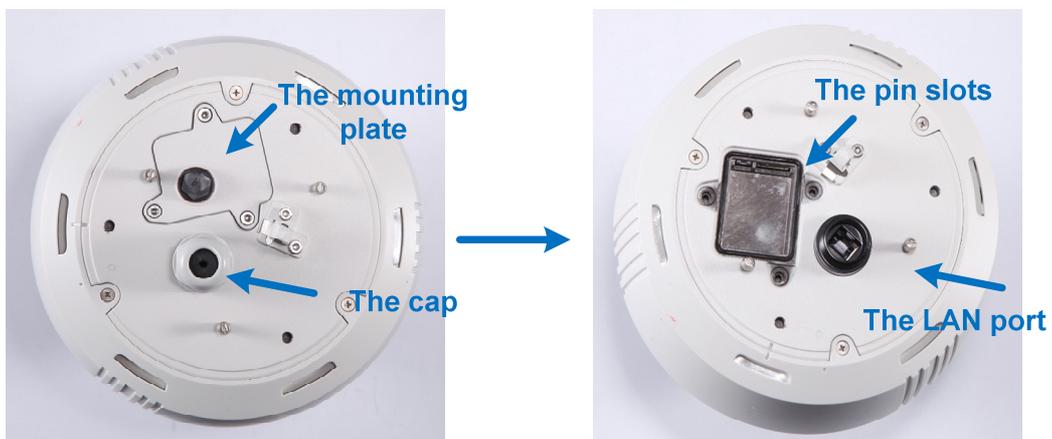


Figure 1-12

- B. Slide the cap and components through the Ethernet cable as shown below, and attach the supplied RJ-45 connector to the cable.

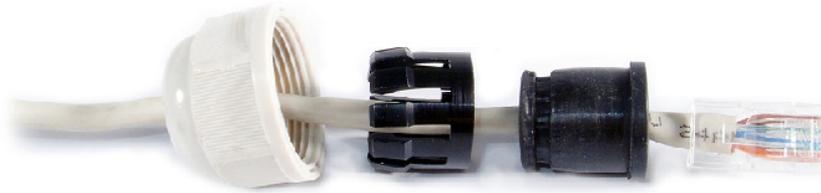


Figure 1-13

- C. Insert the Ethernet cable to the LAN port, move the cap and the components toward the LAN port, and secure the cap tightly.



Figure 1-14

- D. Slip the rubber ring on the data cable and then pass the pin connectors of the data cable through the mounting plate.

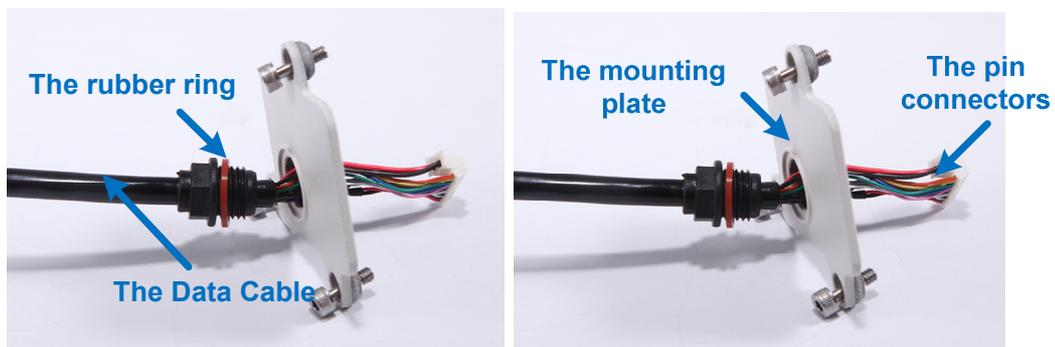


Figure 1-15

E. Fasten the data cable with the mounting plate and the rubber ring.

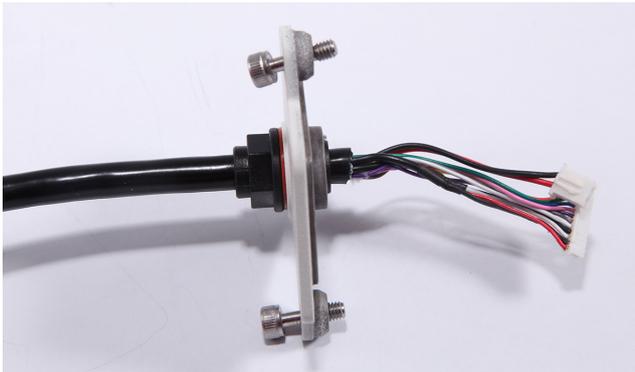


Figure 1-16

F. Insert the pin connectors of the data cable to the indicated area.



Figure 1-17

G. Secure the mounting plate with the 3 mm hex key.

5. Thread the cables through the tube.
6. Secure the camera with the mounting cap.

A. Secure the safety lock.

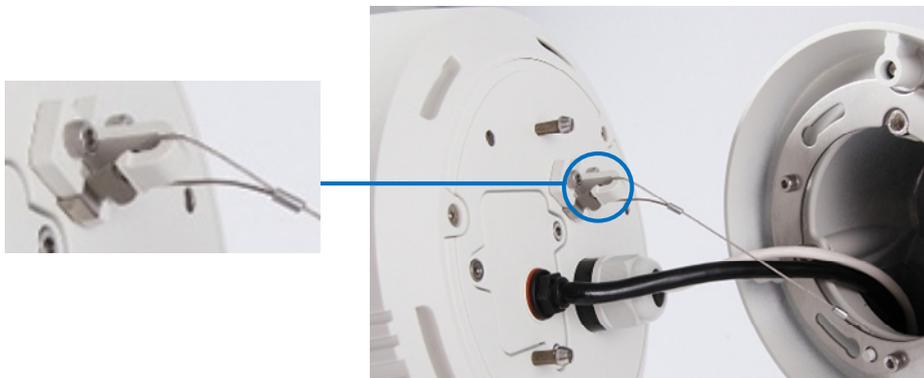


Figure 1-18

- B. Push the rivets into the holes on the mounting cap and rotate clockwise to lock the position.

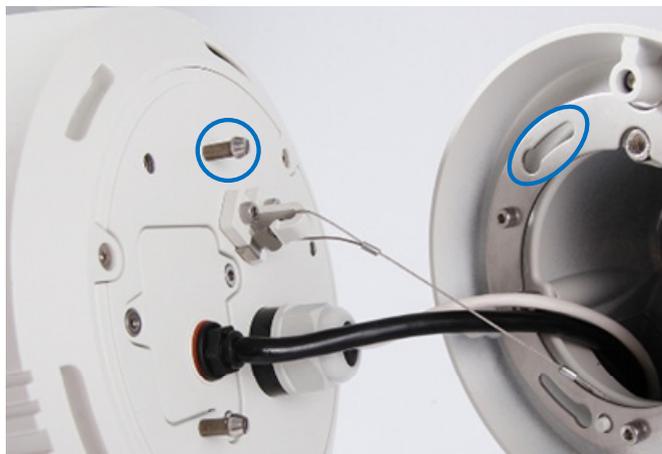


Figure 1-19

- C. Rotate the camera onto the mounting cap and secure using the 5 mm hex key.



Figure 1-20

- 7. Secure the assembled camera to the ceiling with 4 self-prepared screws.

1.6.2 GV-PPTZ14021 / PPTZ14031



Required items:

- Screws for ceiling x 4 (Self-prepared)

Recommended Installation Height

It is recommended to install the camera at a height of 6.5 m (21 ft), which allows the camera to have a monitor radius of up to 25 m (82 ft).

Installation Height	Max. Horizontal Distance (Radius)
6.5 m (21 ft)	25 m (82 ft)
5 m (16 ft)	20 m (66 ft)
4 m (13 ft)	17 m (56 ft)
3 m (10 ft)	13 m (43 ft)

1. Insert the desiccants to the camera.
 - A. Loosen the screws at the bottom of the fisheye arm.



Figure 1-21

WARNING: Do not remove the screw indicated in the picture below, or the fisheye lens will fall.



B. Adjust the position of the fisheye arm.



Figure 1-22

C. Unscrew the camera cover using the 3 mm hex key.



Figure 1-23

- D. Insert your SD cards into the SD card slots for the fisheye camera and the speed dome.

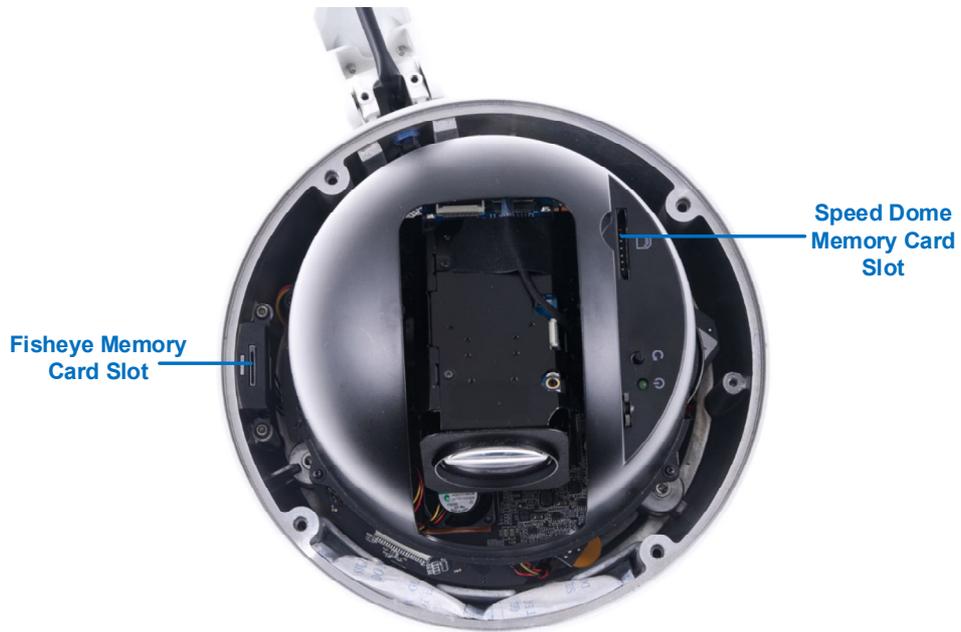


Figure 1-24

- E. Insert one set of desiccant packs to the indicated area.



Figure 1-25

IMPORTANT: Be sure the desiccants are concealed in the camera within 2 minutes of opening the desiccant packs.

- F. Secure the camera cover with the 3 mm hex key. Make sure the first two screws to be tightened are diagonal to each other.

2. Connect the cables to the camera.
 - A. Thread the Ethernet cable and the data cable through the pendant tube.



Figure 1-26

- B. See *Step 4-A – Step 4-G, 1.6.1 GV-PPTZ7300* for the same setup.
3. Assemble the camera with the pendant tube.
 - A. Secure the safety lock.

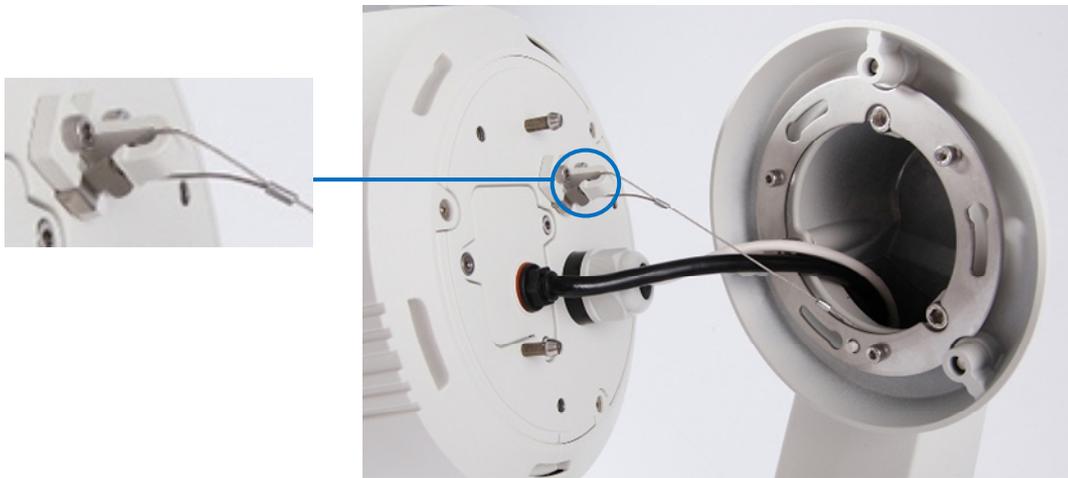


Figure 1-27

- B. Push the rivets into the holes on the pendant tube and rotate clockwise to lock the position.

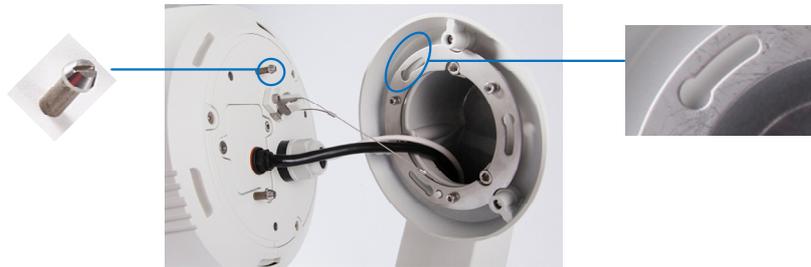


Figure 1-28

- C. Tighten the screws with the supplied hex key.



Figure 1-29

- D. Secure the pendant tube to the wall with self-prepared screws.

1.7 Connecting the Camera

The GV-Panoramic PTZ Camera comes with a data cable that allows you to connect to the power adapter, microphone, speaker, and any I/O devices. Follow the steps below to connect the camera.

1. Connect to a power source using one of the following methods:
 - Connect the Power Adapter to the camera.
 - Use the Power over Ethernet (PoE) function to supply power over the network cable. See *Connecting the GV-PA901 PoE Adapter*.
2. Connect a standard network cable to the Ethernet cable of the camera..
3. Optionally connect I/O devices, speaker and microphone to the camera. You can connect up to 4 alarm input and 1 output devices. See *I/O Wire Definition*.

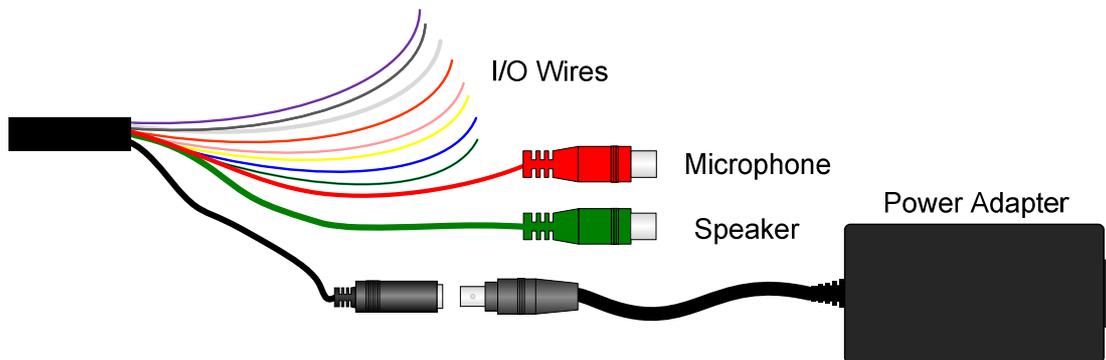


Figure 1-30

Note:

1. The Power Adapter is an optional device.
 2. Optional GV-PA901 PoE Adapter is required for applying the PoE function.
-

I/O Wire Definition

No.	Wire	Definition
1	Orange	Alarm In 1
2	Yellow	Alarm In 2
3	Green	Alarm In 3
4	Blue	Alarm In 4
5	Pink	Ground
6	Purple	Alarm Out
7	White	Alarm Out_Open
8	Gray	Alarm Out_Close

Connecting the GV-PA901 PoE Adapter

1. Connect one end of an Ethernet cable to the **LAN 10 / 100** Port on the GV-PA901 and the other end to a Hub / Router.
2. Connect one end of an Ethernet cable to the **PoE 10 / 100** port on the GV-PA901, and the other end to the GV-PPTZ camera.
3. Connect the GV-PA901 Power Adapter to the power outlet.

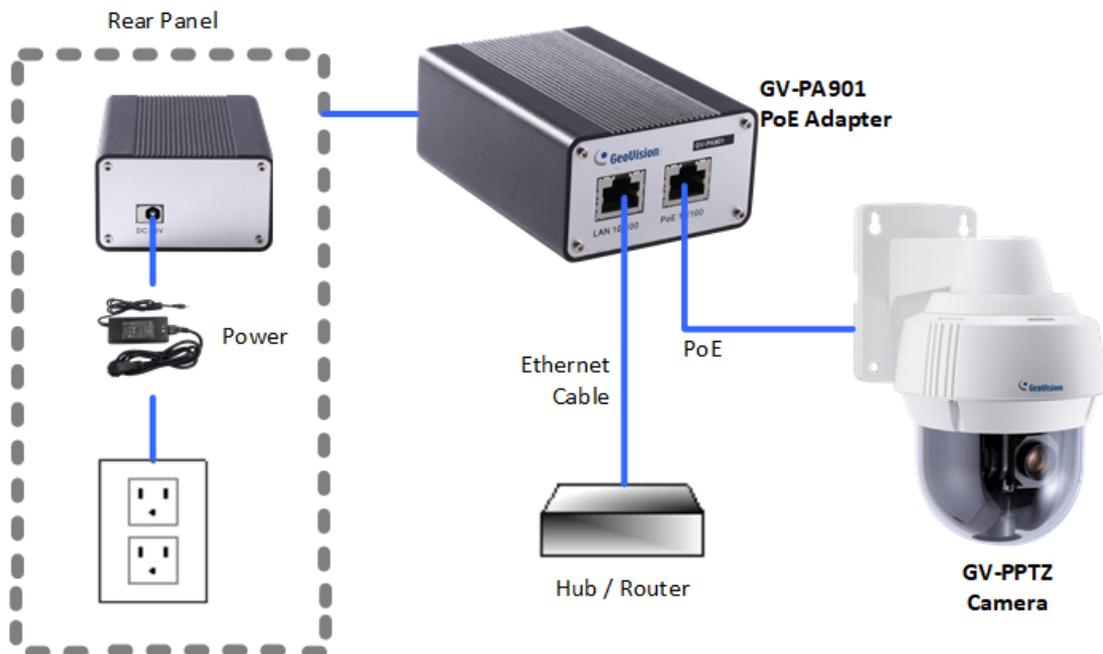


Figure 1-31

Chapter 2 Getting Started

This section provides basic information to get the camera working on the network.

2.1 Installing on a Network

These instructions describe the basic connections to install the camera on the network.

1. Using a standard network cable, connect the camera to your network.
2. Connect power using one of the following methods. For details, see *1.7 Connecting the Camera*.
 - Using the optional power adapter to connect to power.
 - Use the Power over Ethernet (PoE) function to supply power over the network cable.
3. You can now access the Web interface of the camera.
 - If the camera is installed in a LAN without DHCP server, the following default IP address will be applied.
 - Integrated interface and fisheye interface: **192.168.0.10**
 - Speed dome interface: **192.168.0.11**
 - If the camera is installed in a LAN with DHCP server, use GV-IP Device Utility to look up the camera's dynamic IP address. See *2.1.1 Checking the Dynamic IP Address*.

Note: You can also assign a static IP address. See *2.1.2 Assigning an IP Address*.

2.1.1 Checking the Dynamic IP Address

Follow the steps below to look up the IP address and access the Web interface.

1. Download and install the **GV-IP Device Utility** program from the GeoVision website:
<http://www.geovision.com.tw/download/product/>.

Note: The PC installed with GV-IP Device Utility must be under the same LAN as the camera you wish to configure.

2. On the GV-IP Utility window, click the  button to search for the IP devices connected in the same LAN. Click the **Name** or **Mac Address** column to sort. You will see both the fisheye camera and the speed dome being listed as **GV-PPTZ – FE** and **GV-PPTZ – SD**.

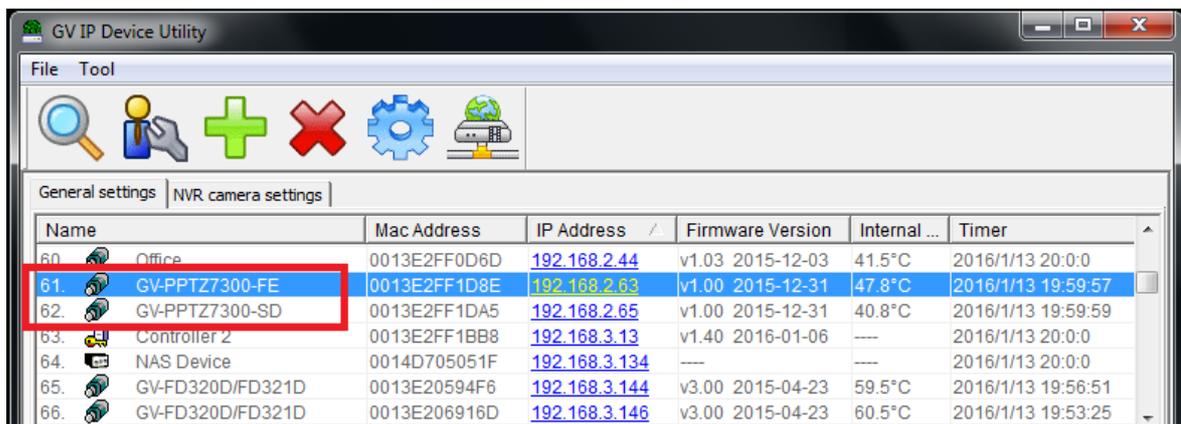


Figure 2-1

3. Click on the IP address of the fisheye camera and select **Web Page**.

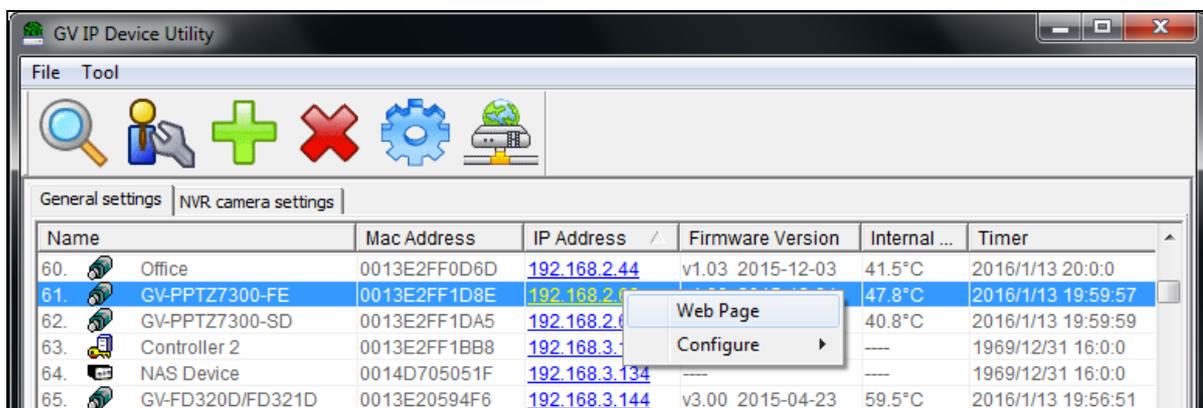


Figure 2-2

4. The login page of the integrated interface appears. Type the default ID and password **admin** and click **Apply**.

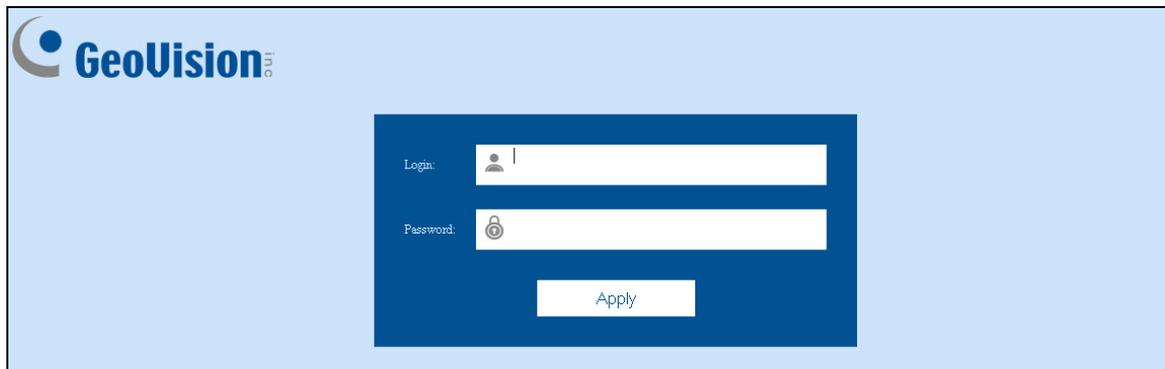


Figure 2-3

2.1.2 Assigning an IP Address

By default, the GV-Panoramic PTZ Camera, connected to LAN without a DHCP server, is assigned with the following static IP addresses.

- Integrated interface and fisheye interface: **192.168.0.10**
- Speed dome interface: **192.168.0.11**

Follow the steps below to assign a new IP address for both the fisheye and speed dome interfaces to avoid IP address conflict with other GeoVision devices. Take **GV-PPTZ7300** as an example:

Note:

1. The computer used to set the IP address must be under the same network as the camera.
 2. If your router supports DHCP server, the camera will obtain a dynamic IP address from the DHCP server each time it connects to the LAN, instead of using 192.168.0.10 or 192.168.0.11.
-

1. Open your web browser and type the default IP address <http://192.168.0.10>
2. In both Login and Password fields, type the default value **admin**. Click **Apply**.
3. In the left menu, select **GV-PPTZ – FE** under Camera Setting. You will be directed to the Web interface of the fisheye camera.

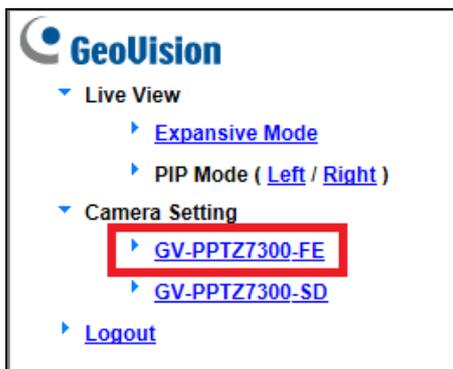


Figure 2-4

4. Type the default value **admin** again and click **Apply**

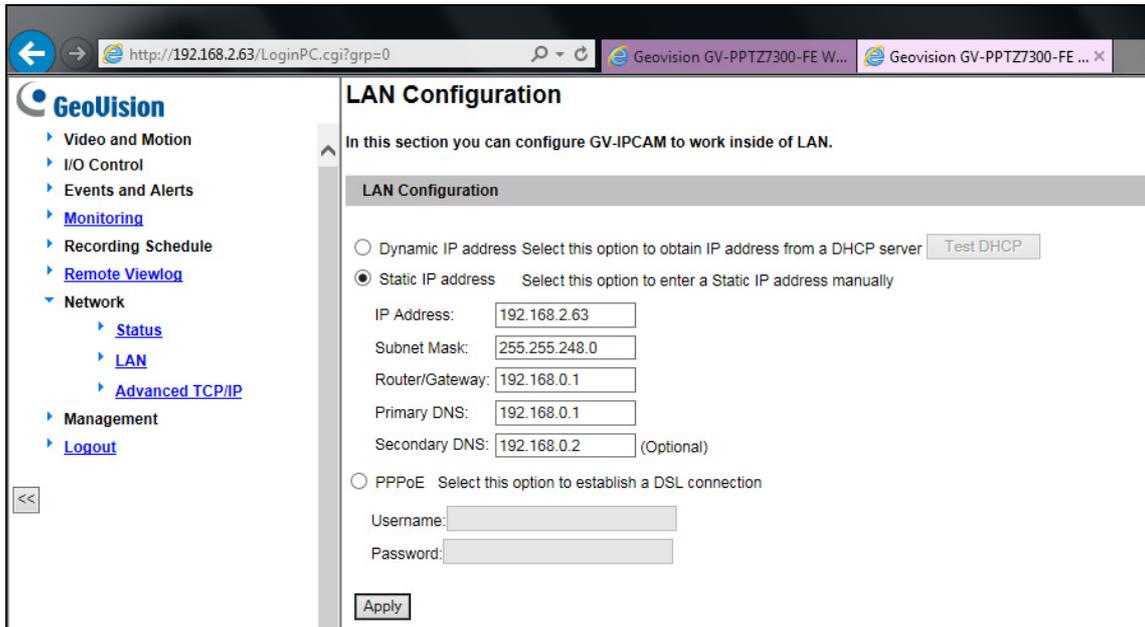


Figure 2-5

5. Select **Static IP address**. Type IP Address, Subnet Mask, Router/Gateway, Primary DNS and Secondary DNS in the **LAN Configuration** section.
6. Click **Apply**. The integrated interface and fisheye interface are now accessible by entering the assigned IP address on the Web browser.
7. Open another web browser, and type the default IP address of the speed dome interface <http://192.168.0.11>.
8. Repeat steps 4 to 7 to assign a new IP address.

IMPORTANT:

1. If **Dynamic IP Address** or **PPPoE** is enabled, you need to know which IP address the camera is assigned to log in. If your camera is installed in a LAN, use the GV-IP Device Utility to look up its current dynamic address. See [2.1.1 Checking the Dynamic IP Address](#).
If your camera uses a public dynamic IP address, via PPPoE, use the Dynamic DNS service to obtain a domain name linked to the camera's changing IP address first. For details on Dynamic DNS Server settings, see [4.7.2 Advanced TCP/IP](#).
 2. If **Dynamic IP Address** and **PPPoE** is enabled and you cannot access the unit, you may have to reset it to the factory default settings and then perform the network settings again. To restore the factory settings, see [7.3 Restoring to Factory Default Settings](#).
-

2.2 Configuring the Basics

Once the camera is properly installed, refer to the following sections in this manual for some of the important features that can be configured using the browser-based configuration page:

- **Date and time adjustment:** see *4.8.1 Date and Time Settings*.
- **Login and privileged passwords:** see *4.8.3 User Account*.
- **Network gateway:** see *4.7 Network*.
- **Camera image adjustment:** see *3.2.2 The Control Panel of the Live View Window*.
- **Video format, resolution and frame rate:** see *4.1.1 Video Settings*.

Chapter 3 Accessing the Camera

Two types of users are allowed to log in to the camera: **Administrator** and **Guest**. The Administrator has unrestricted access to all Web interfaces and system configurations. The Guest has access to the integrated interface, the live view and network status of the fisheye and speed dome, but is unable to adjust system configuration settings.

Once installed, your camera is accessible on a network. Follow these steps to access your surveillance images:

1. Start the Internet Explorer browser.
2. Type the IP address or domain name of the camera in the **Location/Address** field of your browser.

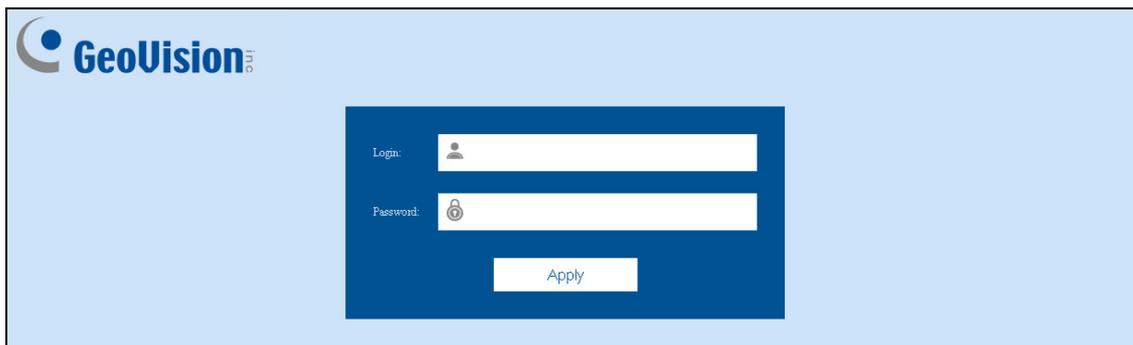


Figure 3-1

3. Enter the login name and password.
 - The default login name and password for Administrator are **admin**.
 - The default login name and password for Guest are **guest**.

A video image, similar to the example in *Figure 3-2*, is now displayed in your browser

Note: To enable the updating of images in Microsoft Internet Explorer, you must set your browser to allow ActiveX Controls and perform a one-time installation of GeoVision's ActiveX component onto your computer.

3.1 The Integrated Web Interface

Once you log in the integrated interface, you will see the live views of both the fisheye and the speed dome cameras. Both the Administrator and the Guest can access all pages of the integrated interface.

3.1.1 Menu Options in the Integrated Interface

In the left menu of the integrated interface, the following functions are available:

- ▼ **Live View**
 - ▶ Expansive Mode
 - ▶ PIP Mode (Left / Right)
- ▼ **Camera Setting**
 - ▶ GV-PPTZ – FE
 - ▶ GV-PPTZ – SD

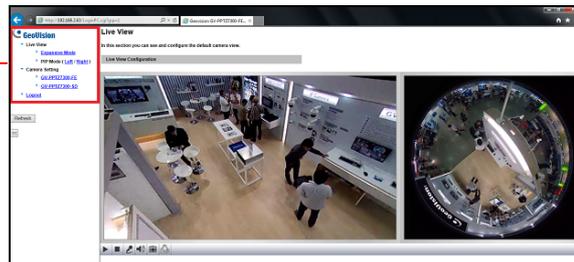


Figure 3-2

Expansive Mode

Under the Expansive Mode, the speed dome live view is placed on the left and the fisheye live view is placed on the right.



Figure 3-3

PIP Mode (Left / Right)

Under the PIP Mode, the fisheye live view appears as an inset window inside the speed dome live view. You can select **Left** to place the fisheye inset window on the lower-left corner or select **Right** to place it on the lower-right corner.



PIP (Left)



PIP (Right)

Figure 3-4

Camera Settings

You can link to the individual Web interface of the fisheye camera and the speed dome.

- **GV-PPTZ – FE:** Refer to *Chapters 3 (3.2 The Individual Fisheye and Speed Dome Interface)* and 4 of this manual to see instructions on the fisheye Web interface.
- **GV-PPTZ – -SD:** Refer to *Chapters 3 (3.2 The Individual Fisheye and Speed Dome Interface)* to 5 of this manual to see instructions on the speed dome Web interface.

Tip: After making changes to the individual Web interfaces of the fisheye camera or speed dome, be sure to click the **Refresh** button for the changes to be applied to the integrated interface immediately without having to re-login.



3.1.2 The Live View Window

Live View Buttons

In the integrated interface, the following buttons are available under the speed dome live view.

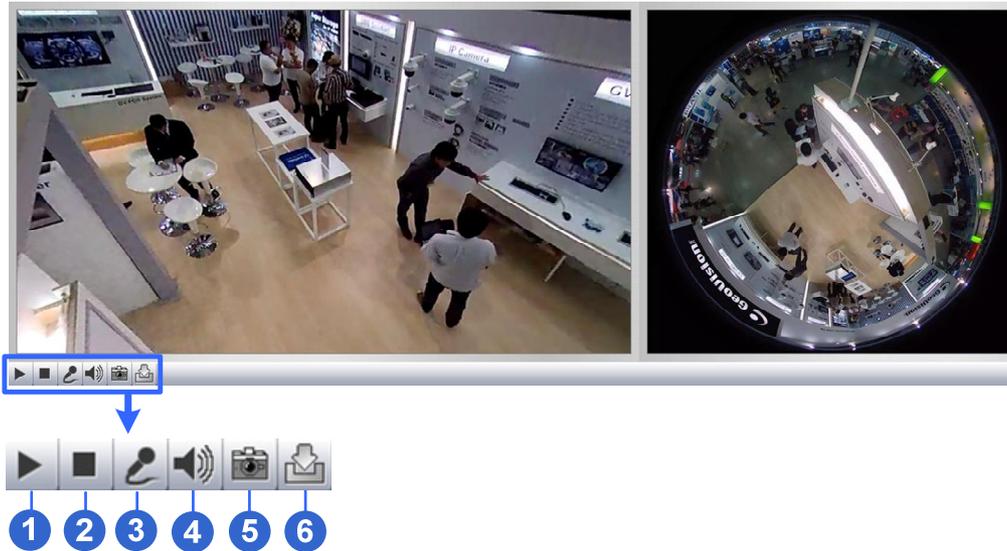


Figure 3-5

No.	Name	Function
1	Play	Plays the live video of the fisheye camera and the speed dome.
2	Stop	Stops playing video from the fisheye camera and the speed dome.
3	Microphone	Talks to the surveillance area from the local computer.
4	Speaker	Listens to the audio around the camera.
5	Snapshot	Takes a snapshot of the speed dome live view. --- See 3.2.3 <i>Snapshot of a Live Video</i> .
6	File Save	Records live video of the speed dome to the local computer. --- See 3.2.4 <i>Video Recording</i> .

