

# GV-Edge Recording Manager

---

## *User's Manual*





© 2021 GeoVision, Inc. All rights reserved.

Under the copyright laws, this manual may not be copied, in whole or in part, without the written consent of GeoVision.

Every effort has been made to ensure that the information in this manual is accurate. GeoVision, Inc. makes no expressed or implied warranty of any kind and assumes no responsibility for errors or omissions. No liability is assumed for incidental or consequential damages arising from the use of the information or products contained herein. Features and specifications are subject to change without notice.

GeoVision, Inc.  
9F, No. 246, Sec. 1, Neihu Rd.,  
Neihu District, Taipei, Taiwan  
Tel: +886-2-8797-8377  
Fax: +886-2-8797-8335  
<http://www.geovision.com.tw>

Trademarks used in this manual: *GeoVision*, the *GeoVision* logo and *GV* series products are trademarks of GeoVision, Inc. *Windows* is the registered trademark of Microsoft Corporation.

October 2021

**Scan the following QR codes for product warranty and technical support policy:**



[Warranty]



[Technical Support Policy]

# Contents

<b>Preface</b> .....	<b>v</b>
<b>Important Notice</b> .....	<b>v</b>
<b>Naming and Definition</b> .....	<b>vi</b>
<b>Option</b> .....	<b>vi</b>
<b>Introduction</b> .....	<b>1</b>
Features.....	2
System Requirements .....	3
Supported GeoVision Products .....	4
GPU Decoding Specifications .....	5
<b>Windows Version</b> .....	<b>7</b>
<b>Chapter 1 Overview</b> .....	<b>8</b>
1.1 Main Window.....	8
1.2 The Toolbar .....	9
1.3 The Host List .....	10
1.4 The I/O List.....	11
<b>Chapter 2 Getting Started</b> .....	<b>12</b>
2.1 Installing the GV-Edge Recording Manager.....	12
2.2 Login Account Settings.....	12
2.3 Adding Hosts.....	13
2.3.1 Automatically Adding Multiple Hosts.....	13
2.3.2 Manually Adding a Host .....	16
2.3.3 Connecting to GV-DVR / NVR / VMS .....	17
2.3.4 Creating a Camera Group .....	19
<b>Chapter 3 Batch Management</b> .....	<b>20</b>
3.1 Configuring the IP Address.....	20

3.2 Renaming Devices .....	21
3.3 Synchronizing Host Time.....	21
3.4 Connecting to Hosts with Identical Credentials.....	22
3.5 Updating Host Information.....	22
3.6 Configuring NAS.....	23
3.6.1 Assigning NAS Storage for Recording.....	24
3.6.2 Changing the NAS Storage for Recording.....	26
3.6.3 Deleting the NAS Storage for Recording.....	26
3.6.4 Viewing Storage Information .....	26
<b>Chapter 4 Live View.....</b>	<b>27</b>
4.1 The Live View Window .....	27
4.2 Live View Layouts .....	29
4.2.1 Arranging Live View Layouts .....	29
4.2.2 Setting Focus View .....	30
4.2.3 Setting a Scan Window .....	31
4.3 Enabling Host Recording.....	33
4.4 Taking Snapshots.....	34
4.5 Fisheye View.....	35
4.5.1 Setting up Fisheye View.....	36
4.5.2 Object Tracking.....	38
4.5.3 Virtual PTZ Tour.....	40
4.6 Panoramic PTZ View.....	43
4.7 Adjusting Distorted Views.....	44
4.9 Enabling QView Display .....	45
<b>Chapter 5 Audio Communication.....</b>	<b>46</b>
<b>Chapter 6 Playback.....</b>	<b>47</b>
6.1 The Playback Window .....	47
<b>Chapter 7 System Configuration.....</b>	<b>53</b>
7.1 General Settings.....	53
7.2 Live View Settings .....	54
7.3 Exporting and Importing Settings.....	55

7.3.1 Exporting Settings .....	55
7.3.2 Importing Settings .....	55
<b>Chapter 8 Authentication Server .....</b>	<b>56</b>
<b>Appendix .....</b>	<b>58</b>
PTZ Control Using GV-Joystick .....	58
<b>Mac Version .....</b>	<b>59</b>
<b>Chapter 9 Overview .....</b>	<b>60</b>
9.1 Main Window .....	60
9.2 The Camera List .....	61
9.3 The Toolbar .....	62
<b>Chapter 10 Getting Started .....</b>	<b>63</b>
10.1 Installing the GV-Edge Recording Manager .....	63
10.2 Adding Hosts .....	64
10.2.1 Automatically Adding Hosts .....	64
10.2.2 Manually Adding a Host .....	67
<b>Chapter 11 Batch Management .....</b>	<b>69</b>
11.1 Configuring the IP Address .....	69
11.2 Renaming Devices .....	72
11.3 Viewing Storage Information .....	74
11.4 Assigning NAS Storage for Recording .....	76
<b>Chapter 12 Live View .....</b>	<b>80</b>
12.1 The Live View Window .....	80
12.2 Purchasing License .....	83
12.3 Enabling Host Recording .....	84
12.4 Taking Snapshots .....	86
12.5 Viewing Event List .....	87
12.6 Fisheye View .....	88
12.6.1 Setting Up the Fisheye View .....	89

<b>Chapter 13 Audio Communication</b> .....	<b>90</b>
<b>Chapter 14 Playback</b> .....	<b>91</b>
<b>Chapter 15 System Configuration</b> .....	<b>94</b>
15.1 General Settings.....	94
15.2 Live View Color Settings.....	96
15.3 Network Settings .....	97
15.4 Exporting and Importing Settings.....	98
15.4.1 Exporting Settings .....	98
15.4.2 Importing Settings .....	99
<b>Specifications</b> .....	<b>100</b>

# Preface

Welcome to *GV-Edge Recording Manager User Manual*.

## For Windows and Mac Version

GV-Edge Recording Manager is supported by Windows- and Mac-based computers. For details on the Windows and Mac versions, refer to chapters 1 to 8 and chapters 9 to 15, respectively.

Software version numbers of GV-Edge Recording Manager

<b>For Windows Version</b>	V2.0.0
<b>For Mac Version</b>	V1.2.0

# Important Notice

Before upgrading to **GV-Edge Recording Manager (Windows Version) V2.0.0**, take note of the following:

1. Administrator Password and Host List settings will remain unchanged after upgrading from V1.4.0 to V2.0.0.
2. When using the Import / Export Data functions (see *7.3 Exporting and Importing Settings*) to import previously saved settings from V1.4.0 to V2.0.0, only the Administrator Password and Host List settings will be applied.

## Naming and Definition

<b>GV-DVR / NVR</b>	GeoVision Analog and Digital Video Recording Software. The GV-DVR / NVR also refers to <b>Multicam System</b> or <b>GV-Hybrid DVR</b> .
<b>GV-Recording Server</b>	GeoVision video streaming server designed for large-scale video surveillance deployments that can record up to 256 channels while transmitting up to 600 channels.
<b>GV-VMS</b>	GeoVision Video Management System for IP cameras

## Option

<b>GV-NAS System</b>	GV-NAS System is a Linux-based, network attached storage device designed to store GV-IP Camera and GV-Target Camera recordings.
----------------------	---

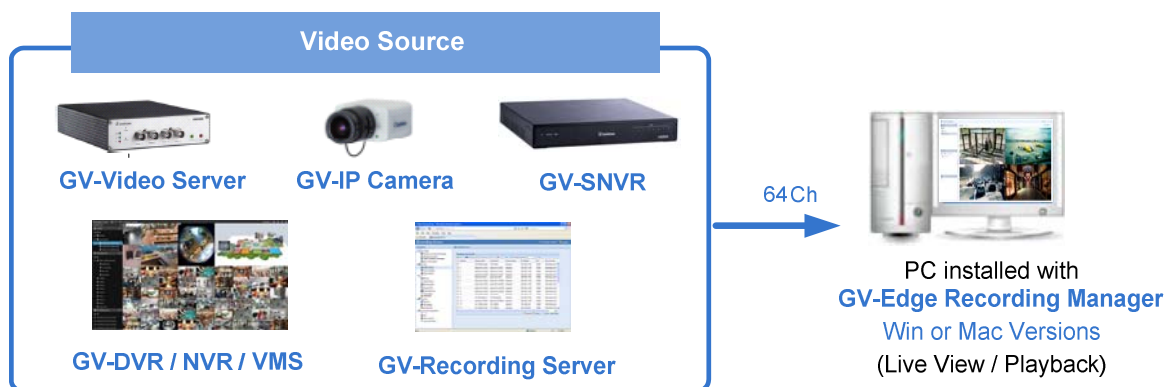


# Introduction

GV-Edge Recording Manger is designed for remote live viewing and playback of GeoVision IP devices and software. GV-Edge Recording Manager provides an integrated interface for you to access live view, assign recording to NAS servers, enable/disable recording, play back videos and even view storage information of IP cameras -- without visiting each host's Web interface. Any connection to hosts can be stopped without affecting the recording and normal functioning of the devices.

GV-Edge Recording Manger brings live view and allows remote control of GV-IP Camera, GV-Video Server and GV-SNVR, as well as GV-DVR / NVR / VMS and GV-Recording Server, together under one management interface.

## Windows and Mac Versions



## Assigning Recording to NAS Servers

Through GV-Edge Recording Manager, you can assign GV-IP Cameras to record to NAS servers and also view the storage information, such as occupied and remaining space.



## Features

### Windows Version

- Display up to 32 channels for free, up to 64 channels plus GV-Joystick, using a GV-USB dongle
- On-demand display for dual channels
- Fisheye dewarping
- Varieties of live view displays: PIP / PAP View, Focus View, Scan Window, projecting a live view display onto another monitor
- Take snapshots of live images
- Remotely enable or disable recording to GV-IP Camera, GV-DVR / NVR / VMS
- Assign NAS storage for recording
- Remote playback
- Batch IP address assignment
- PTZ control
- Two-way audio
- Import and export of system configuration
- Storage information (free and occupied space) of GV-IP Camera
- Trigger output devices of connected hosts

### Mac Version

- Display up to 32 channels for free, up to 64 channels using In-App Purchase
- On-demand display for dual channels
- Fisheye dewarping
- PIP / PAP view
- Take snapshots of live images
- Remotely enable or disable recording to GV-IP Camera
- Assign NAS storage for recording
- Remote playback
- Batch IP address assignment
- PTZ control
- One-way audio
- Import and export of system configuration
- Storage information (free and occupied space) of GV-IP Camera
- Video decoding acceleration on live view

## System Requirements

Make sure that you install GV-Edge Recording Manager to a computer that meets the following system requirements.

### Minimum System Requirements (Windows Version)

<b>OS</b>	<b>64-bit</b>	Windows 10 / Server 2016 / Server 2019
<b>CPU</b>	<b>32 channels (Dual Streams)</b>	Core i3-4130, 3.4 GHz
	<b>64 channels (Dual Streams)</b>	Core i5-4670, 3.4 GHz
<b>Memory</b>	<b>32 channels (Dual Streams)</b>	8 GB
	<b>64 channels (Dual Streams)</b>	16 GB
<b>Graphics Card</b>		PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color
<p><b>Note:</b></p> <ol style="list-style-type: none"> <li>Support for 32-bit OS and 64-bit Windows 7 / 8 / 8.1 / Server 2008 R2 / Server 2012 R2 has ended.</li> <li>H.265 decoding requires 6<sup>th</sup>-Gen Intel Desktop Processor (Skylake) or above, which comes with onboard GPU.</li> </ol>		

### Minimum System Requirements (Mac Version)

<b>OS Supported</b>		OS X 10.9 or later
<b>Mac PC</b>	<b>32 channels (Dual Streams)</b>	Mac mini (Core i5-3210M, 8 GB RAM)
	<b>64 channels (Dual Streams)</b>	iMac (Core i7-4770s, 8 GB RAM)

### Software License (Windows and Mac Version)

<b>Free License</b>		32 channels
<b>Maximum License</b>		64 channels (Windows / Mac) + GV-Joystick (Windows)
<b>Increment for Each License</b>		N/A
<b>Optional Combinations</b>		N/A
<b>License Type</b>	<b>Windows</b>	Software License, Internal or External Dongle
	<b>Mac</b>	In-App Purchase
<p><b>Note:</b></p> <ol style="list-style-type: none"> <li>GV-USB dongle comes in internal and external dongles. It is recommended that you use the internal GV-USB Dongle to have the Hardware Watching function which restarts the PC when Windows crashes or freezes.</li> <li>You can only purchase software license for Mac online. For details, see <a href="#">12.2 Purchasing License</a>.</li> <li>The licensing for Windows version comes in two forms: <i>GV-USB dongle</i> and <i>software license</i>. The two are incompatible. If a GV-USB dongle has been inserted on the system, remove it before using software licensing. For details on software licensing, click <a href="#">here</a>.</li> </ol>		

## Supported GeoVision Products

GV-IP Devices		Supported Version
GV-IP Camera		All GV-IP Cameras with the latest firmware.
GV-Video Server	GV-VS11	V1.03 or later
	GV-VS12	V1.07 or later
	GV-VS14	V1.01 or later
	GV-VS2400/2420	V1.00 or later
	GV-VS2800/2820	V1.00 or later
	GV-VS21600	V1.00 or later
GV-SNVR System	GV-SNVR0400F	V1.10 or later
	GV-SNVR0411	V2.10 or later
	GV-SNVR0412	V1.00 or later
	GV-SNVR0811	V2.40 or later
	GV-SNVR0812	V1.00 or later
	GV-SNVR1600	V1.10 or later
	GV-SNVR1611	V1.00 or later
GV-Software		Supported Version
GV-Recording Server		V1.2.4.0 or later
GV-DVR / NVR		V8.7.1.0 or later
GV-VMS		V14.10 or later

---

### Note:

- For the **NAS application**, it is required to use GV-IP Cameras (firmware V3.00 or later), GV-Target Cameras (firmware V1.02 or later), GV-EFD2101 / EFD3101 / EVD2100 / EVD3100 (firmware V1.00 or later).
  - Files recorded to **GV-NAS Systems** are stored in MPEG4 format and those recorded to memory cards are stored in AVI format.
  - Remote playback from SD card** is not supported for the following models: GV-ABL / TBL Series, GV-ADR / TDR Series, GV-AVD / TVD Series, GV-EBD Series, GV-QSD5730 / 5731-IR, GV-SD2322-IR / 2722-IR / 3732-IR.
  - Adjusting dome view of **PTZ cameras** by double-clicking on the live view is not supported for those added via GV-VMS.
  - The Center Move function of **GV-PTZ cameras** is not supported for such added via GV-Recording Server / SNVR / VMS.
  - The following features are not supported by **GV-SNVR**:
    - Instant playback (No. 2, Figure 4-1).
    - Audio not supported for recording backup.
-

## GPU Decoding Specifications

GPU (Graphics Processing Unit) decoding can lower the CPU loading and increase the total frame rate supported by GV-Edge Recording Manager. GPU decoding can be performed on onboard GPU, external GPU, or both, under the following specifications.

### For H.264 Video Compression

**Onboard GPU:** GPU decoding is only supported when using the following Intel chipsets:

- 2<sup>nd</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Sandy Bridge)
- 3<sup>rd</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Ivy Bridge)
- 4<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Haswell / Haswell Refresh)
- 6<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Skylake)
- 7<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Kaby lake)
- 8<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Coffee lake)
- 9<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Coffee lake / Coffee lake Refresh)

**External GPU:** GPU decoding is only supported when using NVIDIA graphics cards with compute capability 3.0 or above and memory 2 GB or above. To look up the compute capability of the NVIDIA graphics cards, refer to: <https://developer.nvidia.com/cuda-gpus>.

---

#### Note:

1. One external NVIDIA graphics card can be supported by GV-Edge Recording Manager 2.0.0 or later to perform GPU decoding at free of charge.
  2. NVIDIA GeForce GTX 1060 is not supported.
  3. NVIDIA graphic cards do not support H.265 GPU decoding.
- 

**Onboard GPU + External GPU:** To have both the on-board VGA and external VGA perform GPU decoding, the VGAs must follow their respective specifications listed above.