Right-Clicking the Live View Window

Right-click the fisheye live view to access the fisheye functions below:

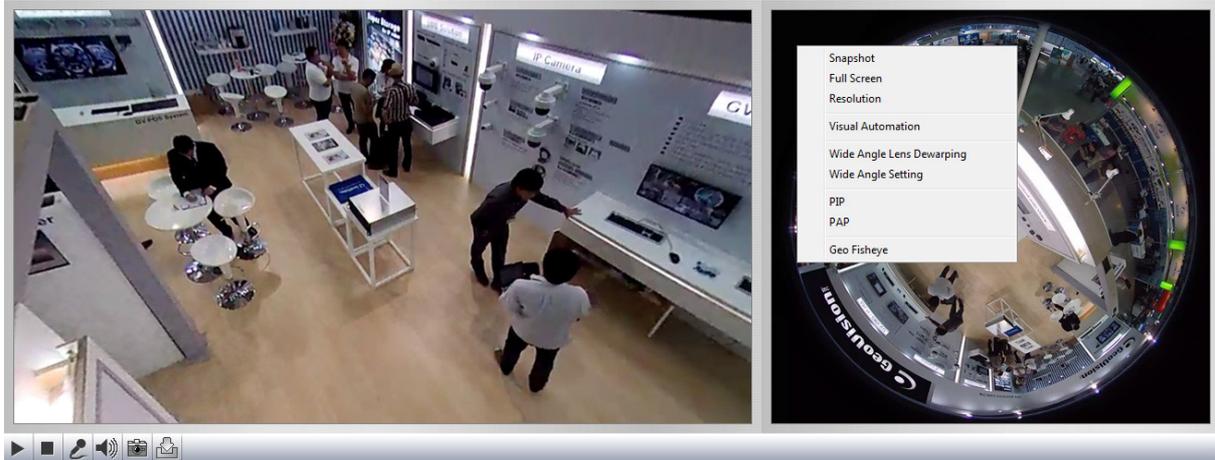


Figure 3-6

- **Snapshot:** Takes a snapshot of the **fisheye** live view
- **Full Screen:** Switches the fisheye view to full screen.
- **Resolution:** Displays the resolution of the fisheye camera on the live view.
- **Visual Automation:** The Visual Automation allows you to change the current state of the electronic device by simply clicking on its image, e.g. turning the light ON. For details on how to set up visual automation, see *4.1.6 Visual Automation*.
- **Wide Angle Dewarping:** Applies the wide angle setting to live view.
- **Wide Angle Setting:** Select to adjust the level of warping for the fisheye view.
- **PIP:** Select to enable the picture-in-picture view.
- **PAP:** Select to enable the picture-and-picture view. Draw up to 7 areas on the live view to create a split video effect with multiple close-up views.
- **Geo Fisheye:** See the section below.

Enabling Fisheye Functions

To enable the fisheye options, right-click the Fisheye live view and select **Geo Fisheye**. Once enabled, you can click on the fisheye live view, and the camera will turn toward the selected location.



Figure 3-7

Right-click the image and select **Fisheye Option** for the following options:

- **Image Alignment:** By default, the image should be properly aligned already. If not, drag the dotted circle to adjust the image alignment.
- **Camera Mode:** You can choose among two view modes:
 - **Fisheye View:** Shows the hemispherical source image.



Figure 3-8

- **360 View:** Composed of one 360° panoramic view.



Figure 3-9

- **Camera Position:** This option is only available under 360 View. You can temporarily set the camera position to **Ground** instead of the default **Ceiling** if you want to test the camera view prior to installing the camera on the ceiling.

3.2 The Individual Fisheye and Speed Dome Interface

This section introduces the features of the **Live View** window and **Network Status** in the individual fisheye and speed dome Web interfaces. The two features are accessible by both Administrator and Guest.

To access the individual Web interface of the fisheye camera and the speed dome, select **GV-PPTZ – FE** or **GV-PPTZ – SD** under Camera Setting. You will be guided to its login page. Take **GV-PPTZ14021** as an example:

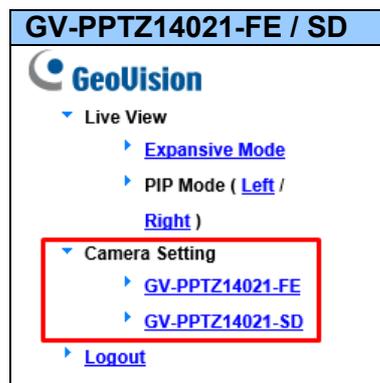


Figure 3-10

Fisheye/Speed Dome Interface: Main Page of Guest Mode

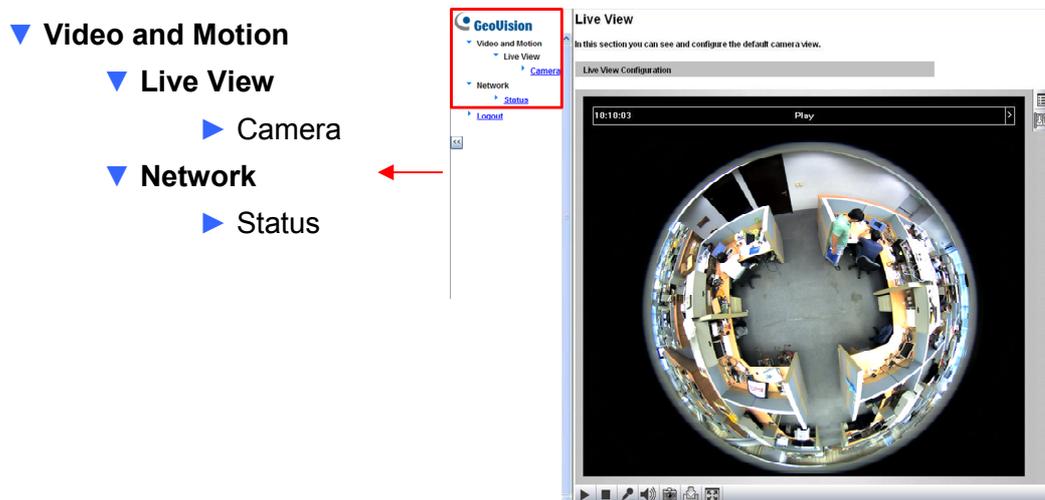


Figure 3-11: Example of fisheye camera

The camera can process one video stream in two different codec and image settings. In the Administrator mode, both streams are available. Click **Streaming 1** or **Streaming 2** in the left menu to access the live view. In the Guest mode, only one stream is available, as shown in *Figure 3-11*.

3.2.1 The Live View Window

Internet Explorer

When accessing the camera live view using Internet Explorer, the following window appears.

The live view window of GV-PPTZ – FE



The live view window of GV-PPTZ – SD

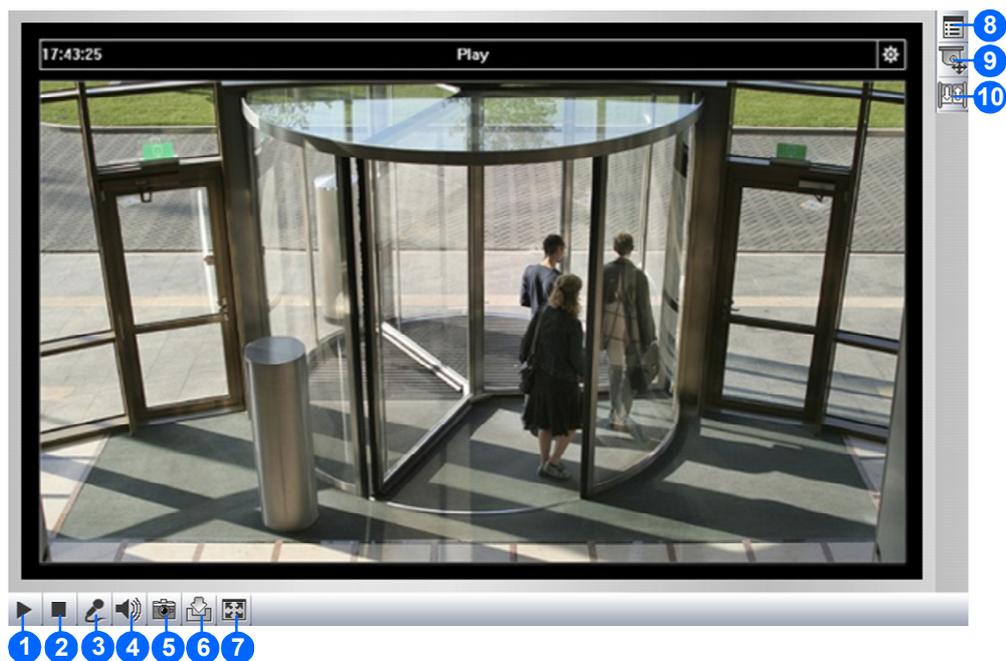


Figure 3-12

No.	Name	Function
1	Play	Plays live video.
2	Stop	Stops playing video.
3	Microphone	Talks to the surveillance area from the local computer. Click the Push to talk button (from the pop-up menu) for the camera to switch between audio transmission and reception, where only one party can speak at a time.
4	Speaker	Listens to the audio around the camera. This button is available only on the speed dome Web interface of GV-PPTZ14021 / PPTZ14031 and the fisheye Web interface of GV-PPTZ7300 .
5	Snapshot	Takes a snapshot of live video. --- See 3.2.3 <i>Snapshot of a Live Video</i> .
6	File Save	Records live video to the local computer. --- See 3.2.4 <i>Video Recording</i> .
7	Full Screen	Switches to full screen view. Right-click the image to have these options: Snapshot, Wide Angle Lens Dewarping, PIP, PAP, Geo Fisheye . --- See 3.2.5 <i>Wide Angle Lens Dewarping</i> --- See 3.2.6 <i>Picture-in-Picture and Picture-and-Picture View</i> --- See 3.1.2 <i>The Live View Window</i>
8	Show System Menu	Brings up these functions: Alarm Notify, Video and Audio Configuration, Remote Config, Show Camera Name and Image Enhance . --- See 3.2.7 <i>Alarm Notification</i> --- See 3.2.8 <i>Video and Audio Configuration</i> --- See 3.2.9 <i>Remote Configuration</i> --- See 3.2.10 <i>Camera Name Display</i> --- See 3.2.11 <i>Image Enhancement</i>
9	PTZ Control	Starts PTZ Control Panel and Visual PTZ. --- See 3.2.14 <i>PTZ Control</i> and 3.2.15 <i>Visual PTZ</i> .
10	I/O Control	Enables I/O Control Panel or Visual Automation. --- See 3.2.12 <i>I/O Control</i> .

Non-IE Browsers

When accessing the camera live view using non-IE browsers, such as Google Chrome, Firefox or Safari, the following window appears. The following functions are not supported using non-IE browsers: Control panel, function buttons, Motion Detection, Tampering Alarm, Visual Automation, Text Overlay, and Two-Way Audio.

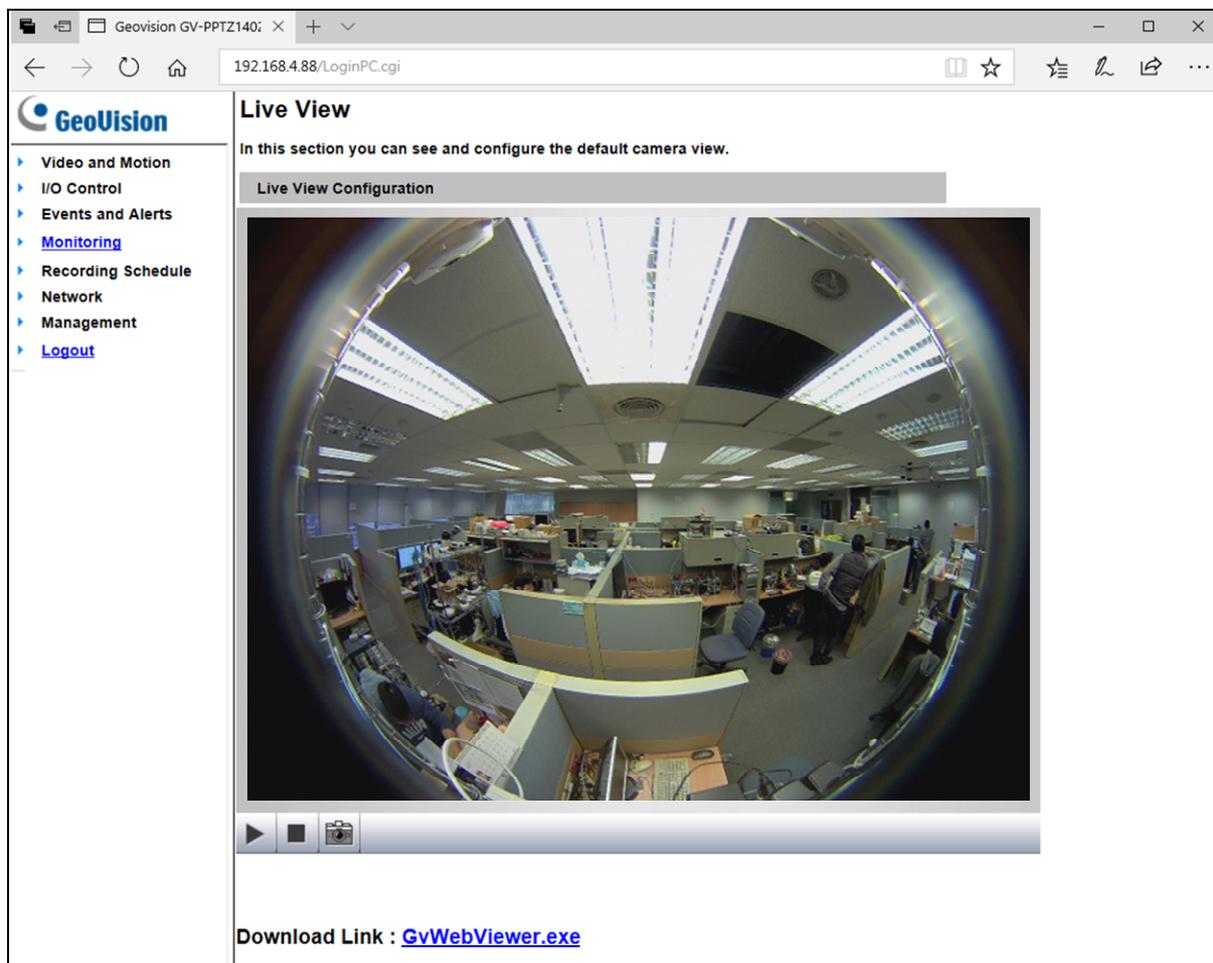


Figure 3-13

3.2.2 The Control Panel of the Live View Window

To open the control panel of the Live View window, click the **Menu** button  on top of the viewer. You can access the following functions by using the left and right arrow buttons on the control panel.

Click the Menu button to display the control panel.

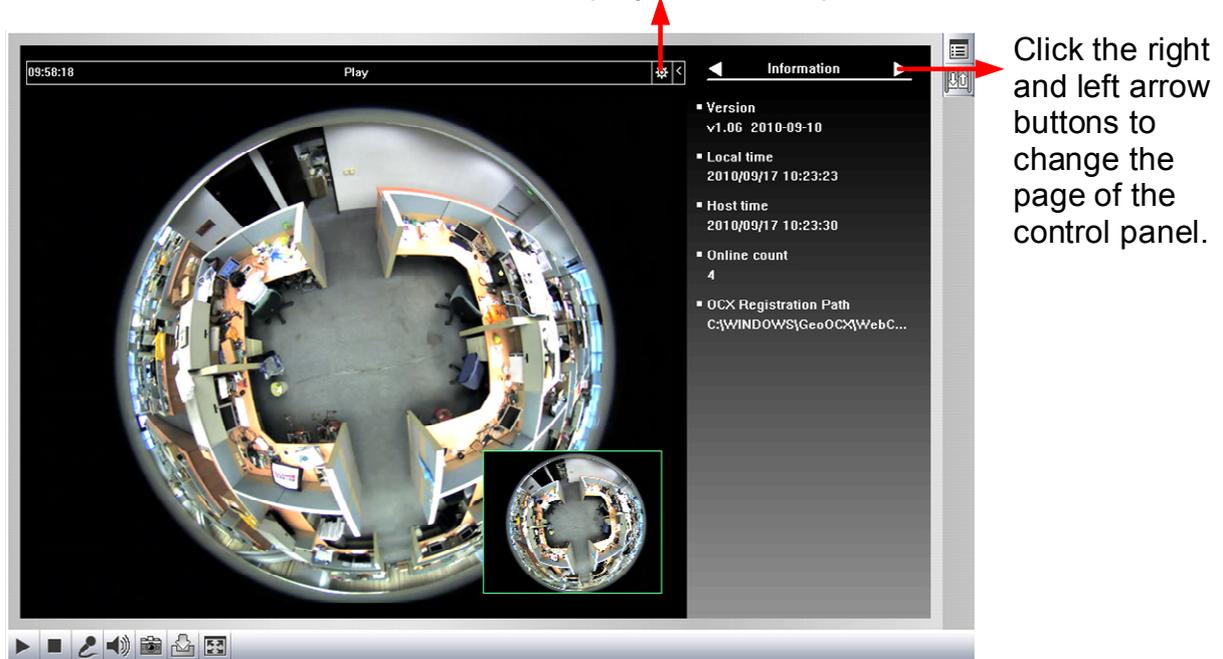


Figure 3-14

[Information] Displays the version of the camera, the time of the local computer, host time of the camera, and the number of users logging in to the camera.

[Video] Displays the current video codec, resolution and data.

[Audio] Displays the audio data rates when the microphone and speaker devices are enabled.

[I/O Control] Provides a real-time graphic display of the input and output status. You can force the output to be triggered by double-clicking its icon.

[Alarm Notify] Displays images captured upon sensor triggers and/or motion detection. For this function to work, you must configure the Alarm Notify settings first. See 3.2.7 *Alarm Notification*.

[Camera Adjustment] Allows you to adjust the image quality. Note that this function is not available on the speed dome Web interface.

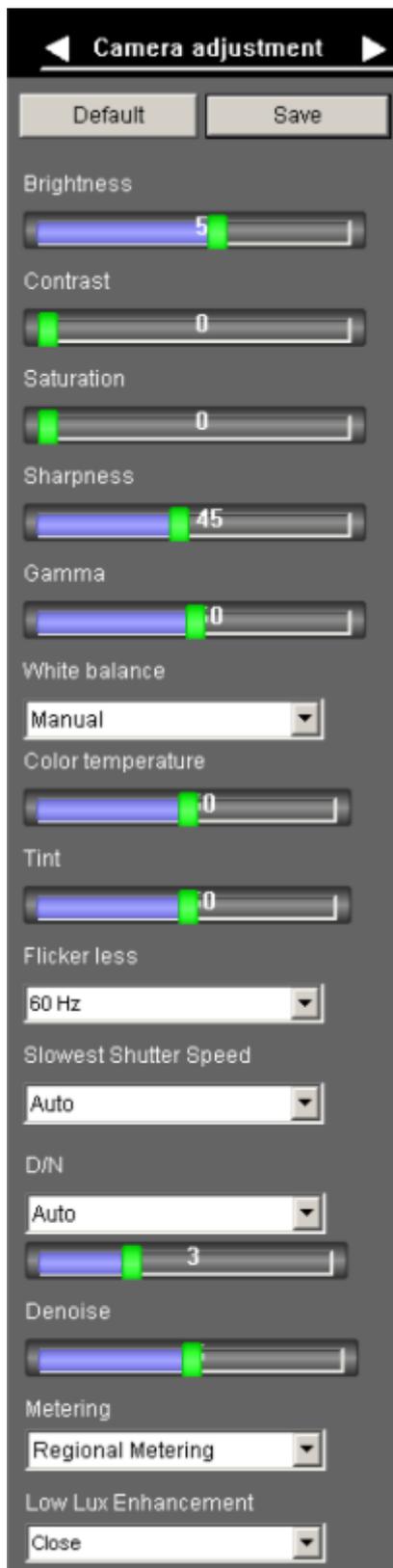


Figure 3-15

- **Brightness:** Adjusts the brightness of the image.
- **Contrast:** Adjusts the relative differences between one pixel and the next.

- **Saturation:** Adjusts the saturation of the image.
- **Sharpness:** Adjusts the sharpness of the image.
- **Gamma:** Adjusts the relative proportions of bright and dark areas.
- **White balance:** The camera automatically adjusts the color to be closest to the image you are viewing. You can choose a pre-defined setting or choose **Manual** to adjust the white balance manually.
- **Color Temperature:** Adjust the camera image to have a warmer or cooler color tone. The higher the color temperature, the cooler the color tone. Note this function is supported by **GV-PPTZ14021 / GV-PPTZ14031** only.
- **Tint:** Move the slider of the bar to remove undesired color cast for a more neutral image. Note this function is supported by **GV-PPTZ14021 / GV-PPTZ14031** only.
- **Flicker less:** The camera automatically matches the frequency of your camera's imager to the frequency of indoor light sources, e.g. fluorescent lighting. You can also select 50 Hz or 60 Hz manually. If these don't match, faint light and dark bars may appear in your images. Check the power utility to determine which frequency is used.
- **Slowest Shutter Speed:** Shutter speed controls the amount of light entering the image sensor and directly impacts the quality of image presentation. Under low light conditions, a faster shutter speed will lower color quality and image clarity. A slow shutter speed allows more light to enter and creates a brighter overall image, but moving objects may appear blurry. You can manually select a shutter speed, select **Auto** for automatic shutter speed, or select **Auto (Higher Shutter Speed)** for faster automatic shutter control.
- **D/N:** Sets the Day/Night mode of the camera.
 - ⊙ **Auto:** Switch automatically between day mode and night mode depending on the amount of light detected.
 - ⊙ **Black and white:** Switch the camera to night mode.
 - ⊙ **Color:** Switch the camera to day mode. With the slider below, you can set the light sensor's sensitivity of switching between day mode and night mode. The value 10 is the most light-sensitive.
 - ⊙ **Trigger by Input** to switch between day mode and night mode once the input device (e.g. sensor or button) is triggered. Note that both this option and the **Trigger Day/Night Mode** option in Input Settings needs to be enabled for the camera to switch between day mode and night mode upon receiving input triggers. See *D/N, Special View Settings, 4.1.1 Video Settings, and 4.2.1 Input Settings* for details on integrating the Day/Night mode of the camera with an input device.

- **Schedule:** For **GV-PPTZ14021 / PPTZ14031**, select this option to determine specific period(s) of time when day/night mode is activated. Note this function is only effective when the **Schedule** option in **Monitoring Settings** is enabled and therefore excluding the use of other Manual recording modes. See *4.5.1 Recording Schedule Setting* and *4.4 Monitoring* respectively for the details on the setting of the schedule and recording modes.
- **Denoise:** Reduces image noise especially under low-light conditions. The higher the denoise value, the stronger the effect.
- **Wide Dynamic Range:** adjusts and generates clear live view when the scene contains very bright and very dark areas at the same time. Select **Auto (Strong)** to bring out details in the dark areas of the scene, select **Auto (Weak)** to bring out less details in the dark area and at the same time keep the bright areas from overexposure, or select **Auto (Normal)** for a balanced effect. Select **Close** to disable the function. Note this function is supported by **GV-PPTZ7300** only.
- **Defog:** Select **Auto** to automatically enhance the visibility of images. Select **Close** to disable the function. Note this function is supported by **GV-PPTZ7300** only.
- **Metering:** Controls the camera's exposure. Select **Normal** for the camera to adjust exposure based on the full live view. Select **Regional Metering** for the camera to adjust exposure of specified zones. Draw directly on the live view and a block marked with "AE (automatic exposure)" appears. You can establish up to 4 zones. To remove the block, right-click the block and select **Delete**.

[Temperature]

Click the **Monitor** button to see the current temperature of the chipset in Celsius and Fahrenheit.

3.2.3 Snapshot of a Live Video

To take a snapshot of live video, follow these steps:

1. Click the **Snapshot** button (No. 5, *Figure 3-12*). The Save As dialog box appears.
2. Specify **Save in**, type the **File name** and select **JPEG** or **BMP** as **Save as Type**. You may also choose whether to display the name and date stamps on the image.
3. Click the **Save** button to save the image in the local computer.

3.2.4 Video Recording

You can record live video for a certain period of time to your local computer.

1. Click the **File Save** button (No. 6, *Figure 3-12*). The Save As dialog box appears.
2. Specify **Save in**, type the **File name** and move the **Time period** scroll bar to specify the time length of each video clips from 1 to 5 minutes.
3. Click the **Save** button to start recording.
4. To stop recording, click the **Stop** button (No. 2, *Figure 3-12*).

3.2.5 Wide Angle Lens Dewarping

The fisheye camera's live view is warped especially near the edges. Use this function to reduce the warping of live view. Note this function is supported by **GV-PPTZ7300** only.

1. Right-click on the live view to display a drop-down list.
2. Select **Wide Angle Setting**. The Wide Angle Dewarping Setting window appears.

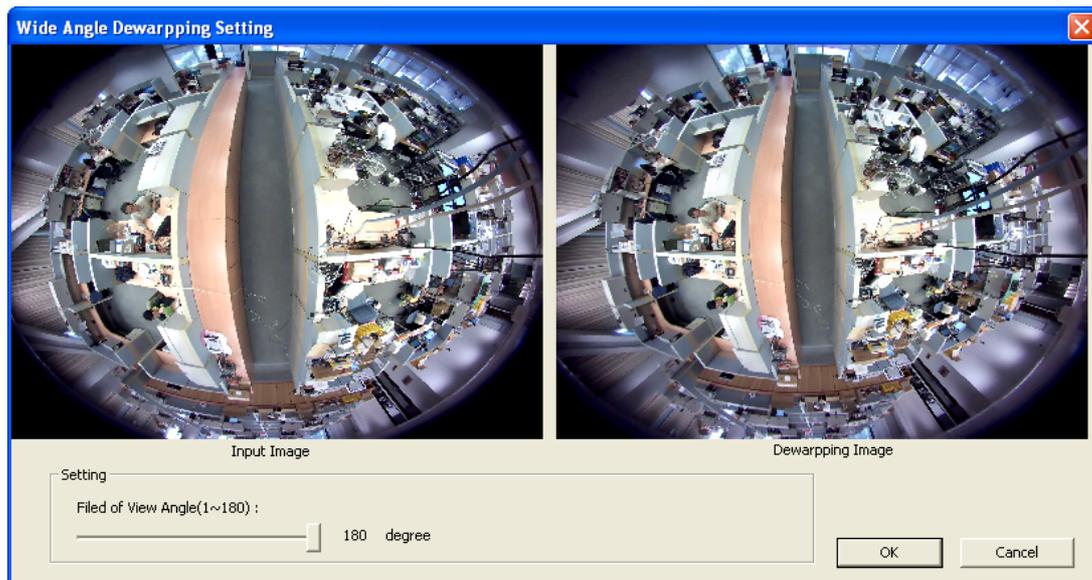


Figure 3-16

3. Slide the slider at the bottom to correct the degree of warping. The adjusted view is shown on the right. Click **OK** to close this window.
4. To enable this configuration, right-click on the live view, select **Wide Angle Lens Dewarping**.

3.2.6 Picture-in-Picture and Picture-and-Picture View

Two types of close-up views are available to provide clear and detailed images of the surveillance area: **Picture-in-Picture (PIP)** and **Picture-and Picture (PAP)**. After entering the live view window, the image is displayed in PIP mode by default.

Picture-in-Picture View

With the Picture in Picture (PIP) view, you can crop the video to get a close-up view and zoom in on the video.

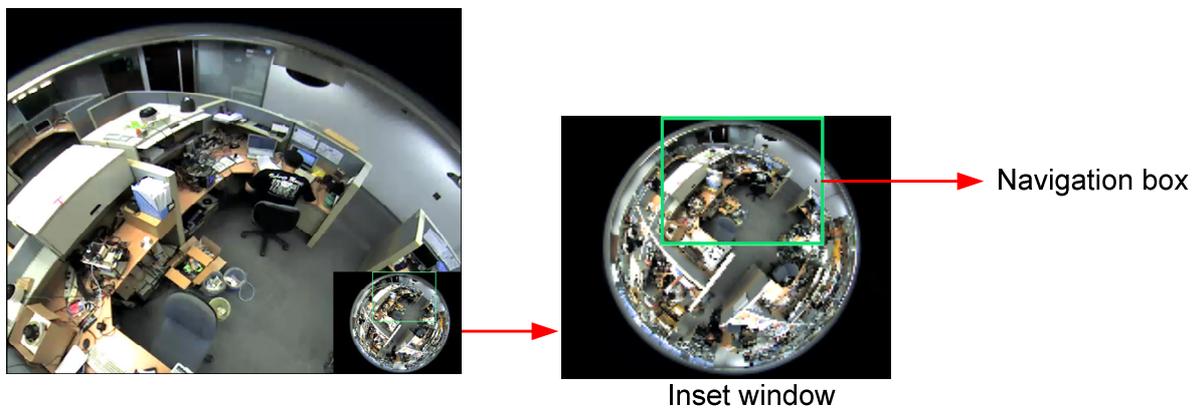


Figure 3-17

1. Right-click the live view and select **PIP**. An inset window appears.
2. Click the inset window. A navigation box appears.
3. Move the navigation box around in the inset window to have a close-up view of the selected area.
4. To adjust the navigation box size, move the cursor to any of the box corners, and enlarge or diminish the box.
5. To change the frame color of the navigation box or hide the box, right-click the image, select **Mega Pixel Setting** and click one of these options:
 - **Set Color of Focus Area:** Changes the color of the box frames.
 - **Hide PIP Window:** Displays or hides the navigation boxes on the image.
6. To exit the PIP view, right-click the image and click **PIP** again.

Picture-and-Picture View

With the Picture and Picture (PAP) view, you can create a split video effect with multiple close-up views on the image. A total of 7 close-up views can be defined.



Figure 3-18

1. Right-click the live view and select **PAP**. A row of three inset windows appears at the bottom.
2. Draw a navigation box on the image, and this selected area is immediately reflected in one inset window. Up to seven navigation boxes can be drawn on the image.
3. To adjust a navigation box size, move the cursor to any of the box corners, and enlarge or diminish the box.
4. To move a navigation box to another area on the image, drag it to that area.
5. To change the frame color of the navigation box or hide the box, right-click the image, select **Mega Pixel Setting** and click one of these options:
 - **Enable Add-Focus-Area-Mode:** Enable this function to draw navigation box on the image.
 - **Display Focus Area of PAP Mode:** Displays or hides the navigation boxes on the image.
 - **Set Color of Focus Area:** Changes the color of the box frames.
6. To delete a navigation box, right-click the desired box, select **Focus Area of PAP Mode** and click **Delete**.
7. To exit the PAP view, right-click the image and click **PAP** again.

3.2.7 Alarm Notification

Upon input trigger and motion detection events, you can be alerted by a pop-up live video and view up to four captured images.



Figure 3-19

To configure this function, click the **Show System Menu** button (No. 8, *Figure 3-12*), and select **Alarm Notify**. This dialog box appears.

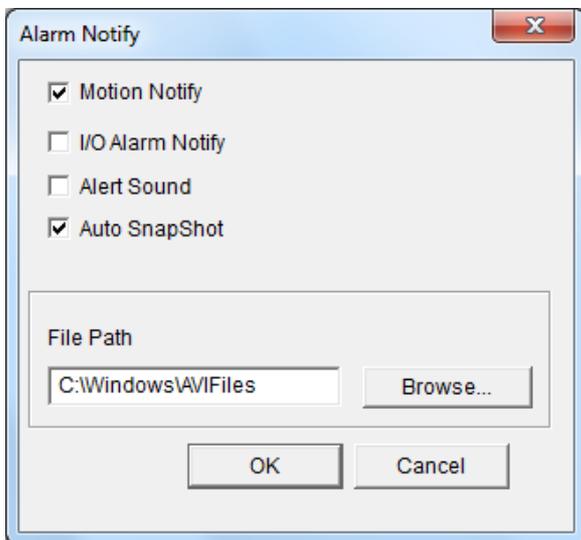


Figure 3-20

- **Motion Notify:** Once motion is detected, the captured images are displayed on the control panel of the Live View window.
- **I/O Alarm Notify:** Once the input device is triggered, the captured images are displayed on the control panel of the Live View window. For this function to work, the Administrator needs to install the input device properly. See *4.2.1 Input Settings*.

- **Alert Sound:** Activates the computer alarm upon motion and input trigger detection.
- **Auto Snapshot:** The snapshot of live video is taken every 5 seconds upon motion and input trigger detection.
- **File Path:** Assigns a file path to save the snapshots.

Note: The Administrator can adjust the motion detection area by using the Motion Detection function. See [4.1.2 Motion Detection](#) for more details.

3.2.8 Video and Audio Configuration

You can enable the microphone and speaker for two-way audio communication and set the number of frames to keep for live view buffer. Click the **Show System Menu** button (No. 8, *Figure 3-12*) and select **Video and Audio Configuration**.

- **Camera:** Sets the number of frames to keep in live view buffer. Keeping more frames for live view buffer can ensure a smooth live view, but the live view will be delayed for the number of frames specified.

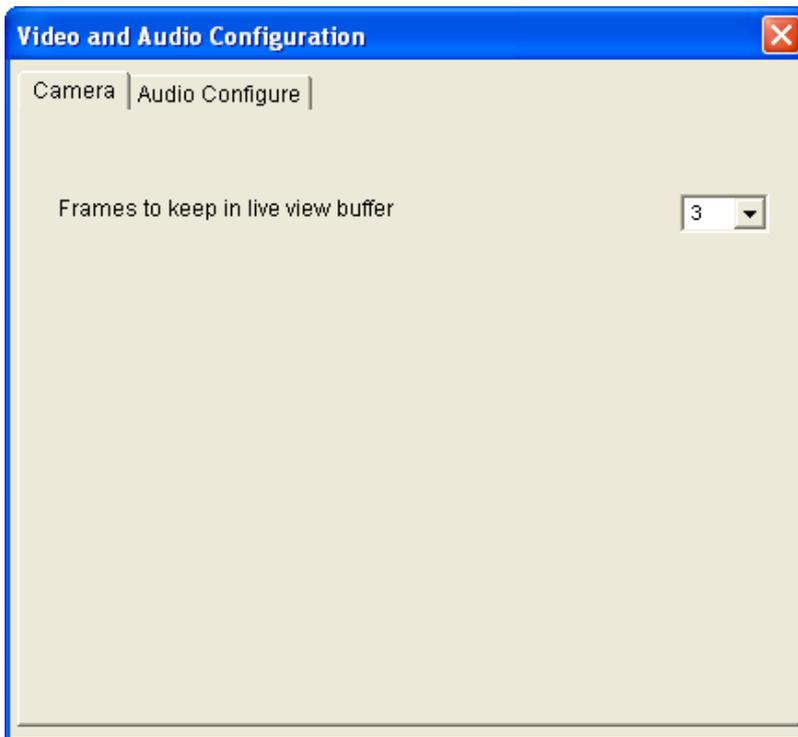


Figure 3-21

- **Audio Configure:** You can enable the microphone and speaker and adjust the audio volume.

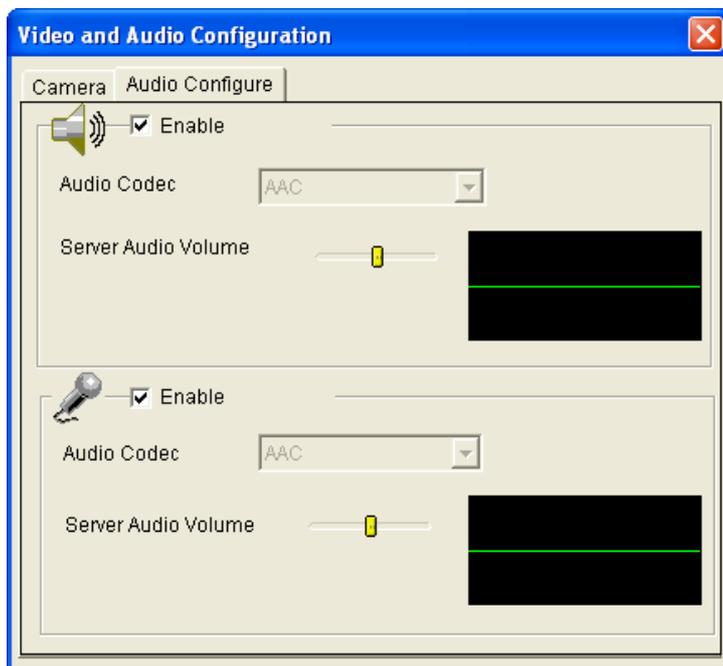


Figure 3-22

3.2.9 Remote Configuration

You can view the connection status of the central monitoring stations and upgrade firmware over the network. Click the **Show System Menu** button (No. 8, *Figure 3-12*), and select **Remote Config**. The Remote Config dialog box will appear.

[Firmware Upgrade] In this tab, you can upgrade the firmware over the network. For details, see *Chapter 7 Advanced Applications*.

3.2.10 Camera Name Display

To display the camera name on the image, click the **Show System Menu** button (No. 8, *Figure 3-12*), and select **Show Camera Name**.

3.2.11 Image Enhancement

To enhance the image quality of live video, click the **Show System Menu** button (No. 8, *Figure 3-12*), and select **Image Enhance**. This dialog box appears.

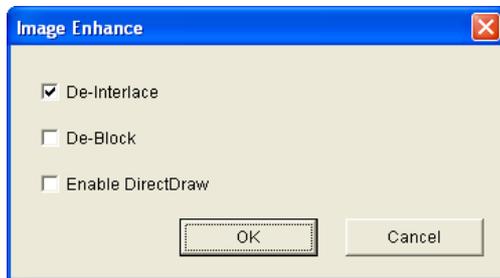


Figure 3-23

- **De-Interlace:** Converts the interlaced video into non-interlaced video.
- **De-Block:** Removes the block-like artifacts from low-quality and highly compressed video.
- **Enable DirectDraw:** Activates the DirectDraw function.

3.2.12 I/O Control

For **GV-PPTZ7300**, this function is only available on the fisheye interface. The I/O Control window provides real-time graphic displays of camera status, I/O status, and alarm events. Additionally, you can remotely force output to be triggered.

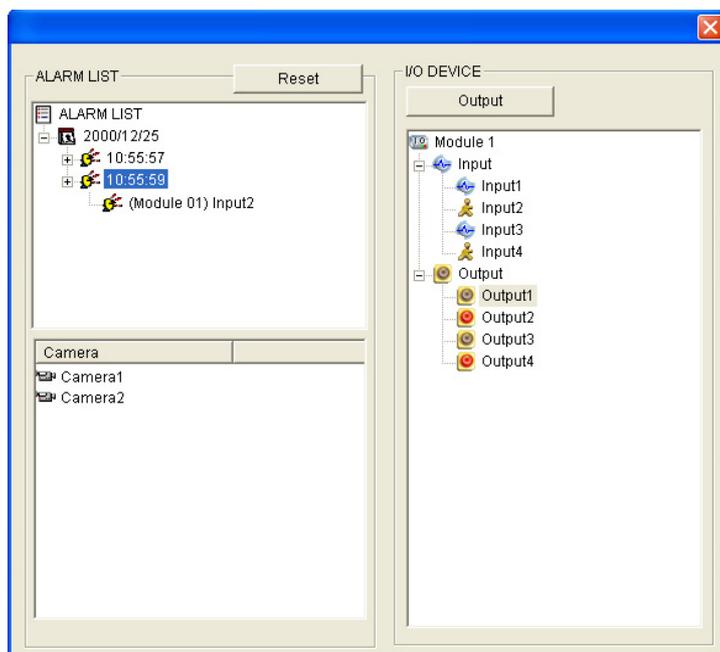


Figure 3-24

- To display the I/O control window, click the **I/O Control** button (No. 10, Figure 3-12).
- The Alarm List is displayed in three levels. The first level indicates date, the second indicates time, and the third indicates alarm ID. Clicking the **Reset** button will clear the list.
- To trigger an output device, highlight an output and then click the **Output** button.

3.2.13 Visual Automation

This function is only available on the fisheye interface. The Visual Automation allows you to change the current state of the electronic device by simply clicking on its image, e.g. turning the light ON. This feature is only available when the Visual Automation is predefined by the Administrator. For details, see *4.1.6 Visual Automation*.



Figure 3-25

- To access this feature, right-click the live view and select **Visual Automation**.
- To change the style of the set areas, right-click the image and select **Visual Automation**. Right-click the image again to see these options:
 - **Show All:** Displays all set areas.
 - **Rect Float:** Embosses all set areas.
 - **Set Color:** Changes the frame color of all set areas.

3.2.14 PTZ Control

This function is only available on the speed dome interface. The PTZ control panel is a virtual panel used to control the dome view. With the control panel, the Guest user can carry out Pan, Tilt, Zoom, Focus and Iris functions as well as pre-defined Preset, Sequence, Auto Pan, Cruise and Tour movements. In addition to these functions, the Administrator can also use the control panel to set Presets, Sequence, Auto Pan, Cruise, Tour routes and configure other PTZ settings. For setup details, see *Chapter 5 PTZ Control Panel*.

To open the PTZ Control Panel, click the **PTZ Control** button (No. 9, *Figure 3-12*) and select **PTZ Control Panel**.

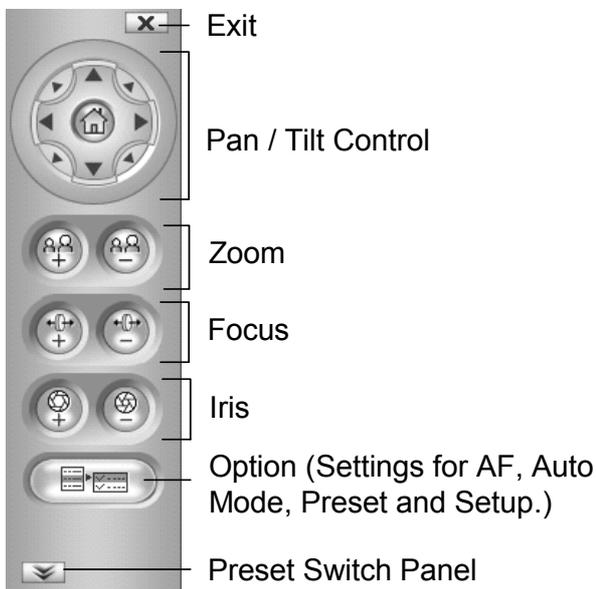


Figure 3-26

3.2.15 Visual PTZ

This function is only available on the speed dome interface. In addition to the PTZ Control Panel, you may also use a minimized panel, the visual PTZ control panel to operate your camera. This panel can be used to perform all the functions of the guest PTZ control panel except for iris control. For functions of guest PTZ control panel, see 3.2.14 *PTZ Control*.



Figure 3-27

To access this feature, click the **PTZ Control** button (No. 9, *Figure 3-12*) and select **Visual PTZ** or right-click on the live view and select **Visual PTZ**.

To change the panel settings, right-click on the live view or click the green **PTZ** button on the top left corner and select **Visual PTZ** to access the following settings:

- **Random Move:** In this mode, you can move the dome view to any direction. Click any place on the live view for the panel to appear, and right-click for the panel to hide. To move the dome view, click and hold on to a desired direction. Drag further for the dome view to move faster.

3.2.16 Network Status

Click **Network** and select **Status** in the left menu to view the network status.

Network Status Information	
In this section you can see an overview of GV-IPCAM status.	
Current Status Information	
interface:	Wired
IP Acquirement:	Fixed
MAC Address:	0013E201E1A1
IP Address:	192.168.2.115
Subnet Mask:	255.255.252.0
Gateway:	192.168.0.1
Domain Name Server 1:	192.168.0.1
Domain Name Server 2:	192.168.0.2

Figure 3-28

Chapter 4 Administrator Mode

The Administrator can access the system configuration on the fisheye and speed dome interfaces. There are eight categories of system configuration: **Video and Motion**, **I/O Control**, **Events and Alerts**, **Monitoring**, **Recording Schedule**, **Remote ViewLog**, **Network** and **Management**. Note that not all configurations are available on the speed dome interface.



Figure 4-1

List of Menu Options

See the table below for the settings available on the fisheye interface (FE) and the speed dome interface (SD). Find the topic of interest by referring to the section number prefixed to each option.

		GV-PPTZ7300- FE	GV-PPTZ7300- SD
4.1 Video and Motion	4.1.1 Video Settings	<input type="radio"/>	<input type="radio"/>
	4.1.2 Motion Detection	<input type="radio"/>	<input type="radio"/>
	4.1.3 Privacy Mask	<input type="radio"/>	<input checked="" type="radio"/> ⁽²⁾
	4.1.4 Text Overlay	<input type="radio"/>	<input type="radio"/>
	4.1.5 Tampering Alarm	<input type="radio"/>	<input checked="" type="radio"/>
	4.1.6 Visual Automation	<input type="radio"/>	<input checked="" type="radio"/>
4.2 I/O Control	4.2.1 Input Setting	<input type="radio"/>	<input checked="" type="radio"/>
	4.2.2 Output Setting		
4.3 Events and Alerts	4.3.1 Email		
	4.3.2 FTP		
	4.3.3 Center V2		
	4.3.4 Vital Sign Monitor		
	4.3.5 Backup Center	<input type="radio"/>	<input type="radio"/>
	4.3.6 Video Gateway / Recording Server		
	4.3.7 ViewLog		
	4.3.8 RTSP/ONVIF		
4.4 Monitoring		<input type="radio"/>	<input type="radio"/>
4.5 Recording Schedule	4.5.1 Recording Schedule Settings	<input type="radio"/>	<input type="radio"/>
	4.5.2 I/O Monitor Settings	<input type="radio"/>	<input checked="" type="radio"/>
4.6 Remote ViewLog		<input type="radio"/>	<input type="radio"/>
4.7 Network	4.7.1 LAN	<input type="radio"/>	<input type="radio"/>
	4.7.2 Advanced TCP/IP		
4.8 Management	4.8.1 Date and Time Settings	<input type="radio"/> ⁽¹⁾	<input checked="" type="radio"/>
	4.8.2 Storage Settings	<input type="radio"/>	<input type="radio"/>
	4.8.3 User Account	<input type="radio"/> ⁽¹⁾	<input checked="" type="radio"/>
	4.8.4 Log Information	<input type="radio"/>	<input type="radio"/>
	4.8.5 Tools	<input type="radio"/>	<input type="radio"/>
	4.8.6 Language	<input type="radio"/> ⁽¹⁾	<input checked="" type="radio"/>

		GV-PPTZ14021- FE / PPTZ14031- FE	GV-PPTZ14021- SD / PPTZ14031- SD
4.1 Video and Motion	4.1.1 Video Settings	O	O
	4.1.2 Motion Detection	O	O
	4.1.3 Privacy Mask	O	X ⁽²⁾
	4.1.4 Text Overlay	O	O
	4.1.5 Tampering Alarm	O	X
	4.1.6 Visual Automation	O	X
4.2 I/O Control	4.2.1 Input Setting	O	O
	4.2.2 Output Setting		
4.3 Events and Alerts	4.3.1 Email	O	O
	4.3.2 FTP		
	4.3.3 Center V2		
	4.3.4 Vital Sign Monitor		
	4.3.5 Backup Center		
	4.3.6 Video Gateway / Recording Server		
	4.3.7 ViewLog		
	4.3.8 RTSP/ONVIF		
4.4 Monitoring		O	O
4.5 Recording Schedule	4.5.1 Recording Schedule Settings	O	O
	4.5.2 I/O Monitor Settings	O	O
4.6 Remote ViewLog		O	O
4.7 Network	4.7.1 LAN	O	O
	4.7.2 Advanced TCP/IP		
4.8 Management	4.8.1 Date and Time Settings	O ⁽¹⁾	X
	4.8.2 Storage Settings	O	O
	4.8.3 User Account	O ⁽¹⁾	X
	4.8.4 Log Information	O	O
	4.8.5 Tools	O	O
	4.8.6 Language	O ⁽¹⁾	X

Note:

1. For functions marked with (1), any changes made will be applied to both the fisheye camera and the speed dome.
 2. For the functions marked with (2), settings can be changed in the PTZ Configuration dialog box of the PTZ Control Panel. For details, see the *Image Settings – Mask* section in *Chapter 5*.
-

4.1 Video & Motion

The fisheye camera and speed dome in GV-PPTZ camera can both simultaneously process one video source in two different codec and resolutions. The dual-stream design benefits for lower bandwidth environment, allowing Streaming 2 to be set with lower resolution and codec for live streaming, and Streaming 1 set with highest resolution and codec H.264 for best recording quality. Two setting pages **Streaming 1** and **Streaming 2** are provided for separate setup.

Comparison between Streaming 1 and Streaming 2:

Video Setting Options	Streaming 1	Streaming 2
Region of Interest (ROI)	Yes	Not open for configuration. But settings in Streaming 1 are automatically applied to Streaming 2
Record Settings		
Watermark Setting		
Enable SDK		
Special View Setting		
Video Resolution	Yes. Different resolutions can be applied to Streaming 1 and Streaming 2.	

This section includes video image settings and how the images can be managed by using Motion Detection, Privacy Mask, Text Overlay, Tampering Alarm and Visual Automation.

4.1.1 Video Settings

Video Settings

In this section you can define compression art, broadcasting method and privacy mask.

Connection template

Fast (LAN, T1, Wireless 802.11a/g, ADSL-high speed..) ▼

Video Signal Type

In this section you can configure camera's video signal, also the resolution and frame per second to be transmitted through the network

Video Format H264 ▼

Resolution	Frame per second
2560*1920 (4:3) ▼	10 ▼

Bandwidth Management

In this section you can configure the bit rate used by video stream. When VBR (Variable Bit Rate) is selected, consistent image quality is achieved at the cost of varying bit rate. To set a consistent bit rate at the cost of varying image quality, select CBR (Constant Bit Rate).

<input checked="" type="radio"/> VBR	Quality Good ▼	Maximal Bit Rate 12 ▼ Mbit
<input type="radio"/> CBR	Maximal Bit Rate 10240 Kbps ▼	

Region Of Interest (ROI)

In this section you can configure ROI.

Enable [ROI Setting](#)

GOP Structure and Length

In this section you can configure the composition of the video stream (GOP structure). Using I-Frame only will significantly increase the video quality as well as the bandwidth.

Group of Picture(GOP) Size 1.0 ▼ (seconds)

H264 Video Entropy Coding Setting

In this section you can decide Video entropy coding for H.264 codec

H.264 Entropy Encoding CAVLC ▼

Record Settings

In this section you can configure pre-alarm and post-alarm settings.

Pre-alarm recording time 1 ▼ seconds

Post-alarm recording time 1 seconds with hard disk installed (1~30)

Split interval 5 ▼ minutes

Recording Profile Performance ▼

Record audio

Write recording data into local storage
(If disabled, the camera will stop recording to local storage while live view is accessed through Web browsers or other applications.)

Figure 4-2A

Text Overlay Settings

In this section you can set up texts to be overlaid on live view when viewing via GeoVision software.

Camera Name

Overlay with:

Camera Name

Date

System Time

Name of the associated digital input Input 1 Input 2 Input 3 Input 4

Text Overlay Settings (OSD)

In this section you can set up texts to be overlaid on live view.

Camera Name

Font Size

Overlay with:

Camera Name

Date

System Time

Watermark Setting

In this section you can set Watermark function.

Enable

Enable SDK

Enable

Special View Setting

Additional functions for Live View

D/N

<input checked="" type="radio"/>	Auto	Sensitivity <input type="text" value="5"/>
<input type="radio"/>	Black and White	
<input type="radio"/>	Color	

BLC Off On

Figure 4-2B

[Connection Template]

Select the type of your network connection. Unless you select **Customized**, this option will automatically bring up the recommended video resolution, frame rate, bandwidth and GOP size. Note this function is only supported by **GV-PPTZ7300**.

[Video Signal Type]

The codec options, resolutions and maximum frame rates are detailed below:

Models	Stream	Image Resolution	Maximum Frame Rate
GV-PPTZ7300-FE	Main	2560 x 1920	10 fps
	Sub	640 x 480	
GV-PPTZ7300-SD	Main	1920 x 1080	30 fps
	Sub	640 x 360	
GV-PPTZ14021 / PPTZ14031-FE	Main	4000 x 3000	15 fps
	Sub	1024 x 768	
GV-PPTZ14021 / PPTZ14031-SD	Main	1920 x 1080	50 fps
	Sub	1280 x 720	

[Bandwidth Management]

When using H.264, it is possible to control the bitrate, allowing bandwidth management.

- VBR (Variable Bitrate):** The quality of the video stream is kept as constant as possible at the cost of a varying bitrate. The bandwidth is used much more efficiently in comparison to CBR. You can set a limit to the bit rate by specifying a **Maximal Bit Rate**. Set the image quality to one of the 5 standards: **Standard, Fair, Good, Great, and Excellent**.
- CBR (Constant Bitrate):** CBR is used to achieve a specific bitrate by varying the quality of the stream. Use the **Maximal Bit Rate** drop-down list to select a bitrate.
- Smart Streaming:** When the option is enabled, the bitrates will be automatically reduced in static scenes, significantly maximizing bandwidth and lowering file size. You can choose the image quality of **Static Scene** and **Dynamic Scene** to one of the 5 standards: **Standard, Fair, Good, Great and Excellent**. You can even choose the maximum bitrate to optimize the bandwidth. Note this function is only supported by **GV-PPTZ14021-FE / PPTZ14031-FE**.

Bitrate Reduction Level: The default value is 254. The bigger the value the more bitrates can be reduced in static scenes, thus saving the recording size.

Framerate Reduction Level: The default value is 15. The smaller the value the more bitrates can be reduced in static scenes, thus saving the recording size.

Note: It takes either GV-NVR V8.7 or GV-VMS V16.10.3.0 to enable Smart Streaming. Refer to the technical notice for the models supporting the feature:

https://s3.amazonaws.com/geovision_downloads/Manual/IPCAM/Summary_Smart_Streaming.pdf

[Region of Interest]

This function is only available on the fisheye interface. Defines clarity of different parts of the live view for the camera connecting to third-party software through ONVIF/RTSP. This function is disabled by default. Select **Enable** and click **ROI Setting** to configure:

1. On the popup window, use your mouse and draw directly on the live view to specify a region.



Figure 4-3

2. To define clarity to the region, select **ROI** and select **High**, **Medium** or **Low** using the drop-down list.
3. Click **Apply** to apply the configurations.

[GOP Structure and Length]

Use the **Group of Picture(GOP) Size** drop-down list to set the number of seconds between every key frame. This option is only available when H.264 is selected for codec.

[H.264 Video Entropy Coding Setting]

By default, the entropy coding is set to **CAVLC**. To change it to **CABAC**, click and select from the drop-down list. Note this function is only supported by **GV-PPTZ7300**.

[Record Settings]

For **GV-PPTZ7300**, the alarm settings allow you to capture images before and/or after the motion or I/O event happens. For **GV-PPTZ14021 / PPTZ14031**, see *4.4 Monitoring*.

- **Pre-alarm recording time:** Activates video recording before an event occurs. Set the recording time to 1 or 2 seconds. The recording is saved in the buffer of the camera.
- **Post-alarm recording time:** Activates video recording onto the inserted memory card after an event occurs. Set the recording time from 1 to 30 seconds.
- **Split Interval (Max. Video Clip):** Sets the maximum time length of each recorded file from 1 to 5 minutes.
- **Record Profile:** This setting is only applicable for recording to the camera's memory card. Select **Performance** to maximize the lifespan of the memory card by restricting the maximum bit rate to 4 Mbit and Sharpness value to 30. Select **Quality** to adopt your current settings.
- **Record Audio:** Activates audio recording when an event occurs.
- **Write recording data into local storage:** Select to continue recording to the local storage while live view is being accessed through Web interface or other applications such as GV-VMS. This option is enabled by default.

Note: To optimize recording results, it is recommended to allow no more than two connections to the camera using Web interface or any other applications when **Write recording data into local storage** is enabled.

[Text Overlay Settings] Displays camera name, date, and/or time on the live view and recorded videos when viewing through GeoVision software.

- **Camera Name:** Type the camera name.
- **Overlay with:** Select one or more of the options to be overlaid on the live view and recorded videos. The **Name of the Associated Digital Input** function is not available on the speed dome interface.

[Text Overlay Settings (OSD)] Displays camera name, date, and/or time on the live view and recorded videos when viewing through GeoVision software and third-party software through ONVIF and RTSP.

- **Name:** Type the camera name.

- **Font Size:** Select the font size using the drop-down list.
- **Overlay with:** Select one or more of the options to be overlaid on the live view and recorded videos. Use the drop-down list to select the display position.

[Watermark] Enable this option to watermark all recordings. The watermark allows you to verify whether the recorded video has been tampered with. See *6.5 Verifying Watermark*.

[Enable SDK] Select **Enable** to activate SDK. Note this function is only supported by **GV-PPTZ7300**, and is only available on the speed dome interface.

[Special View Setting] This function is only available on the fisheye interface.

- **D/N:** Sets the Day/Night mode of the camera.
 - ⊙ **Auto:** Select **Auto** for the camera to detect the amount of light present and automatically switch to monochrome in a poorly-lit scene. Use the drop-down list to adjust the sensitivity level of light sensor from 1 to 10. The higher the value, the more sensitive the camera is to light.
 - ⊙ **Black and White:** Select this option for the live view to be in monochrome.
 - ⊙ **Color:** Select this option for the live view to be in color.
 - ⊙ **Trigger by Input:** Select this option to switch between day mode and night mode once the input device (e.g. sensor or button) is triggered. Note that both this option and the **Trigger Day/Night Mode** option in Input Settings needs to be enabled for the camera to switch between day mode and night mode upon receiving input triggers.
 - ⊙ **Schedule:** For **GV-PPTZ14021 / PPTZ14031**, select this option to determine specific period(s) of time when day/night mode is activated. Note this function is only effective when the **Schedule** option in **Monitoring Settings** is enabled and therefore excluding the use of other Manual recording modes. See *4.5.1 Recording Schedule Setting* and *4.4 Monitoring* respectively for the details on the setting of the schedule and recording modes.
- **[BLC]** Enable backlight compensation to adjust the exposure when the subject is positioned in front of a bright light source.

4.1.2 Motion Detection

Motion detection is used to generate an alarm whenever movement occurs in the video image. You can configure up to 8 areas with different sensitivity values for motion detection.

Motion Detection

In this section you can define different region(s) for motion detection.

To trigger digital output relay upon motions, be sure to set up the detection area on the Motion Detection page.



Camera

Sensitivity: 9

Reset

Save

Motion Detection

Ignore environmental changes

Noise Tolerance

The interval between triggering seconds

Dwell time when triggered seconds

Advanced Setting

Please advise which action(s) should be taken when motion detection is activated.

Trigger digital output relay Output 1

Figure 4-4

The motion detection function is disabled by default. Follow the steps below to set up motion detection.

1. Select the desired sensitivity level by moving the slider. The higher the value, the more sensitive the camera is to motion.
2. Drag an area on the image. Click **Add** when you are prompted to confirm the setting.
3. To create several areas with different sensitivity values, repeat *Steps 2 and 3*.

4. Click **Apply** to save the above settings.
5. Under Motion Detection section, select the following options to reduce false alarm.
 - **Ignore environmental changes:** Ignore environmental changes in the camera view such as rain or snow.
 - The **Noise Tolerance** function is enabled by default. It ignores video noise when the light intensity changes.
 - **Trigger Time Threshold:** If you set a time interval, the duration of motion has to exceed the time interval for motion detection to be triggered.
 - **Dwell time when triggered:** Specifies the amount of time the alarm output lasts when a motion event is triggered. Note this function is only supported by **GV-PPTZ14021 / PPTZ14031**.
6. To trigger the alarm output when motion is detected, select **Output1** and click the **Apply** button. To activate the output settings, you must also start **Input** monitoring manually or by schedule. For related settings, see *4.4 Monitoring*.

Note: For **GV-PPTZ7300**, the I/O settings are only available on the fisheye interface.

4.1.3 Privacy Mask

Note: This setting page is not available in the left menu of the speed dome interface, but the same function can be found in the PTZ Configuration dialog box of the PTZ Control Panel. For details, see the *Image Settings – Mask* section in *Chapter 5*.

The Privacy Mask function is used to block out sensitive areas on live view and recorded clips for the camera connecting to GeoVision software. This feature is ideal for locations where displays, keyboard sequences (e.g. passwords), and for anywhere else you don't want sensitive information visible.



Figure 4-5

1. Select the **Enable** option.
2. Drag the area(s) where you want to block out on the image. Click **Add** when you are prompted to confirm the setting.
3. Click the **Save** button to save the settings.

4.1.4 Text Overlay

The Text Overlay allows you to overlay any text in any place on the camera view. Up to 16 text messages can be created on one camera view. The overlaid text will be saved in the recordings.

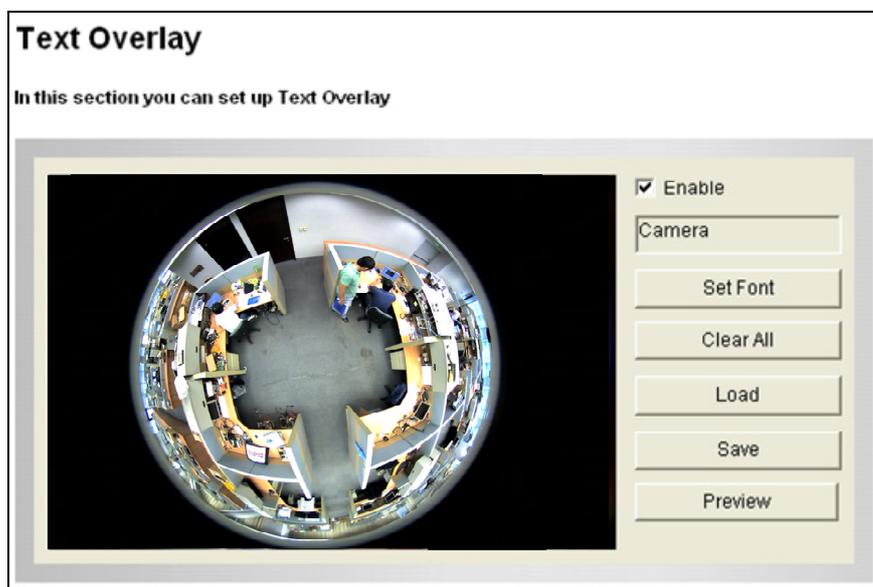


Figure 4-6

1. Select the **Enable** option.
2. Select the font, font style and font size in a pop-up window.
3. Click any place on the image. This dialog box appears.



Figure 4-7

4. Type the desired text, and click **OK**. The text is overlaid on the image.
5. Drag the overlaid text to a desired place on the image.
6. Click **Set Font** to modify the font settings.
7. Click **Save** to apply the settings, or click **Load** (Undo) to revert to the last saved setting.
8. Click **Preview** to see how the text will appear on the image. Click **Close** to end the preview.

To configure the tampering alarm:

1. Select **Enable**.
2. If you want the camera to ignore any movement or scene change in certain areas, click the  button to drag areas on the camera view.
3. Select the desired detection sensitivity by moving the slider. The higher the value, the more sensitive the camera is to scene changes.
4. In the **Tolerance Time of Alarm** field, specify the time length allowed for scene changes before an alarm is generated.
5. In the **Duration of Alarm** field, specify the duration in which the alarm is triggered for before turning off.
6. To trigger an alarm when the scene turns dark, e.g. when the lens of camera is covered, make sure the **Alarm for Dark Images** option is enabled. By default, this option is enabled.
7. Click **Apply** to save all the settings.
8. Start monitoring to enable the function. To have output alarm, it is required to start **Input** monitoring. See *4.4 Monitoring*.

When the camera has been tampered with, the output device can be activated. To turn off the output device immediately, return to this setting page, and click **Restart Detection**.

4.1.6 Visual Automation

This intuitive feature helps you automate any electronic device by triggering the connected output device. You can change the current state of the connected device by clicking on its image, e.g. turning the light on.

Note: This setting page is only available on the fisheye interface.

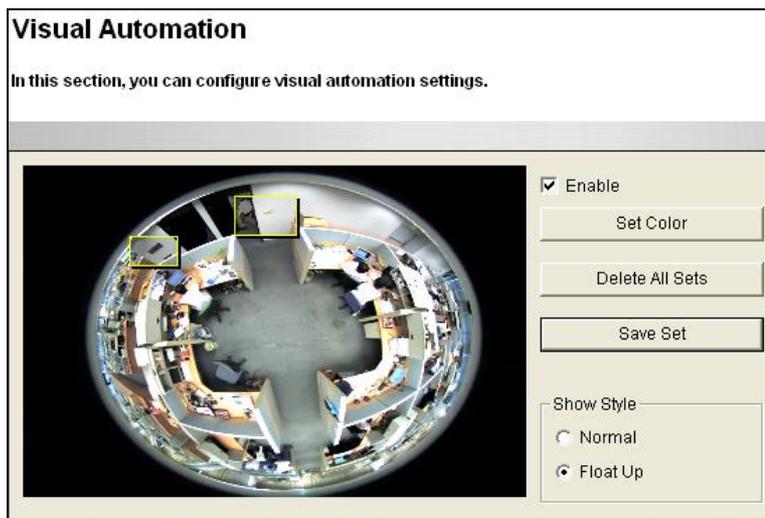


Figure 4-9

1. Select the **Enable** option.
2. Drag an area on the image of the electronic device. This dialog box appears.

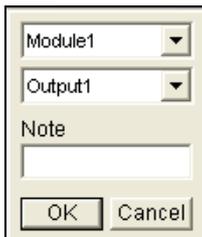


Figure 4-10

3. Assign the connected module and output device. In the Note field, type a note to help you identify the device. Click **OK** to save the settings.
4. To change the frame color of the set area, click the **Set Color** button.
5. To emboss the set area, select **Float Up**; or keep it flat by selecting **Normal**.
6. Click the **Save Set** button to apply the settings.

To perform the function, see 3.2.13 *Visual Automation*.

4.2 I/O Control

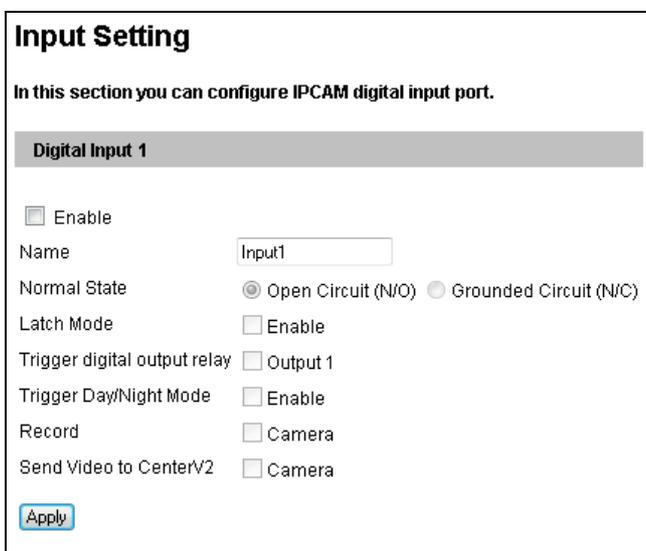
The I/O wires connected to the camera provide the interface with one input device and one output device.

Note: For **GV-PPTZ7300**, this setting page is only available on the fisheye interface.

4.2.1 Input Settings

To activate the sensor input, select **Enable**.

GV-PPTZ – FE



Input Setting

In this section you can configure IPCAM digital input port.

Digital Input 1

Enable

Name

Normal State Open Circuit (N/O) Grounded Circuit (N/C)

Latch Mode Enable

Trigger digital output relay Output 1

Trigger Day/Night Mode Enable

Record Camera

Send Video to CenterV2 Camera

Figure 4-11

- **Normal State:** You can set the input state to trigger actions by selecting **Open Circuit (N/O)** or **Grounded Circuit (N/C)**.
- **Latch Mode:** Enable this option to have a momentary output alarm.
- **Trigger digital output relay:** When this option is enabled, the output will be triggered once the input is activated.
- **Trigger Day/Night Mode:** When this option is enabled, the camera will switch to night mode upon triggering of the input device (e.g. sensor or button). Note that this option applies only to 1 digital input and you need to enable the **Trigger by Input** option in the Control Panel of Live View or the Video Settings interface for this option to work. See 3.2.2 *The Control Panel of the Live View Window* or 4.1.1 *Video Settings* for details on integrating the Day/Night mode of the camera with an input device.

- **Record:** Enable this option to start recording when the input is triggered.
- **Send Video to Center V2:** Enable this option to send the images to Center V2 when the input is triggered.

Note: Triggering the output, recording the images and sending video to Center V2 are enabled only after you start **Input** monitoring manually or by schedule. To configure input monitoring, see [4.4 Monitoring](#).

GV-PPTZ – SD

Input Setting

In this section you can configure IPCAM digital input port.

Digital Input 1

Enable

Name

Normal State Open Circuit (N/O) Grounded Circuit (N/C)

Latch Mode Enable

Trigger digital output relay Output 1

Record Camera

Send Video to CenterV2 Camera

PTZ Settings Set PTZ camera to Auto Function

Auto Function Type

Input on

For the same settings, see *GV-PPTZ-FE, 4.2.1 Input Settings*.

[PTZ Settings]

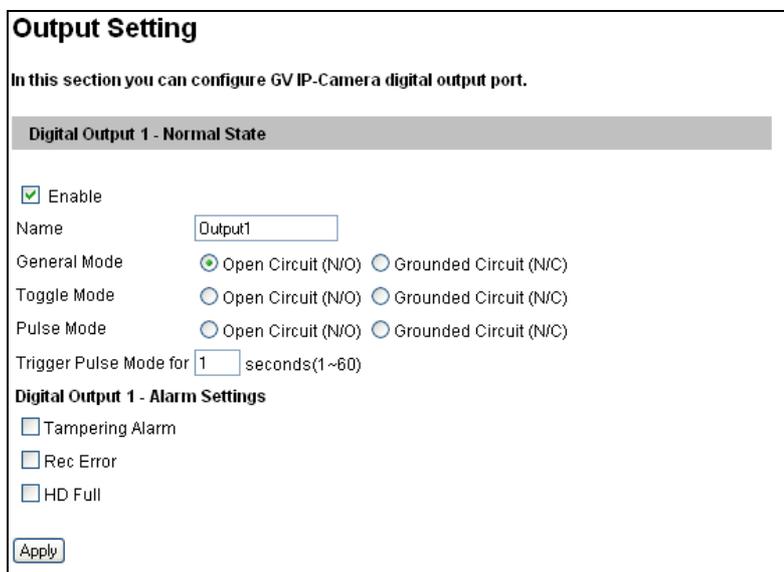
- **Set PTZ camera to Auto Function:** Enable this option to allow the GV-PPTZ camera to activate the PTZ movement automatically when an input is triggered. You can select one of the five types of movement from the **Auto Function Type** drop-down list: **Preset**, **Sequence**, **Cruise**, **Autopan** and **Tour**.
- ⊙ **Input On:** Select a PTZ movement which the camera runs when an input is triggered.