---

#### Note:

1. If you have both on-board and external VGA installed, the on-board VGA must be connected to a monitor for H.264 / H.265 GPU decoding.
  2. CUDA compute capability 5.0 or higher is required to ensure optimal performance.
-

### For H.265 Video Compression

**On-board VGA:** GPU decoding is only supported when using the following Intel chipsets:

- 6<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Skylake)
- 7<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Kaby lake)
- 8<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Coffee lake)
- 9<sup>th</sup> Generation Intel Core i3 / i5 / i7 Desktop Processors (Coffee lake / Coffee lake Refresh)

---

**Note:** If you have both on-board and external VGA installed, the on-board VGA must be connected to a monitor for H.264 / H.265 GPU decoding.

---

### Software Specifications

GPU decoding is only supported under the following operating system, resolution, and codec.

		Sandy Bridge	Ivy Bridge / Haswell / Haswell Refresh	Skylake / Kaby Lake / Coffee Lake
Operating System	64-Bit	Windows 10 / Server 2016 / Server 2019		
Resolution		1 MP / 2 MP	1 MP / 2 MP / 3 MP / 4 MP / 5 MP / 8 MP / 12 MP	1 MP / 2 MP / 3 MP / 4 MP / 5 MP
Codec		H.264		H.264 / H.265

---

**Note:** Intel Sandy Bridge Chipsets only support GPU decoding of 1 MP to 2 MP videos.

---

## Windows Version



# Chapter 1 Overview

## 1.1 Main Window

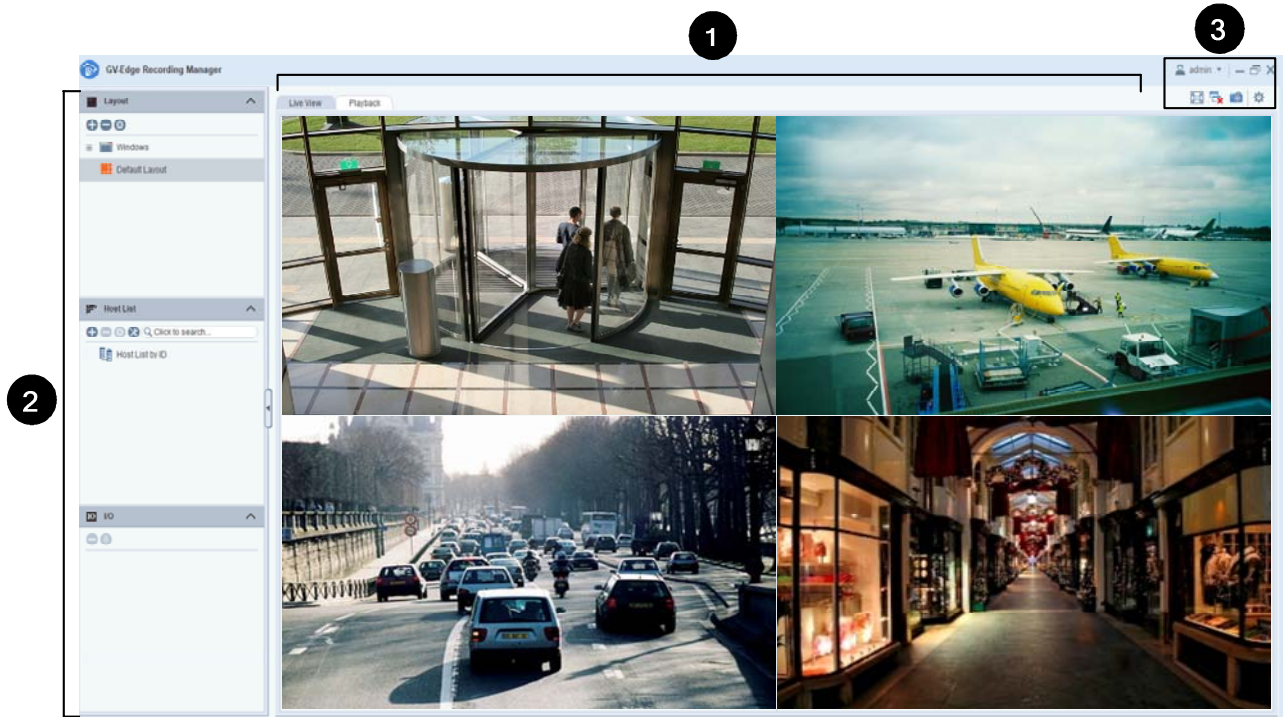


Figure 1-1

By default, there are three areas on the main window:

No.	Name	Description
1	Camera Channels	Displays the live views / recordings of added hosts. For details, see <i>4.1 The Live View Window</i> or <i>Chapter 6 Playback</i> .
2	Device Lists & Layout	Contains the hosts added to the GV-Edge Recording Manager and their I/O devices, and configures layout settings. For details, see <i>1.3 The Host List</i> and <i>4.2 Live View Layouts</i> .
3	Toolbar	Contains buttons to quickly access system settings, functions and close image windows. For details, see <i>1.2 The Toolbar</i> .



## 1.2 The Toolbar

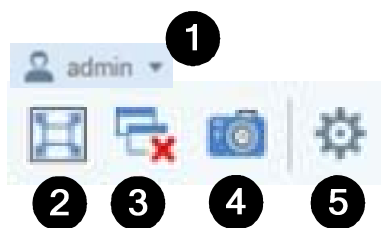


Figure 1-2

No.	Name	Description
1	Login Account	Changes the login ID and Password of the Administrator account and switches to or enable / disable Guest account, see 2.2 <i>Login Account Settings</i> .
2	Full Screen	Diminishes all setting windows and toolbars and displays only the main screen.
3	Close All Videos	Closes all videos currently streamed on the main screen.
4	Snapshot	Takes a snapshot of a desired camera channel.
5	Configure	Contains the general settings of GV-Edge Recording Manager, imports / exports data, accesses IP Device Utility, and manages software license.

## 1.3 The Host List



**Figure 1-3**

No.	Name	Description
1	Add Hosts	Adds hosts, see 2.3 <i>Adding Hosts</i> .
2	Delete Hosts	Deletes the selected host.
3	Configure Hosts	Modifies the host settings including host name, IP address, ID, password, connection ports, numbers of cameras and I/O devices.
4	Tools	Accesses tools and additional settings, such as Auto Set IP Address, Rename Hosts, NAS Setup, Storage Information, Batch Changing Host ID and Password, and Time Synchronization.
5	Search	Searches for added hosts.

## 1.4 The I/O List

You can trigger output devices of the connected hosts in the I/O List.

When adding a host device, its connected I/O devices are automatically added to the I/O List.

To trigger an output, click the **Output**  button in the I/O List.



*Figure 1-4*

---

**Note:** GV-Edge Recording Manager cannot connect to an I/O box directly.

---

# Chapter 2 Getting Started

## 2.1 Installing the GV-Edge Recording Manager

Follow the steps below to install GV-Edge Recording Manager from the GeoVision Website.

1. Go to the **Download** page of GeoVision Website:  
[http://www.geovision.com.tw/download/product/GV-Edge%20Recording%20Manager%20\(Windows%20Version\)](http://www.geovision.com.tw/download/product/GV-Edge%20Recording%20Manager%20(Windows%20Version))

2. Click the **Download** icon  of **GV-Edge Recording Manager (Windows)**.

## 2.2 Login Account Settings

Upon first-time startup, the user will be prompted to set a login password for the Administrator account, which has access rights to all of the settings of the GV-Edge Recording Manager.

To access account-related settings, click the **Login Account** button on the Main Screen (No. 1, Figure 1-2). The following options appear.

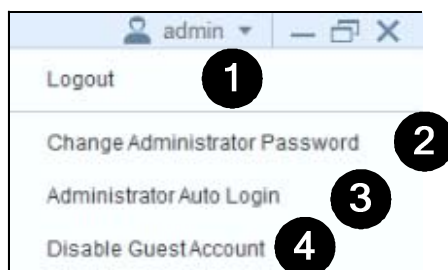


Figure 2-1

No.	Name	Description
1	Logout	Logs out of the Administrator account. When the Guest account is enabled, logging out from Admin will automatically switch to Guest mode.
2	Change Administrator Password	Changes the login Password of the Administrator account.
3	Administrator Auto Login	Select to automatically log in as the Administrator when starting GV-Edge Recording Manager.


No.	Name	Description
4	Disable Guest Account	Disable / Enable the Guest account.

The Guest account does not have a password and only has access to the live view of the connected hosts.

## 2.3 Adding Hosts

GV-Edge Recording Manager is able to search for and add GV-IP Devices and servers installed with GeoVision software that are within the same LAN. To add multiple hosts, follow the instruction in 2.2.1 *Automatically Adding Multiple Hosts*. To add a single host, follow the instruction in 2.2.2 *Manually Adding a Host*.

### 2.3.1 Automatically Adding Multiple Hosts

1. On the Host List, click **Add**  > **Add Host** > **Search Host**. The GV-IP Devices and servers installed with GeoVision software within the same LAN are listed in the Search Host window.

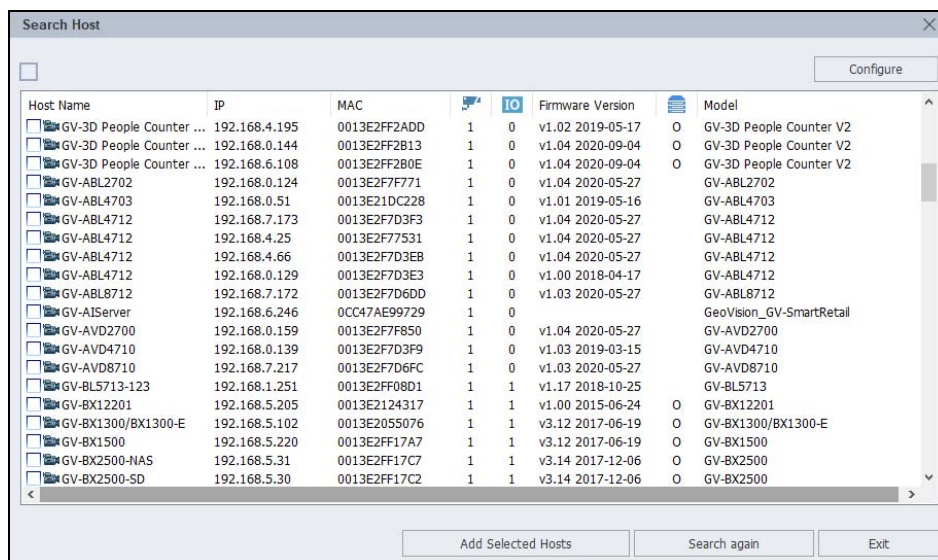
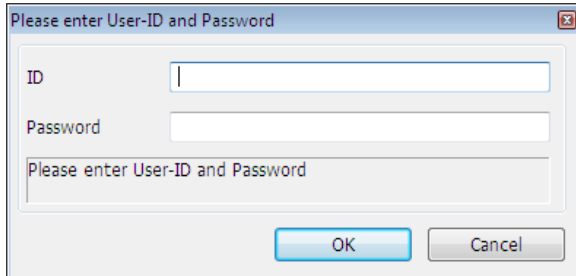


Figure 2-2

2. When the search is finished, you are prompted to reassign the IP addresses of certain IP devices found. To optionally assign new IP addresses for these devices:
  - A. Select the desired IP devices and type a **Start IP Address**.
  - B. Optionally select and modify the **Subnet Mask**, **Default Gateway** and **DNS Server** if needed.

- C. Click **Start**. The select devices are assigned with the new IP addresses starting from the **Start IP Address**, in sequential order.
3. To add all the hosts found:
    - A. Click  on the left top of the Search Host window. This dialog box appears.



**Figure 2-3**

- B. Type the ID and Password for all the hosts and click **OK**.
4. To add a selection of hosts:
    - A. Click a host to be added. The ID and password request appears (Figure 2-3).
    - B. Type the ID and Password of the selected host and click **OK**.
    - C. To add more hosts, repeat steps 4A and 4B.
  5. Click the **Add Selected Hosts** button to add the selected hosts. A prompt appears.
  6. Click **OK** to accept the prompt. The selected hosts are added to the Host List.
  7. Once added, users can drag and drop the desired cameras from the Host List onto the Live View Window for live view display. See *Chapter 4 Live View and Layouts* for details.

---

**Note:**

1. If a router or firewall is installed, ensure the following communication ports required by the Host Search function are open:
    - TCP/IP ports **5201** (for searching GV-DVR / NVR / VMS) and **5202** (for searching GV-IP Devices)
    - Multicast port **5200**To change the mentioned default ports, see [2.3.1.1 Changing Network Port Settings](#).
  2. If antivirus software is installed, the **Search Host** function may be interfered and will not detect the available hosts. In this case, turn off the antivirus software and try again.
-

### 2.3.1.1 Changing Network Port Settings

To access GV-Edge Recording Manager’s port settings, follow Step 1 in 2.3.1 *Automatically Adding Multiple Hosts* and click **Configure** in the Search Host window. The Network dialog box appears.

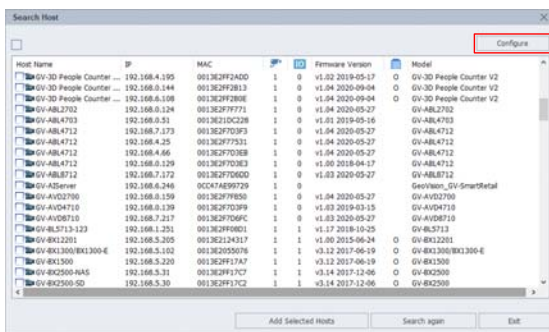


Figure 2-4

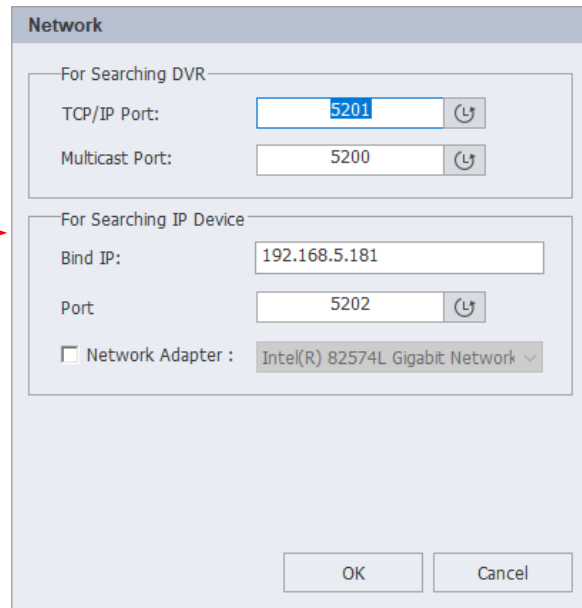



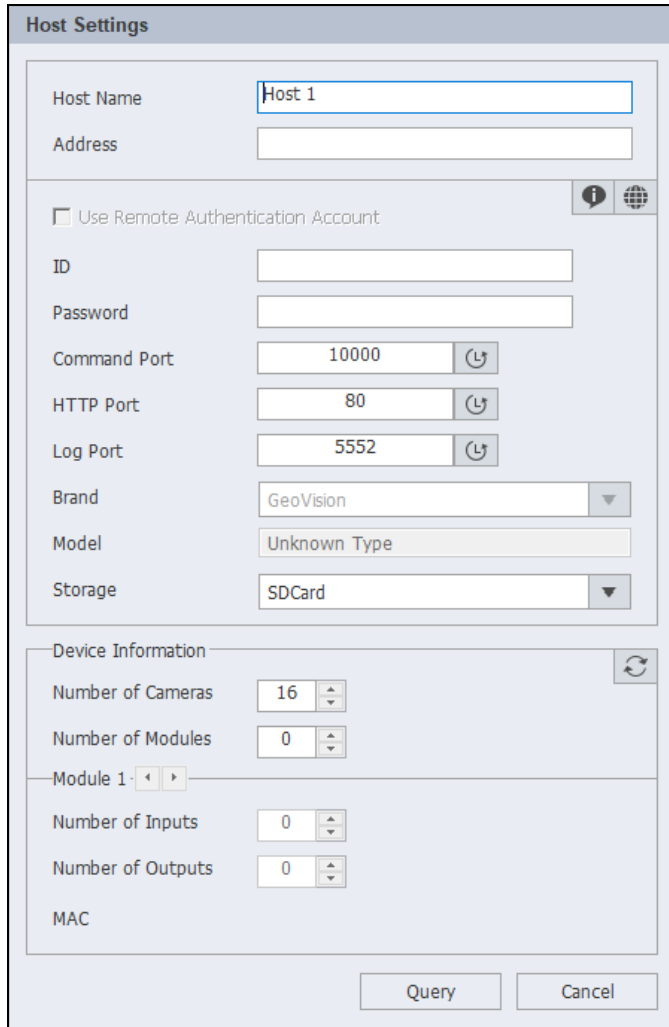
Figure 2-5

The Network tab contains port settings for GV-DVR / NVR and IP device hosts. To use the **Search Host** function, make sure the hosts’ TCP port and multicast port match the port settings here in GV-Edge Recording Manager.