Note: You must first configure the PTZ movements before the options can take effect. To configure the PTZ movements, see the related settings in [Chapter 5, PTZ Control Panel](#).

4.2.2 Output Settings

Select **Enable** to start the output device. Choose the output signal that best suits the device you are using: N/O (Open Circuit), N/C (Grounded Circuit), N/O Toggle, N/C Toggle, N/O Pulse or N/C Pulse. For **Toggle** output type, the output continues to be triggered until a new input trigger ends the output. For **Pulse** output type, the output is triggered for the amount of time you specify in the Trigger Pulse Mode for x Seconds field.

[Alarm Settings] You can choose to automatically trigger the digital output under these conditions: tampering alarm, disk write error (Rec Error) and hard disk full (HD Full).



Output Setting

In this section you can configure GV IP-Camera digital output port.

Digital Output 1 - Normal State

Enable

Name

General Mode Open Circuit (N/O) Grounded Circuit (N/C)

Toggle Mode Open Circuit (N/O) Grounded Circuit (N/C)

Pulse Mode Open Circuit (N/O) Grounded Circuit (N/C)

Trigger Pulse Mode for seconds(1~60)

Digital Output 1 - Alarm Settings

Tampering Alarm

Rec Error

HD Full

Figure 4-12

4.3 Events & Alerts

The Administrator can set up the following alert methods to receive notifications when motion is detected or I/O devices are triggered:

1. Send a captured snapshot by e-mail or FTP.
2. Notify Center Monitoring Station, Center V2, Vital Sign Monitor or GV-GIS, by video or text alerts.

To activate the above alert methods, you must set the following functions in advance:

- Motion Detection (See 4.1.2 Motion Detection)
- Input Setting (See 4.2.1 Input Settings)
- For e-mail and FTP alerts, it is required to start monitoring (See 4.4 Monitoring).

4.3.1 E-mail

After a trigger event, the camera can send an e-mail to a remote user containing a captured snapshot.

Email

In this section you can configure mailserver (SMTP) to handle events, videos, and error messages.

To notify the E-mail Server upon motions, be sure to set up the detection area on the Motion Detection page.

Primary mail server

Enable

Server URL/IP Address

Server Port

From email address

Send to (Please use ";" to separate recipients' addresses)

Alerts: Interval time in minute (0 to 60)

Need authentication to login

User Name

Password

This server requires a secure connection

Email - Alarm Settings

Rec Error

HD Full

Motion Detection

Digital Input Select all Input1 Input2 Input3 Input4

Email - Mail Content

Subject

Note

Figure 4-13

[Enable] Select to enable the e-mail function.

- **Sever URL/IP Address:** Type the SMTP Server's URL address or IP address.
- ⊙ **Test Email:** Click the button to send a test e-mail to the e-mail address(s) specified.
- **Server Port:** Type the SMTP Server's port number. Or keep the default value 25.
- **From email address:** Type the sender's e-mail address.
- **Send to:** Type the e-mail address(s) you want to send alerts to.
- **Alerts Interval Time:** Specify the interval between e-mail alerts. The interval can be between 0 and 60 minutes. The option is useful for frequent event occurrence. Any event triggers during the interval period will be ignored.

[Need authentication to login] If the SMTP Server needs authentication, select this option and type a valid username and password to log in the SMTP server.

[This server requires a secure connection] If the SMTP Servers needs a secure connection (SSL), select this option.

[Email-Alarm Settings] You can choose to automatically send an e-mail alert under these conditions: motion detection, digital input triggered, tampering alarm, disk write error (Rec Error) and hard disk full (HD Full). Note that e-mail notification upon input trigger is only available on the fisheye interface.

[E-mail-Mail Content] In the **Subject** field, you can type the subject line of the alert Email. In the **Note** field, you can type the content of the alert Email.

IMPORTANT: To send e-mail alerts upon motion detection, be sure to set up the detection area on the [Motion Detection page](#).

For settings related to sending e-mail alerts, see *4.1.2 Motion Detection*, *4.2.2 Output Settings* and *4.4 Monitoring*.

4.3.2 FTP

You can also send the captured snapshots to a remote FTP server as alerts.

FTP Client and Server Setting

In this section you can configure an ftp server (File Transfer Protocol) to handle events, videos, and error messages.

To notify the FTP Server upon motions, be sure to set up the detection area on the Motion Detection page.

Upload to an FTP server

Enable

Passive Mode Active Mode

Server URL/IP Address

Server Port

User Name

Password

Remote Directory

Alerts Interval time in minute (0 to 60) ▾

FTP - Alarm Settings

Motion Detection

Continuously send images upon trigger events(Motion)

Digital Input

Continuously send images upon trigger events (Input)

Select all Input1 Input2 Input3 Input4

Continuously send images upon trigger events (Time)

Interval ▾ ▾

FTP Schedule

Enable recycling, Keep days (1-254) ▾

Act as FTP server

In this section you can enable/disable IPCAM internal ftp server for file transfer.

Enable ftp access to IPCAM

Use alternative Port

Figure 4-14

[Upload to an FTP Server]

- **Enable:** Select to enable the FTP function and then select **Active Mode** or **Passive Mode**, depending on the setting of your FTP server.
- **Server URL/IP Address:** Type the URL address or IP address of the FTP Server.
- **Server Port:** Type the port number of the FTP Server. Or keep the default value 21.
- **User Name:** Type a valid user name to log into the FTP Server.
- **Password:** Type a valid password to log into the FTP Server.
- **Remote Directory:** Type the name of the storage folder on the FTP Server.
- **Alerts Interval time in minute:** Specify the interval between each FTP alert. The interval can be between 0 and 60 minutes. The option is useful for frequent event occurrence. Any event triggers during the interval period will be ignored.

[FTP-Alarm Settings]

- **Motion Detection:** Once motion is detected on the camera, a snapshot will be sent to the FTP Server.
 - ⊙ **Continuously send images upon trigger events (Motion):** A sequence of snapshots is uploaded to the FTP Server when motion is detected on the camera.
- **Digital Input:** When the input is triggered, a snapshot will be sent to the FTP Server.
 - ⊙ **Continuously send images upon trigger events (Input):** A sequence of snapshots is uploaded to the FTP Server when the specified inputs are triggered.
- **Continuously send images:** Send messages to the FTP server at the specified interval. For **GV-PPTZ14021 / PPTZ14031**, you can also adjust the **FTP Schedule option** below by enabling this option.
 - ⊙ **Interval:** Use the drop-down list to specify how frequent the images are sent to the FTP server.
 - ⊙ **FTP Schedule:** For **GV-PPTZ14021 / PPTZ14031**, select this option to determine specific period(s) of time for images to be sent to the FTP server. For details on the schedule option, see *4.5.1 Recording Schedule*.
 - ⊙ **Enable Recycling:** Select this option to recycle the FTP storage at the specified **Keep Days** after which the images at the FTP server are recycled. By default, the Keep Day is set to 1.

IMPORTANT:

1. To send FTP alerts upon motion detection, be sure to set up the detection area on the [Motion Detection page](#).
 2. Digital Input settings are only available on the fisheye interface
-

[Act as FTP Server]

- **Enable FTP access to GV-IPCAM:** The camera acts as an FTP server, enabling users to download AVI files. The memory card must be inserted for the camera to act as an FTP server.
- **Use alternative port:** The default port is set to **21**.

To access the internal FTP server through a web browser, type the IP address or the domain name of the camera in your browser like this:

ftp://192.168.0.10

When prompted for Username and Password, type the default username **ftpuser** and the default password **123456**. Then you should find the AVI files recorded after trigger events.

To change login information of the internal FTP server, see *4.8.3 User Account*. For the related settings to send FTP alerts, see *4.1.2 Motion Detection*, *4.2.1 Input Settings* and *4.4 Monitoring*.

4.3.3 Center V2

Upon motion detection or I/O trigger events, the central monitoring station Center V2 can be notified by live videos and text alerts. For the live monitoring through Center V2, you must already have a subscriber account on Center V2. The camera can connect with up to two Center V2.

IMPORTANT:

1. **GV-PPTZ7300** is only compatible with Center V2 V15.10 or later.
2. Center V2 does not support **Integrated Live View**, You need to connect fisheye camera and speed dome separately to Center V2. Access both fisheye and speed dome interfaces to complete Center V2 connection settings.
3. To notify the Center V2 Server upon motion detection, be sure to set up the detection area on the Motion Detection page.
4. For **GV-PPTZ7300**, the input trigger function is only available on the fisheye interface.

Connection1
Connection2

Center V2

In this section you can configure the connection to Center V2 and tasks to perform.

To notify the Center V2 Server upon motions, be sure to set up the detection area on the Motion Detection page.

Center V2 server

Activate Link	<input checked="" type="checkbox"/>
Host name or IP Address:	192.168.0.217
Port number:	5551
User Name:	admin
Password:	•••••
Cease motion detection messages from	<input type="checkbox"/> Camera
Cease input trigger message from	<input checked="" type="checkbox"/> Select all <input checked="" type="checkbox"/> Input 1 <input checked="" type="checkbox"/> Input 2 <input checked="" type="checkbox"/> Input 3 <input checked="" type="checkbox"/> Input 4
Enable schedule mode	<input type="checkbox"/>

Select schedule time

<input type="checkbox"/> Span 1	<input type="text" value="00"/> <input type="text" value="00"/> ~ <input type="text" value="00"/> <input type="text" value="00"/> : <input type="text" value="00"/> <input type="text" value="00"/> Next Day
<input type="checkbox"/> Span 2	<input type="text" value="00"/> <input type="text" value="00"/> ~ <input type="text" value="00"/> <input type="text" value="00"/> : <input type="text" value="00"/> <input type="text" value="00"/> Next Day
<input type="checkbox"/> Span 3	<input type="text" value="00"/> <input type="text" value="00"/> ~ <input type="text" value="00"/> <input type="text" value="00"/> : <input type="text" value="00"/> <input type="text" value="00"/> Next Day

Weekend
 Saturday and Sunday
 Only Sunday

Connection Status

Status: Disconnected

Figure 4-15

To enable the Center V2 connection:

1. **Activate Link:** Enable the monitoring through Center V2.
2. **Host Name or IP Address:** Type the host name or IP address of Center V2.
3. **Port Number:** Match the port to **Port 2** on Center V2. Or keep the default value 5551. For details, see *9.1 Center V2*.
4. **User Name:** Type a valid user name to log into Center V2.
5. **Password:** Type a valid password to log into Center V2.
6. Click **Apply**. The Connection Status should display “Connected” and the connected time.
7. To establish the connection to the second Center V2, click the **Connection 2** tab and repeat the above steps for setup.

You can also find these options on this Center V2 setting page:

- **Cease motion detection messages from:** Stops notifying Center V2 of motion-triggered events.
- **Cease input trigger messages from:** Stops notifying Center V2 of input-triggered events.
- **Enable schedule mode:** Starts the monitoring through Center V2 based on the schedule you set in the **Select Schedule Time** section. Refer to *4.5 Recording Schedule* for the same settings.

For related settings to activate the monitoring through Center V2, see *4.1.2 Motion Detection*, *4.2.1 Input Settings*, and *9.1 Center V2*.

4.3.4 Vital Sign Monitor

Upon motion detection or I/O triggered events, the central monitoring station Vital Sign Monitor can be notified by text alerts. For the live monitoring through Vital Sign Monitor, you must already have a subscriber account on Vital Sign Monitor. The camera can be connected with up to two Vital Sign Monitor.

IMPORTANT:

1. **GV-PPTZ7300** is only compatible with Vital Sing Monitor V15.10 or later.
2. Vital Sing Monitor does not support **Integrated Live View**, You need to connect fisheye camera and speed dome separately to Vital Sign Monitor. Access both fisheye and speed dome interfaces to complete Vital Sing Monitor connection settings.
3. To notify the Vital Sign Monitor upon motion detection, be sure to set up the detection area on the Motion Detection page.
4. For **GV-PPTZ7300**, Input trigger is only available on the fisheye interface.

Connection1 | Connection2

Vital Sign Monitor Server Setting

In this section you can configure the connection to VSM Server and tasks to perform.

To notify the VSM upon motions, be sure to set up the detection area on the Motion Detection page.

Vital Sign Monitor Server

Activate Link

Host name or IP Address:

Port number:

User Name:

Password:

Cease motion detection messages from Camera

Cease input trigger message from Select all Input 1 Input 2 Input 3 Input 4

Enable schedule mode

Apply

Select schedule time

Span 1 Next Day

Span 2 Next Day

Span 3 Next Day

Weekend Saturday and Sunday Only Sunday

Apply

Connection Status

Status: Disconnected

Figure 4-16

To enable the Vital Sign Monitor connection:

1. **Activate Link:** Enable the monitoring through Vital Sign Monitor.
2. **Host Name or IP Address:** Type the host name or IP address of Vital Sign Monitor.
3. **Port Number:** Match the port to **Port 2** on Vital Sign Monitor. Or keep the default value 5609. For details, see *9.2 Vital Sign Monitor*.
4. **User Name:** Type a valid user name to log into Vital Sign Monitor.
5. **Password:** Type a valid password to log into Vital Sign Monitor.
6. Click **Apply**. The Connection Status should display “Connected” and the connected time.
7. To establish the connection to the second Vital Sign Monitor, click the **Connection 2** tab and repeat the above steps for setup.

You can also find these options on this Vital Sign Monitor setting page:

- **Cease motion detection messages from:** Stops notifying Vital Sign Monitor of motion-triggered events.
- **Cease input trigger messages from:** Stops notifying Vital Sign Monitor of input-triggered events.
- **Enable schedule mode:** Starts the monitoring through Vital Sign Monitor based on the schedule you set in the **Select Schedule Time** section. Refer to *4.5 Recording Schedule* for the same settings.

For related settings to activate the monitoring through Vital Sign Monitor, see *4.1.2 Motion Detection*, *4.2.1 Input Settings*, and *9.2 Vital Sign Monitor*.

4.3.5 Backup Center

The connection to the GV-Backup Center allows you to back up another copy of recordings to the GV-Backup Center on an offsite location while the camera is saving these data to the memory card. The GV-Backup Center provides a PC-based storage and backup solution. For details on the GV-Backup Center, see *GV-Backup Center User's Manual*.

Backup Center

In this section you can configure the connection to Backup Center and tasks to perform

Backup Center

Activate Link

Host name or IP Address:

Port number:

User Name:

Password:

Backup Video

Compact Video

Resend all files

Automatic Failover Support

Host name or IP Address:

Port number:

User Name:

Password:

Enable schedule mode

Select schedule time

Span 1 : : ~ : Next Day

Span 2 : : ~ : Next Day

Span 3 : : ~ : Next Day

Weekend Saturday and Sunday Only Sunday

Connection Status

Status: Disconnected

Figure 4-17

To enable connection to Backup Center:

1. **Activate Link:** Enable the connection to the Backup Center.
2. **Host Name or IP Address:** Type the host name or IP address of the Backup Center.
3. **Port Number:** Match the communication port on the Backup Center. Or keep the default value 30000.
4. **User Name:** Type a valid user name to log into the Backup Center.
5. **Password:** Type a valid password to log into the Backup Center.
6. **Backup Video:** Select the streams to back up their recordings to the Backup Center.
7. **Compact Video:** Select the streams to only back up their Key Frames to the Backup Center instead of full recordings. This option is useful to save backup time.
8. **Resend all files:** Select this option to send all recorded files that have been received by the Backup Center again.
9. **Enable Schedule Mode:** Enable the Backup Center connection on the schedule you set in the **Select Schedule Time** section. Refer to *4.5 Recording Schedule* for the same settings.
10. Click **Apply**. The Connection Status should display “Connected” and the connected time.

If the Backup Center has a failover server providing uninterrupted backup services in case a primary Backup Center fails, you can enable the automatic failover support.

1. **Automatic Failover Support:** Enable automatic connection to a secondary failover server once the connection between camera and the primary Backup Center is interrupted.
2. **Host Name or IP Address:** Type the host name or IP address of the failover center.
3. **Port Number:** Match the communication port on the failover server. Or keep the default value 30000.
4. **User Name:** Type a valid user name to log into the failover server.
5. **Password:** Type a valid password to log into the failover server.
6. Click **Apply**.

4.3.6 Video Gateway / Recording Server

The GV-Video Gateway / GV-Recording Server is a video streaming server designed for large-scale video surveillance deployments. The GV-Video Gateway / GV-Recording Server (with recording capability) can receive up to 128 channels from various IP video devices, and distribute up to 300 channels to its clients. With the GV-Video Gateway / GV-Recording Server, the desired frame rate can be ensured while the CPU loading and bandwidth usage of the IP video devices are significantly reduced.

The camera can be connected with up to two GV-Video Gateway / GV-Recording Server. To send the video images to the GV-Video Gateway or GV-Recording Server, follow the steps below.

Connection 1
Connection 2

Video Gateway / Recording Server

In this section you can configure the connection to Video Gateway / Recording Server.

To notify the Video Gateway/Recording Server upon motions, be sure to set up the detection area on the Motion Detection page.

Video Gateway / Recording Server

Activate Link

Host name or IP Address:

Port number:

User Name:

Password:

Enable schedule mode

Select schedule time

Span 1 : ~ : Next Day

Span 2 : ~ : Next Day

Span 3 : ~ : Next Day

Weekend Saturday and Sunday Only Sunday

Connection Status

Status: Disconnected

Figure 4-18

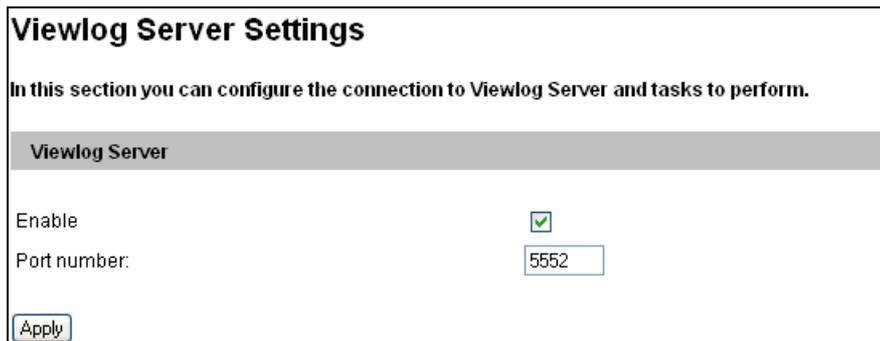
4 Administrator Mode

1. **Activate Link:** Enable the connection to the GV-Video Gateway / GV-Recording Server.
2. **Host Name or IP Address:** Type the host name or IP address of the GV-Video Gateway / GV-Recording Server.
3. **Port Number:** Match the communication port on the GV-Video Gateway / GV-Recording Server or keep the default value 50000.
4. **User Name:** Type a valid user name to log into the GV-Video Gateway / GV-Recording Server.
5. **Password:** Type a valid password to log into the GV-Video Gateway / GV-Recording Server.
6. **Enable schedule mode:** Enable the GV-Video Gateway / GV-Recording Server connection on the schedule you set in the **Select Schedule Time** section. Refer to *4.5 Recording Schedule* for the same settings.
7. Click **Apply**. The Connection Status should display “Connected” and the connected time.
8. To establish the connection to the second GV-Video Gateway / GV-Recording Server, click the **Connection 2** tab and repeat the above steps for setup.

4.3.7 ViewLog Server

The ViewLog Server is designed for remote playback. This server allows you to remotely access the recorded files saved in the camera and play back video with the player ViewLog.

Select **Enable** to activate the built-in server. Keep the default port **5552** or modify it if necessary. For details on remote playback, see *6.2.2 Playback over Network*.



The screenshot shows a web interface titled "Viewlog Server Settings". Below the title is a descriptive sentence: "In this section you can configure the connection to Viewlog Server and tasks to perform." A grey header bar contains the text "Viewlog Server". Below this, there are two configuration items: "Enable" with a checked checkbox, and "Port number:" with a text input field containing "5552". At the bottom left, there is an "Apply" button.

Figure 4-19

4.3.8 RTSP/ONVIF

The RTSP Server enables RTSP protocol for video streaming. Here you can edit the network configuration that supports the RTSP protocol and Multicast connections.

RTSP

RTSP Server

Activate Link

RTSP/TCP port

RTP/UDP port ~

Max connection

Enable Audio

Disable Authentication

Streaming 1

rtsp://username:password@192.168.0.18:8554/

rtsp://username:password@192.168.0.18:8554/

Streaming 2

rtsp://username:password@192.168.0.18:8554/

rtsp://username:password@192.168.0.18:8554/

Streaming 1

Enable Multicast

Video Address

Video Port ~

Audio Address

Audio Port ~

Meta Data Address

Meta Data Port ~

Time To Live (TTL)

rtsp://username:password@192.168.0.18:8554/

rtsp://username:password@192.168.0.18:8554/

Streaming 2

Enable Multicast

Video Address

Video Port ~

Audio Address

Audio Port ~

Meta Data Address

Meta Data Port ~

Time To Live (TTL)

rtsp://username:password@192.168.0.18:8554/

rtsp://username:password@192.168.0.18:8554/

Figure 4-20

[RTSP]

- **Activate Link:** Enable the RTSP protocol.
- **RTSP/TCP Port:** Keep the default value 8554, or modify it if necessary.
- **RTP/UDP Port:** Keep the default range from 17300 to 17319, or modify it if necessary. The number of ports for use is limited to 20.
- **Max Connection:** Set the maximum number of connections to the camera. The maximum value is 8.
- **Enable Audio:** Turns audio streaming on or off.
- **Disable Authentication:** By default, when accessing live view through RTSP command, the ID and password of the camera are required. Select this option to disable the authentication prompt.

Once the RTSP Server is set up, you type the RTSP command to your VLC or QuickTime player to stream videos. For details on the RTSP command, see *RTSP Protocol Support* in Appendix B.

In the settings below, you can set up the network configuration for Multicasting connections to lower the CPU's loading. Note the functions below are only available for **GV-PPTZ14021 / PPTZ14031**:

- **Streaming 1 – Streaming 2:** Type the name of the video stream.
- **Enable Multicast:** Set up the Multicast function over RTSP.
- **Video Address:** Type the IP address used to access the video.
- **Video Port:** The port that enables the connection of the camera to the web.
- **Audio Address:** Type the IP address used to access the audio.
- **Audio Port:** The port that enables the connection of the microphone to the web.
- **Meta Data Address:** Type the IP address used to access the meta data.
- **Meta Data Port:** The port that enables the connection of the meta data to the web.
- **Time To Live:** Specify the duration for the multistream data.

When the configurations above are completed, click **Apply** to save the settings.

[ONVIF]

- **Enable Authentication:** The ID and password of the camera are required when accessing by a third-party DVR through ONVIF. This function is enabled by default, and is available only for **GV-PPTZ7300**.

Enable Discovery Mode: Allows the third-party DVR to browse this camera. This function is enabled by default.

Note the functions below are only available for **GV-PPTZ14021 / 14031**.

- **Enable HTP Digest Authentication:** Enable this option to increase security.
- **Enable WS-Security Authentication:** Enable this option to increase security.

4.4 Monitoring

You can start recording manually, by schedule or by input trigger.

Note:

1. See **Note for Recording** at the beginning of the manual.
2. For **GV-PPTZ7300**, recording upon input trigger is only available on the fisheye interface
3. For **GV-PPTZ14021 / 14031** to switch between day mode and night mode at the period(s) of time you previously specified, you need to enable the **Schedule** option in **Monitoring** after the options of the same name in the Video Settings interface (Video Settings > Special View Settings > D/N > Schedule) or the Control Panel of Live View (Menu Button  > D/N > Schedule) have been selected. However, enabling the **Schedule** option will cause other monitoring modes to be cancelled.

Monitoring Settings

In this section you can set up, and start/stop monitoring in manual or scheduled mode.

To monitor upon motions, be sure to set up the detection area on the Motion Detection page

Monitoring Settings

Manual
 Select all
 Camera Round the clock ▾
 Input

Schedule

Camera 

Record Settings

In this section you can configure pre-alarm and post-alarm settings.

Pre-alarm recording time: seconds

Post-alarm recording time: seconds with hard disk installed (1~30)

Split interval: minutes

Recording Profile: ▾

Record audio

Recording Policy :

Select the type of recording modes to the local storage based on the conditions below:
* The local storage means Micro-SD, USB Hard drive or NAS

Only record to the local storage when the connection is lost (e.g. network failure) or no connection to other application
 Record to the local storage always as a secondary backup

Figure 4-21

[Manual] Manually activates motion detection and I/O monitoring. Select one of the following options and click the **Start** button.

- **Select all:** Manually starts both motion detection and I/O monitoring.
- **Camera x:** Manually starts recording. Select the desired recording mode for recording.
- **Input:** Manually starts I/O monitoring. When the sensor input is triggered, the camera and output will also be activated for recording and alerting. For input settings, see *4.2.1 Input Settings*.

[Schedule] The system starts recording and input monitoring based on the schedule you set. For schedule settings, see *4.5 Recording Schedule*.

[Camera Status Icon]



: On standby



: Enabled for motion detection and input trigger



: Recording is on.

[Record Settings]

For GV-PPTZ7300, the record settings are available at Video Settings **under Video & Motion**. For the same option for GV-PPTZ14021 / PPTZ14031, see *Record Settings, 4.1.1 Video Settings*.

- **Recording Policy:** You can choose to record data to the local storage under these conditions: Only record to the local storage when the connection is lost (e.g. network failure) or no connection to other application, or record to the local storage always as a secondary backup. Note this function is only supported by **GV-PPTZ14021 / PPTZ14031**.

4.5 Recording Schedule

The schedule is provided to activate recording and I/O monitoring on a specific time each day.

4.5.1 Recording Schedule Settings

You can set up the schedule for recording.

Recording Schedule Settings

In this section you can configure schedule time.

Select schedule time

<input checked="" type="checkbox"/> Span 1	Motion	00	:00	~	09	:00	
<input checked="" type="checkbox"/> Span 2	Round the clock	09	:00	~	18	:00	
<input checked="" type="checkbox"/> Span 3	Motion	18	:00	~	00	:00	Next Day
<input type="checkbox"/> Weekend	Round the clock	<input checked="" type="radio"/> Saturday and Sunday		<input type="radio"/> Only Sunday			
<input type="checkbox"/> Special Day	Round the clock	(MM/DD)					
	01.	02.	03.	04.			
	05.	06.	07.	08.			
	09.	10.	11.	12.			

Figure 4-22

- **Span 1- Span 3:** Set a different recording mode for each time span during the day. Each day can be divided into 3 time spans, shown as Span 1, Span 2, and Span 3. The time span settings will apply to Monday through Sunday.
- **Weekend:** Enable this option to start monitoring all day on the weekend and select a recording mode to be used. Define whether your weekend includes **Saturday and Sunday** or **Only Sunday**.
- **Special Day:** Set the recording mode on a specified day.

4.5.2 I/O Monitoring Settings

You can set the schedule for I/O monitoring to start.

Note: The I/O Monitoring Settings is only available on the fisheye interface

I/O Monitor Settings

In this section you can configure I/O monitor time.

Select monitor time

Span 1 00 : 00 ~ 07 : 00

Span 2 19 : 00 ~ 00 : 00 **Next Day**

Span 3 00 : 00 ~ 00 : 00 **Next Day**

Weekend Saturday and Sunday Only Sunday

Special Day (MM/DD)

01. 02. 03. 04.

05. 06. 07. 08.

09. 10. 11. 12.

Figure 4-23

- **Span 1-3:** Set different time spans during the day to enable I/O monitoring. Each day can be divided into 3 time spans, shown as Span 1, Span 2, and Span 3. The time span settings will work from Monday through Sunday.
- **Weekend:** Enable this option to start I/O monitoring all day on the weekend and select whether your weekend includes **Saturday and Sunday** or **Only Sunday**.
- **Special Day:** Enable I/O monitoring on a specified day.

Note: In Recording Schedule and I/O Monitoring Schedule, if the settings for Special Day conflict with those for Span 1-3 or Weekend, the Special Day settings will get priority.

4.6 Remote ViewLog

With the Remote ViewLog function, you can play back the files recorded at the camera over TCP/IP network.

For first-time users, you need to install the Remote ViewLog program from the GeoVision website: <http://www.geovision.com.tw/download/product/>. For remote access to the camera, the **ViewLog Server** built in the unit must be enabled. See 4.3.7 *ViewLog Server*.

For details on connecting to the camera for playback, see 6.2.2 *Playback over Network*.

4.7 Network

The Network section includes some basic but important network configurations that enable the camera to be connected to a TCP/IP network.

4.7.1 LAN

According to your network environment, select among Static IP, DHCP and PPPoE.

LAN Configuration

In this section you can configure GV-IPCAM to work inside of LAN.

LAN Configuration

Dynamic IP address Select this option to obtain IP address from a DHCP server Test DHCP

Static IP address Select this option to enter a Static IP address manually

IP Address:

Subnet Mask:

Router/Gateway:

Primary DNS:

Secondary DNS: (Optional)

PPPoE Select this option to establish a DSL connection

Username:

Password:

Figure 4-24

[LAN Configuration]

- Dynamic IP address:** The network environment has a DHCP server which will automatically assign a dynamic IP address to the camera. Click the **Test DHCP** to see the currently assigned IP address or look up the address using GV-IP Device Utility.

- **Static IP address:** Assign a static IP or fixed IP to the camera. Type the camera's IP address, Subnet Mask, Router/Gateway, Primary DNS server and Secondary DNS server.

Parameters	Default
IP address	GV-PPTZ – FE: 192.168.0.10 GV-PPTZ – SD: 192.168.0.11
Subnet Mask	255.255.255.0
Router/Gateway	192.168.0.1
Primary DNS server	192.168.0.1
Secondary DNS server	192.168.0.2

- **PPPoE:** The network environment is xDSL connection. Type the Username and Password provided by ISP to establish the connection. If you use the xDSL connection with dynamic IP addresses, first use the DDNS function to obtain a domain name linking to the camera's changing IP address.

[IPv6 Settings]

Select **Enable IPv6** to enable this function. Note this function is only supported by **GV-PPTZ14021 / PPTZ14031**.

- **Dynamic IP address:** The network environment has a DHCP server which will automatically assign a dynamic IP address to the camera.
- **Static IP address:** Assign a static IP or fixed IP to the camera and fill out the required settings.

Note: To enable this function, make sure your network environment and hardware specification support IPv6.

For details on Dynamic DNS Server Settings, see *4.7.2 Advanced TCP/IP*.

4.7.2 Advanced TCP/IP

This section introduces the advanced TCP/IP settings, including DDNS Server, HTTP port, and UPnP.

Advanced TCP/IP

In this section you can set the advanced TCP/IP configuration

Dynamic DNS Server Settings

In this section you can configure your GV-IPCAM to obtain a domain name by using a dynamic IP.

Enable

Service Provider: ex: [Register Geovision DDNS Server](#)

Host Name:

User Name:

Password:

Update Time: [Refresh](#)

HTTP Port Settings

In this section you can change the default HTTP port number (80) to any port within the range 1024-65535. It is a simple method to increase system security using port mapping. You can configure HTTP connection to an alternative port.

HTTP Port:

HTTPS Settings

In this section you can change the default HTTPS port number (443) to any port within the range 1024-65535. It is a simple method to increase system security using port mapping. You can configure HTTPS connection to an alternative port.

Enable

HTTP Port:

External storage is not available. Cannot upload customized certification and private key.

Use customized certification and private key. External storage is necessary.

Certificate File:

Certificate Key File:

Password:

UPnP Settings

In this section you can enable or disable UPnP function.

UPnP: Enable Disable

Figure 4-25

[Dynamic DNS Server Settings]

DDNS (Dynamic Domain Name System) provides a convenient way of accessing the camera when using a dynamic IP. DDNS assigns a domain name to the camera, so that the Administrator does not need to go through the trouble of checking if the IP address assigned by DHCP Server or ISP (in xDSL connection) has changed.

Before enabling the following DDNS function, the Administrator should have applied for a Host Name from the DDNS service provider's website. There are 3 providers for the camera: GeoVision GVDIP, GeoVision DDNS Server and DynDNS.org.

To enable the DDNS function:

1. **Enable:** Enable the DDNS function.
2. **Service Provider:** Select the DDNS service provider you have registered with.
3. **Host Name:** Type the host name used to link to the camera. For users of GeoVision DDNS Server, it is unnecessary to fill the field because the system will detect the host name automatically.
4. **User Name:** Type the user name used to enable the service from the DDNS. The username should look similar to your host name. Depending on your service provider, you should add a domain name (.dipmap.com, .gvdip.com or .org) after your user name, for example, alice.dipmap.com
5. **Password:** Type the password used to enable the service from the DDNS.
6. Click **Apply**.

[HTTP Port Settings] The HTTP port enables connecting the camera to the web. For security integration, the Administrator can hide the server from the general HTTP port by changing the default HTTP port of 80 to a different port number within the range of 1024 through 65535.

[IPCAM Streaming Port Settings] The VSS port enables connecting the camera to the GV-DVR / NVR / VMS. The default setting is **10000**. Note this function is only supported by **GV-PPTZ14021 / PPTZ14031**.

[HTTPS Settings] By enabling the HTTPS settings, you can access the camera through a secure protocol. You can use your own generated Certificate and Private Key or ones verified by the SSL authority. Click **Browse** to locate the Certificate file and Private Key file, and type the password if the .pem files are protected by a password. Click **Apply**. The Web interface will be restarted automatically and you will need to log in again.

Note: Only .pem file format is supported for Certification and Private Key.

[UPnP Settings] UPnP (Universal Plug & Play) is a networking architecture that provides compatibility among networking equipment, software and peripherals of the 400+ vendors that are part of the Universal Plug and Play Forum. It means that they are listed in the network devices table for the operating system (such as the Windows) supported by this function. Enabling this function, you can connect to the camera directly by clicking on the camera listed in the network devices table.

4.8 Management

The Management section includes the settings of date and time and user account. Also, you can view the firmware version and execute certain system operations.

4.8.1 Date and Time Settings

Note: This setting page is only available on the fisheye interface. Any changes made will be applied to the speed dome as well.

The date and time settings are used for date and time stamps on the image.

Date and Time Settings

In this section you can configure time and date or just synchronize with a NTP server.

Date and Time on IPCAM

Tue Dec 05 14:26:40 GMT8:00 2017

Time Zone

(GMT+08:00) China,Hong Kong,Australia Western,Singapore,Taiwan,Russia ▾

Enable Daylight Saving Time

Start (MM/dd/hh/mm)

End (MM/dd/hh/mm)

	Month	The Day of The Week		Hours
Start	March ▾	Second ▾	Sunday ▾	1 ▾
End	November ▾	First ▾	Sunday ▾	1 ▾

Synchronized with a Network Time Server

Synchronized with Network Time Server (NTP)

Host name or IP Address:

Update period: 24 hours; Update Time: 05 ▾ : 10 ▾

Synchronized with your computer or modify manually

Modify manually

Date (yyyy/mm/dd)

Time (hh:mm:ss)

Synchronized with your computer

Date and time overlay setting

Show date as ▾

(This is a format of date where yyyy stands for year in 4 digits or yy in 2 digits, mm stands for month, and dd stands for day)

Display order

Date prior to time (Ex.2007/05/21 17:00:00)

Time prior to date(Ex.17:00:00 2007/05/21)

Figure 4-26

[Date & Time on IPCAM] Displays the current date and time on the camera.

[Time Zone] Sets the time zone for local settings. Select **Enable Daylight Saving Time** to automatically adjust the camera for daylight saving time. Type the Start Time and End Time to enable the daylight saving function. You can also select the Start Time and End Time for the daylight saving time from the drop down list with **GV-PPTZ14021 / PPTZ14031**. To playback, see 6.2.2 *Playback over Network*.

[Synchronized with a Time Server] By default, the camera uses the timeserver of time.windows.com to automatically update its internal clock every 24 hours at the Update Time you specified. You can also change the host name or IP setting to the timeserver of interest.

[Synchronized with your computer or manually] Manually changes the camera's date and time. Or, synchronize the camera's date and time with those of the local computer.

[Date and time overlay setting] Select the display format of date and time stamps on the image. For this function to work, you must also enable the **Overlaid with date stamps** and **Overlaid with time stamps** options in *Figure 4-2*.

4.8.2 Storage Settings

Based on Linux ext3 file system, the camera supports memory cards for video and audio recordings. You need to format the memory card by using the following Storage Settings. After being formatted, the memory card will be ready to use by Linux OS of the camera.

Storage Settings

In this section you can configure the disk storage to archive videos and events.

The recording data may be lost if the power supply is interrupted during recording.

Storage Settings

Name

Enable recycling
 Stop recording or recycle disk when free space of disk is smaller than

Keep days (1-255)

Enable debug message to the storage.

Enable auto formatting when disk or partition is unable to record.

Network Neighborhood Settings

Enable Server URL/IP Address Search User Name Password

Disk Status

Disk Information

Disk No.	Total Size	Used Size	Free space	Utilization	Remove	Format
No HDD connected						

Partition Information

Disk No.	Partition No.	Total Size	Used Size	Free space	Utilization	Status	Other
No HDD connected							

Network Neighborhood Disk Information

Disk No.	Total Size	Used Size	Free space	Utilization
No HDD connected				

(Unit: Gigabyte)

Figure 4-27

[Storage Settings]

- **Enable recycling:** If the **Enable recycling** option is selected, when the space of the storage device is lower than the specified space, the system will either write the data to another device or overwrite the oldest recorded files. If the **Enable recycling** option is not selected, the system will stop recording when the specified space is reached.
- **Keep days (1-255):** Specify the number of days to keep the files from 1 day to 255 days. When both **Keep days** and **Enable recycling** are selected, the system applies whichever condition comes first. For example, if the specified smallest amount of storage space comes earlier than the designated keep days, then recycle is applied first.
- **Enable debug message to the storage:** Debug message (see 4.8.4 Log Information) is deleted after reboot. Select this option to store log information to the attached storage device.
- **Enable auto formatting when disk or partition is enable to record:** Select this option for the camera to automatically format the storage device when there is error during recording.

[Network Neighborhood Settings]

You can record your camera to a connected NAS server. Note this function is only supported by **GV-PPTZ7300**.

Note:

1. Make sure your camera's video settings adhere to the following:

- VBR is set to **Good**
- Maximal Bit Rate is set to the following:

Camera Type	Max. Bit Rate
1.3 MP	6 Mbit or lower
2 MP / 3 MP / 4 MP / 5 MP	8 Mbit or lower

2. For optimal performance and compatibility, it is highly recommended to use a GV-NAS System.
3. It is highly recommended that the NAS server supports quota function, and a separate quota is allocated to each camera.
4. GV-IP Camera does not support recording to shared folders of a Windows-based server.

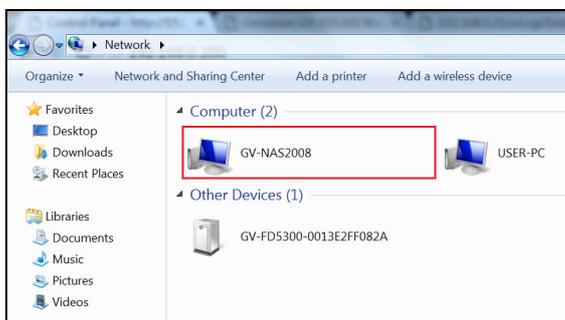
To record to GV-NAS Systems, follow the steps below.

1. Under Network Neighborhood Settings, select **Enable** and click the **Search** button to search for available NAS servers.



Figure 4-28

Note: For the Search function to work, ensure the NAS server can be detected from your Windows Network.



2. Type the username and password, and click **Select**.

Samba Domain List				
Group	Domain	Username	Password	Selection
WORKGROUP	GV-NAS2008	Cam01	*****	Select

Figure 4-29

Note: Depending on the models of GV-NAS System, up to 16 default user accounts (username: **Cam01 – Cam16**; password: **12345678**) are available. The storage limitation and recycle is applied on a user basis. It is recommended to use one user account exclusively for recording of one GV-IP Camera to avoid uneven data recycle.

3. Select a folder to store recordings, and click **OK**.

Folder List		
FolderName	Type	Selection
IP_Camera	Disk	<input checked="" type="radio"/>
md1-public	Disk	<input type="radio"/>
Cam01	Disk	<input type="radio"/>

ok

Figure 4-30

4. Click **Apply**. After 10-15 seconds, the disk status will be displayed.

Disk Status				
Network Neighborhood Disk Information				
Disk No.	Total Size	Used Size	Free space	Utilization
\\192.168.0.1\IP_Camera	50.000	49.570	0.429	99%

(Unit: Gigabyte)

Figure 4-31

Tip: Instead of searching for available NAS servers, you can also type the storage path directly.

1. Type the Server IP Address in this format: **\\NAS IP Address\Storage Folder**. For example, **\\192.168.0.1\IP_Camera**. This GV-IP Camera will be recorded to a default shared folder named “IP_Camera” in the GV-NAS System.
2. Type the username and password. For GV-NAS System, you can type any of default usernames **Can01** to **Cam16**, and password is **12345678**.

Network Neighborhood Settings		
Server URL/IP Address	User Name	Password
Enable <input checked="" type="checkbox"/> \\192.168.0.1\IP_Camera <input type="button" value="Search"/>	Cam02	●●●●●●●●
<input type="button" value="Apply"/>		

For details on GV-NAS System, refer to *GV-NAS System Quick Start Guide*.

[Disk Information]

This section shows the details of the attached storage devices. Use the **Format** or **Remove** button to format or unload a storage device. For detail steps, see *Partition Information* below.

[Partition Information]

This section shows the partition details of the attached storage devices.

To add a memory card:

1. Insert the memory card to the camera.
2. Click the **Format** button.
3. After the format is complete, the partition information will display. The maximum space for one partition is 200 GB.

To remove a memory card:

1. Click the **Remove** button.
2. When you are prompted to confirm the action, click **Yes**. The page will be refreshed and the partition information will be cleaned.
3. Remove the memory card from the camera.

The storage device status is indicated in the status column:

Status	Description
Formatting	The storage device is being formatted.
Unknown	The camera cannot recognize the format of the storage device or the device cannot be found.
OK	Storage formatting is successful.
Try Mount	The camera is attempting to connect to the storage device.
Error File System	There is a recording error in the storage device. All the recording data is inaccessible under this status.
Read Only	The storage device cannot be written to due to abnormal power disruption.
Repairing	The system is attempting to repair the recording data.

Note:

1. If **Enable Recycle** is selected, the available space of the storage device must be higher than the space you specified at the **Stop recording or recycle disk when free space of disk is smaller than x** option. Otherwise no video will be recorded.
 2. The recording data may be lost if you remove the storage device during recording.
 3. If you do not remove the storage device properly, the data cannot be read in another computer. In this case, re-plug the storage device back to the camera. The system will repair the data automatically. When the system is repairing the data, the **Remove** field will display "Repairing".
-

4.8.3 User Account

You can change the login name and password of Administrator, Guest and FTP Server User.

Note: This setting page is only available on the fisheye interface. Any changes made will be applied to the speed dome as well.

- The default Administrator login name and password are **admin**.
- The default Guest login name and password are **guest**. To allow a Guest user to log in without entering name and password, select **Disable authentication for guest account**.
- To remain logged in after reboot, select **Disable auto logout after reboot**. Note this function is only supported by **GV-PPTZ7300**.
- The default FTP Server login name is **ftpuser** and default password is **123456**.

User Account

In this section you can change the administrator account and password

Administrator Account

Username:

Old Password:

New Password:

Confirm Password:

Guest User Account

Username:

Old Password:

New Password:

Confirm Password:

Advanced Setting

Disable authentication for guest account

Disable auto logout after reboot

FTP Server User Account

Username:

Old Password:

New Password:

Confirm Password:

Figure 4-32

4.8.5 Tools

This section allows you to execute certain system operations and view the firmware version.

Additional Tools

In this section you can set the additional tools

Host Settings

In this section you can determine a hostname and camera name for identification.

Host Name

Repair Recording Database

Click **Apply** to repair the database when you cannot play back recordings.

Repairing Status

Unknown

Firmware Update

In this section you can see GV-IPCAM firmware version.

System Settings

Restore to factory default settings

Restore to factory default settings(Except network)

Internal Temperature

Internal Temperature Normal Range: 0°C ~ 95°C "(32°F ~ 203°F)"

Current chipset temperature inside camera is °C/ °F

Reboot

Do you wish to reboot now?

Figure 4-34

[Host Name] Type a descriptive name for the camera.

[Repair Record Database] Click **Apply** to repair the database when errors occur while playing back the recordings with Remote ViewLog player. Errors can occur when there are errors in firmware or damages to the micro SD card.

[Repairing Status] Displays the status of the repairing database.

[Firmware Update] This field displays the firmware version of the camera.

[System Settings] Clicking the **Load Default** button will restore the camera to factory default settings except for the PTZ settings previously configured. You can also choose whether to include network settings when loading factory default settings.

To restore PTZ settings to factory default settings, see *5.13 System Configuration*.

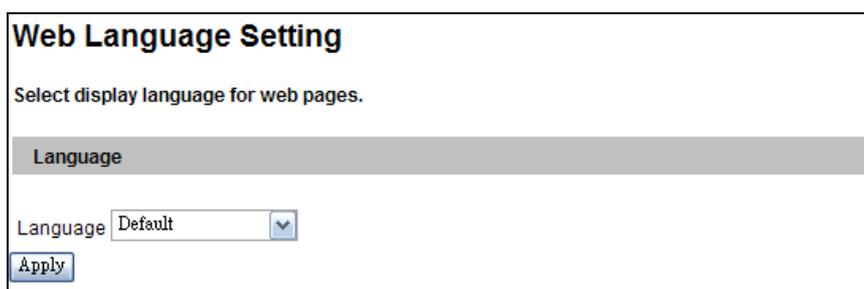
[Temperature Status] Displays the chipset temperature inside the camera. You can also see the **Current chipset temperature inside the camera**.

[Reboot] Clicking the **Reboot** button will make the camera perform software reset. This function is only available on the fisheye interface.

4.8.6 Language

This section allows you to select the language of the Web interface. The Default option sets the Web interface to the language of the computer's operating system.

Note: This setting page is only available on the fisheye interface. Any changes made will be applied to the speed dome as well.



The screenshot shows a web interface titled "Web Language Setting". Below the title is the instruction "Select display language for web pages." There is a section header "Language" in a grey bar. Underneath, there is a label "Language" followed by a dropdown menu currently set to "Default". At the bottom left of the form is an "Apply" button.

Figure 4-35

Chapter 5 PTZ Control Panel

In this chapter, you will be guided through setup steps for various type of dome view movements (including Preset, Cruise, Auto Pan, Sequence and Tour), image quality settings, (including white balance, exposure and color parameters), schedule settings and PTZ settings.

The PTZ Control Panel is accessed from the individual interface of the speed dome camera.

Calling Up the PTZ Control Panel:

Click the **PTZ Control** button (No. 10, Figure 3-12) on the Live View window and select **PTZ Control Panel**. The PTZ Control Panel appears.

The figure below illustrates the functions included in the **Option** button of the PTZ Control Panel. The **Auto Go** option includes the controls of cruise, sequence and auto pan. The **Setup** option allows the Administrator to adjust the camera's parameters.

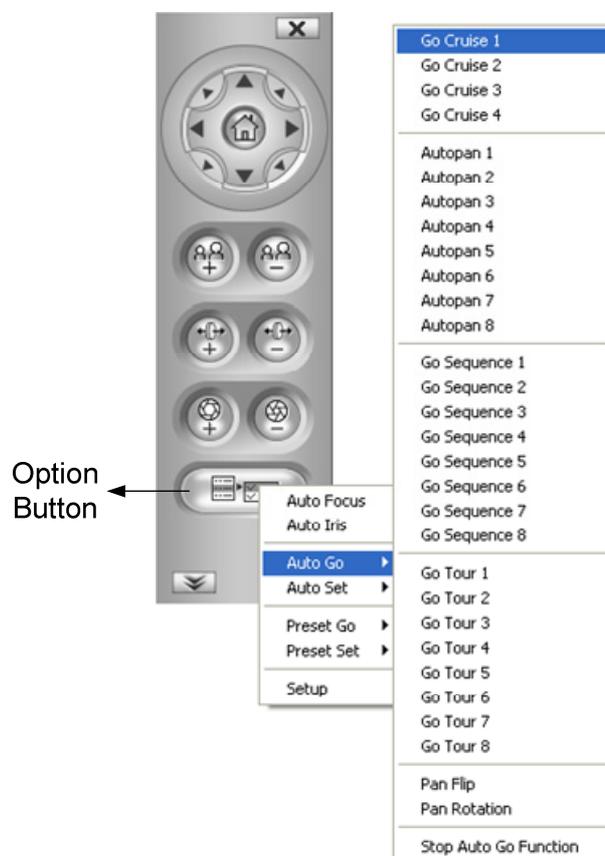


Figure 5-1

Accessing the PTZ Configuration Dialog Box:

From the PTZ Control Panel (Figure 5-1), click **Option** and select **Setup**. This dialog box appears.

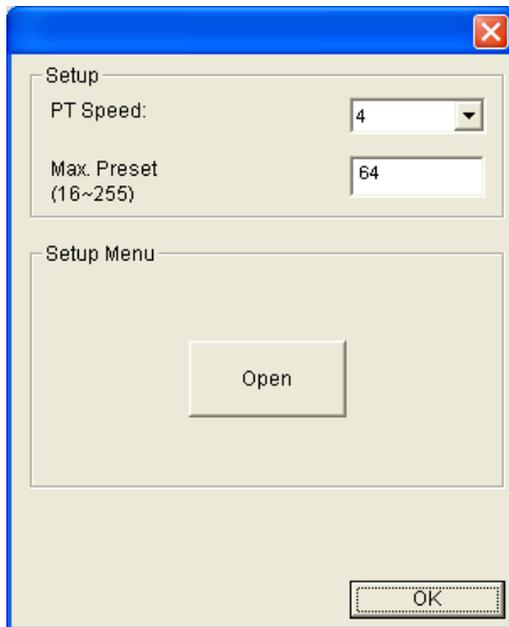


Figure 5-2

- **PT Speed:** determines the speed of panning and tilting of the dome view. The drop-down list contains 5 speed settings: 1 is the slowest speed and 5 the fastest speed.
- **Max Preset:** determines the number of Preset points for configuration. The valid range is from 16 to 255 points.

- **Start Menu:** Click Open to open PTZ configuration dialog box which contains Image Settings, PTZ settings and general settings related to PTZ function.

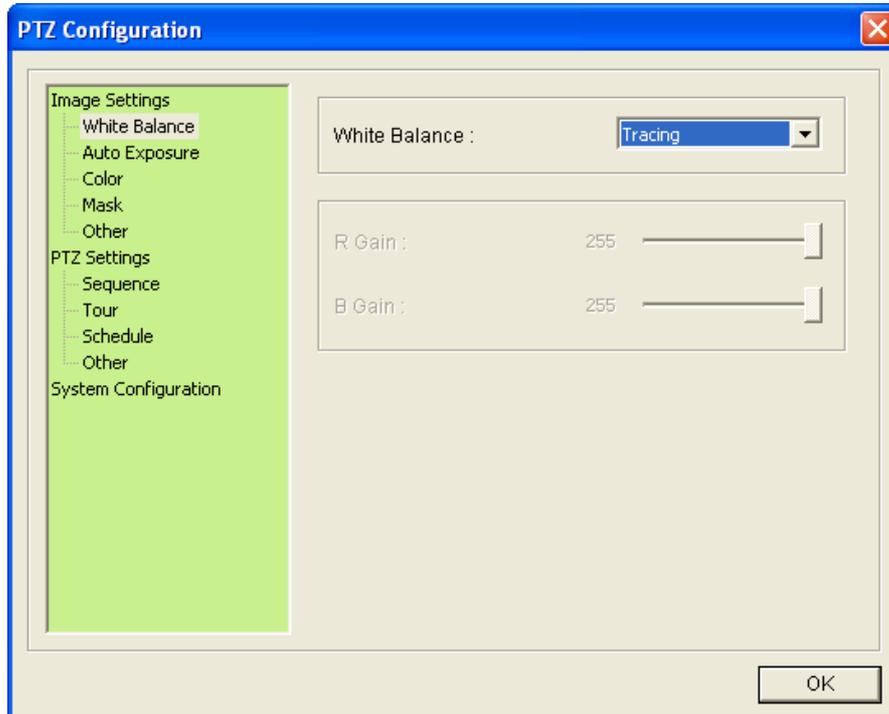


Figure 5-3

Click **OK** to save and exit the setup.

5.1 Preset Settings

You can set up a preset position toward which the dome view moves. Up to **255** preset points can be configured and saved.

Setting Up a Preset

1. To set up a preset position, use the Pan/Tilt Control keys on the PTZ Control Panel to move the dome to a desired position in Live View.
2. To save the preset position, click **Option** (Figure 5-1) on the PTZ Control Panel, click **Preset Set**, and select the desired preset number.
3. To create more preset positions, repeat Steps 1 and 2, and select a different preset number.

Using a Preset

To move the dome view to a previously defined preset position, click **Option** (Figure 5-1) on the PTZ Control Panel, click **Preset Go**, and select a **Preset** number that has been set up.

5.2 Cruise Settings

You can set up a route consisting of different directions, angles, and zooms for the camera to follow. Up to 4 Cruises can be created.

Setting Up a Cruise

1. Click **Option** (Figure 5-1) on the PTZ Control Panel, click **Auto Set** and select **Set Cruise 1**.
2. Use Pan/Tilt Control keys and zoom in / out keys to set the desired route path and zoom.
3. When you are finished with setting up a Cruise 1 route, click **Option** (Figure 5-1), click **Auto** and select **Set Cruise Stop**.
4. To set up another Cruise route, repeat Steps 1 to 3 using a different Cruise number.

Starting and Stopping a Cruise

To start the Camera on a defined Cruise route, click **Option** (Figure 5-1) on the PTZ Control Panel, click **Auto Go** and select a **Go Cruise** number which has been previously set.

To stop a Cruise route in action, click on a Pan/Tilt Control key, home key, zoom button or focus button on the PTZ Control Panel.

5.3 Auto Pan Settings

GV-PPTZ7300 can pan up to 355°, and **GV-PPTZ14021 / PPTZ14031** can pan up to 360° endlessly to survey the horizontal view between 2 user-defined positions. You can configure up to 8 sets of Auto Pan mode.

Setting Up an Auto Pan

1. Set up the vertical position of your camera first. The vertical direction set during or after the horizontal movement settings will not be effective.
2. Set up the start position of the Auto Pan.
 - A. Use the Pan/Tilt Control keys and zoom in / out keys on the PTZ control panel to move to a start position.
 - B. Click **Option** (Figure 5-1) on the PTZ Control Panel, click **Auto Set** and select **Set Auto Pan 1 Start Position**.
3. Set up the end position of the Auto Pan.
 - A. Use the Pan/Tilt Control keys and zoom in / out keys on the PTZ control panel to move to an end position.
 - B. Click **Option** (Figure 5-1) on the PTZ Control Panel, click **Auto Set** and select **Set Auto Pan 1 Stop Position**.
4. To create another Auto Pan mode, repeat Steps 1 to 4 using a different Auto Pan number.

To configure the Pan speed and the duration of dome view staying at the two positions, see *5.7 PTZ Settings- Other* in this manual.

Note: The zoom ratio of an Auto Pan's Start Point will persist throughout the whole path.

Starting and Stopping an Auto Pan

To start the camera on an Auto Pan mode, click **Option** (Figure 5-1) on the PTZ Control Panel, click **Auto** and select an **Auto Pan** number which has been previously set. An enabled Auto Pan will repeat until it is stopped by clicking a Pan/Tilt Control key, home key, zoom button or focus button on the PTZ Control Panel.

5.4 PTZ Settings- Sequence

You can have the camera view move in a series of predefined movements, called a Sequence. Create a Sequence by linking a number of presets points. Up to 8 Sequences can be created and a minimum of 2 preset points must be selected for a Sequence route to work.

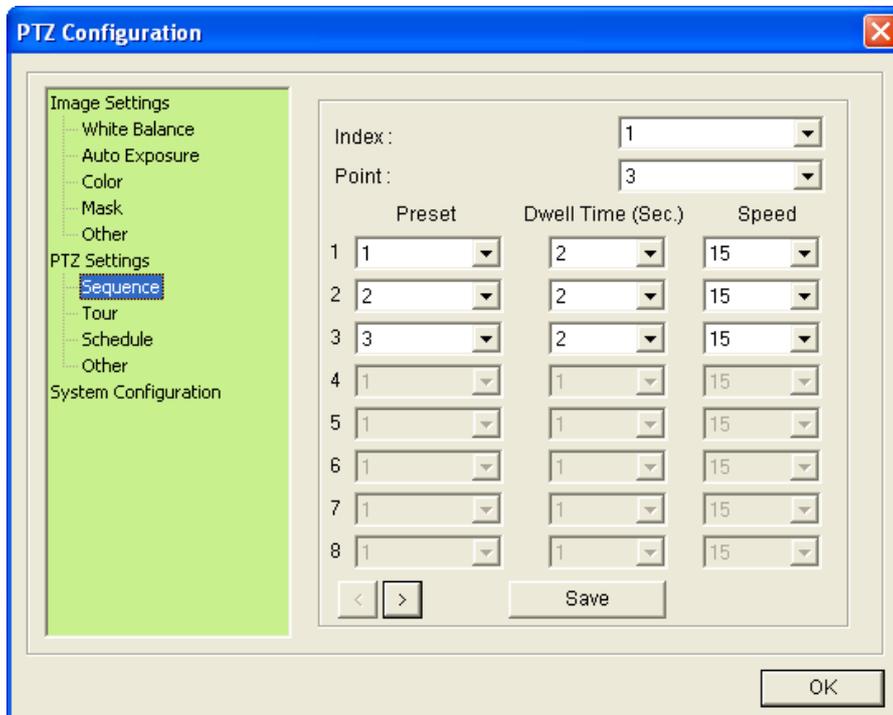


Figure 5-4

Setting Up a Sequence

1. From the PTZ control panel (Figure 5-1), click **Option**, select **Setup**, and click **Open** to display the **PTZ Configuration** dialog box, click **Sequence** located under **PTZ Setting** on the left menu.
2. Use the **Index** drop-down list to select the Sequence number to be configured. Up to 8 Indexes (Sequences) can be created.
3. One Sequence can include up to 16 Preset Points. Use the **Point** drop-down list to select the number of Preset Points allowed in this Sequence.
4. Use the **Preset** drop-down list to select the Presets for this Sequence.
5. Use the **Dwell Time** drop-down list to set the duration for the dome to stay at this Preset. The duration time ranges from 1 to 255 seconds.
6. Use the **Speed** drop-down list to set the speed at which the dome travels from one Preset to another.
7. To create another Sequence, select a different Index number and repeat Steps 3 to 4.
8. Click **Save** to complete the settings.

Starting and Stopping a Sequence

To start the dome view on a Sequence route, click **Option** (Figure 5-1) on the PTZ Control Panel, click **Auto Go** and select a **Go Sequence** number which has been previously set. The dome view will continue moving once a Sequence is started. To stop the movements, click a Pan/Tilt Control key, home key, zoom button or focus button on the PTZ Control Panel.

5.5 PTZ Settings- Tour

You can set up your camera to move in a combination of preset positions, Sequence, Cruise and Auto Pan. You can configure up to 8 Tour routes.

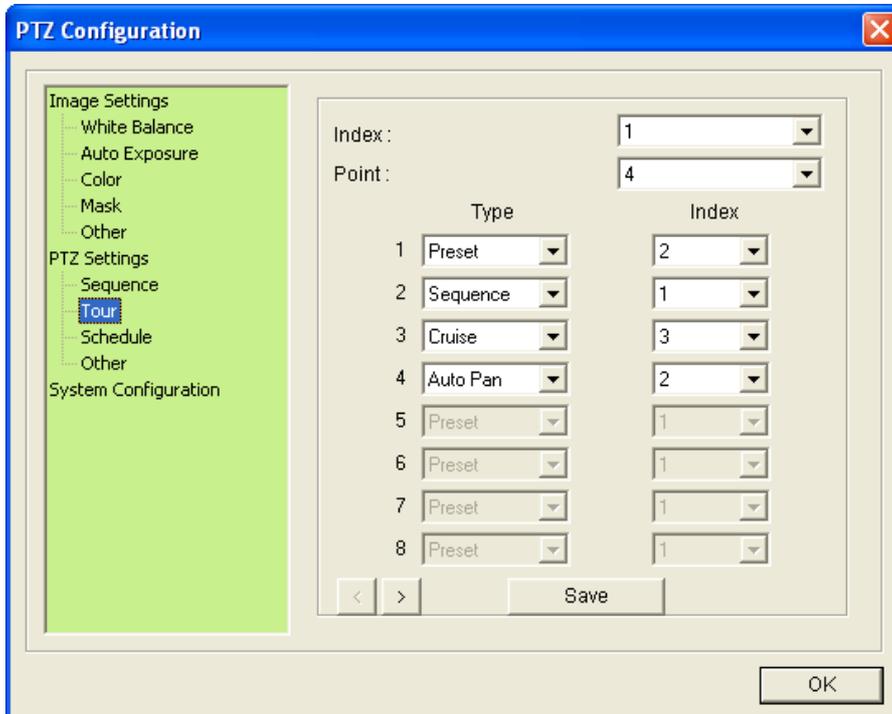


Figure 5-5

Setting Up a Tour

1. From the PTZ control panel (Figure 5-1), click **Option**, select **Setup**, and click **Open** to display the **PTZ Configuration** dialog box, click **Tour** located under **PTZ Setting** on the left menu.
2. Use the **Index** drop-down list to select the Tour number to be configured. Up to 8 Indexes (Tours) can be created.
3. **Point** drop-down list to select the number of Preset Points, Sequence, Cruise and Auto Pan allowed in this Tour.
4. Use the **Type** drop-down list to select the movement type.
5. Use the **Index** drop-down list to select the movement number for each movement type.
6. To create another Tour, repeat Steps 2 to 6 using a different Index number.
7. Click **Save** to complete the settings.

Starting and Stopping a Tour

To start the camera on a Tour route, click **Option** (Figure 5-1) on the PTZ Control Panel, click **Auto Go** and select a **Go Tour** number which has been previously set. An enabled Tour will repeat until it is stopped by clicking a Pan/Tilt Control key, home key, zoom button or focus button on the PTZ Control Panel.

5.6 PTZ Settings- Schedule

You can set up a schedule for the dome to perform Preset, Sequence, Auto Pan, Cruise or Tour during a specified time. Up to 8 sets of schedule can be configured and saved.

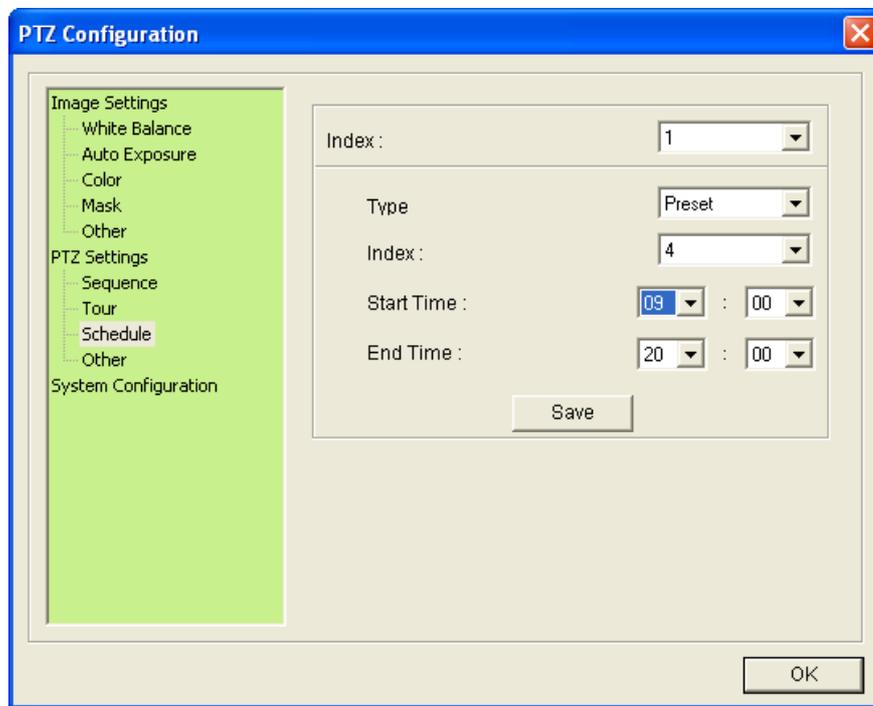


Figure 5-11

1. Select a schedule number from the **Index** drop-down list.
2. Select a movement type from the **Type** drop-down list.
3. Select a movement number from the **Index** drop-down list.
4. Select the **Start Time** and the **End Time** using the drop-down lists.
5. To create a new schedule, select a different **Index** number and repeat Steps 2 to 4.
6. Click **Save** to save the settings.

5.7 PTZ Settings– Other

This page contains speed and duration settings of Auto Pan and PT.

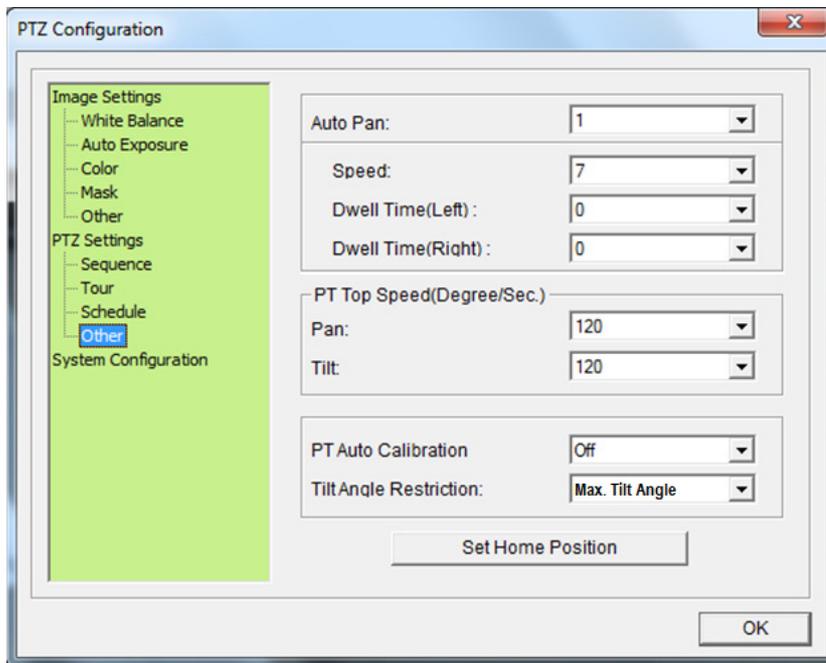


Figure 5-12

- **Auto Pan:** An Auto Pan is a pan movement of the camera view between two user-defined positions. For setup steps, see *5.3 Auto Pan Settings*.
 - ⊙ **Speed:** Select the panning speed. Greater value indicates faster speed.
 - ⊙ **Dwell Time (Left):** Select the duration that the dome stays at the left point.
 - ⊙ **Dwell Time (Right):** Select the duration that the dome stays at the right point.
- **PT Top Speed:** The maximum speed for Pan and Tilt movements. Use the drop-down lists for **Pan** and **Tilt** and select a speed (degrees/second).
- **PT Auto Calibration:** Automatically calibrates the camera when it detects any inaccuracy. This function is disabled by default. For manual calibration, see *Self test, 5.12 System Configuration*.
- **Tilt Angle Restriction:** Under the **Max. Mechanical Tilt**, the tilt angle will increase to $-15^{\circ} \sim 195^{\circ}$, but note that the edge of the camera casing becomes visible when the tilt angle is less than 17° or more than 163° . Under the **Limited Tilt Angle** setting, the tilt angle is restricted to $17^{\circ} \sim 163^{\circ}$. The function is set to Max. Mechanical Tilt by default.
- **Set Home Position:** First adjust the dome view to a desired position and click this button to set it as your Home Position.

5.8 Image Settings- White Balance

The White Balance setting is used to adjust the colors of camera image so that it reflects normal coloring under different environment lighting.

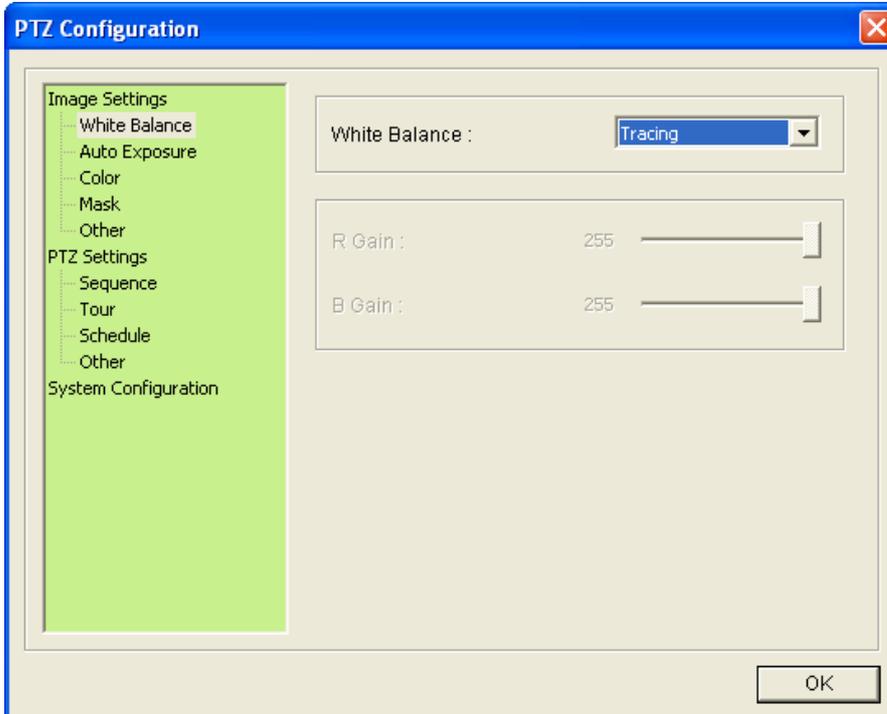


Figure 5-6

- **Auto:** The camera automatically performs color adjustments. This option is suitable for environments with unchanging lightings.
- **Indoor:** This option is designed to adjust the colors of an indoor scene.
- **Outdoor:** This option is designed to adjust the colors of an outdoor scene.
- **One Push:** Once enabled, the camera adjusts its colors for one time.
- **Tracing:** The camera adjusts constantly for the correct color balance. This option is suitable for environments with changing lightings. Note this function is only supported by **GV-PPTZ7300**.
- **Manual:** The White Balance values can be manually changed by moving the sliders to adjust **R Gain** (red color of images) and **B Gain** (blue color of images) values.