For searching GV-DVR / NVR hosts, the default TCP/IP port is **5201** and **5200** for multicast port. For searching IP devices, the default TCP/IP port is **5202**. You can select a LAN card to perform the search for IP devices if you have more than one LAN card installed. Keep the default settings and only change them when necessary.

## 2.3.2 Manually Adding a Host

1. From the Host list, click **Add**  > **Add Host** and select a device type. The Host Settings dialog box appears. The settings may vary slightly for different device types. The following is an example of IP Camera.



**Figure 2-6**

2. Type the Host Name, IP Address, ID and Password of the host. Modify the Communication Port if necessary.
3. Click the **Update Information** button  to request for the number of cameras and I/O modules installed.
4. Click **OK** to add the host. The host is added to the Host List.
5. Once added, users can drag and drop the desired cameras from the Host List onto the Live View Window for live view display. See *Chapter 4 Live View and Layouts* for details.



### 2.3.3 Connecting to GV-DVR / NVR / VMS

1. To add GV-DVR / NVR / VMS hosts, make sure that **Control Center Service** and **Remote ViewLog Service** are enabled ahead to allow remote access from GV-Edge Recording Manager. (Network button > Control Center Server > Start Default Service).

[GV-DVR / NVR]

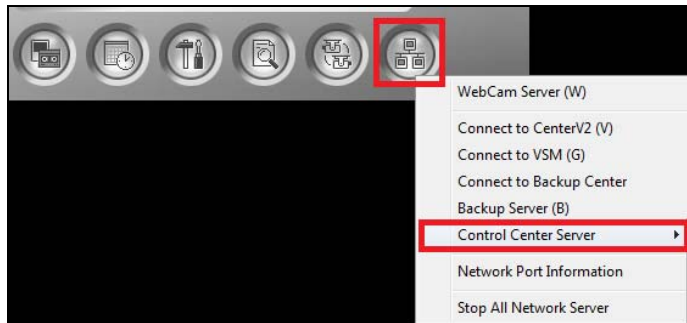


Figure 2-7

[GV-VMS]

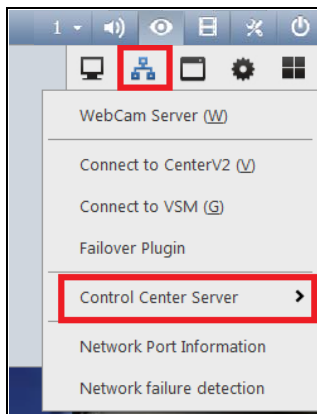
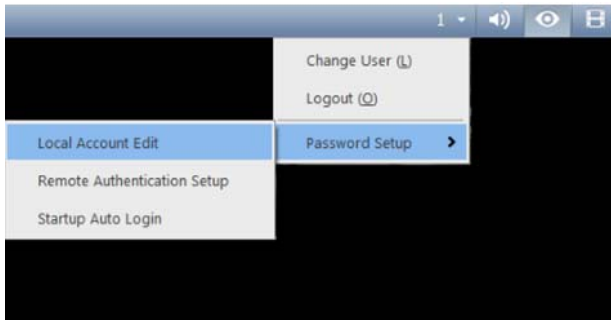


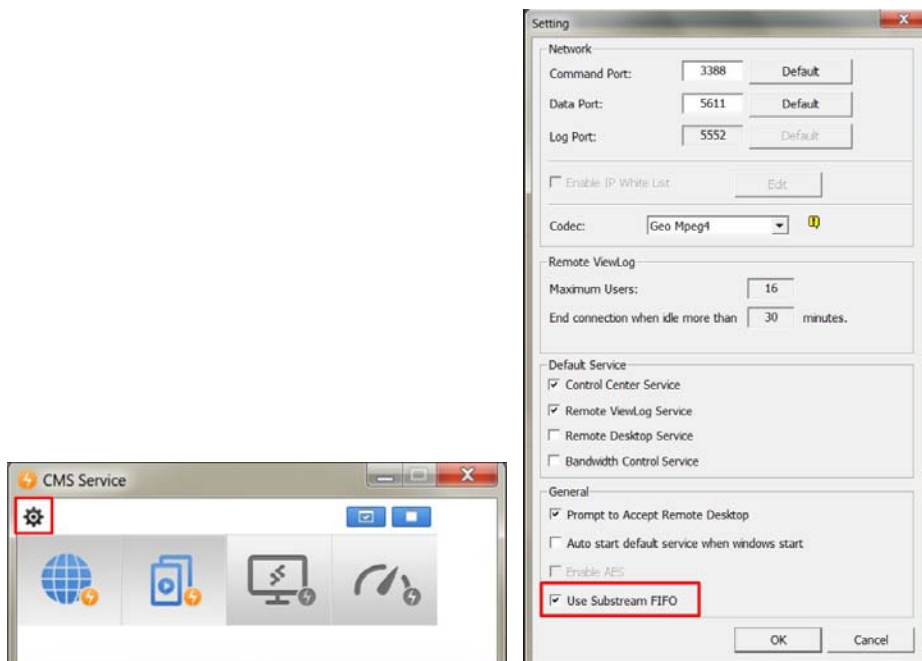
Figure 2-8

- For GV-VMS V16.11 or later, you can specify the time length allowed for GV-Edge Recording Manager to access the GV-VMS. To do this, click the account ID at the top of GV-VMS's main screen, click **Password Setup**, and select **Local Account Edit**. In the **Control Center** tab, select the **Limit Connection Time** option and specify the time length between 10 and 3600 seconds.



**Figure 2-9**


- By default, the live stream images of GV-VMS are compressed for better bandwidth control at the cost of increased CPU usage. The number of remote connections allowed from the same GV-VMS depends on the specs and the usage of the VMS' CPU.
- For GV-VMS V17.1 or later, you can enable the **Substream FIFO** function under CMS Service settings (Network button > Control Center Server > Control Center Service) for improved streaming quality from the GV-VMS at the cost of increased bandwidth. The number of remote connections allowed from the same GV-VMS depends on the amount of bandwidth available.



**Figure 2-10**

### 2.3.4 Creating a Camera Group

You can add multiple cameras to a group and drag the group onto a live view grid for display. At least 8 cameras are required on the Host List for this function to work.

1. On the Host List, click **Add**  > **Add Group** and type a name for the group.
2. Drag the desired cameras into the group.
3. Drag the created group onto a live view grid for display.

# Chapter 3 Batch Management

The batch functions allow you to manage a mass number of hosts without the need to visit each host's interface. You can change IP addresses, rename devices, fill in identical login credentials, sync time, assign network storage devices to multiple hosts at a time.


## 3.1 Configuring the IP Address

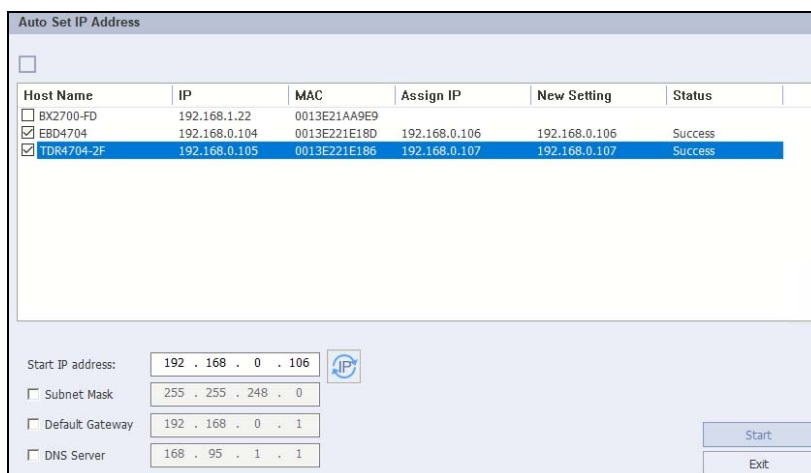
You can set the IP addresses of multiple hosts at a time.

---

**Note:** The batch management function is only supported by GV-Video Server and GV-IP Cameras.

---

1. On the Host List, click **Tools**  > **Auto Set IP Address**. The Auto Set IP Address dialog box appears.
2. Select the devices to be configured from the **Host Name** column. To select all devices, click .
3. To assign consecutive IP addresses to multiple GV-IP Devices:
  - A. Configure the **Start IP address**, **Subnet Mask**, **Default Gateway** and **DNS server**.
  - B. Click the button  to preview the new IP address in the **Assign IP** column.
4. Click **Start** to apply the changes.



**Figure 3-1**


## 3.2 Renaming Devices

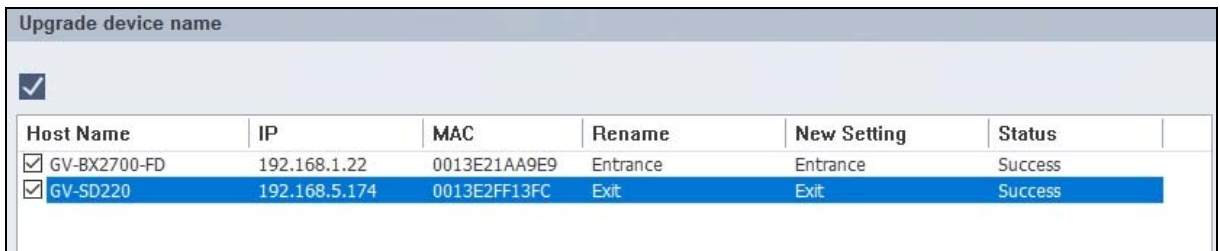
You can modify the device names of multiple hosts at a time.

---

**Note:** The batch management function is only supported by GV-Video Server and GV-IP Cameras.

---

1. On the Host List, click **Tools**  > **Upgrade Device Name**. The Upgrade Device Name dialog box appears.
2. Select the devices to be configured from the **Host Name** column. To select all devices, click the square .
3. Type the new device name directly in the **Rename** column.
4. Click **Start** to apply the changes.



Upgrade device name						
Host Name	IP	MAC	Rename	New Setting	Status	
<input checked="" type="checkbox"/> GV-BX2700-FD	192.168.1.22	0013E21AA9E9	Entrance	Entrance	Success	
<input checked="" type="checkbox"/> GV-SD220	192.168.5.174	0013E2FF13FC	Exit	Exit	Success	

**Figure 3-2**


## 3.3 Synchronizing Host Time

You can synchronize the system time of multiple hosts at a time.

---


**Note:**

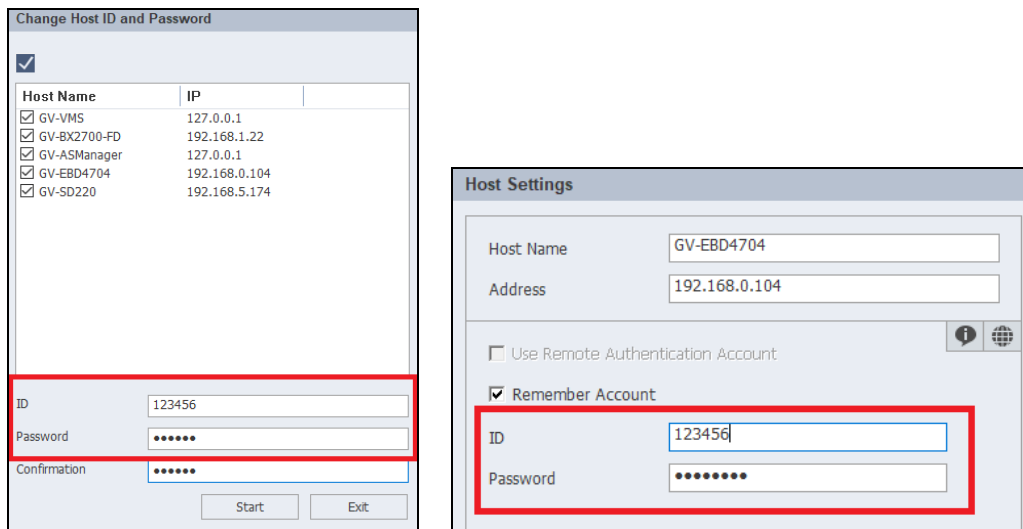
1. Make sure you have disabled device monitoring before synchronization.
  2. The batch management function is only supported by GV-Video Server and GV-IP Cameras.
- 

1. On the Host List, click **Tools**  > **Time Synchronization with Edge Recording Manager**.
2. Select the devices you wish to synchronize with GV-Edge Recording Manager and click **Start** to sync.

## 3.4 Connecting to Hosts with Identical Credentials

When you have a mass number of hosts using the same ID and password, use the following method to fill in the login ID and password at a time.

1. On the Host List, click **Tools**  > **Change IP and Password**.
2. Select hosts, type a common **ID** and **Password**. After confirming the password, click **Start** to apply the changes.
3. The common ID and Password will be filled in the Host Settings of the selected hosts, as illustrated below.

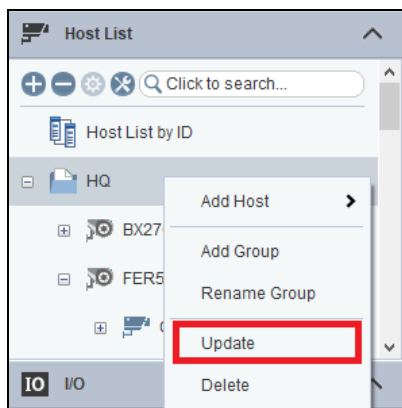


**Figure 3-3**

## 3.5 Updating Host Information

You can update the information of multiple hosts at a time, such as the connection status, the number or the names of cameras / input and output modules installed.

1. On the Host List, right-click on the desired hosts (or a group), and select **Update**.



**Figure 3-4**

2. The Update Host Information window appears, listed with the selected hosts.
3. Select / deselect hosts and click **Update Information** to start updating the information from hosts.

## 3.6 Configuring NAS

You can set GV-IP Cameras to record to NAS (Network-Attached Storage) devices.

To see whether your camera models can record to NAS devices, check the NAS feature in from [this table](#).