5.9 Image Settings- Auto Exposure

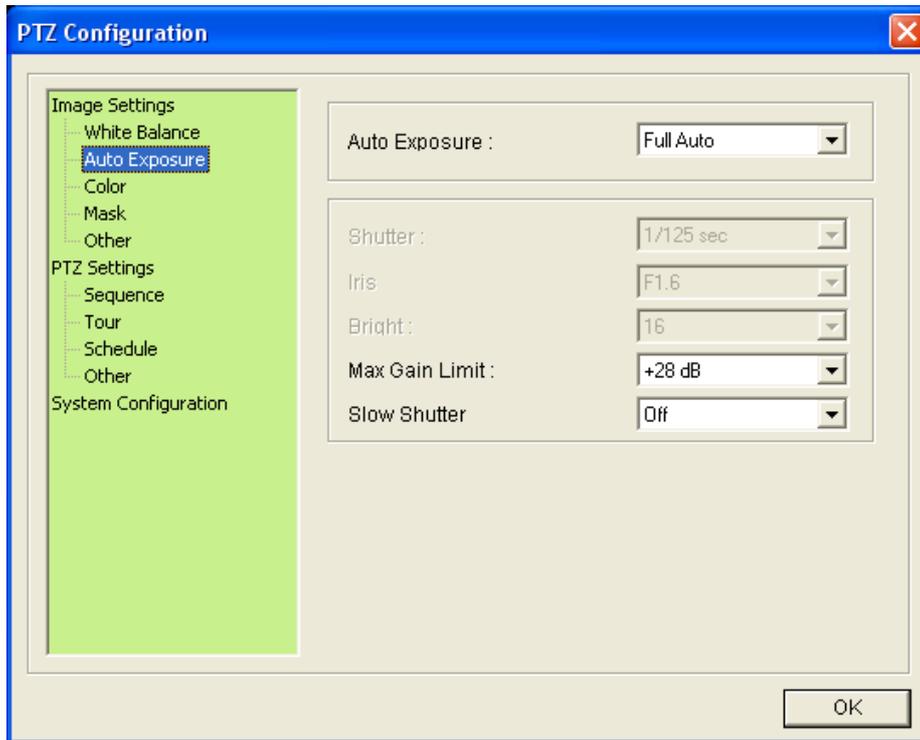


Figure 5-7

- **Auto Exposure:** provides controls on camera exposure. Select **Full Auto**, **Shutter Priority**, **Iris Priority** or **Bright Priority**. The default is **Full Auto**.
 - ⊙ **Full Auto:** The camera adjusts its exposure automatically. By enabling this option, you can also adjust the **Slow Shutter** below.
 - ⊙ **Shutter Priority:** The camera uses the specified **Shutter** speed below.
 - ⊙ **Iris Priority:** The camera uses the specified **Iris** setting below.
 - ⊙ **Bright Priority:** The camera adjusts its iris and AGC settings using an internal algorithm to achieve different degrees of brightness. Brightness is controlled by Gain under low-light conditions and by Iris under well-lit conditions. By enabling this option, you can also adjust the **Bright** value below.
- **Shutter:** This option is only available under the **Shutter Priority** mode for Auto Exposure. Use the drop-down list to select a shutter speed.
- **Iris:** This option is available under the **Iris Priority** mode for Auto Exposure. Use the drop-down list to select the iris level.
- **Bright:** This option is only available under the **Bright Priority** mode. Use the drop-down list to select a brightness value. The higher the value the brighter the image.

- **Max Gain Limit:** Analyzes the brightness of the scene and enhances the image when it is pixilated and noisy due to insufficient light. Use the drop-down list to select a value. The higher the value, the stronger the gain effect.
- **Slow Shutter:** Enable this option to allow higher light exposure that creates a brighter overall image at the cost of blurring moving objects. Note this function only works under low-light conditions, and is only supported by **GV-PPTZ14021 / PPTZ14031**.

5.10 Image Settings- Color

The Color settings are used to adjust color contrast, sensitivity and gain.

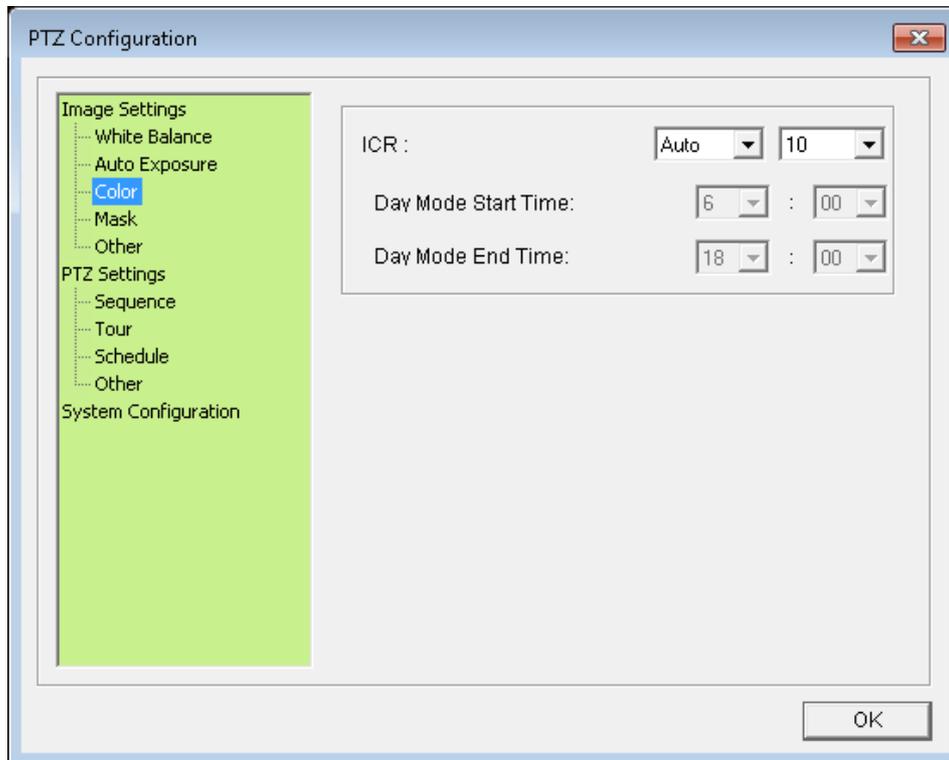


Figure 5-8

- **ICR:** Defines how the camera's IR-cut filter works. Select **Auto**, **Day**, **Night** or **Schedule**. The default setting is **Auto**, with the sensitivity level **10**.
 - ⊙ **Auto:** The camera will automatically turn on the IR-cut filter depending on the light conditions.
 - ⊙ **Day:** The camera will enable the IR-cut filter and remain in color mode.
 - ⊙ **Night:** The camera will disable the IR-cut filter and remain in night mode.
 - ⊙ **Schedule:** Set the start and end time the camera will switch to day mode at specific times. Beyond the scheduled time, the camera will switch to night mode.

5.11 Image Settings- Mask

The Mask is used to block out sensitive areas from view. You can create and save up to 8 Masks. The Mask size will stay proportional to the zoom, which increases when zoomed in and decreases when zoomed out. The Mask will be fixed to the position where it is first created. This means, when the dome pans to the left, the Mask will gradually move to the right and out of the view and when the dome moves from the left back to the right side, the mask will gradually appear back into the view.

Note:

1. The Mask function is only available when the tilting angle is between 0° to 70°.
 2. It is highly recommended to set the mask area at least twice bigger (in height and width) than the object that you want to cover it with a protective mask.
-

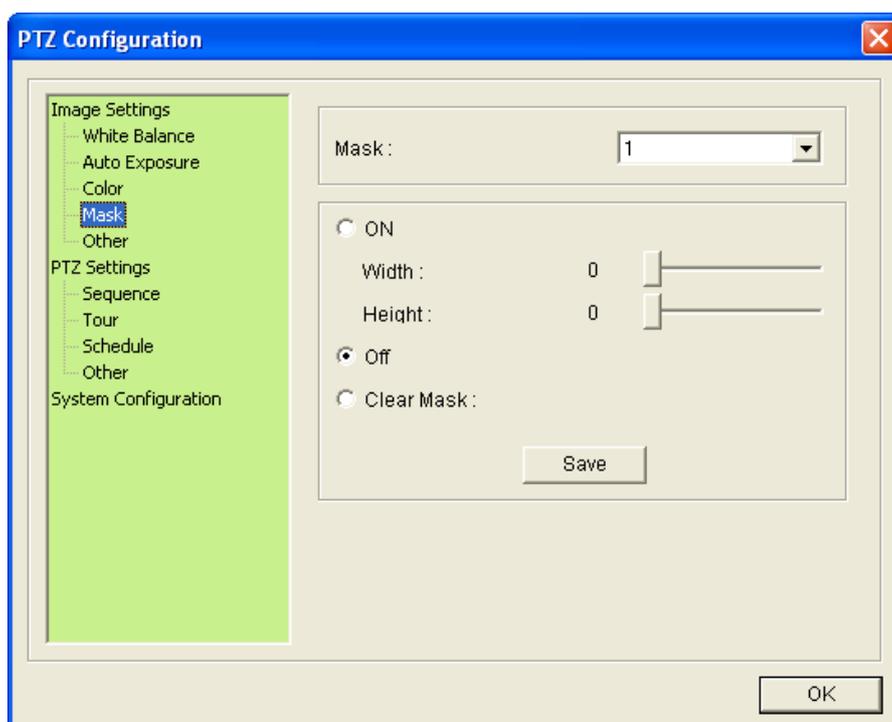


Figure 5-9

1. To create a Mask, follow the steps below.
 - A. Use the **Mask** drop-down list to select a Mask number. You can create up to 8 different Masks.
 - B. Select **ON** and use the **Width** and **Height** slider bars to set the Mask size.
 - C. Click the **Save** button to save the settings. The Mask appears at the center of the dome view.

5 PTZ Control Panel

2. To disable a Mask, select the Mask number from **Mask**, select **Off** and click the **Save** button.
3. To create a new Mask, select a different Mask number and repeat step 1.
4. To delete a Mask, select the Mask number from **Mask**, select **Clear Mask** and click the **Save** button.

5.12 Image Settings- Other

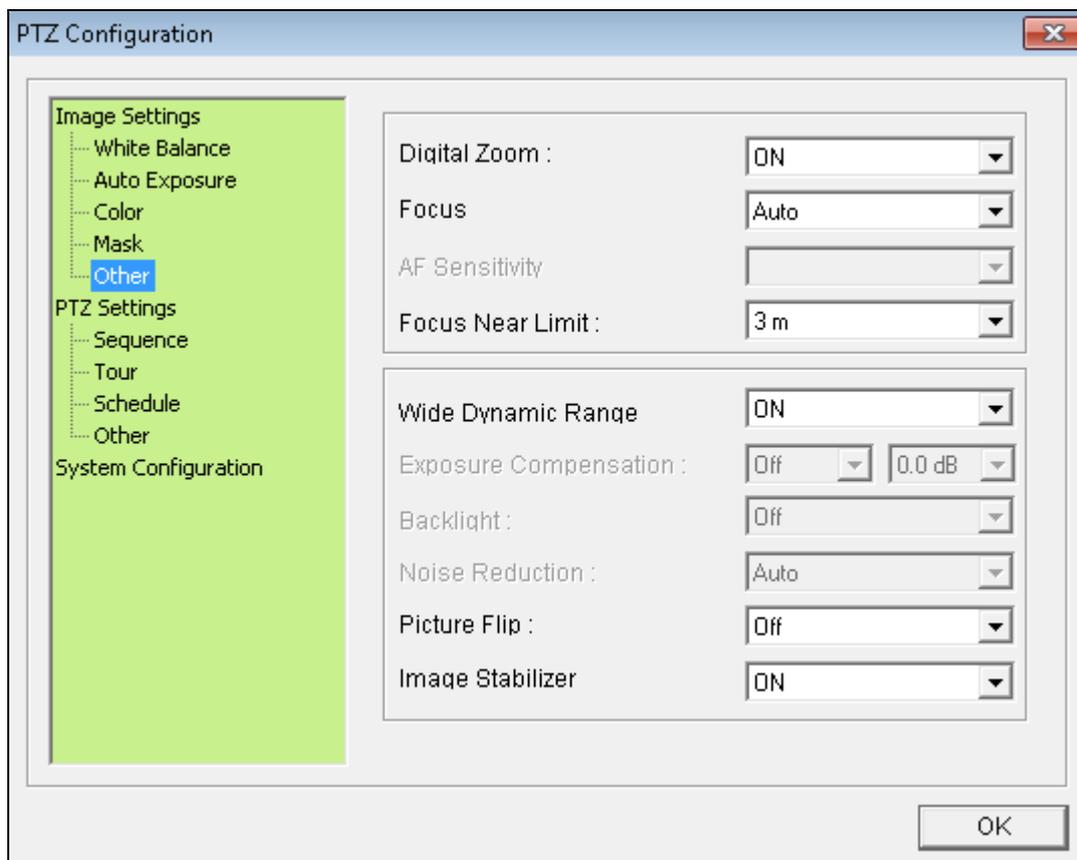


Figure 5-10

- **Digital Zoom:** With this option, users can enable or disable the 12x Digital Zoom. The Digital Zoom will be activated after the Optical Zoom level is fully reached.
- **Focus:** Sets the focus mode of the dome. Select **Auto** for the dome to automatically focus after scene change and PTZ movement (such as preset or any function executed from the PTZ control panel); select **Manual** for the dome to focus only once after every PTZ movement and the focus will not be adjusted even if the scene changes.
- **AF Sensitivity:** Currently not functional.
- **Focus Near Limit:** Use the drop-down list to select the distance beyond which the focus cannot be done.
- **Wide Dynamic Range:** The Wide Dynamic Range is used to adjust scenes that contain both very bright and dark areas. This function improves scene clarity by making the dark areas more visible and at the same time keeping the clarity of the bright areas.
- **Exposure Compensation:** Adjust the brightness for auto exposure. This function is disabled by default.

- **Backlight:** Backlight Compensation (BLC) is used to compensate AGC in adjusting color intensity. For scenes with strong light in the background and dim light in the foreground, AGC is not effective because AGC averages the light intensity of a whole frame. BLC compensates for this characteristic by restricting AGC to adjust color intensity of a specific area. To enable this function, use the drop-down list and select **ON**. Note this function is only supported by **GV-PPTZ7300**.
- **Noise Reduction:** Reduce image specks (noise). The higher the value, the stronger the effect.
- **Picture Flip:** Rotate the image by 180 degrees.
- **Image Stabilizer:** Reduce possible image blurring caused by vibrations. To enable this function, use the drop-down list and select **ON**. Note this function is only supported by **GV-PPTZ14021 / 14031**.

5.13 System Configuration

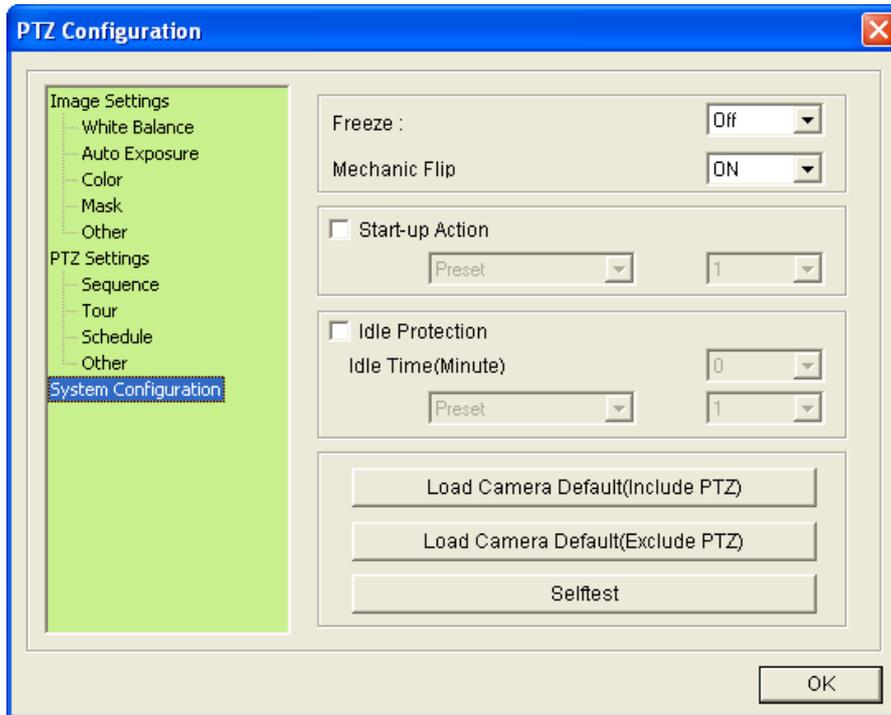


Figure 5-13

- **Freeze:** Skip showing camera images while traveling from one preset to another. This function is disabled by default.
- **Mechanic Flip:** This function is not supported.
- **Start-Up Action:** Defines the dome view movement when the camera reboots.
- **PTZ Idle Protection:** When the dome idles for a period of time, the user can select a movement mode to activate automatic monitoring of the surveillance site. After the idle time, the selected movement mode will be automatically activated. To configure and enable this function, follow these steps:
 1. Select **Idle Protection** to start setting.
 2. Use the **Idle Time (Minute)** drop-down list to select the time length allowed for the dome to remain stationary. The time length can be set from 0 to 120 minutes.
 3. Use the drop-down list to select the desired movement mode. The modes include:
 - ⊙ **Preset:** When the Delay Time is up, the dome will automatically move to the chosen Preset point. To configure a Preset, see *5.1 Preset Settings*.
 - ⊙ **Sequence:** When the Delay Time is up, the dome will automatically perform the selected Sequence number. To configure a Sequence, see *5.4 PTZ Settings-Sequence*.

- ⊙ **Auto Pan:** When the Delay Time is up, the dome will automatically perform the selected Auto Pan number. To configure an Auto Pan, see *5.3 Auto Pan Settings*.
- ⊙ **Cruise:** When the Delay Time is up, the dome will automatically perform the selected Cruise number. To configure a Cruise, see *5.2 Cruise Settings*.
- ⊙ **Tour:** When the Delay Time is up, the dome will automatically perform the selected Tour number. To configure a Tour, see *5.5 PTZ Settings-Tour*.
- **Load Camera Default (Include PTZ):** Click the button to restore default settings to all the settings in PTZ Configuration dialog box (Figure 5-13).
- **Load Camera Default (Exclude PTZ):** Click the button to restore default settings to Image Settings and System Configuration in PTZ Configuration dialog box (Figure 5-13).
- **Self test:** Click this button to re-calibrate the camera to maintain its accuracy.

Chapter 6 Recording and Playback

The camera can record video and audio directly to the memory card. You can play back the recorded files on the GV-VMS or over the TCP/IP network.

Note: See *Note for Recording* at the beginning of the manual.

6.1 Recording

To enable the recording function:

1. To Insert a memory card to the camera, see *To add a memory card, 4.8.2 Storage Settings*.
2. To set up pre-recording, post-recording or audio recording, see *4.1.1 Video Settings*.
3. To set up the schedule for video recording or I/O monitoring, see *4.5 Recording Schedule*.
4. To configure the areas and sensitivity values for motion detection, see *4.1.2 Motion Detection*.
5. To start recording upon input trigger, see *4.2.1 Input Settings*.
6. To start recording and I/O monitoring, see *4.4 Monitoring*.

The camera will start recording upon motion detection, I/O trigger, or during the scheduled time.

6.2 Playback

These methods are available to play back the video files recorded at the camera:

- Playback from the memory card by connecting it directly to the GV-VMS through a card reader
- Playback using the Remote ViewLog function over the TCP/IP network
- Playback using the recorded files downloaded from built-in FTP Server

6.2.1 Playback from the Memory Card

You can play back the files recorded at the camera by attaching the memory card to the GV-VMS. However, the videos on the camera are recorded in Linux format and GV-VMS runs on a Windows-based computer. For Linux files to be readable and accessible on Windows, we use the Ext2Fsd program. Follow the steps below to download, install and execute the Ext2Fsd program.

IMPORTANT:

1. The Ext2Fsd program only works on Windows 2000, XP, 2003, vista, 7, 8 and Server 2012 (32-bit and 64-bit).
 2. The Ext2Fsd program is subject to and under the terms/conditions of The GNU General Public License version 2 (GPLv2). Please read <http://www.gnu.org/licenses/gpl-2.0.html> before installation.
-

1. Install the Ext2Fsd from the GeoVision website:

<http://www.geovision.com.tw/download/product/>.

Note: If you are using **Windows 8** or **Windows Server 2012**, change its compatibility mode before installing the Ext2Fsd program:

- A. Right-click the Ext2Fsd program and select **Properties**. This dialog box appears.

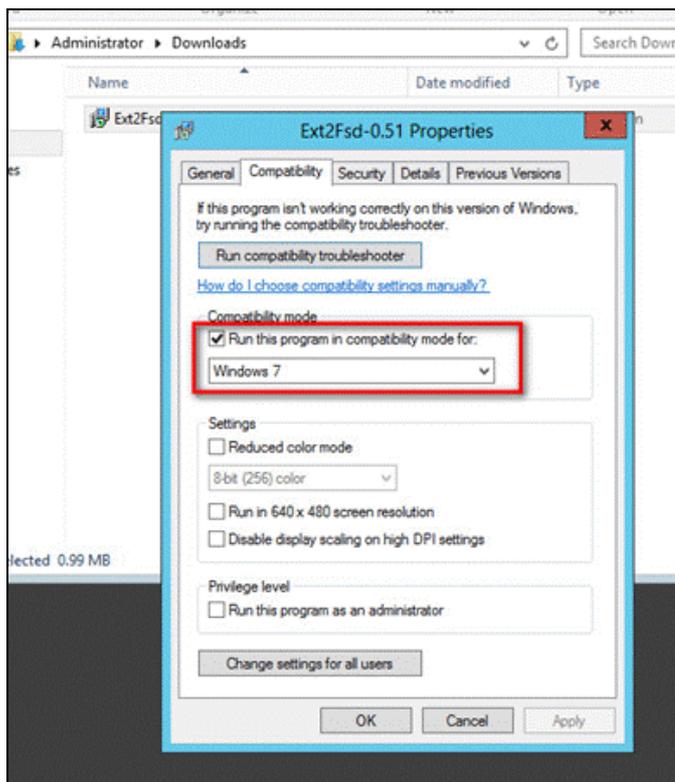


Figure 6-1

- B. Select the **Compatibility** tab.
- C. Select **Windows 7** using the drop-down list.

2. On Your desktop, click **Start**, select **Programs**, locate the **Ext2Fsd** folder and select **Ext2 Volume Manager**. All the connected drives are shown.

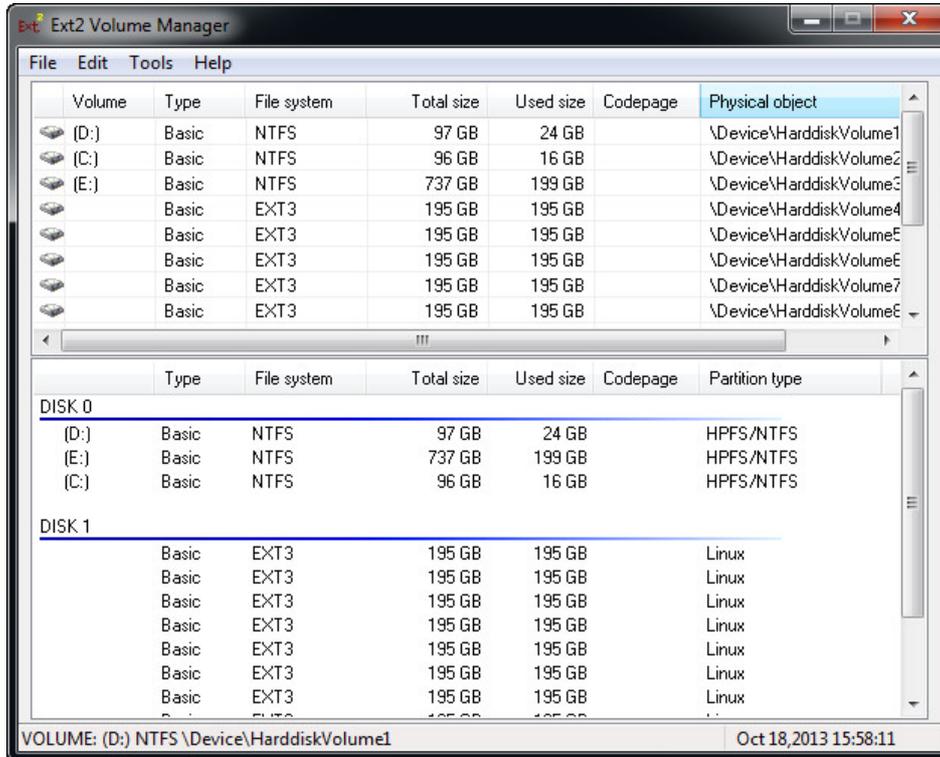


Figure 6-2

3. For first-installation, execute the Ext2Fsd Service.
 - A. From the Ext2 Volume Manager window, select **Tools** and select **Service Management**. This dialog box appears.

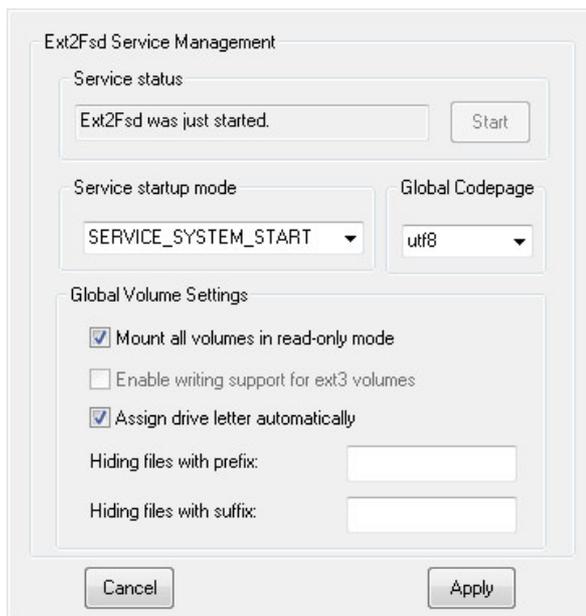


Figure 6-3

- B. Click **Apply**.

4. Mount the storage drive to your computer.
 - A. From the Ext2Fsd Volume Manager window, right-click the storage drive and select **Ext2 Management**. This dialog box appears.

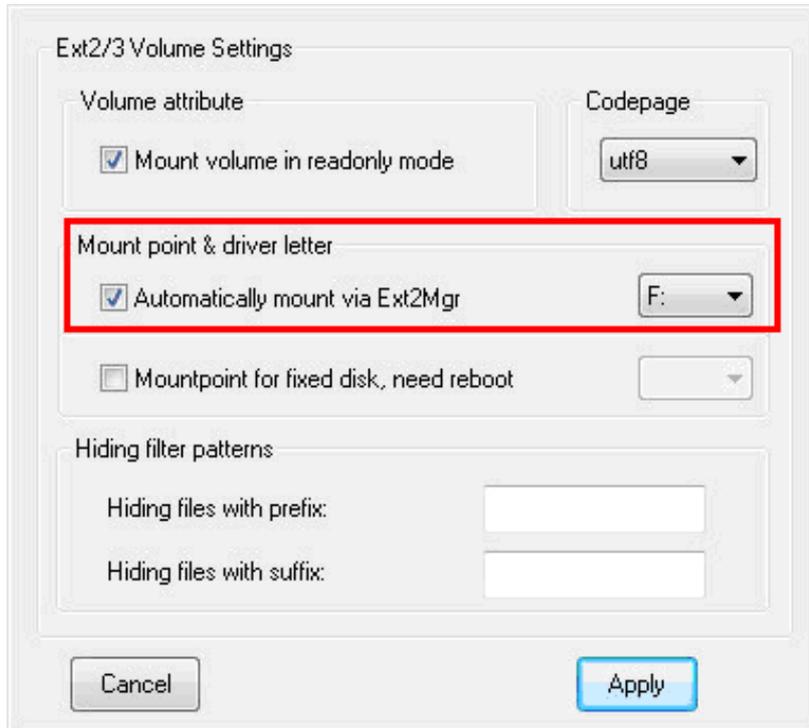


Figure 6-4

- B. Under the Mount point & driver letter section, select **Automatically mount via Ext2Mgr**, specify a disk drive using the drop-down list and click **Apply**.

C. On the Ext2 Volume Manager window, the storage drive is successfully mounted to your computer when it is indicated with the disk drive you specified.

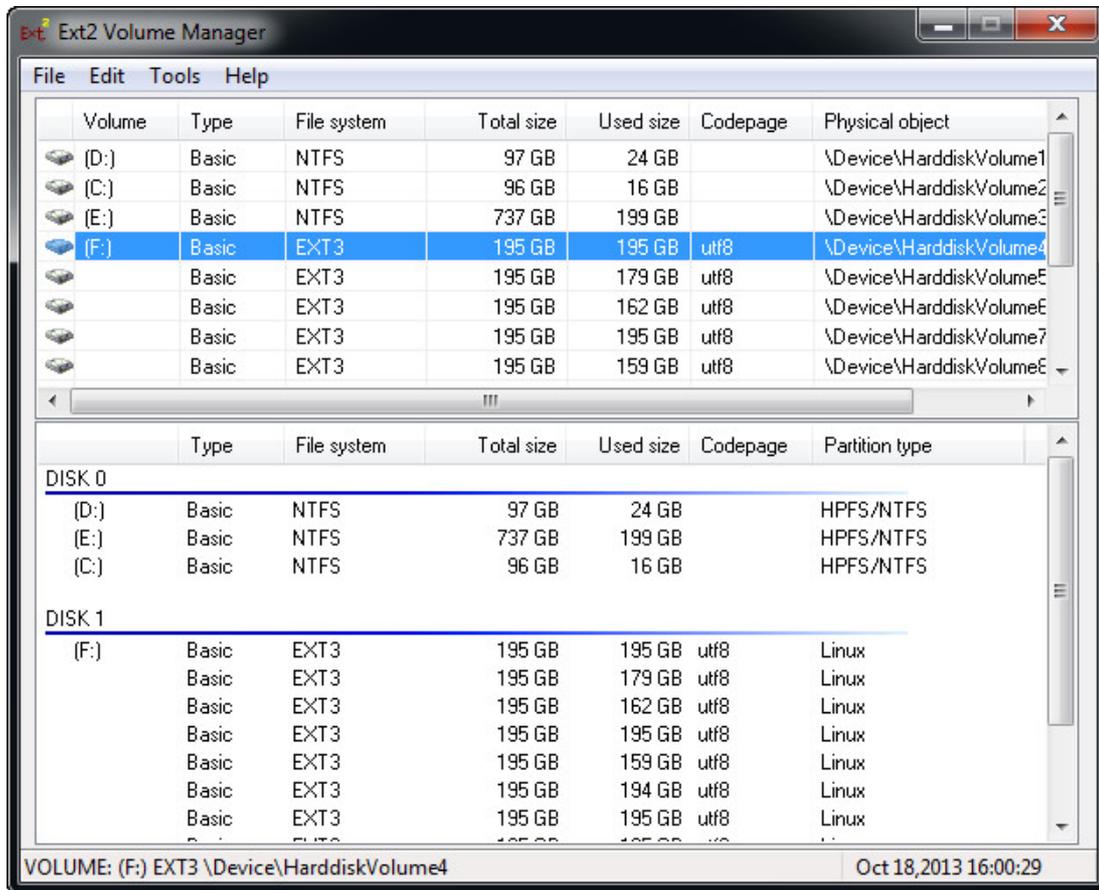


Figure 6-5

5. Access the recording files from the specified drive of your computer.

6.2.2 Playback over Network (Remote ViewLog)

With the Remote ViewLog function, you can play back the files recorded at the camera over TCP/IP network.

Installing Remote ViewLog

For first-time users, install Remote ViewLog from the GeoVision Website. Once installed, you can access this option from the camera's Web interface.

1. Go to the Software Download and Upgrading page of GeoVision Website:
<http://www.geovision.com.tw/download/product/>.
2. Select **Supplemental Utilities** from the drop-down list, and click the **Download** icon



of **GV-Remote ViewLog**.

Type	Title	Ver.	Size	Download	Preview	Date
	GV-IP Device Utility	V8.7.1.0	26.9MB			2017-09-22
	GV-Remote ViewLog	V16.11.3.0	118MB			2017-10-24

Playing Back from Remote ViewLog

1. You must enable **ViewLog Server** on the camera's Web interface to allow remote access. See 4.3.7 *ViewLog Server*.
2. Run the **Remote ViewLog** program and select **Remote ViewLog Service**. A dialog box appears.
3. Type the camera's IP address, login ID and password. Keep the default port **5552** or modify it if necessary.

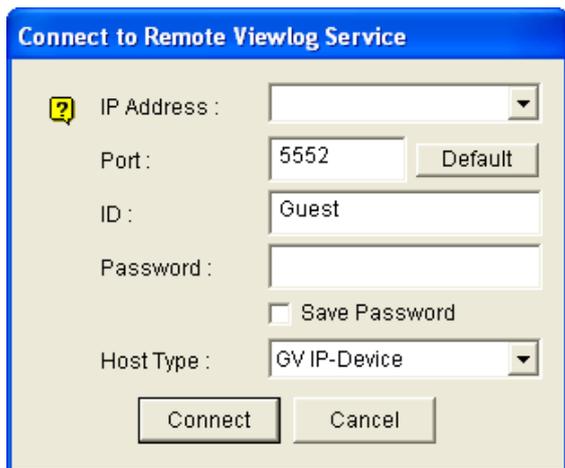


Figure 6-6

3. In the **Host Type** field, select **GV IP-Device**.
4. Click **Connect** to access the files of the camera for playback.

For events recorded during the daylight savings time (DST events), a separate DST subfolder will be displayed, as illustrated below.



Figure 6-7

Note: The AVI file recorded during the DST period is named with the prefix “GvDST”, e.g. GvDST20081022xxxxxxxxx.avi, to differentiate from the regular AVI file named with the prefix “Event”, e.g. Event20081022xxxxxxxxx.avi.

6.2.3 Access to the Recorded Files through FTP Server

The built-in FTP Server allows you to download the recorded files saved on the memory card. You can play back the downloaded files of AVI format with any multimedia player. For details to download files, see [Act as FTP Server], 4.3.2 *FTP*.

Note: To play back videos, ensure you have installed GeoVision codec on the computer. The codec is available on the GeoVision website. If you have installed the Remote Playback player on the computer, it is not required to install the codec.

Chapter 7 Advanced Applications

This chapter introduces advanced applications.

7.1 Upgrading System Firmware

GeoVision periodically releases the updated firmware on the website. The new firmware can be simply loaded into the camera using the Web interface or **GV-IP Device Utility**, available on GeoVision website: <http://www.geovision.com.tw/download/product/>.

Note: For the Panoramic PTZ cameras, you need to go through the firmware update process twice: Once for the fisheye camera and once for speed dome.

Important Notes before You Start

Before you start updating the firmware, read the important notes below:

1. If you use GV-IP Device Utility for firmware upgrade, the computer used to upgrade firmware must be under the same network as the camera.
2. Stop monitoring of the camera.
3. Stop all the connections to GeoVision software.
4. While the firmware is being updated,
 - A. the power supply must not be interrupted, and
 - B. do not unplug the Ethernet cable if the cable is the source of power supply (Power over Ethernet or PoE supported).

WARNING: The interruption of power supply during updating causes not only update failures but also damages to your camera. In this case, contact our sales representative and send your device back to GeoVision for repair.

5. Do not turn the power off within 10 minutes after the firmware is updated.
6. If firmware upgrade fails, you will need to restore the camera to the default settings. For details, see *7.3 Restoring to Factory Default Settings*.

7.1.1 Using the Web Interface

Log into the fisheye interface and follow the steps below to update the firmware. Next, log into the speed dome interface and repeat the procedure.

1. In the Live View window, click the **Show System Menu** button (No. 9, Figure 3-12) and select **Remote Config**. This dialog box appears.