---

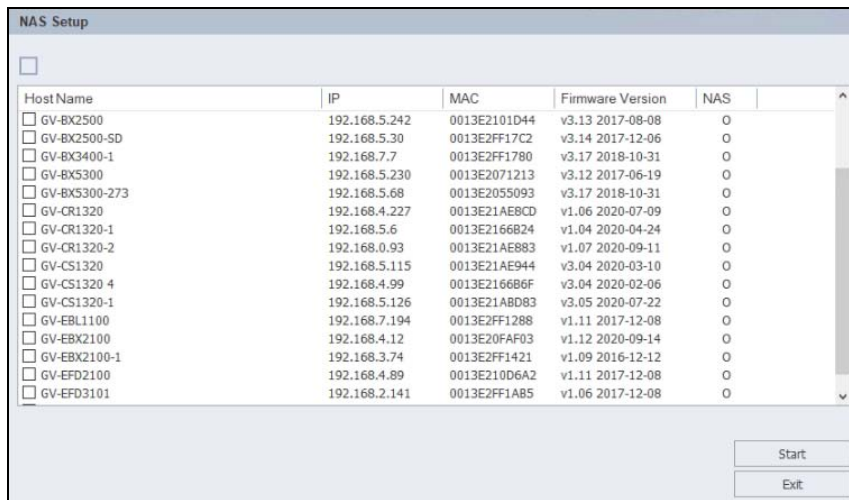
### IMPORTANT:

1. For the NAS application, it is required to use GV-IP Cameras (firmware V3.00 or later), GV-Target Cameras (firmware V1.02 or later), GV-EFD2101 / EFD3101 / EVD2100 / EVD3100 (firmware V1.00 or later).
  2. For system performance and compatibility, it is highly recommended to use GV-NAS Systems for recording.
  3. Make sure the computer installed with GV-Edge Recording Manager is under the same LAN with the NAS devices.
-


### 3.6.1 Assigning NAS Storage for Recording

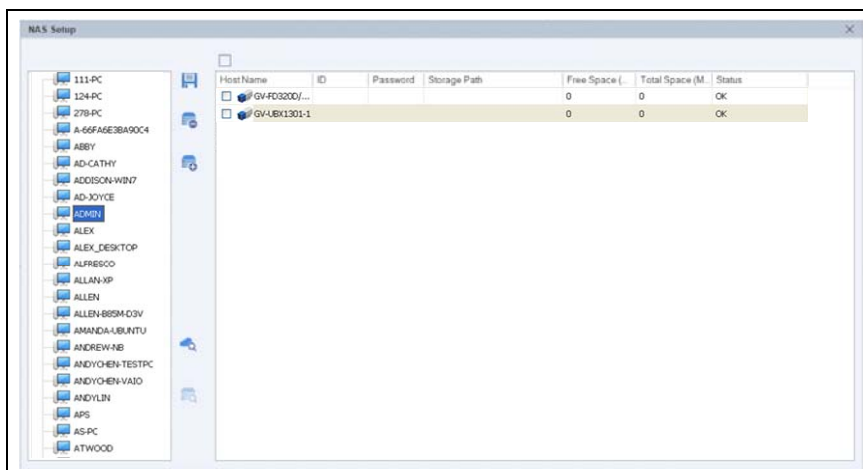
**IMPORTANT:** For system performance and compatibility, it is highly recommended to use GV-NAS Systems for recording.

1. On the Host List, click **Tools**  > **NAS Setup**. The cameras that support NAS devices appear in the NAS Setup window.



**Figure 3-5**

2. Select cameras for NAS management and click **Start**. The NAS Setup window appears.
3. Click **Search for network host**  to detect the NAS installed within the LAN. The detected network hosts are listed.



**Figure 3-6**



4. Select a NAS from the list and click the **Search the host's network storage** button to detect its shared folder(s). This dialog box appears.

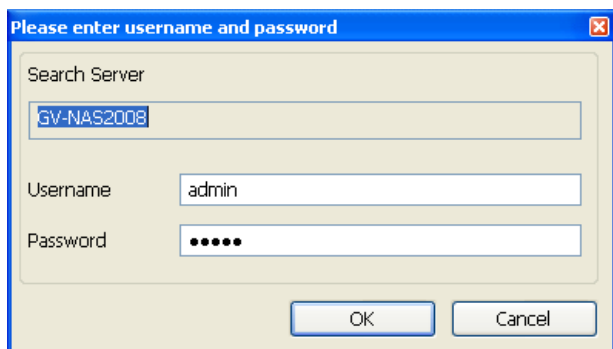


Figure 3-7

5. Type the administrator username and password of the NAS device that allows for highest level of access. The server's folders are detected and shown.
6. Expand the sever to show its folders

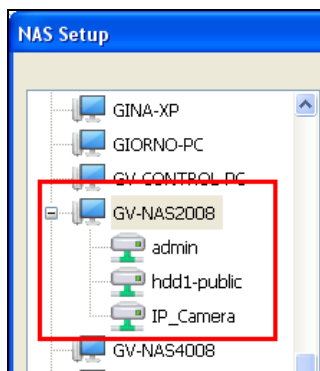


Figure 3-8

7. Assign storage paths for the cameras.

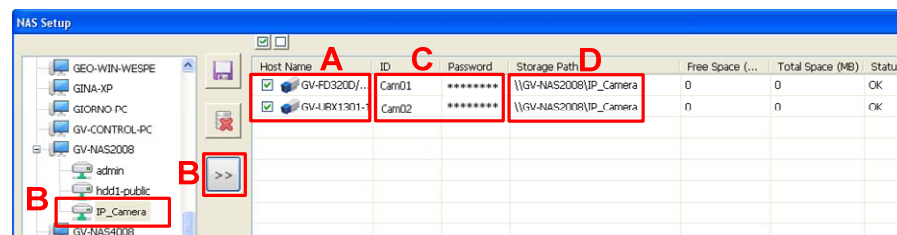




Figure 3-9



- A. On the NAS Setup window, select at least one camera to assign the storage path.
- B. Select a NAS folder from the list and click **Select this storage path for the device**  to assign this storage path. The storage path appears in the Storage Path column immediately.

- C. In the ID and Password column, type the ID and password of an established account of the NAS server.
  - D. In the Storage Path column, you can manually change the IP address of a NAS.
8. Click **Save**  to store the settings.



**Note:**

- 1. Be sure that you assign each IP camera to record to a different user account in GV-NAS System to avoid disrupting the recycling process.
- 2. For GV-NAS2008 / 4008, the default user name is **Cam01** up to **Cam08** for each of the 8 user accounts; for GV-NAS2016 / 4016, the default user name is **Cam01** up to **Cam16** for each of the 16 user accounts. The default passwords are all **12345678**. For details, see *GV-NAS System Quick Start Guide* and *User's Manual*.


### 3.6.2 Changing the NAS Storage for Recording

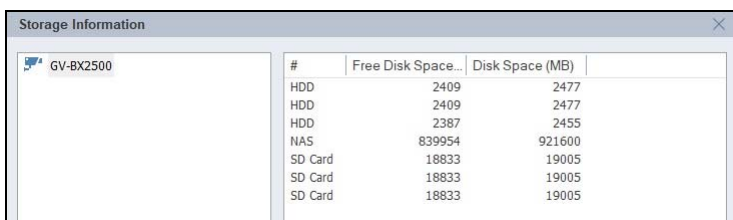
In the NAS Setup window (Figure 3-5), select a camera, select a NAS folder and click . The new storage path is immediately assigned. Alternatively type the storage path, ID and password of a NAS folder. Click **Save**  to apply the settings.

### 3.6.3 Deleting the NAS Storage for Recording

- 1. In the NAS Setup window (Figure 3-5), select a camera and its storage path, and click the **Delete the selected storage path**  button.
- 2. Click **Save**  to store the settings.

### 3.6.4 Viewing Storage Information

You can view storage information such as the storage type, free space and the overall disk space of GV-IP Cameras supporting the recording to NAS devices. On the Host List, click **Tools**  > **Storage Information**.



#	Free Disk Space...	Disk Space (MB)
HDD	2409	2477
HDD	2409	2477
HDD	2387	2455
NAS	839954	921600
SD Card	18833	19005
SD Card	18833	19005
SD Card	18833	19005

**Figure 3-10**

# Chapter 4 Live View

You can utilize GV-Edge Recording Manager to manage multiple live views and their recording status.

## 4.1 The Live View Window

The Live View Window displays live video streams and provides access to the camera channels displayed. You can monitor up to 64 channels simultaneously. To display live view on this window, drag and drop cameras from the Host List.

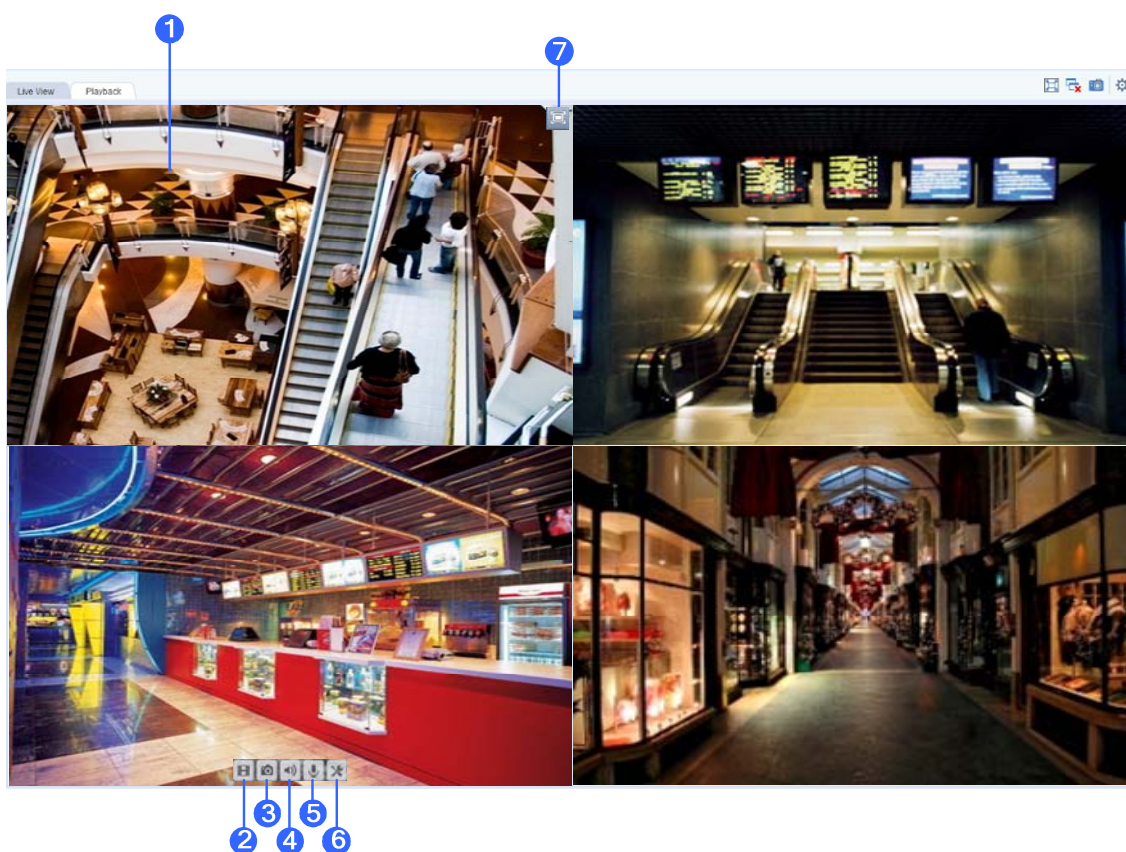










Figure 4-1

No.	Name	Description
1.	Live View	Displays the live video stream of the camera channel.

No.	Name	Description
2.	Instant Play 	Plays back the video recorded.
3.	Snapshot 	Captures a snapshot of the current live view.
4.	Wave Out 	Receives live audio from the current live view.
5.	Microphone 	Talk to the surveillance site. For details, see <i>Chapter 5 Audio Communication</i> .
6.	Configure 	<p>Includes the following options:</p> <ul style="list-style-type: none"> <li>■ <b>Monitor:</b> Starts monitoring of the camera.</li> <li>■ <b>Wide Angle Lens Dewarping:</b> Enables the dewarping setting. For details, see <i>4.8 Adjusting the Distorted View</i>.</li> <li>■ <b>Wide Angle Lens Setting:</b> Corrects the distortion on live view images. For details, see <i>4.8 Adjusting the Distorted View</i>.</li> <li>■ <b>Location on Host List:</b> Highlights the host and camera channel of the current live on the Host List (Figure 1-3).</li> <li>■ <b>PTZ Control:</b> Enables the PTZ function. Note this function is only supported by IP Cameras that support the PTZ function.</li> <li>■ <b>IMV1 Panomorph:</b> Dewarps the fisheye view. Note this option is only available for GV-IP Cameras installed with ImmerVision lenses and when the camera resolution is set to 1280 x 1024 or higher.</li> <li>■ <b>VR360:</b> Pans around the 360° image of GV-VR360. Click  or  to adjust the speed of the auto pan and click  to zoom in.</li> <li>■ <b>Properties:</b> <ul style="list-style-type: none"> <li>⊙ <b>Show Caption:</b> Shows camera name on live view.</li> <li>⊙ <b>Keep Image Ratio:</b> Locks aspect ratio of the camera image.</li> </ul> </li> <li>■ <b>Close:</b> Removes the camera from the layout grid.</li> </ul>
7.	Full Screen	Extends the Live View Window to full-monitor display. Press the <b>Esc</b> key on your keyboard to exit the full-monitor display.

**Note:**

1. To view the dewarped image of GV-VR360 on GV-Edge Recording Manager V1.3.0.0 or later, the graphic card must support DirectX 10.1 or above.
2. Up to 2 GV-VR360 can be connected to a GV- Edge Recording Manager with a total frame rate of 24 fps.

## Functions on Live View and Host List

The live view screen can be controlled using the actions below.

Actions	Functions
Mouse scroll	Zooms in or out on the live view.
Double-click	Displays the live view in full screen.

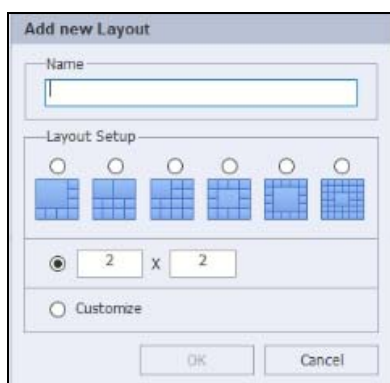
In the Host List (Figure 1-3), right-click a camera channel, from a host, to access the following options, when enabled or supported:

Option	Functions
Focus View Setup	Creates up to 7 close-up views for the camera. (See <i>4.1.1 Setting Focus View</i> )
PTZ Setup	Enables PTZ functions. (See <i>4.5 Panoramic PTZ View</i> later in this chapter)
Fisheye Option	Opens the Fisheye Settings dialog box for GV-Fisheye Cameras. (See <i>4.5 Fisheye View</i> )
Remote ViewLog	Accesses the Remote Playback window for playing back recordings of the host selected. (See <i>Chapter 6 Playback</i> )

## 4.2 Live View Layouts

### 4.2.1 Arranging Live View Layouts

1. In the **Layout List**, click **Add**  and click **Add New Layout**. This dialog box appears.



**Figure 4-2**

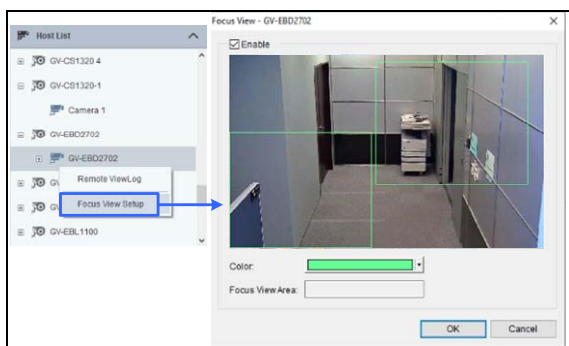
2. Name the new layout and select one of the three available methods under Layout Setup to define a layout and click **OK**.
3. If you select **Customize** in the step above, the Customize Layout dialog box appears.

- a. Click **Reset** to specify a dimension for the grid if needed.
  - b. Select multiple rectangles and click **Merge** to create a larger square.
  - c. Click **OK** when you are done.
4. To create multiple layouts, repeat Step 1-3. Once done, you can switch to the desired layout by double-clicking it.

## 4.2.2 Setting Focus View

You can create up to 7 close-up views per camera and place these created close-up views inside the live view grid.

1. In the Host List, right-click a camera channel from a host and select **Focus View Setup**. This dialog box appears.

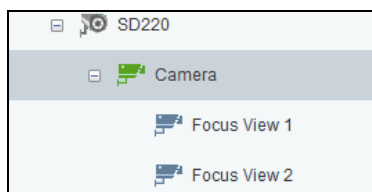


**Figure 4-3-1**

2. Click **Enable** and draw a box on the camera view to create a focus view. You can create multiple focus views if needed.

You can change the color of the box if needed.

3. Click **OK**. The created focus views are listed under the camera.



**Figure 4-3-2**

4. You can now drag the focus views to live view grids.

---

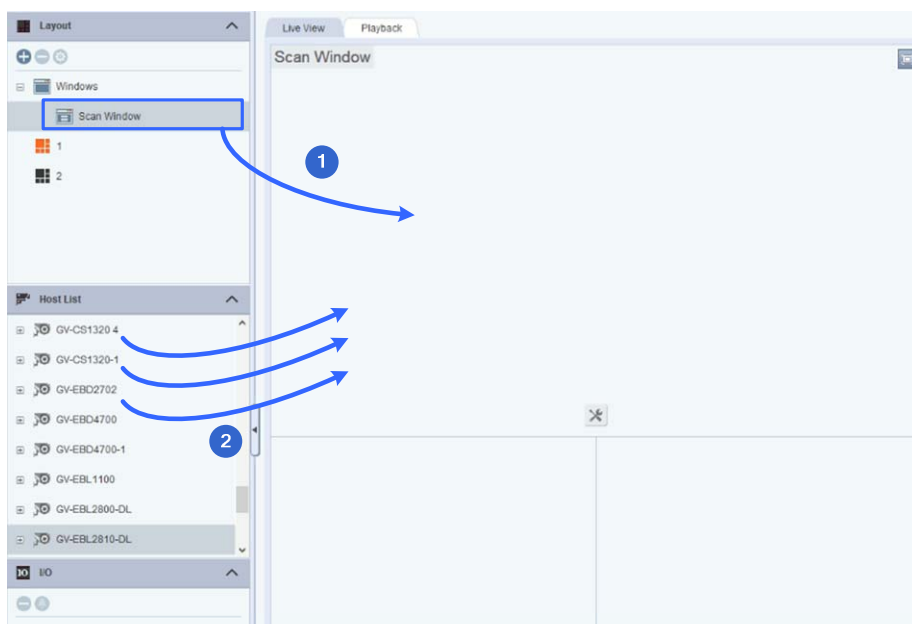
**Note:** This function is not supported by Fisheye Cameras and PTZ Cameras.

---

### 4.2.3 Setting a Scan Window

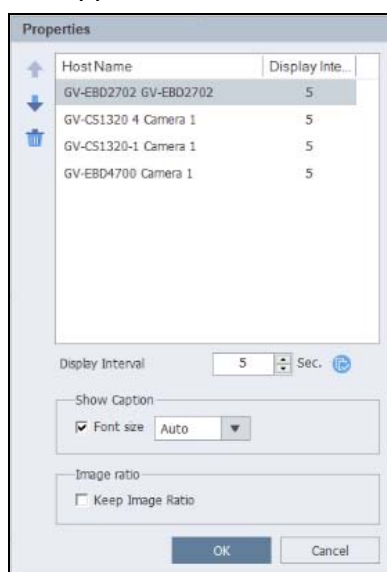
You can assign multiple cameras to a Scan Window, and each camera will be shown in sequence for the Scan Interval specified.

1. In the Layout List, select **Windows**, and drag **Scan Window** to a live view grid.
2. Drag multiple cameras into the Scan Window.






**Figure 4-4**

3. Move the cursor to the Scan Window, click **Tools** , and select **Properties**. This dialog box appears.



**Figure 4-5**

4. To adjust the order of a camera, select a camera and click the Up  and Down  arrows.
5. To specify how many seconds to show the live view of each camera, click and adjust the **Scan Interval** of each camera. Optionally click  to apply this Scan Interval to all cameras.
6. To show camera name on live view, select **Show Caption**.
7. To lock the original aspect ratio of the camera image, select **Keep Image Ratio**.
8. Click **OK**.







### 4.3 Enabling Host Recording

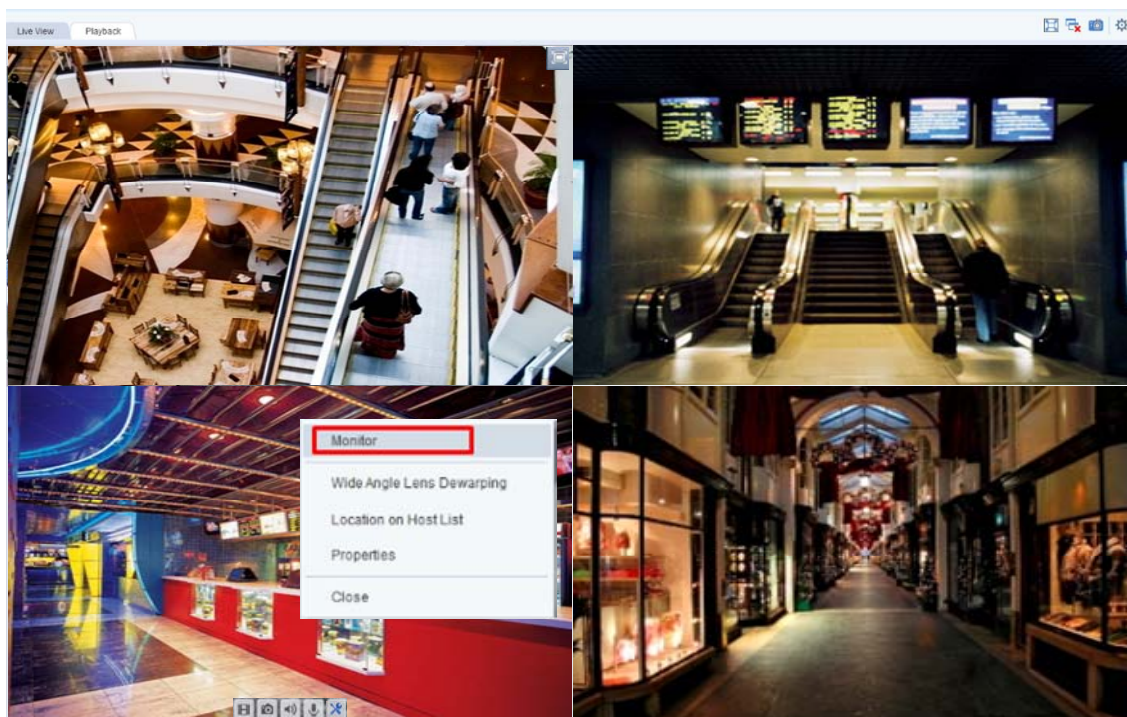
You can remotely enable/disable monitoring on the connected host.

**Note:**

1. This function is only supported by GV-DVR / NVR / VMS, GV-IP Cameras (**except** GV-ABL / ADR / AVD / EBD / TBL / TDR / TVD series, GV-SD2322-IR / 2722-IR / 3732-IR).
2. For GV-DVR / NVR / VMS, make sure of the account used for connecting to GV-Edge Recording Manager having the privilege to enable monitoring.

From the Live View Window, click **Configure**  on a camera's live view (No. 6, Figure 4-1) and select **Monitor**. The status of a camera channel is indicated as below:

Channel Color	Monitoring & Recording Status
	Not monitoring
	Monitoring but not recording
	Monitoring and recording





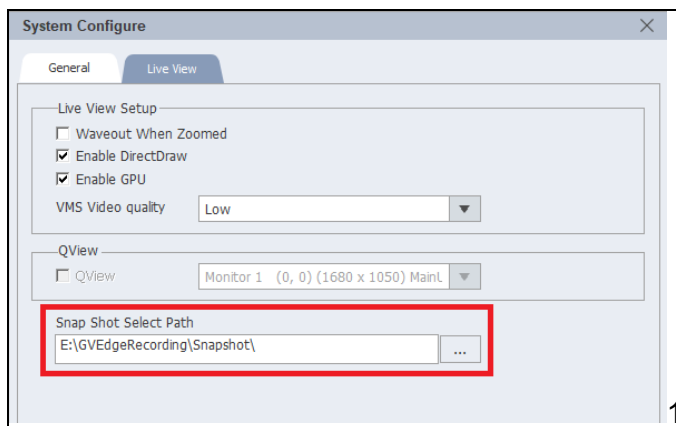
**Figure 4-19**

## 4.4 Taking Snapshots

You can take instant snapshots of all displaying live views to save important live images.


### Taking Snapshots of All Displaying Live Views

To take snapshots of all the live views displayed simultaneously, click the **Snapshot** button  (No. 4, Figure 1-2) on the top right of the main screen. The images are saved to the default path **C:\GVEdgeRecording\Snapshot**. To change the default path, click **Setup**  (No. 5, Figure 1-2) on the main screen and select **Live View**.



**Figure 4-6**

### Taking a Single Snapshot

To take a snapshot of a single live view, click the **Snapshot** button on the camera's live view (No. 3, Figure 4-1), click  and designate a path to save the snapshot.

## 4.5 Fisheye View

The hemispherical image of a fisheye host can be converted to a conventional rectilinear projection and displayed on the Live View Window.

---

**Note:** This function requires a graphic card supporting DirectX 10.1 or later.

---

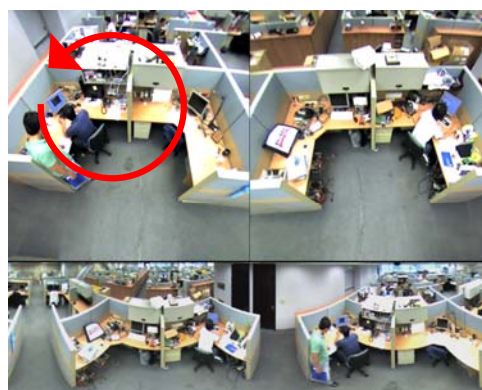
The following camera types are supported:

- GV-Fisheye Camera
- GV-IP Camera installed with an ImmerVision IMV1 Panorama Lens

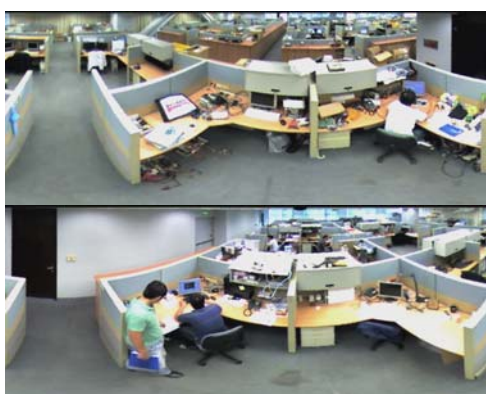
You can choose among four view modes and adjust the PTZ views to different angles.



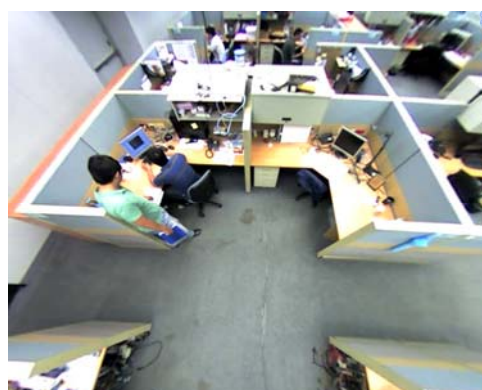
**Quad view: 4 PTZ views**



**360 degree: 2 PTZ view & 1 360° view**



**Dual 180 degree: 2 180° views**

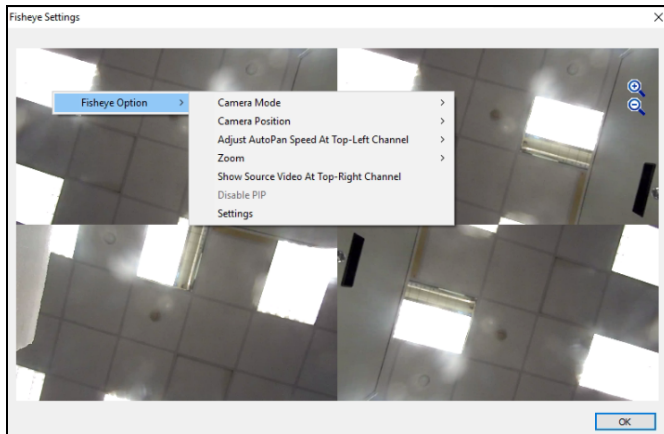


**Single view: 1 PTZ view**

**Figure 4-7**

## 4.5.1 Setting up Fisheye View

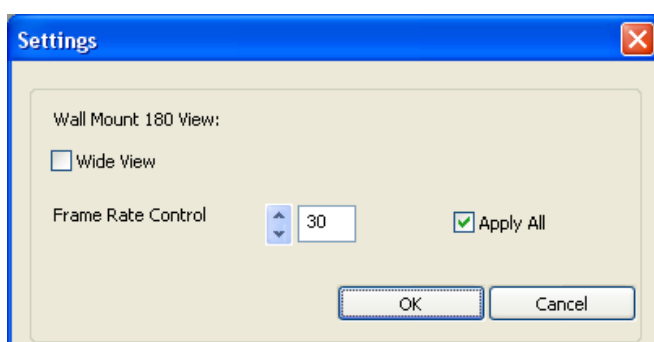
1. To enable the dewarped view, right-click a fisheye channel from the Host List and select **Fisheye Option**. By default, the hemispherical view of the GV-Fisheye camera is converted into 4 PTZ views, the **Quad View** on the Live View Window.
2. To customize other settings, right-click on one of the 4 PTZ views and select **Fisheye Option** to access the following.



**Figure 4-8**

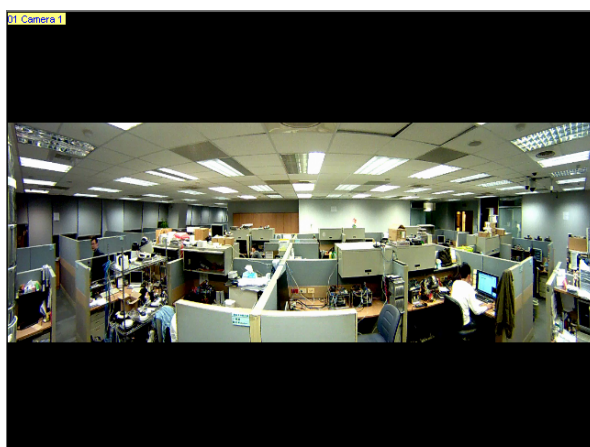
- **Camera Mode:** You can choose among the following four view modes.
  - **Quad view:** Composed of four PTZ views.
  - **360 degree:** Composed of two PTZ views and one 360° panoramic view.
  - **Dual 180 degree:** Composed of two 180° views.
  - **Single view:** Composed of one PTZ view. Click on the inset window to watch a close-up view on the Live View Window.
- **Camera Position:** Select **Ceiling**, **Wall** or **Ground** according to where the camera is mounted.
- **Adjust Auto Pan Speed at Top-Left Channel:** Select **low**, **medium**, or **high speed** to enable Auto Pan for one PTZ view at the rotation speed of your choice. This option applies to **Quad view**, **360 degree** and **Single view**.
- **Zoom:** Select **Zoom In** or **Zoom Out** and then click on the image.
- **Show Source Video at Top-Right Channel:** You can display the circular source image in the top-right quadrant when **Quad view** is selected.
- **360 Degree Object Tracking:** Tracks and highlights detected motion in the live view. This option is only available under **360 degree** mode.

- **Tracking:** Enables the 360 Degree Object Tracking function.
- **Advanced Settings:** Defines the mask region, object size, dwell time and schedule for object tracking. For details, see *4.4.2 Object Tracking*.
- **Guard Tour Setting:** This function is only available under the **Single View** mode. Enable this function to set up a virtual PTZ tour using the selected preset points on live view. For details, see *4.4.3 Virtual PTZ*.
- **Settings:**

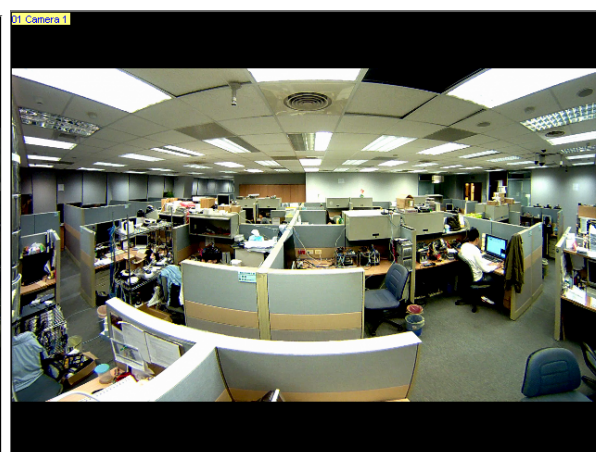


**Figure 4-9**

- **Wide View:** Increases the height of the 180-degree view when camera position is set to wall mount.