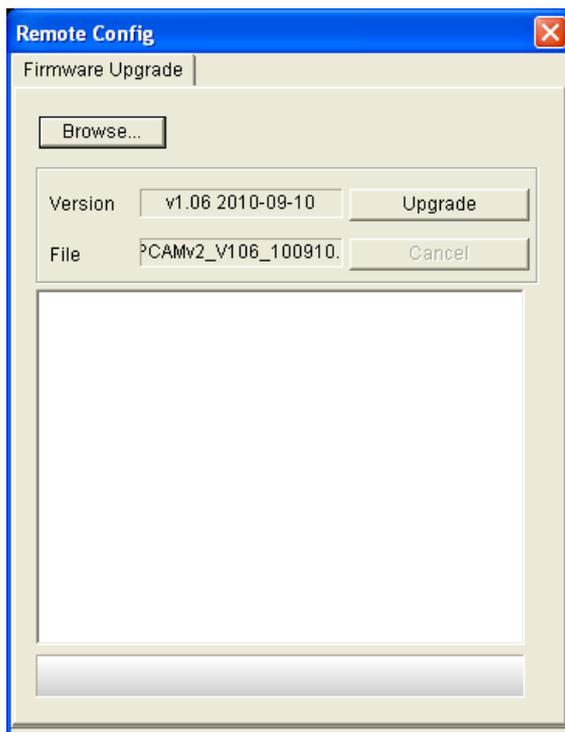


Figure 7-1

2. Click the **Browse** button to locate the firmware file (.img) saved at your local computer.
3. Click the **Upgrade** button to process the upgrade.

7.1.2 Using the GV-IP Device Utility

The GV-IP Device Utility provides a direct way to upgrade the firmware for multiple cameras. Note the computer used to upgrade firmware must be under the same network as the camera.

IMPORTANT: You need to go through the firmware update process twice: once for the fisheye camera and once for the speed dome.

1. Download and install the **GV-IP Device Utility** program from: <http://www.geovision.com.tw/download/product/>.
2. Double-click the **GV IP Device Utility** icon created on your desktop. This dialog box appears.

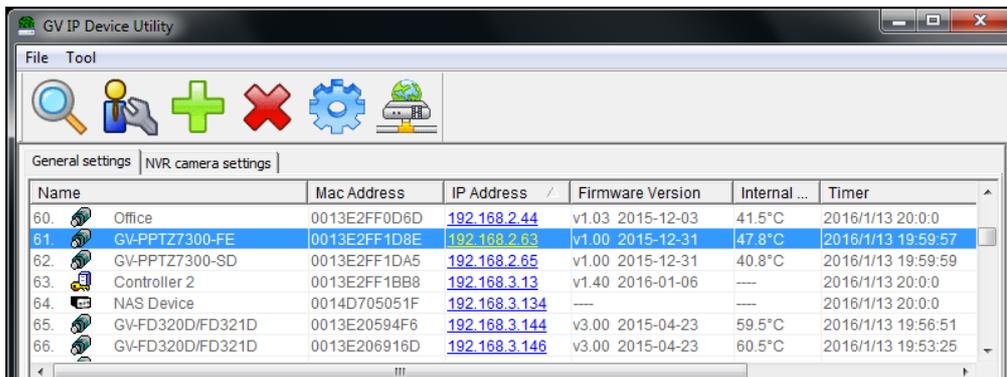


Figure 7-2

3. Double-click the fisheye camera in the list. This dialog box appears.

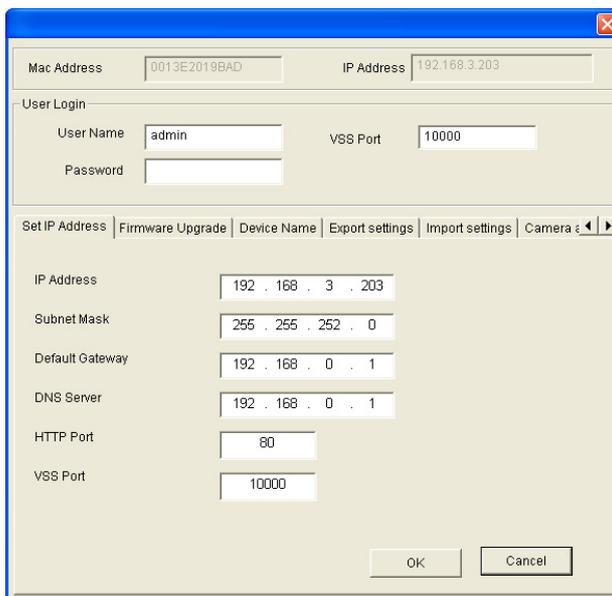


Figure 7-3

5. Click the **Firmware Upgrade** tab. This dialog box appears.

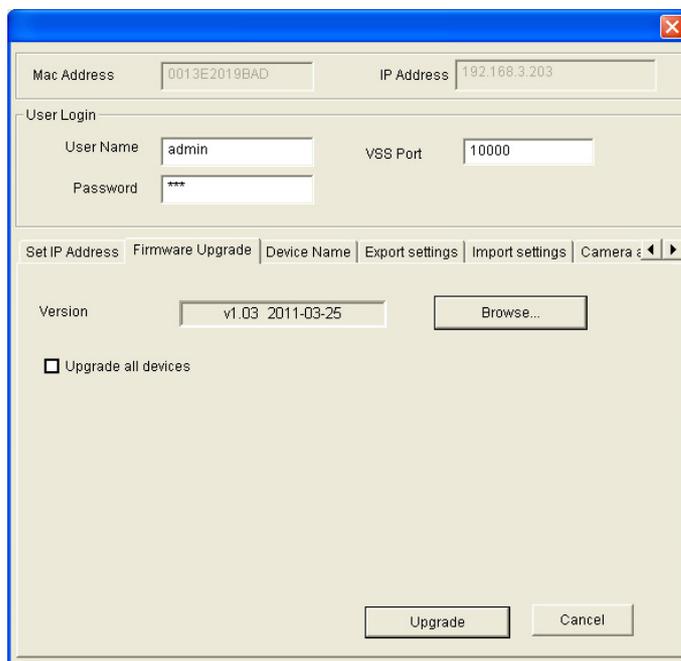


Figure 7-4

6. Click the **Browse** button to locate the firmware file (.img) saved at your local computer.
7. If you would like to upgrade all cameras of the same model in the list, check **Upgrade all devices**.
8. Type **Password**, and click **Upgrade** to process the upgrade.
9. Repeat the same procedure for the speed dome.

7.2 Backing Up and Restoring Settings

With the GV-IP Device Utility, you can back up the configurations in the camera, and restore the backup data to the current unit or import it to another unit.

7.2.1 Backing Up the Settings

1. Run **IP Device Utility** and locate the desired camera. See *Steps 1-3 in 7.1.2 Using the GV-IP Device Utility*.
2. Double-click the camera in the list.
3. Click the **Export Settings** button. This dialog box appears.

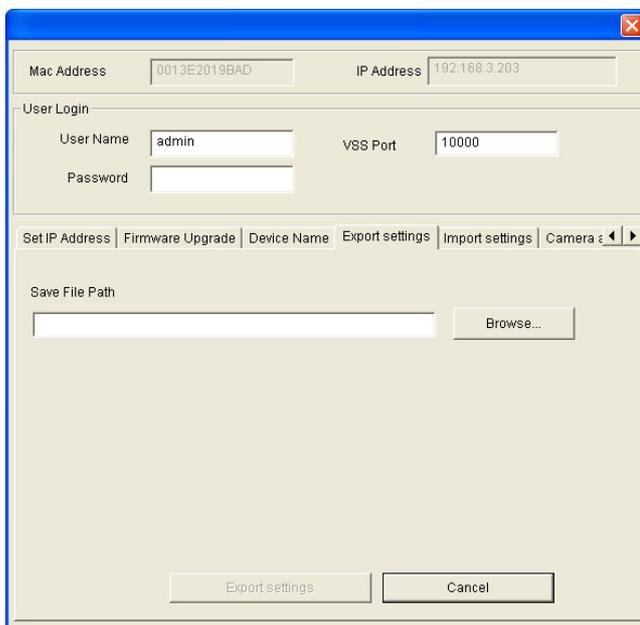


Figure 7-5

4. Click the **Browse** button to assign a file path.
5. Type **Password**, and click **Export Settings** to save the backup file.

7.2.2 Restoring the Settings

1. In Figure 7-3, click the **Import Settings** tab. This dialog box appears.

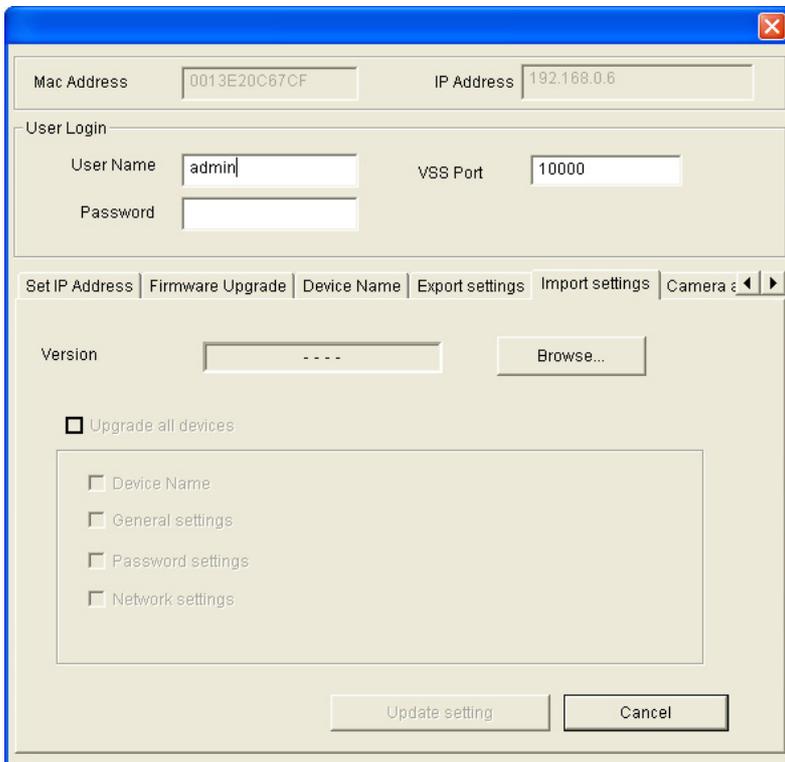


Figure 7-6

2. Click the **Browse** button to locate the backup file (.dat).
3. Select **Upgrade all devices** to apply the settings to all devices of the same model in the same LAN.
4. To import device name, password settings and/or network settings, select **Device Name**, **Password Settings** and/or **Network settings**.
5. Type the Password and click the **Update Settings** button to start restoring.

7.3 Restoring to Factory Default Settings

If for any reason the camera is not responding correctly, you can reset it to its factory default setting by using the camera's Web interface or by operating directly on the camera.

7.3.1 Using the Web Interface

To restore to default settings using the Web interface:

1. In the left menu, select **Management** and select **Tools**.
2. Under the **System Settings** section, click the **Load Default – Restore to factory default settings** button.



Figure 7-7

3. To restore factory default settings without changing the camera's network settings, click the **Load Default – Restore to factory default settings (Except network)** button.

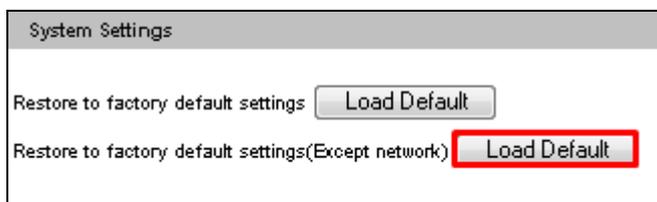


Figure 7-8

Note:

1. Clicking the **Load Default** button on either the fisheye or speed dome interface will cause the entire camera to return to the factory setting.
 2. To restore PTZ settings to factory default settings, see [5.13 System Configuration](#).
-

7.3.2 Directly on the Camera

1. Use the supplied torx wrench to unscrew and remove the camera cover.
2. Hold down the **Load Default** button.



Figure 7-9

3. Release the default button when the status LED blinks.
4. When the status LED fades, the process of loading default settings is completed and the camera reboots automatically.

7.4 Changing Password

You can change the login password of your GV-IP Camera using GV-IP Device Utility.

1. Make sure you have installed and executed GV-IP Device Utility. For details, see *steps 1 to 3 in 7.1.2 Using the GV-IP Device Utility*. This dialog box appears.

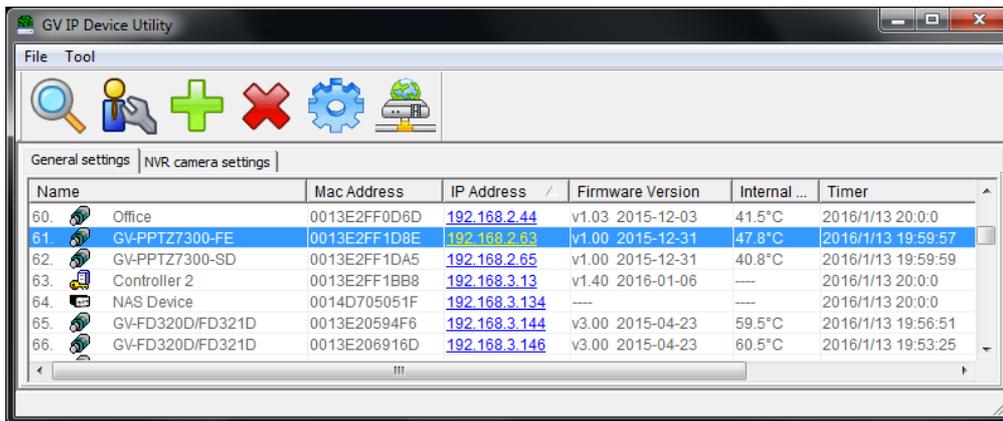


Figure 7-10

2. Double-click the camera in the list. This window appears.

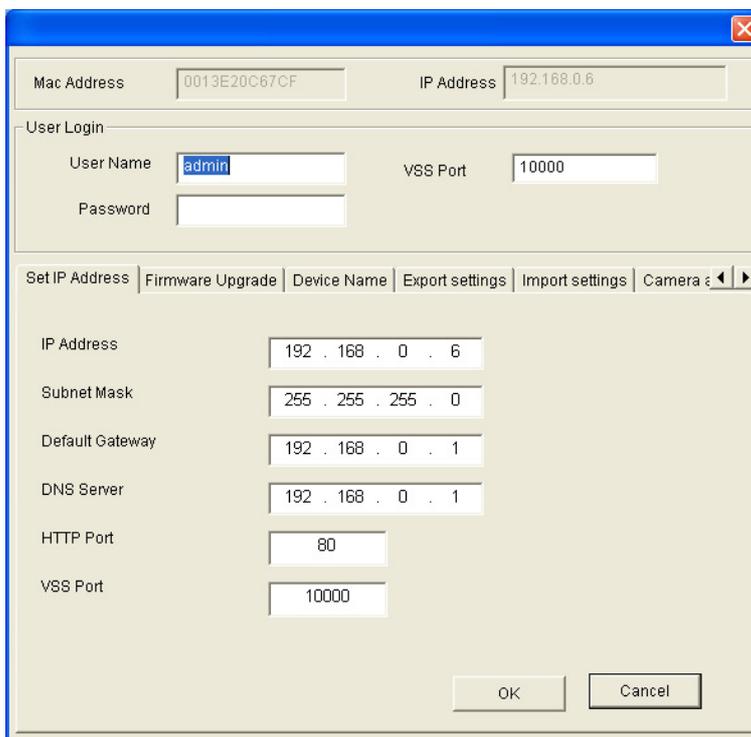


Figure 7-11

3. Type Password, click , select **Other Settings** and then select **Change Password**. This dialog box appears.

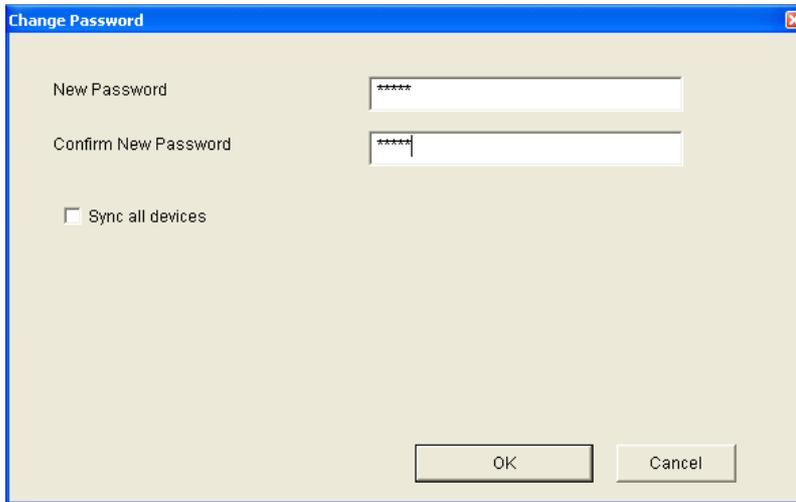


Figure 7-12

4. Type the new password in both fields. To change devices of the same type to the same password, select **Sync all devices**.
5. Click **OK** to apply the change.

7.5 Verifying Watermark

The watermark is an encrypted and digital signature embedded in the video stream during the compression stage, protecting the video from the moment of its creation. Watermarking ensures that an image is not edited or damaged after it is recorded. To enable the watermark function, see [Watermark], 4.1.1 *Video Settings*.

The **Watermark Proof** is a watermark-checking program. It can verify the authenticity of the recording before you present it in court.

7.5.1 Accessing AVI Files

To verify watermark, first you have to access the recorded AVI files by one of these methods:

1. Use the **File Save** function on the Live View window (Figure 3-3) to start recording on the local computer.
2. Use the **Act as FTP Server** function to download AVI files from the camera. See 4.3.2 *FTP*.
3. Use the files recorded on the memory card. Since the files saved on the memory card are of Linux file system, remember to download the **Ext2fsd** program from GeoVision website: <http://www.geovision.com.tw/download/product/> to convert the Linux-based files to Windows-based files. For the instructions, see *Steps 1 to 2 in 6.2.1 Playback Using the Memory Card*.

7.5.2 Running Watermark Proof

1. Download and install **Watermark Proof** from GeoVision website: <http://www.geovision.com.tw/download/product/>. After installation, a **WMProof** icon is created on your desktop.
2. Double-click the created icon. The Water Mark Proof window appears.
3. Click **File** from the menu bar, select **Open** and locate the recording (.avi). The selected recording is then listed on the window. Alternatively, you can drag the recording directly from the storage folder to the window.
4. If the recording is unmodified, a check will appear in the **Pass** column. On the contrary, if the recording is modified or does not contain watermark during recording, a check mark will appear in the **Failed** column. To review the recording, double-click the listed file on the window.

7.5.3 The Watermark Proof Window

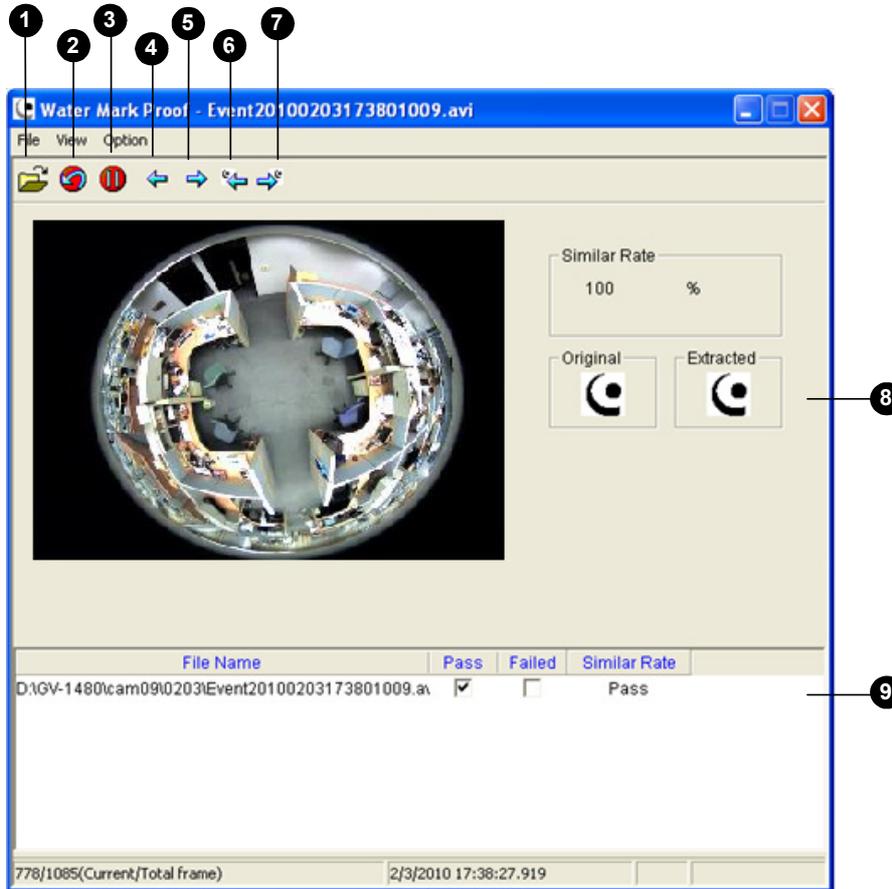


Figure 7-13

The controls in the window:

No.	Name	Description
1	Open File	Opens the recorded file.
2	First Frame	Goes to the first frame of the file.
3	Play	Plays the file.
4	Previous Frame	Goes to the previous frame of the file.
5	Next Frame	Goes to the next frame of the file.
6	Previous Watermarked Frame	Goes to the previous frame that contains watermark.
7	Next Watermarked Frame	Goes to the next frame that contains watermark.
8	Original vs. Extracted	The Extracted icon should be identical to the Original icon. If not, it indicates the recording has been tampered with.
9	File List	Displays the proof results.

7.6 Downloading Videos from the Micro SD Card

When connections of GV-IP Cameras to the GV-VMS are lost, recordings are automatically saved to the memory cards inserted in the GV-IP Cameras. To automatically synchronize and download recordings from the micro SD cards to a local folder, install and execute the **GV-SDCardSync Utility** program.

7.6.1 Installing the GV-SDCardSync Utility

1. Download the **GV-SD Card Sync Utility** program from <http://www.geovision.com.tw/download/product/GV-VMS>

Note: The GV-SD Card Sync Utility must be installed on the computer installed with GV-VMS V15.10.1.0 with patch files or later.

2. Execute the **GV-SDCardSync Utility** program. The main window and the Setting window appear. The Setting window pops up automatically upon first execution. Otherwise, click the **Setting** button .

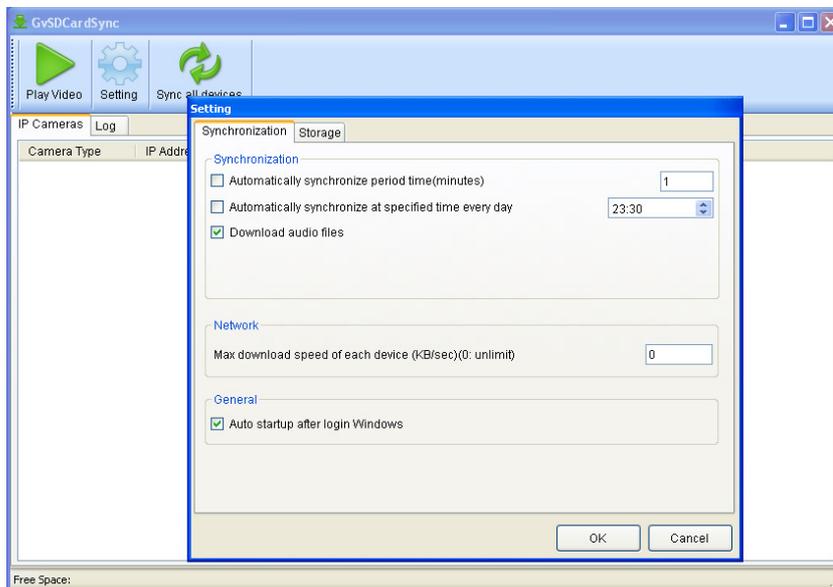


Figure 7-14

3. To configure synchronization, network and startup settings, see the steps below.

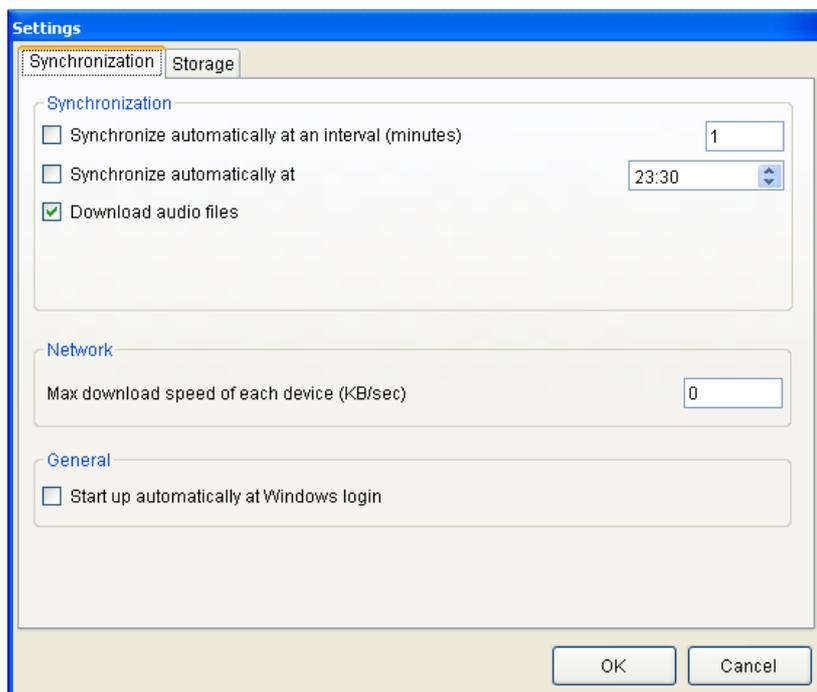


Figure 7-15

[Synchronization]

- **Synchronize automatically at an interval:** Automatically synchronize videos from micro SD cards to a local folder at the specified interval.
- **Synchronize automatically at:** Automatically synchronize videos from micro SD cards to a local folder at the specified time.
- **Download Audio Files:** You may choose to download audio files along with the video files. This option is enabled by default.

[Network]

- **Max. download speed of each device (Kb/sec):** To make sure the bandwidth is not completely taken up while downloading files from the memory card, specify a maximum download speed. If you do not want to set a bandwidth limit, type **0**.

[General]

- **Start up automatically at Windows login:** GV-SDCardSync Utility launches automatically when Windows starts up.

- By default, downloads are saved to **:\GvSDCardSync** and are not recycled automatically. To configure the storage and recycling settings, select the **Storage** tab on the Setting window. This page appears.

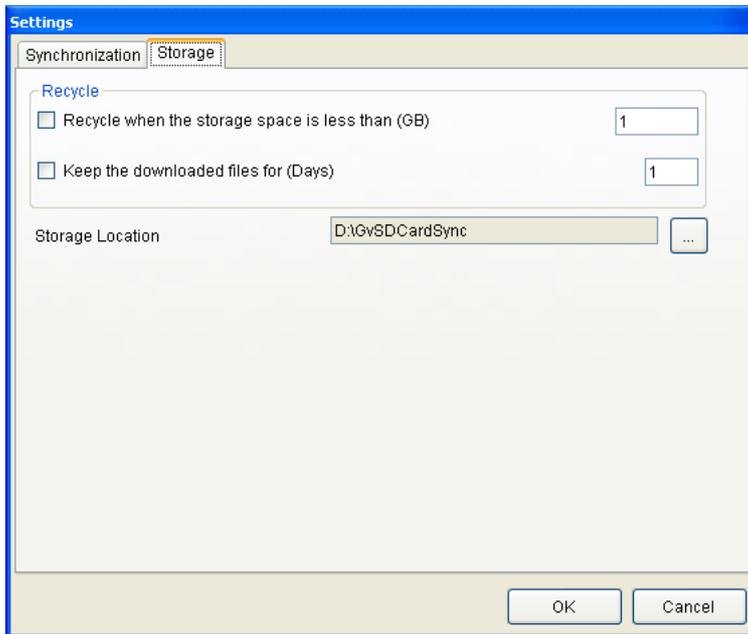


Figure 7-16

[Recycle]

- **Recycle when the storage space is less than (GB):** Specify a minimum free space of your local storage for file recycling.
- **Keep the downloaded files for (Days):** Specify the number of days to keep the download files at the local hard drive.

[Storage Location]

To configure the storage path, click the button next to the location field and specify a storage location.

- Click **OK** to save the configuration or exit the Setting window.

Note: Keep the GV-SDCardSync Utility running in the background to automatically synchronize and download videos.

7.6.2 The GV-SDCardSync Utility Window

After you have installed the GV-SDCardSync Utility, point to **Start**, select **Programs**, select **GV-SDCardSync** and select  to launch the program. This window appears.

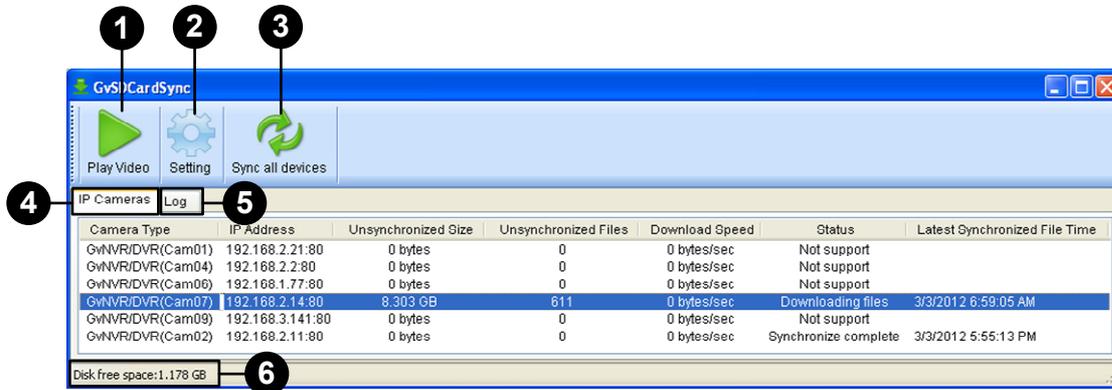


Figure 7-17

No.	Name	Description
1	Play Video	Plays downloaded recordings of the selected GV-IP Cameras using the ViewLog player. For details, see <i>Chapter 4, VMS User's Manual</i> .
2	Setting	Contains settings on synchronization, network, storage location and recycling criteria. See <i>step 4 in 7.6.1 Installing the GV-SDCardSync Utility</i> .
3	Sync all devices	Manually synchronizes and downloads the recording files stored at GV-IP Cameras.
4	IP Camera Tab	Shows information of GV-IP Cameras connected to the GV-VMS, including channel number, IP address, size and number of unsynchronized files, download speed, status and the last synchronization time.
5	Log Tab	Displays up to 100 event entries of the GV-SDCardSync Utility. Once the entries are full, recycling will start from the oldest file.
6	Storage Space	Shows the storage space of the designated hard drive.

Note:

1. The synchronization time is recorded according to the system time of the GV-IP Camera.
2. The logs are deleted once the GV-SDCardSync Utility is re-activated.

Chapter 8 VMS Configurations

The GV-VMS provides a full range of video management functions and features, such as video viewing, recording, playback, alert settings, and more. The integration specifications are listed below:

Note:

1. **GV-PPTZ7300** is only compatible with GV-VMS V15.10.1.0 with patches or later
 2. **GV-PPTZ14021 / PPTZ14031** is only compatible with GV-VMS V16.11.0.0 or later.
-

- The maximum number of streams supported by GV-PPTZ camera is 8.
- When accessing the fisheye interface, it will take up 1 GV-PPTZ – FE stream. When accessing the speed dome interface, it will take up 1 GV-PPTZ – SD stream. When accessing the combined Web interface of GV-PPTZ camera, it will take up 1 stream each for GV-PPTZ – FE and GV-PPTZ – SD.

- Under the default dual-stream settings, when GV-VMS connects to a GV-Panoramic PTZ camera, it will take up 2 fisheye streams and 2 speed dome streams.

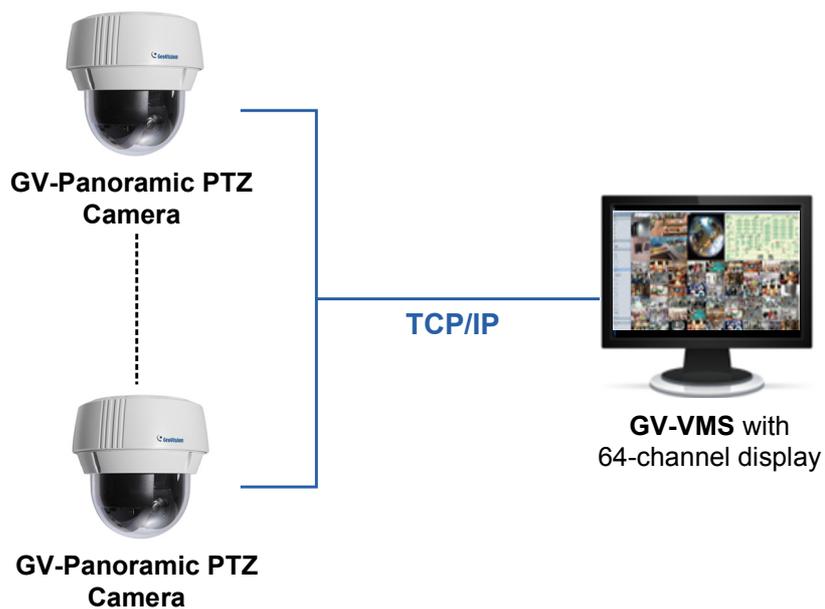


Figure 8-1

8.1 Setting Up IP Cameras on GV-VMS

Follow the steps below to manually connect your camera to GV-VMS.

1. To access the IP Device Setup page, click **Home** , select **Toolbar** , click **Configure**  and select **Camera Install**.