**Figure 4-10-1: Wide View Disabled**



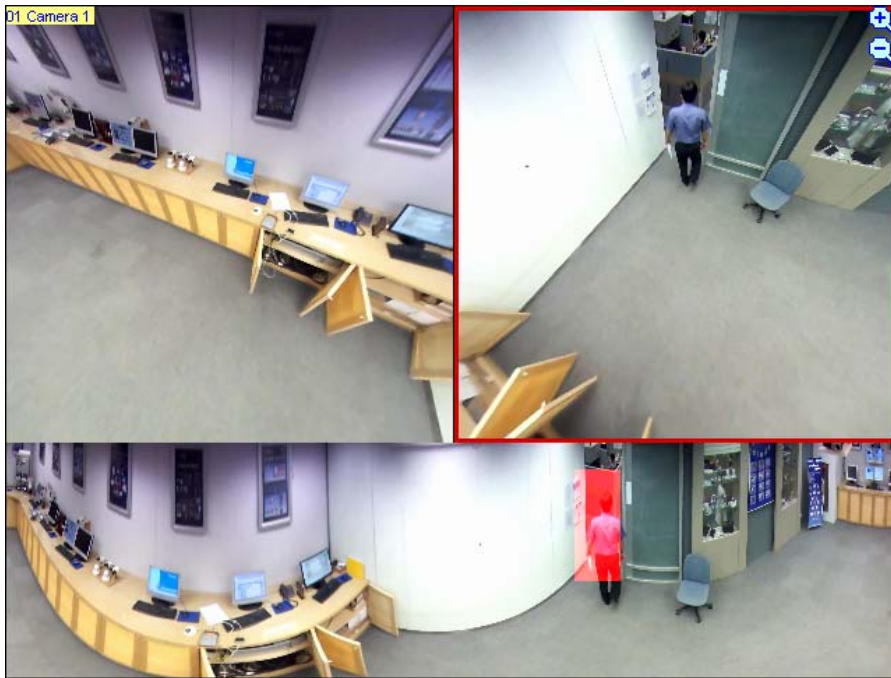
**Figure 4-10-2: Wide View Enabled**

- **Frame Rate Control:** Limits the frame rate of the fisheye live view to the number specified here. Select **Apply All** to apply the frame rate control to all fisheye views.
- You can click and drag any PTZ view or 180-degree view to adjust the viewing angle.

## 4.5.2 Object Tracking

You can now set up object tracking in fisheye live view to track a moving object. The function is only available when the fisheye camera mode is set to **Camera Mode: 360 degrees**.

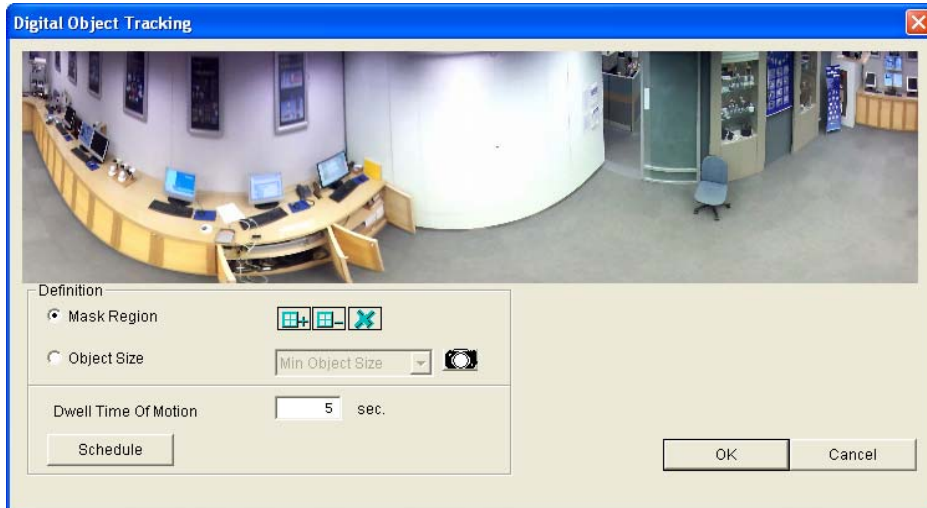
When motion is detected in the fisheye, the top-right channel will start tracking the moving object, which will also be highlighted in the 360-degree view at the bottom,.




**Figure 4-11**

1. Set the camera to **Camera Mode: 360 degrees** by following Step 1 & 2 in *4.4.1 Setting up Fisheye View* and selecting **Camera Mode > 360 degree**.

2. Configure the settings for object tracking.
  - A. Right-click the fisheye view, select **Fisheye Option > 360 Object Tracking** and click **Advanced Settings**. This dialog box appears.



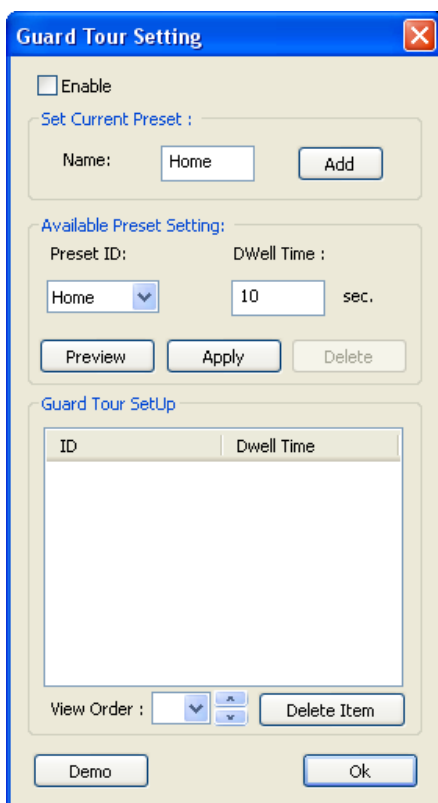
**Figure 4-12**

- B. Customize the settings for object tracking.
  - **Mask Region:** Use the mouse to outline a mask region where motions are ignored.
  - **Object Size:** Click the  button to pause the live view and then use the mouse to outline the maximum and minimum size of the target object.
  - **Dwell Time of Motion:** When the targeted object stops moving, the highlighted region and the top-right channel will remain fixed on the area for the number of seconds specified. Any new motion detected during the dwell time will be ignored to prevent the camera view from frequently jumping from one area to another.
  - **Schedule:** Click Schedule to activate object tracking only at the specified time frames.
3. To enable object tracking, right-click the fisheye view, select **Fisheye Option > 360 Object Tracking** and select **Tracking**.

### 4.5.3 Virtual PTZ Tour

Set up a virtual PTZ tour to monitor important spots of your surveillance site. Before you start, make sure your GV-Fisheye Camera is set to Single View mode. For details on the view mode, see *Cameras Modes, 4.4.1 Setting up Fisheye View*.

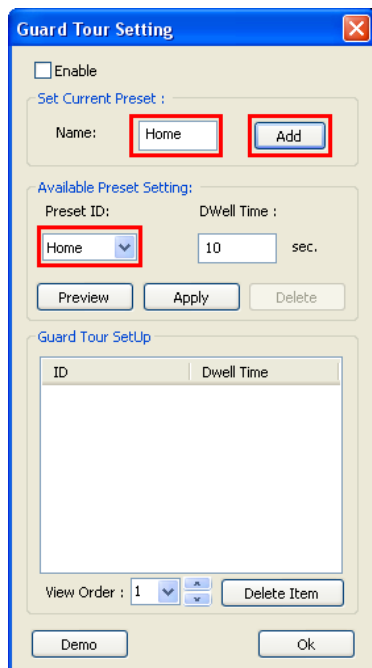
1. Move your live view to a desired starting place for the PTZ tour by clicking on the inset window at the bottom-right of the live view.
2. Right-click the fisheye view, **select Fisheye Option** and click **Guard Tour Setting**. This dialog box appears.



**Figure 4-13**

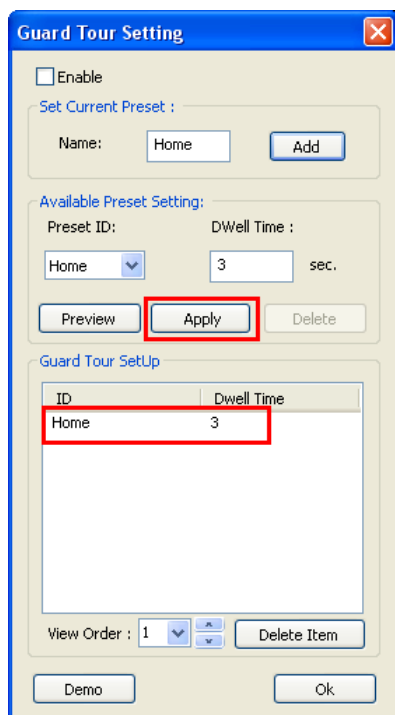


3. Type a name for the current live view and click **Add**. This live view point (preset point) automatically appears under Preset ID.



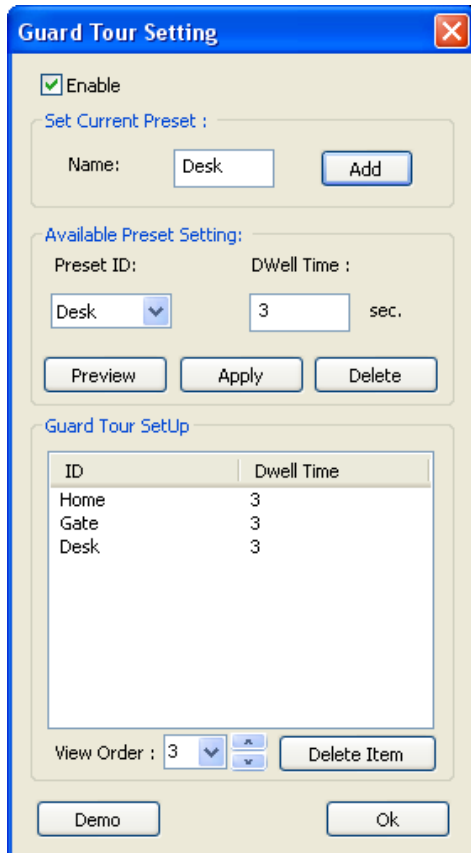
**Figure 4-14**

4. Specify the duration for the live view to stay at this preset point (dwell time). The default setting is **10** seconds.
5. Optionally click **Preview** to see a preview of the preset point.
6. Click **Apply**. This preset point is added to Guard Tour Setup.



**Figure 4-15**

- To add more preset points, repeat Step 1 to 6. For example, three preset points Home, Gate and Desk are established in this setup.



**Figure 4-16**

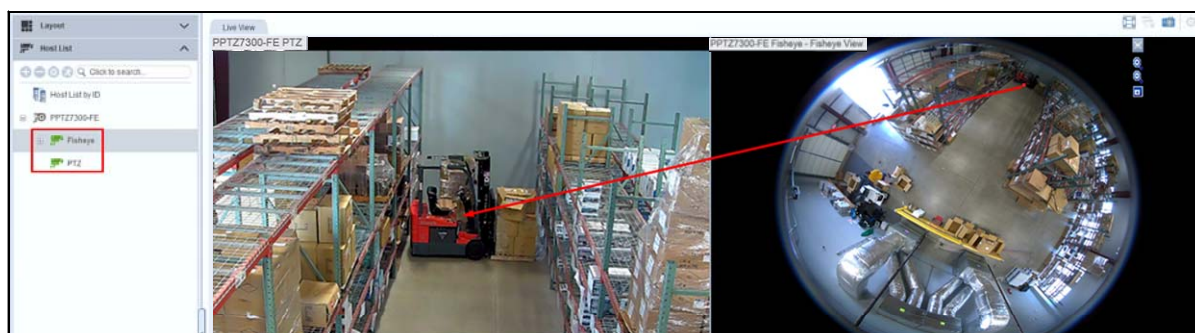
- To change the order of the preset points, select a preset point from the ID column and select a number from the drop-down list to move this preset point up or down the list.
- Optionally click **Demo** to watch a preview of the PTZ tour.
- Select **Enable** to start the PTZ tour. To stop the PTZ tour, disable this function on the Guard Tour Setting.

## 4.6 Panoramic PTZ View

With GV-Panoramic PTZ Camera, you can manually track moving objects on its dome view while monitoring all angles of a location through its fisheye view.

To do this:


1. Drag both the fisheye and PPTZ camera channels from the Host List onto the Live View window.
2. Click on any place on the fisheye view. The speed dome will automatically point to the designated area.



**Figure 4-17**


## 4.7 Adjusting Distorted Views

Live view images may be curved near the corners. You can use the Wide Angle Lens Dewarping feature to adjust image distortion.

1. On the Live View window, click **Configure**  on the camera's live view, enable **Wide Angle Lens Dewarping**.
2. Once enable, select **Wide Angle Lens Settings** to configure.
3. Move the slider at the bottom to correct the degree of warping. The adjusted view is shown on the right.

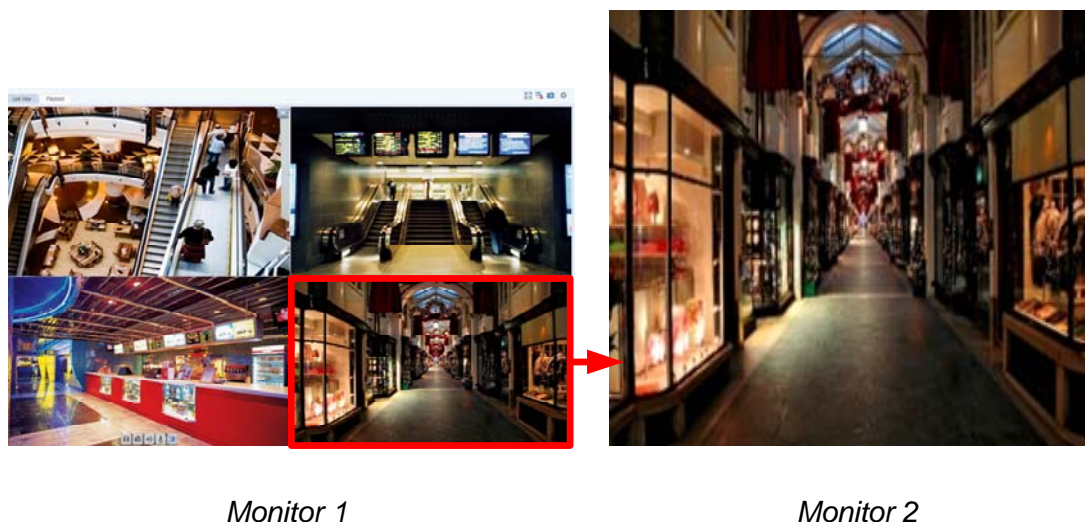


**Figure 4-20**

4. To apply this dewarping setting to other channels on the Live View window, select **Apply All**.
5. To apply the dewarping setting to a single camera channel, click **Configure**  on the camera's live view and select **Wide Angle Lens Dewarping**. The selected channel is adjusted accordingly.

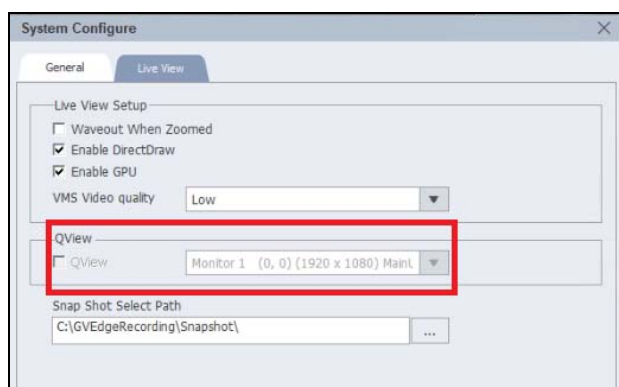
## 4.9 Enabling QView Display

When having at least two monitors connected to your computer, you can project a live view display onto another monitor using the QView function and view a live view on a separate monitor as full screen.



**Figure 4-21**

1. On the main screen, click **Configure** (No. 5, Figure 1-2) and select **Setup** . The System Configure dialog box appears.
2. Click the **Live View** tab and select **QView**. Select **Monitor 2** and click **OK**.



**Figure 4-22**

3. Click the single live view you wish to project onto another monitor. The live view is displayed onto the monitor selected.

---



**Note:** GV-Edge Recording Manager and the QView's setting cannot be applied on the same monitor.

---

## Chapter 5 Audio Communication

You can speak to, listen to and engage in two-way communication with a selected host.

Move the cursor on the live view of a camera and select the following options:

- **Microphone**  to speak to the host through a microphone.
- **Wave Out**  to listen to the camera through a speaker.

---


**Tip:** Right-click a GV-VMS from the Host List and select **Microphone / Way Out / 2 Way**.

---

## Chapter 6 Playback

You can remotely play back recordings from the connected hosts on GV-Edge Recording Manager.

There are two ways to play back recordings:

- **Instant Playback:** To play back at a pre-defined duration, select **Instant Play**  on a camera live view (No. 2, Figure 4-1).
- **Playback Window:** To play back from any time period within the host's timeline, using the Playback window, see 6.1 *The Playback Window*.

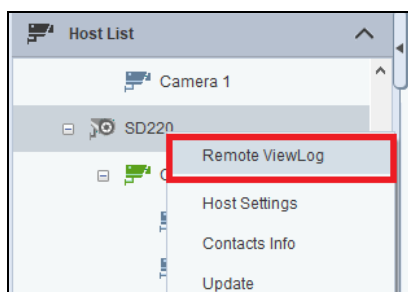
---

### Note:

1. The Instant Playback (No. 2, Figure 4-1) and audio recording backup are not supported by GV-SNVR.
  2. **Remote playback from SD card** is not supported for the following models: GV-ABL / TBL Series, GV-ADR / TDR Series, GV-AVD / TVD Series, GV-EBD Series, GV-QSD5730 / 5731-IR, GV-SD2322-IR / 2722-IR / 3732-IR.
  3. For a GV-DVR / NVR / VMS host, make sure **Remote ViewLog Service** (under Control Center Service) is enabled to allow GV-Edge Recording Manager to remotely access the host for playback.
- 

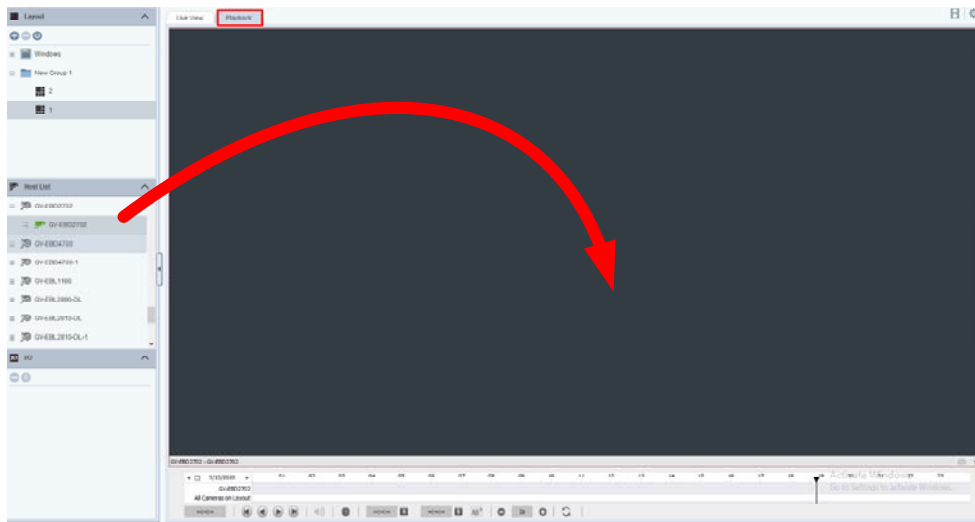
### 6.1 The Playback Window

1. To play back the recording of a host device, choose one of the following methods to start:
  - Right-click a host/camera from the Host List and select **Remote ViewLog**.



**Figure 6-1**

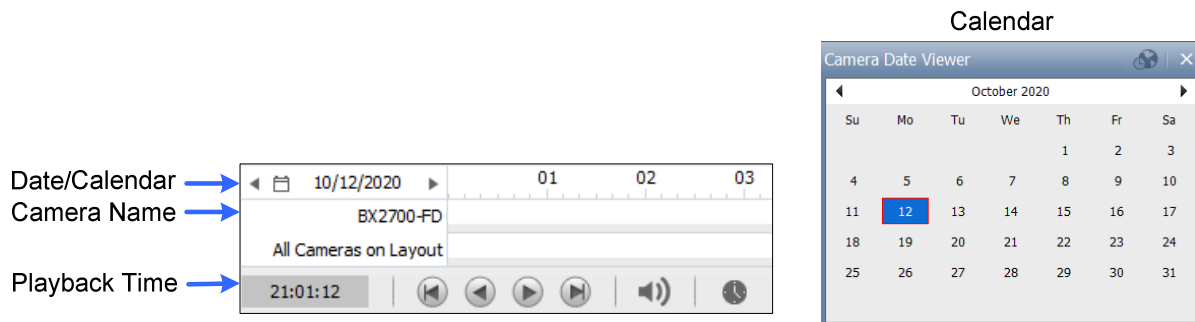
- Select **Playback** at the top of the main screen, and drag a host device or camera from the Host List into the playback window.



**Figure 6-2**

**Tip:** You can customize the number of channels and layout for playback using the Layout function on the left panel.

2. On the timeline, click the arrows or click on the date to select a date with recordings, which are highlighted in blue, from a pop-up calendar.



**Figure 6-3**

3. Click **Play** to start playing.



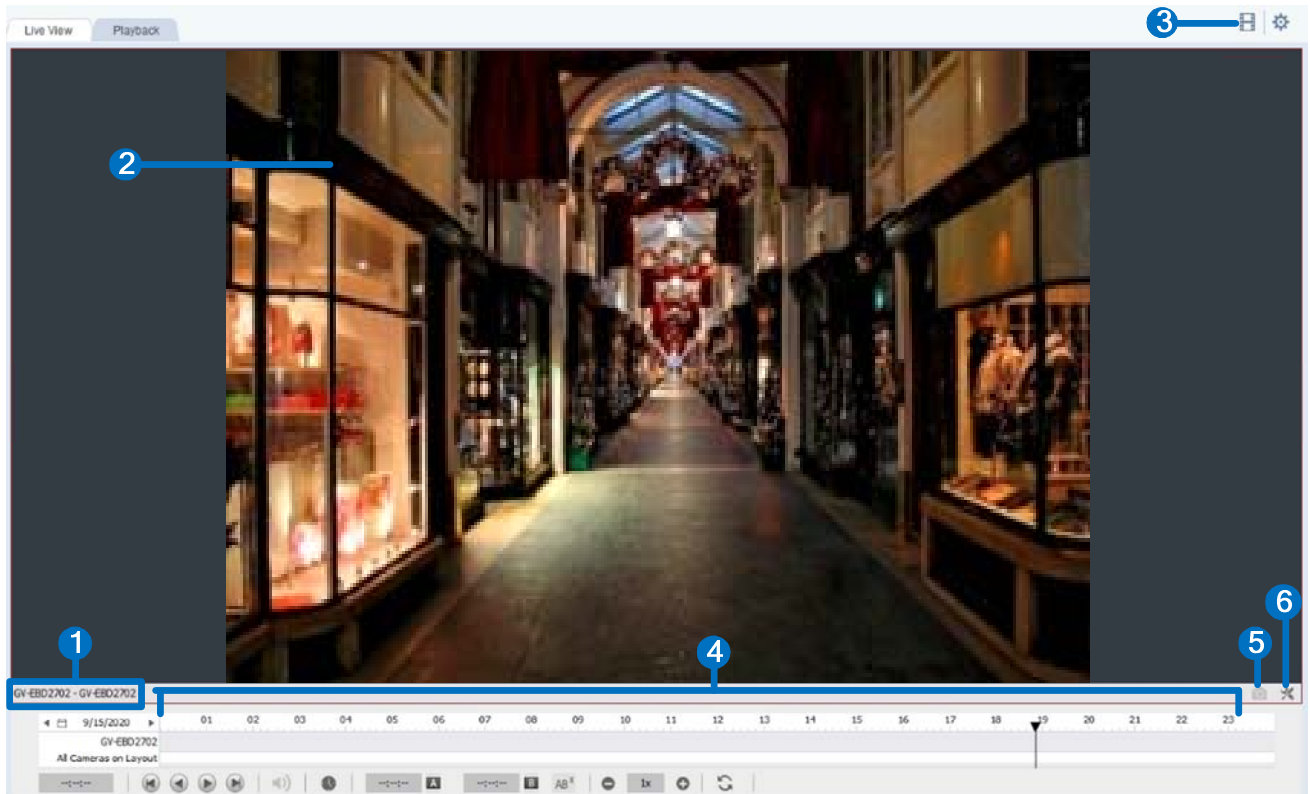


Figure 6-4

No.	Name	Descriptions
1.	Camera Name	Indicates the camera name.
2.	Camera View	Displays the playback video
3.	Playback Menu	<p>Accesses the following playback settings:</p> <ul style="list-style-type: none"> <li>4. <b>Search Object Index:</b> Searches for Object Index of the recordings.</li> <li>5. <b>Bookmark:</b> Accesses all the bookmarks. To create a bookmark, click the <b>Options</b> button (No. 6, Figure 6-4) on a camera channel and select <b>Add to Bookmark</b>.</li> <li>6. <b>Print:</b> Prints the current camera view.</li> <li>7. <b>Backup:</b> Backs up recordings.</li> <li>8. <b>Display Merging List:</b> Displays the merging events of recorded videos.</li> <li>9. <b>Play Setting:</b> Adjusts the settings for playing back recordings.</li> <li>10. <b>Display Options:</b> Adjusts the display settings.</li> <li>11. <b>Path for Cache:</b> Displays the cache directory.</li> </ul>
4.	Timeline Player	Indicates the time in which there are recordings and contains the playback controls, see <i>Timeline Player</i> later in this section.
5.	Snapshot	Takes a snapshot of the recording image.

6. Options

Accesses the following functions:

1. **Close Channel:** Closes the playback channel.
2. **Video Effects:** Applies video effects to the recordings.
3. **Keep Image Ratio:** Locks the camera view to its original ratio.
4. **Web POS Search:** Searches for recordings of POS events.

Timeline Player

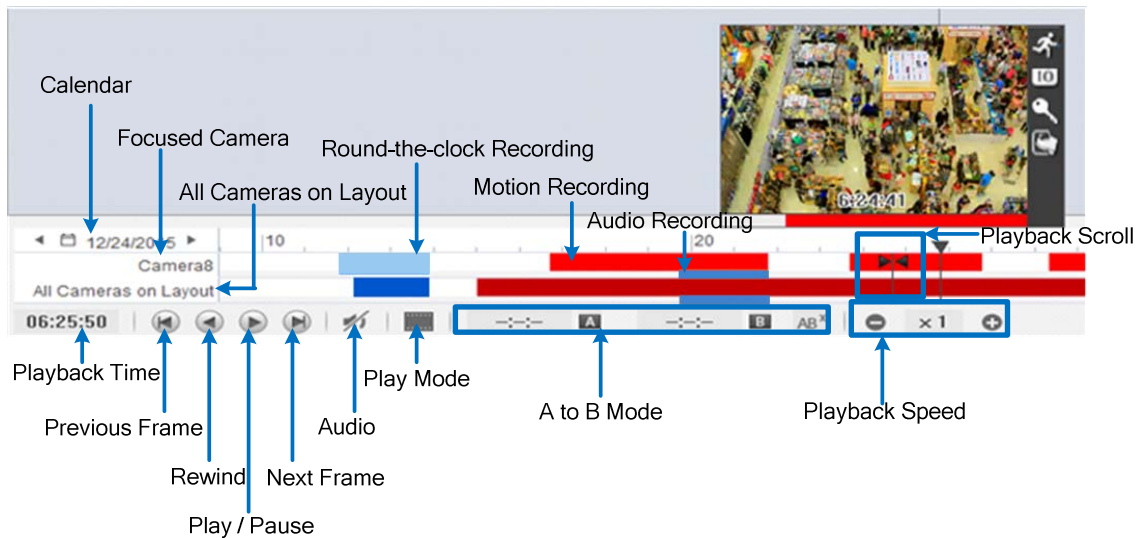
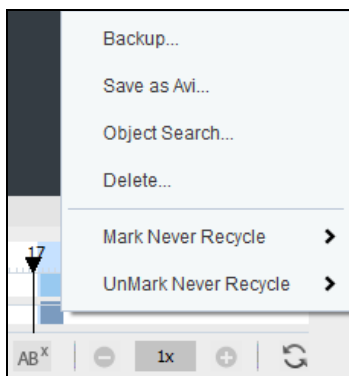



Figure 6-5

**Tip:** Right-click on the timeline and drag a period of recording time to have a quick access to the following functions: Backup, Save as AVI, Object Search, Delete (recording files), Mark / Unmark Never Recycle.




## Playback Mode Option

By default, The Playback Window is set to play back video in the Real Time mode. To change playback modes, click  on the Timeline Player.

- **Frame by Frame (without audio):** Plays back video frame by frame without audio; however, playback can be delayed depending on the bandwidth and computer performance.
- **Real Time:** Plays back video on real time. Despite saving rendering time, this method drops frames.





## A to B Playback Mode

When playing video events, you can set a starting and an ending frame for auto-playing:

1. To set the starting frame A, click  and select a time by clicking the timeline. This icon changes to blue and the selected time appears on the timeline.



**Figure 6-6**

2. Click  and follow step 1 to set the ending point (frame B).
3. Click  to start playing back from frame A to B repeatedly.
4. To pause the playback, click . To cancel this playback mode, click .

## Changing the Displayed Date on the Recording Timeline

You can directly drag the timeline to search and view recordings of a previous or next day with recorded events.

1. Scroll the mouse wheel forth to enlarge the timeline. The default display of the timeline is 24 hours.
2. Click and drag the timeline back and forth. The timeline jumps between the recording days.



**Figure 6-7**

---

### Note:

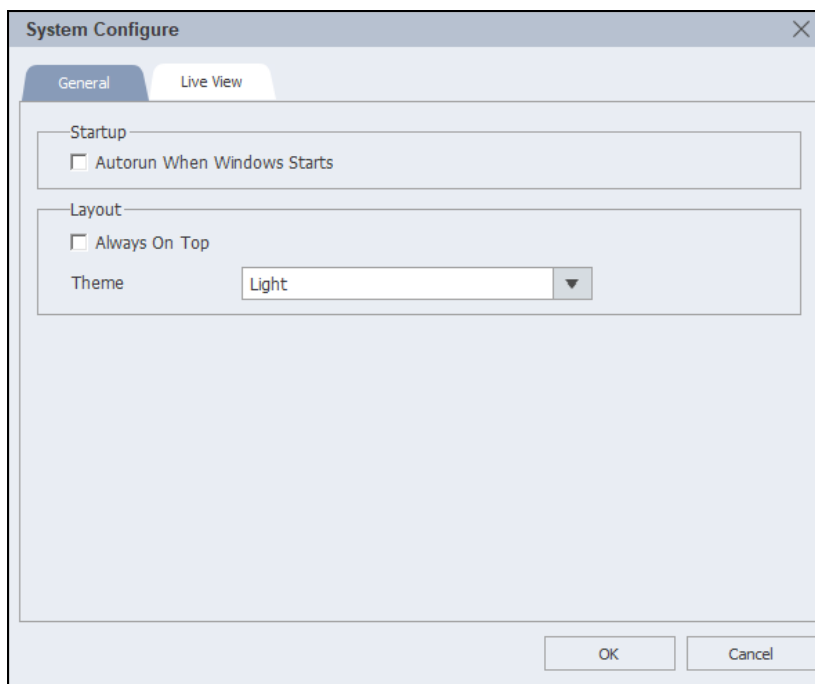
1. Only the **Defog**, **Stabilizer**, **Fisheye** and **Download** features are supported in GV-SNVR and GV-NAS System.
  2. The **Play Speed** option is not supported in GV-SNVR.
  3. The **Heat Map** feature is only supported for GV-VMS V15.10.1.0 or later.
-

# Chapter 7 System Configuration

This chapter describes GV-Edge Recording Manager's startup mode, windows and dialog box layout and port settings.