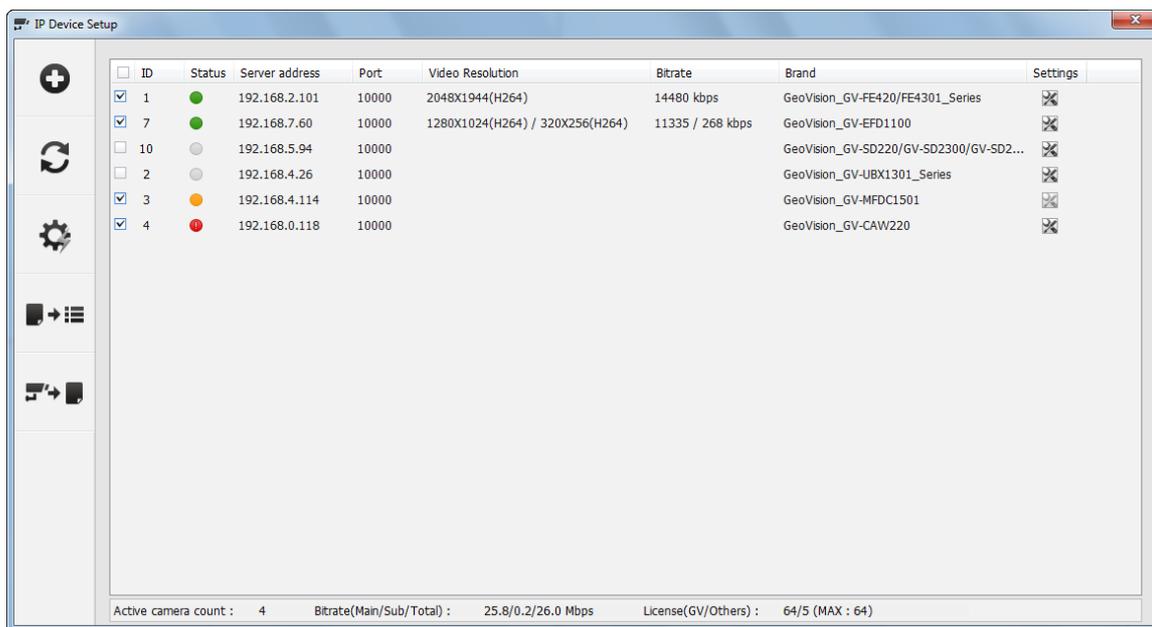


Figure 8-2

2. Click **Add Camera** . This dialog box appears.

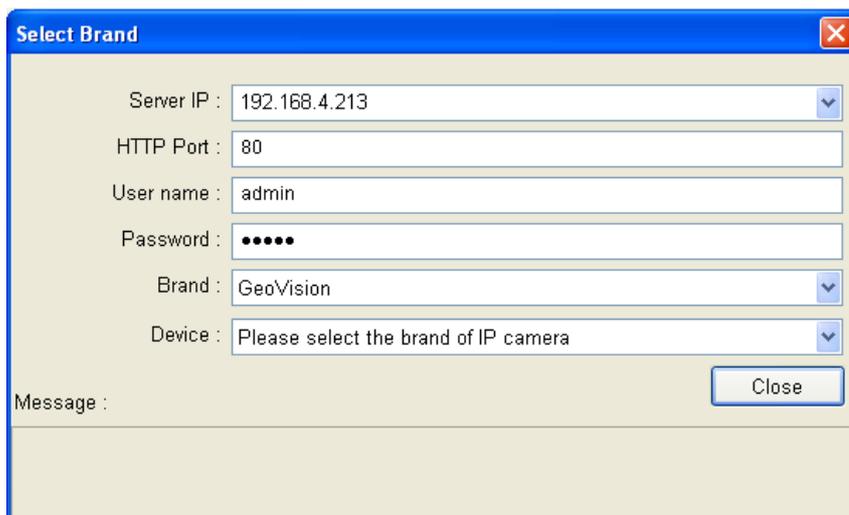


Figure 8-3

3. Type the IP address, username and password of the camera. Modify the default HTTP port **80** if necessary.

- Select **GeoVision** and the model name of GV-PPTZ cameras from the **Brand** drop-down list and select the camera from the **Device** drop-down lists. This dialog box appears.

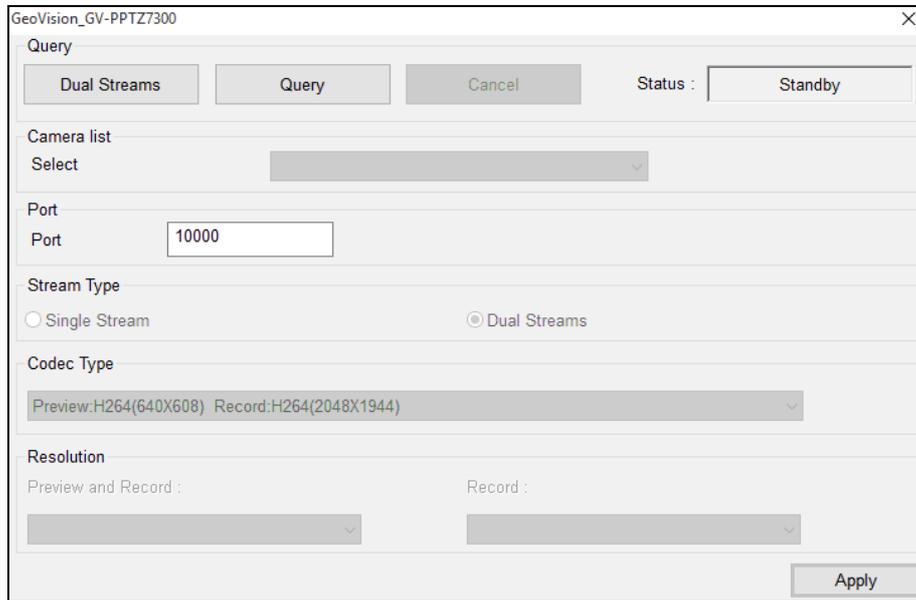


Figure 8-4

- In the dialog box, the following options are available.
 - **Dual Streams:** The camera is set to dual streams by default. Select this option to apply the dual-streaming settings (lower resolution for live view and higher resolution for recording).
 - **Query:** Detect and apply the current codec and resolution setting on the camera.
 - **Port:** Modify the video streaming port number if necessary.
 - **Stream Type:** You can set the camera to **Single Stream** or **Dual Streams**.
- Click **Apply** to add the camera to the list.
- To connect the added camera, click the box next to the **ID** column. You can click the box of either the GV-PPTZ camera or the GV-PPTZ – SD, and the other camera will automatically be selected as well. Upon successful connection, the **Status** icon turns green with the video resolution and bitrate displayed in the corresponding columns.

<input checked="" type="checkbox"/>	ID	Status	Server address	Port	Video Resolution	Bitrate	Brand
<input checked="" type="checkbox"/>	1		192.168.0.3	10000	2048X1944(H264) / 640X608(H264)	3600 / 291 kbps	GeoVision_GV-PPTZ7300
<input checked="" type="checkbox"/>	2		192.168.0.13	10000	1280X720(H264) / 448X252(H264)	962 / 215 kbps	GeoVision_GV-PPTZ7300_SD
<input checked="" type="checkbox"/>	3		192.168.7.68	10000	1920X1080(H264) / 448X256(H264)	1062 / 142 kbps	GeoVision_GV-SD2411
<input checked="" type="checkbox"/>	4		192.168.7.51	10000	1920X1080(H264) / 448X252(H264)	3202 / 94 kbps	GeoVision_GV-SD220/GV-SD230

Figure 8-5

8.2 Accessing the Live View

After the camera is added, you can access the live view by dragging the camera in the Content List to the live view grid on GV-VMS. Four view modes are available.

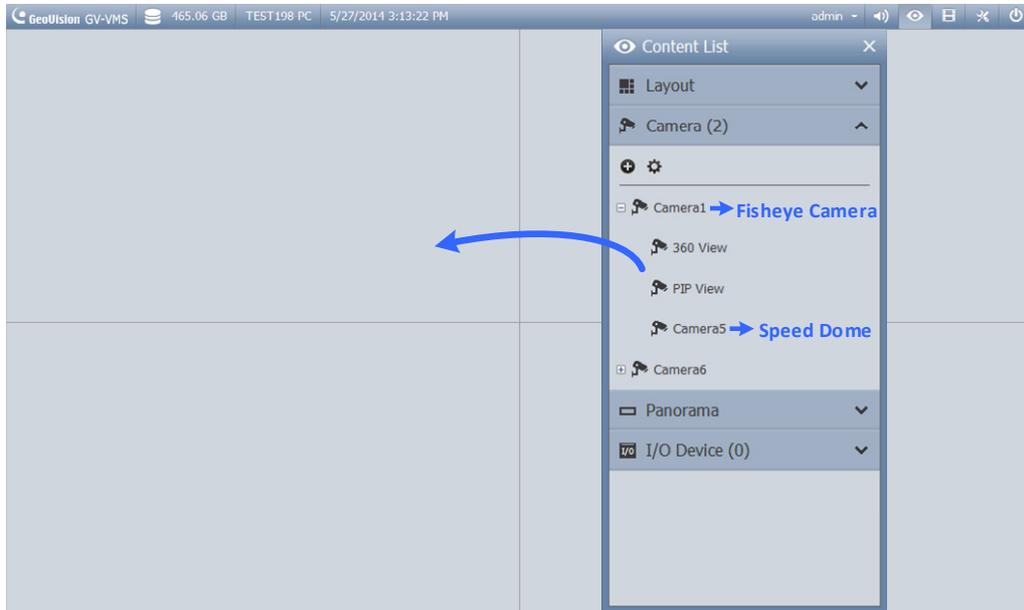


Figure 8-6

- **Camera # (GV-PPTZ – FE):** The circular fisheye view is displayed.



Figure 8-7

- **360 View:** The circular fisheye view is dewarped into a 360° panorama view.



Figure 8-8

- **PIP View:** The fisheye view appears as an inset window inside the speed dome view.



Figure 8-9

- **Camera # (GV-PPTZ – SD):** You can click the **Tools** button  on the speed dome live view and select **PTZ Control** to access the PTZ control panel.



Figure 8-10

Tip: You can click on the fisheye live view, and the speed dome will point toward the selected location. You can also click the  button, and then drag a box on the live view. The speed dome will zoom in on the area you dragged.

8.2.1 Adjusting the Image Alignment

When you click on the fisheye view under 360 View and PIP View, the speed dome should point toward the selected location. If the center of the speed dome view does not match the selected location, follow the steps below to adjust the image alignment of Panoramic PTZ camera.

1. Right-click the panoramic PTZ camera in the Content List and select **PPTZ Setup**.

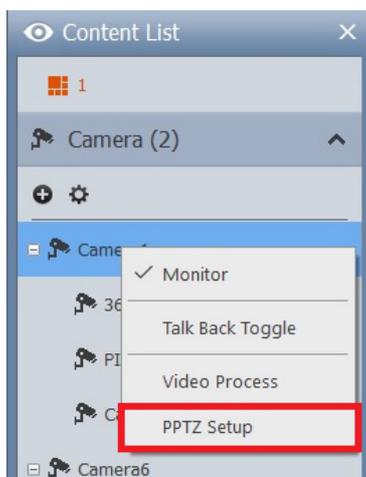


Figure 8-11

2. Right-click the fisheye image, select **Fisheye Option**, and select **PPTZ Alignment**.

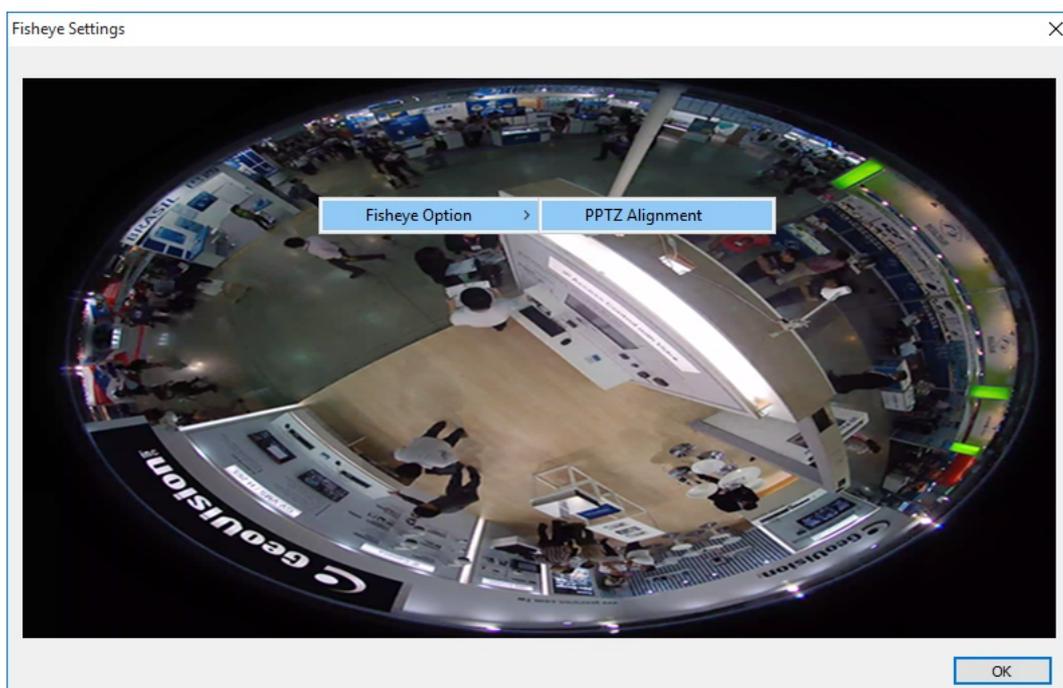


Figure 8-12

- Click on a spot in the fisheye view again, and use the arrow buttons to match the red plus sign in the center of the speed dome view with the selected spot in fisheye view.

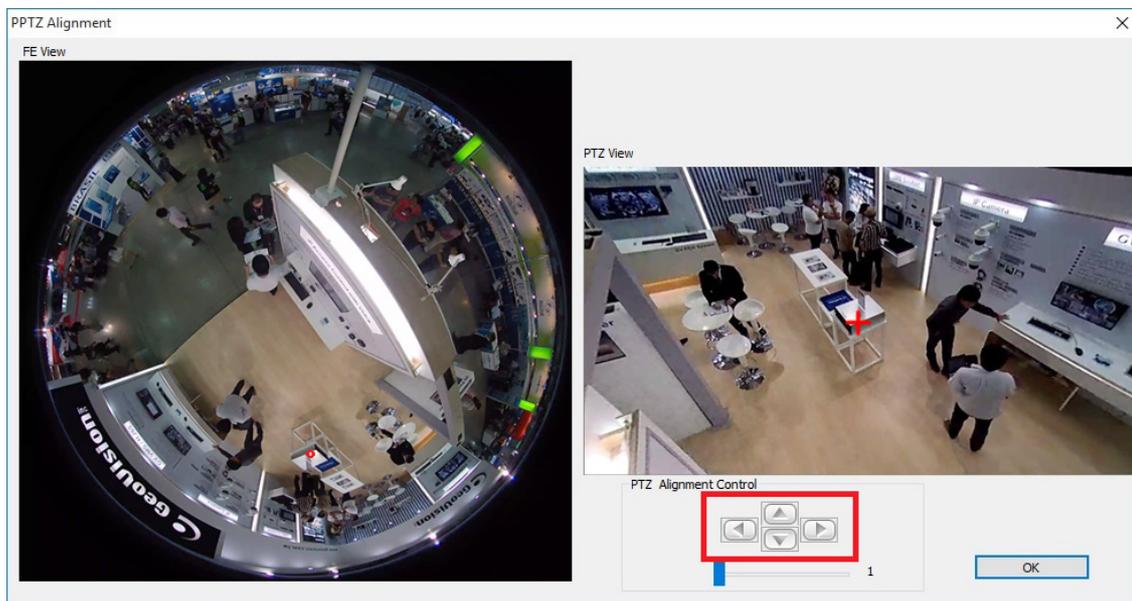


Figure 8-13

- You can use the slider to adjust the amount of distance the speed dome view moves when you click on the direction arrows.

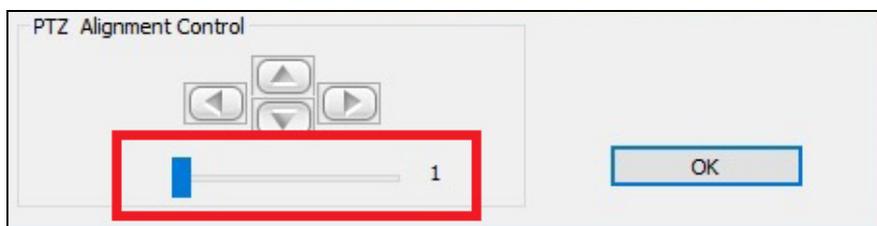


Figure 8-14

- Click **OK** to apply.

8.3 Remote Monitoring with E-Map

You can use the Remote E-Map to monitor and manage the camera.

8.3.1 Creating an E-Map for the IP Camera

With the E-Map Editor, you can create an E-Map for the camera. The E-Map Editor is available in two applications: Main System and E-Map Server. The following is an example of running the E-Map Editor included in the Main System.

1. Go to Windows **Start** menu, point to **Programs**, select **GV folder** and click **E-Map Editor**.
2. To create an E-Map, click the **Add Map** button on the toolbar. A New Map file appears.
3. Double-click the New Map file, and click the **Load Map** button on the toolbar to import a graphic file.
4. To create a host, click the **Add Host** button on the toolbar and select **Add Camera**.
5. Right-click the created New Host in the Host View, and select **Host Settings**. This dialog box appears.

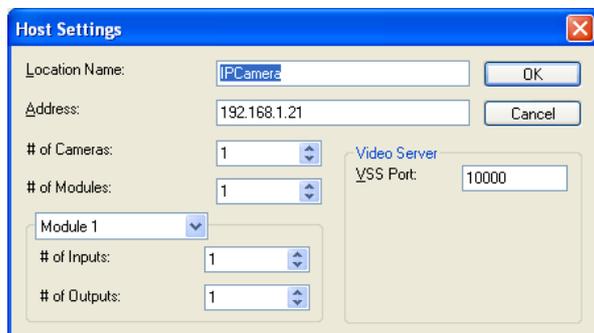


Figure 8-15

6. Give the camera a location name, and type its IP address (or domain name). Modify the default VSS port **10000** if necessary.
7. Click **OK** to save the settings.
8. Expand the created host folder. Drag and drop the icons of cameras and I/O devices onto the imported E-Map.
9. Close the E-Map Editor. Click **Yes** when you are prompted to save the file.

For details on creating an E-Map file on the E-Map Server, see “E-Map Server”, *E-Map Application, GV-VMS User’s Manual*.

8.3.2 Connecting to the IP Camera

Depending on where you save the created E-Map file (GV-VMS, E-Map Server or Control Center), the steps to open the Remote E-Map window for monitoring may vary slightly. The following is a connection example when the E-Map file is stored on GV-VMS.

1. To enable the remote access to the GV-VMS, click **Home** , click **Toolbar** , click **Network** , and select **WebCam Server** to display the Server Setup dialog box, and click **OK** to start the WebCam server.
2. At the local computer, open the web browser and type the address of the GV-VMS. The Single View page appears.
3. Select **Emap**. A valid user name and password are required for login. For first-time users, you will be directed to the Download page. Install the E-Map program before you can run it.
4. On the Remote E-Map window, click the **Login** button and select the camera host to access its videos and I/O devices. A valid user name and password are required to log in the camera.

For details on the Remote E-Map functions, see “The Remote E-Map Window”, *E-Map Application, GV-VMS User’s Manual*.

Chapter 9 CMS Configurations

This chapter introduces settings on connecting the camera in the central monitoring stations Center V2, Vital Sign Monitor and Dispatch Server.

Note:

1. **GV-PPTZ7300** is only compatible with Center V2, Vital Sign Monitor and Dispatch Server V15.10 or later.
 2. **GV-PPTZ14021 / PPTZ14031** is only compatible with Center V2, Vital Sign Monitor V16.11 or later.
-

9.1 Center V2

The Center V2 can monitor and manage the camera and I/O devices connected to the camera.

Note: Center V2, Vital Sign Monitor and Dispatch Server do not support **Integrated Live View**. You need to connect fisheye camera and speed dome separately to these central monitoring software. Access both fisheye and speed dome interfaces to complete related connection settings.

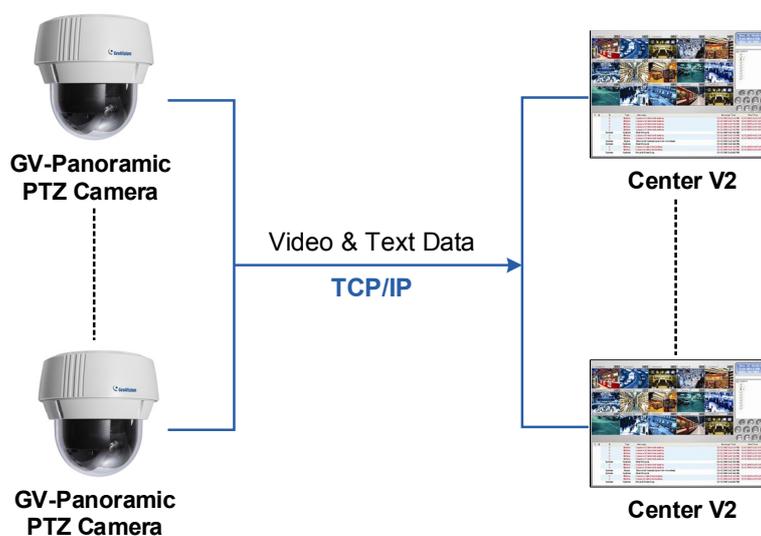


Figure 9-1

- To set the appropriate port connecting to the IP camera, click the **Preference Settings** button, select **System Configure**, click the **Network** tab, and check **Accept connections from GV-Compact DVR, Video Server & IP Cam**. Keep the default port 5551 for the Port 2 option, or modify it to match the Center V2 port on the camera.

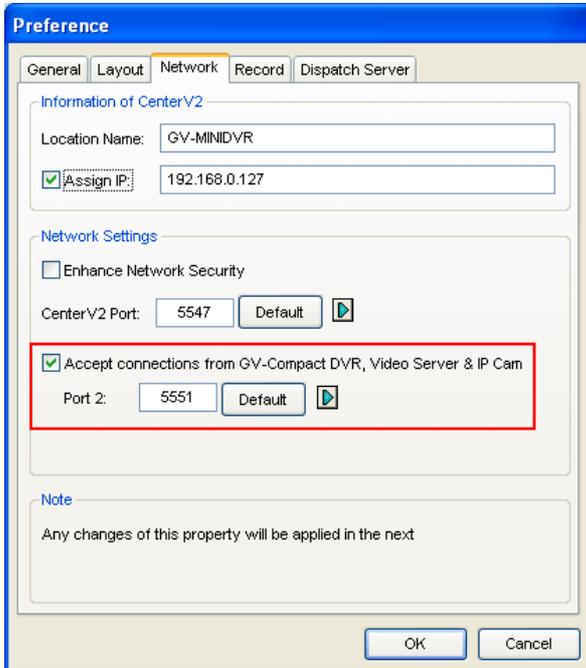


Figure 9-2

- To define how to display the received video on motion detection and input trigger from the camera, click the **Preference Setting** button and select **System Configure**. This dialog box appears.

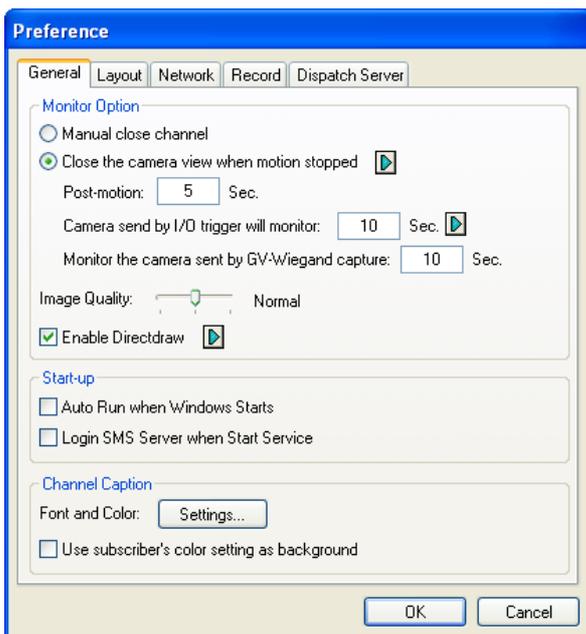


Figure 9-3

- **Manual close channel:** Closes the triggered camera view manually.
- **Close the camera view when motion stopped:** Closes the triggered camera view automatically when motion stops.
- **Post Motion:** Specify the duration of the camera view remaining on the monitoring window after motion stops.
- **Camera send by I/O trigger will monitor:** Specify the duration of the camera view remaining on the monitoring window when an I/O device is triggered.

To keep the camera view remaining on the monitoring window even after the alarm is finished, click the right-arrow button, and uncheck **Latch Trigger**. Then the camera view will keep remaining on the monitoring window for the specified time. For example, the alarm is triggered for 5 minutes and you set 10 minutes, which means the total display time will be 15 minutes.

For further information on how to manage the video received from the camera, see *GV-CMS Series User's manual*.

9.2 Vital Sign Monitor

The Vital Sign Monitor can monitor and manage the camera and I/O devices connected to the camera.

Note: Center V2, Vital Sign Monitor and Dispatch Server do not support **Integrated Live View**. You need to connect fisheye camera and speed dome separately to these central monitoring software. Access both fisheye and speed dome interfaces to complete related connection settings.

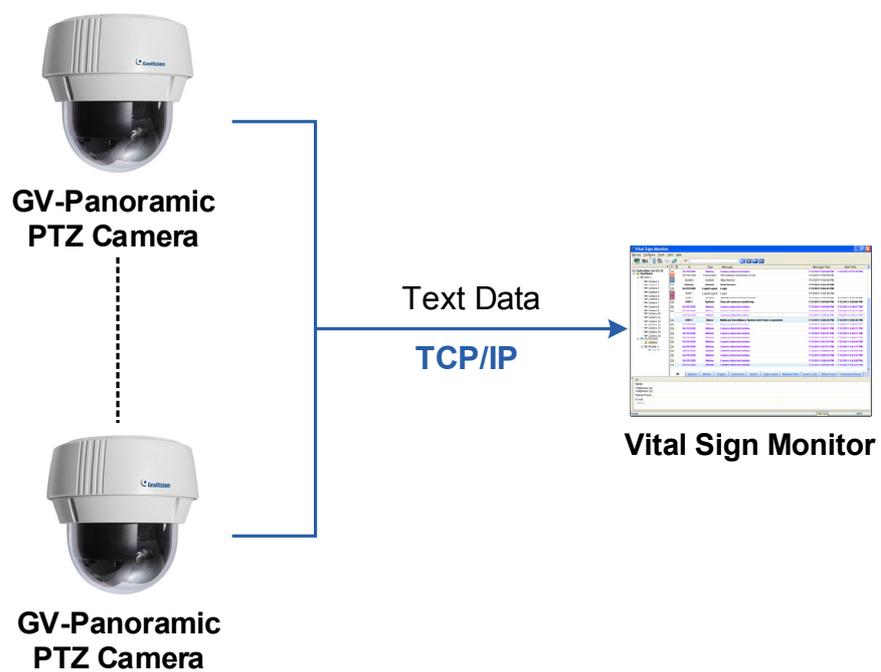


Figure 9-4

To set the appropriate port connecting to the camera, click **Configure** on the window menu, and select **System Configure** to display this dialog box. In the **Connective Port** field, keep the default value **5609** for the Port 2 option, or modify it to match the Vital Sign Monitor port on the camera.

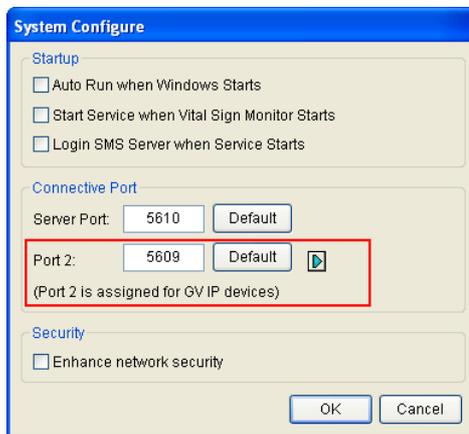


Figure 9-5

For further information on how to manage the video received from the camera, see *GV-CMS Series User's manual*.

9.3 Dispatch Server

The Dispatch Server can manage the camera and I/O devices connected to the camera, and distribute them to the Center V2. Note this function is only supported by **GV-PPTZ7300**.

Note: Center V2, Vital Sign Monitor and Dispatch Server do not support **Integrated Live View**. You need to connect fisheye camera and speed dome separately to these central monitoring software. Access both fisheye and speed dome interfaces to complete related connection settings.

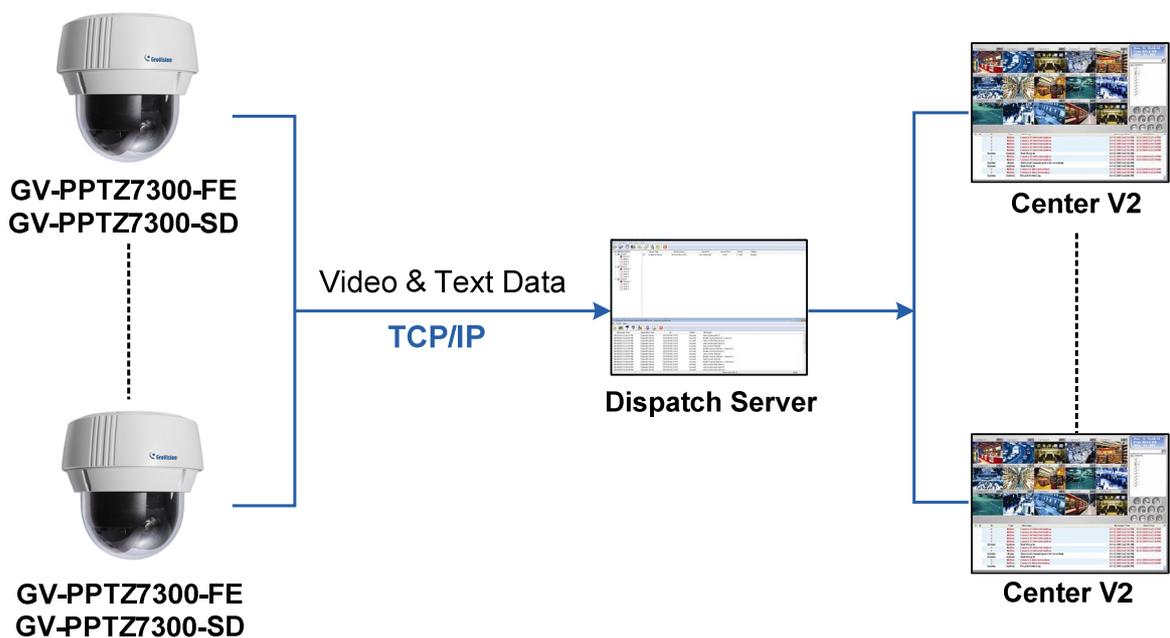


Figure 9-6

To enable connecting to the camera, click the **Setting** button on the toolbar, and select **Allow GV IP devices to login as subscriber from port**. Keep the default port **5551**, or modify it to match the Center V2 port on the camera.

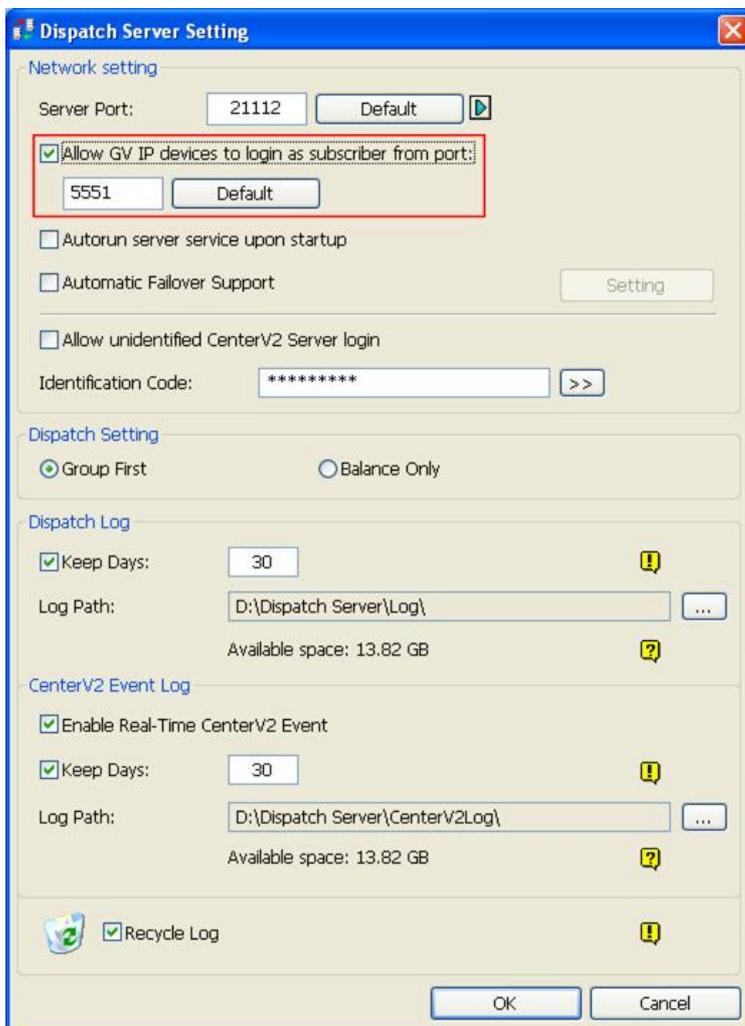


Figure 9-7

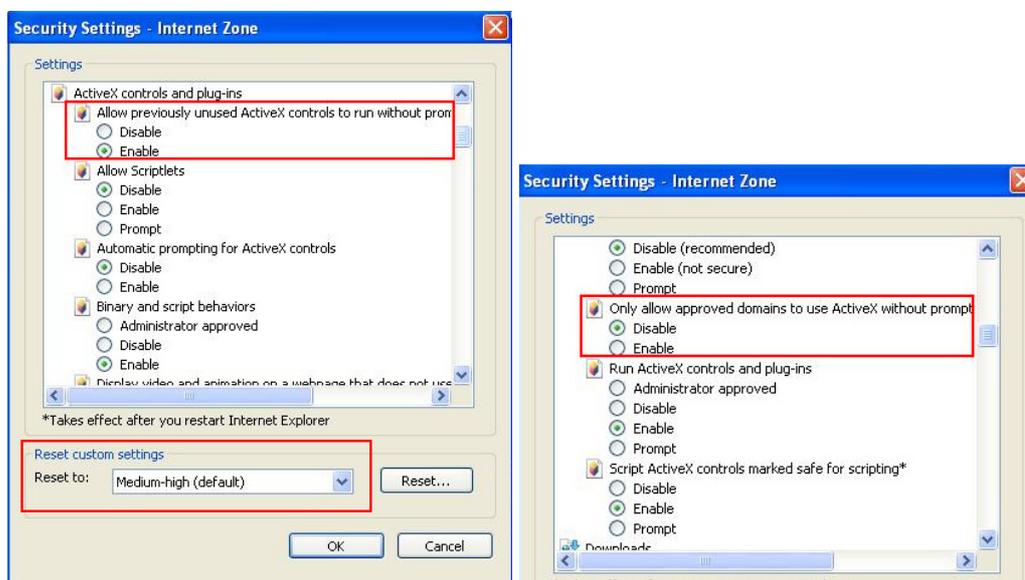
For further information on how to manage the video received from the camera, see *GV-CMS Series User's manual*.

Appendix

A. Settings for Internet Explore 8 or later

If you use Internet Explorer 8 or later, it is required to complete the following setting.

1. Set the Security to **Medium-high (default)**.
2. Enable **Allow previously unused ActiveX controls to run without prompt**.
3. Disable **Only allow approved domains to use ActiveX without prompt**.



B. RTSP Protocol Support

The fisheye camera can support RTSP protocol for both video and audio streaming.

If you are using Quick Time player, use the following RTSP command:

```
rtsp://<IP of the fisheye camera>:8554/<CH No.>.sdp
```

For example, `rtsp://192.168.3.111:8554/CH001.sdp`

If you are using VLC player, use the following RTSP command:

```
rtsp://<ID>:<Password>@<IP of the camera>:8554/<CH No.>.sdp
```

For example, `rtsp://admin:admin@192.168.3.111:8554/CH001.sdp`

If you use the VLC, and if authentication is *not* required, enter:

```
rtsp://@<IP of the GV-IPCAM H.264>:8554/<CH No.>.sdp
```

For example, `rtsp://@192.168.3.111:8554/CH001.sdp`

Note:

1. RTSP streaming is supported over HTTP, UDP and TCP.
 2. The video streaming through RTSP protocol can only be displayed in circular source images.
 3. The RTSP protocol must be enabled on the Web interface. See [4.3.8 RTSP](#).
 4. Only VLC and QuickTime players are supported for streaming video via RTSP protocol.
-

C. The CGI Command

You can use the CGI command to obtain a snapshot of the live view without logging in the Web interface. For a camera with the following details:

IP address: 192.168.2.11

Username: admin

Password: admin

Desired stream: 1

Type the following into your web browser to **obtain a snapshot**:

<http://192.168.2.11/PictureCatch.cgi?username=admin&password=admin&channel=1>