## 7.1 General Settings

On the main screen, click **Configure** (No. 5, Figure 1-2) > **Setup**. This window appears. The **General** tab contains the settings on startup, windows layout and interface style.



*Figure 7-1*

### [Startup]

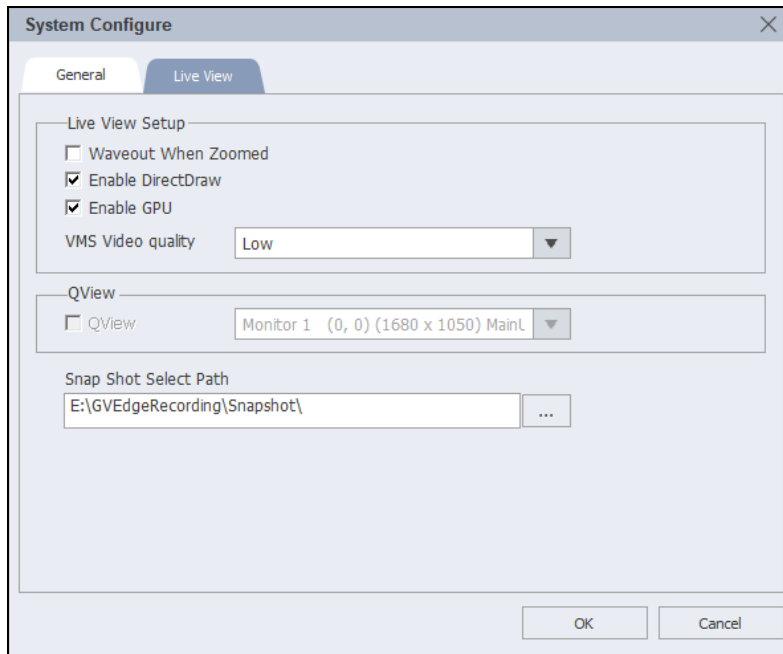
- **Aautorun When Windows Starts:** GV-Edge Recording Manager starts up when Windows is started.

### [Layout]

- **Always On Top:** Each newly opened window or dialog box will stay on the top of other windows or dialog boxes.
- **Show Style:** Select a theme color for the interface.

## 7.2 Live View Settings

On the main screen, click **Setup** (No. 5, Figure 1-2) > **Live View** for other live view settings, as below.



**Figure 7-2**

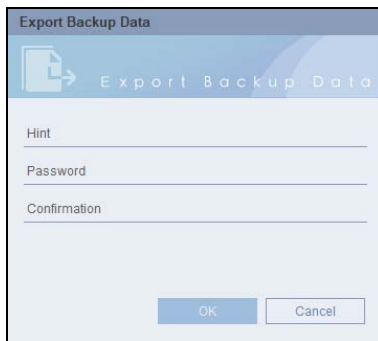
- **Wave out When Zoomed:** Automatically receives live audio from the surveillance site when zooming in on its live view, when available.
- **Enable DirectDraw:** Enhances the coloring to have more vivid and saturated images. Some VGA cards might not support DirectDraw and can produce distorted frames. In this case, disable the feature.
- **Enable GPU:** Enabled by default, uses GPU decoding for image decoding to reduce CPU loading.
- **VMS Video Quality:** Selects the quality of the camera images from VMS hosts. Higher the quality, the more network bitrate required.
- **QView:** Projects a live view display onto another monitor when you have at least two monitors connected to the PC, see *4.9 Enabling QView Display*.

## 7.3 Exporting and Importing Settings

### 7.3.1 Exporting Settings

You can back up the settings in the Host List (Figure 1-3) and live view window (Figure 4-1).

1. On the main window, click **Configure** (No. 5, Figure 1-2) > **Export Data**. This dialog box appears.



**Figure 7-3**

2. Set up a password for the exported settings. This password is required when the settings are being imported.
3. Click **OK** to confirm. Select a storage location and modify the file name if necessary.
4. Click **Save**.

### 7.3.2 Importing Settings

You can import the previously exported settings.

1. On the main window, click **Configure** (No. 5, Figure 1-2) > **Import Data**. A notification message appears.
2. Click **Yes** to confirm. Locate a previously backed-up file and click **Open**. The password request appears.
3. Type the password and click **OK**.

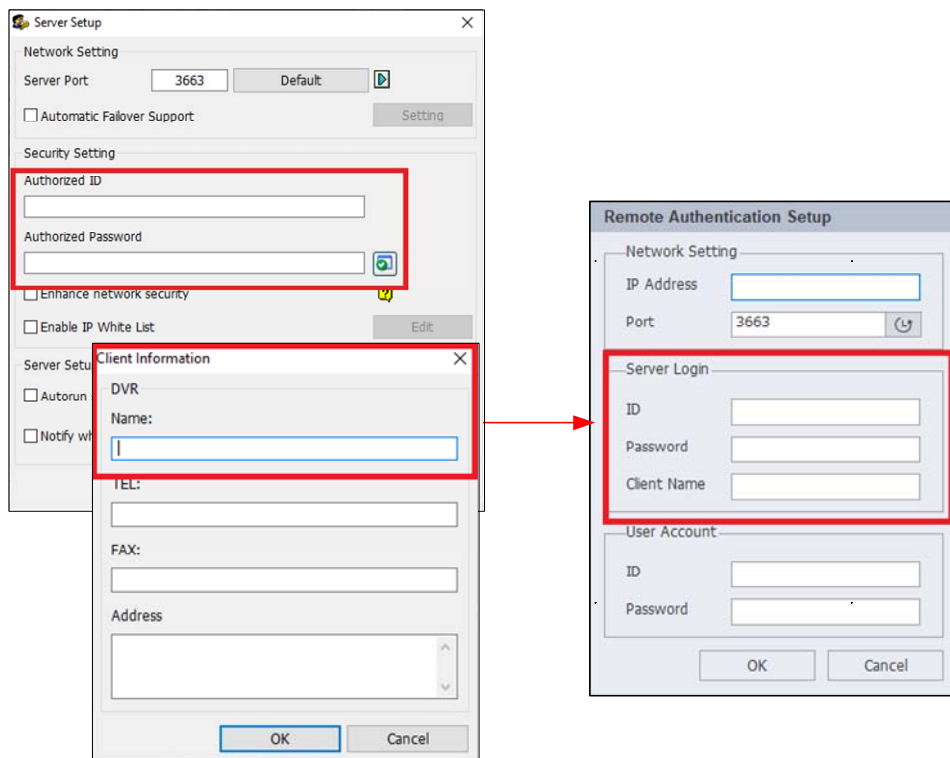
# Chapter 8 Authentication Server

GV-Edge Recording Manager can integrate with GV-Authentication Server to gain access of the devices under a specified GV-DVR / NVR / VMS account, of which GV-Edge Recording Manager can perform live view and playback.

For details on the settings of Authentication Server, see [9.4 Authentication Server](#) in [GV-VMS User's Manual](#).

To access the feature, follow the steps below:

3. In the Host List, right-click **Host List by ID** > **Add Authentication Server**. The Remote Authentication Setup dialog box appears.
4. Under **Server IP**, type the IP address of the Authentication Server.
5. Type the Authorized ID, Authorized Password, Client Name of the Authentication Server within **ID**, **Password**, **Client Name** under **Server Login** on GV-Edge Recording Manager.



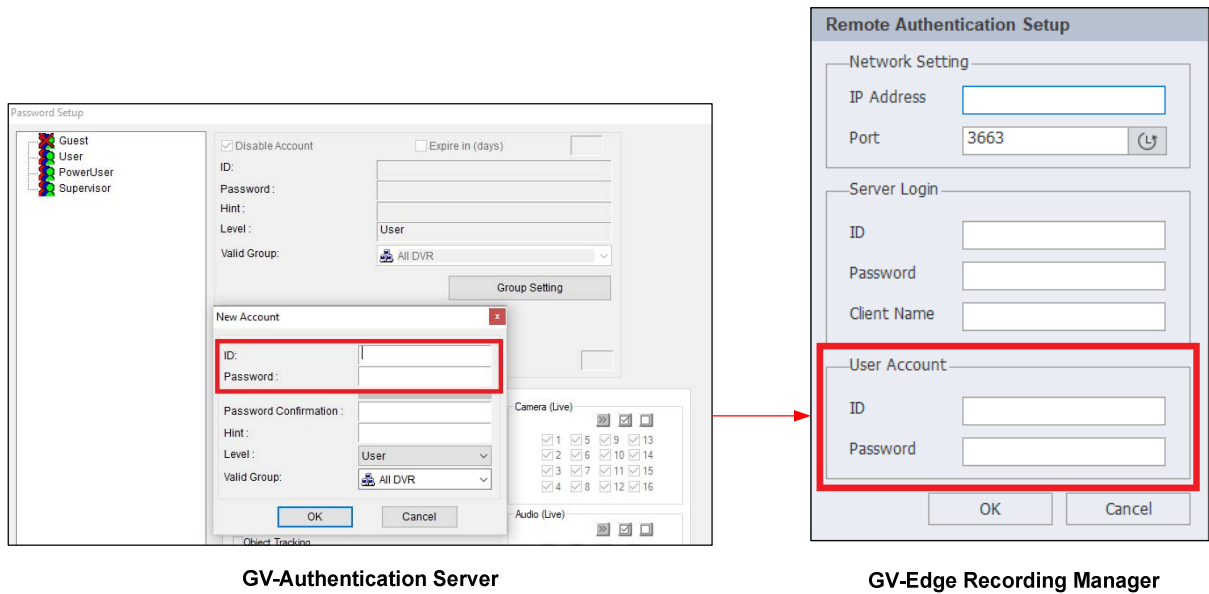
GV-Authentication Server

GV-Edge Recording Manager

Figure 8-1

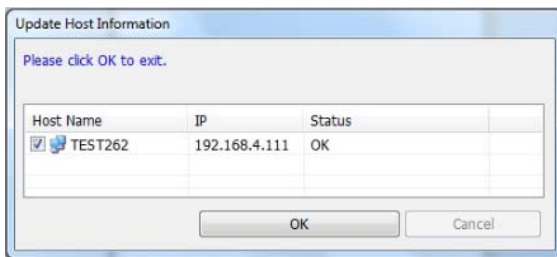


6. Type the Account ID and Password of the Authentication Server within **ID**, **Password**, under **User Account** on GV-Edge Recording Manager.



**Figure 8-2**

7. Click **OK**. This dialog box appears.



**Figure 8-3**

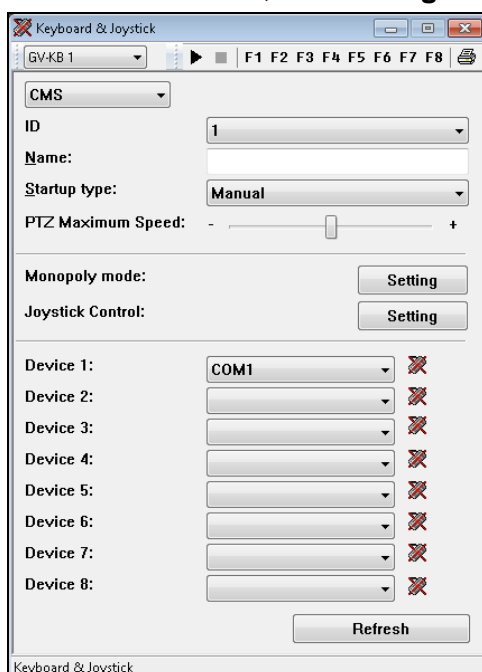
8. Click **OK**. A list of hosts assigned to the user account created on the Authentication Server will be displayed in the Host List.

# Appendix

## PTZ Control Using GV-Joystick

A 64-CH license is required for using GV-Joystick. The following program must be running in the background when using a GV-Joystick for PTZ control. For details on the GV-Joystick operations, see [GV-Joystick User's Manual](#).

1. On the main screen, click **Configure** > **Joystick**. This dialog box appears



**Figure A**

2. In the Device field, select **GeoVision Joystick** to connect to GV-Joystick V2.
3. Click the **Start Service** button ► and then you can use the GV-Joystick to control the PTZ camera.
4. If more than one GV-Joystick is connected, repeat Step 2 to set up and use another GV-Joystick.

## Mac Version



# Chapter 9 Overview

## 9.1 Main Window

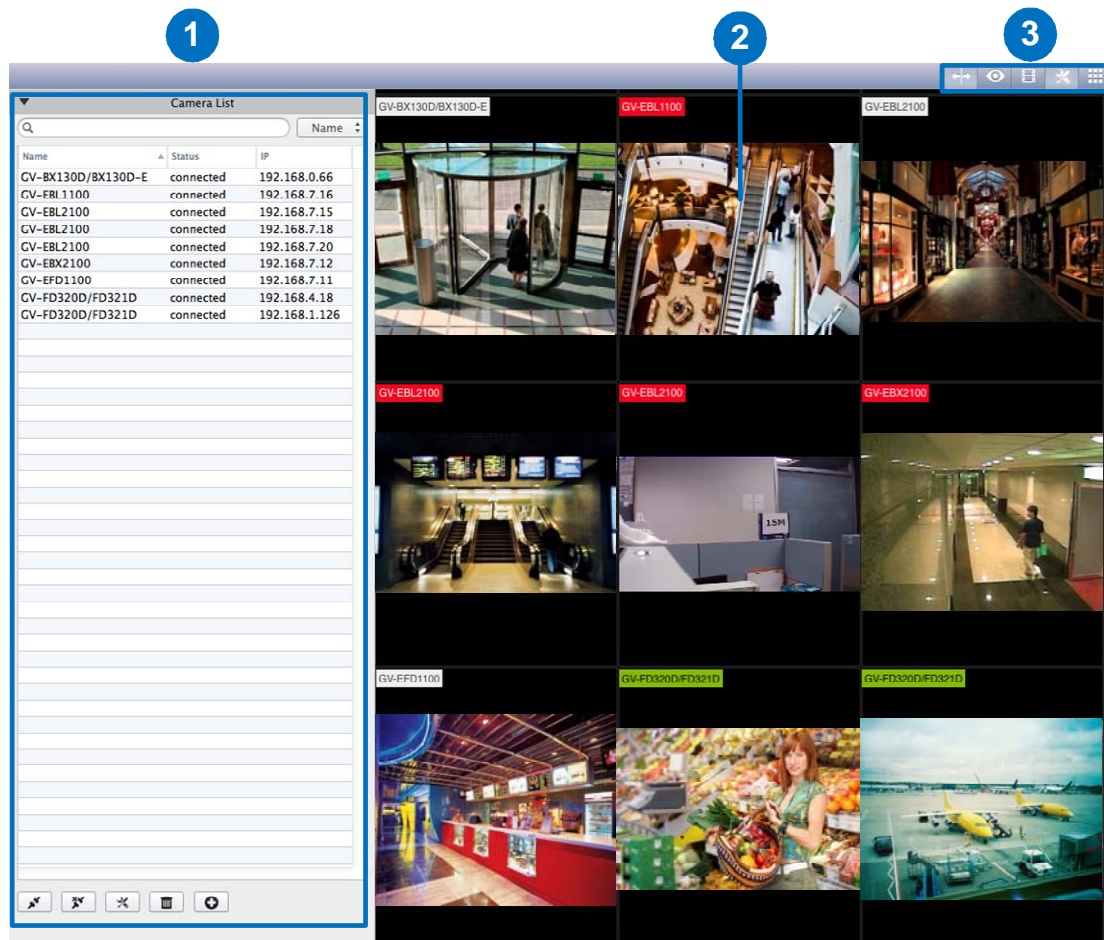


Figure 9-1

By default, there are three areas on the main screen:

No.	Name	Description
1	Camera List	Contains the hosts added to the GV-Edge Recording Manager. For details, see 9.2 <i>The Camera List</i> .
2	Live View Window	Displays live views from hosts. For details, see 12.1 <i>The Live View Window</i> .
3	Toolbar	Contains buttons to quickly access system settings, functions and main screen windows. For details, see 9.3 <i>The Toolbar</i> .

## 9.2 The Camera List

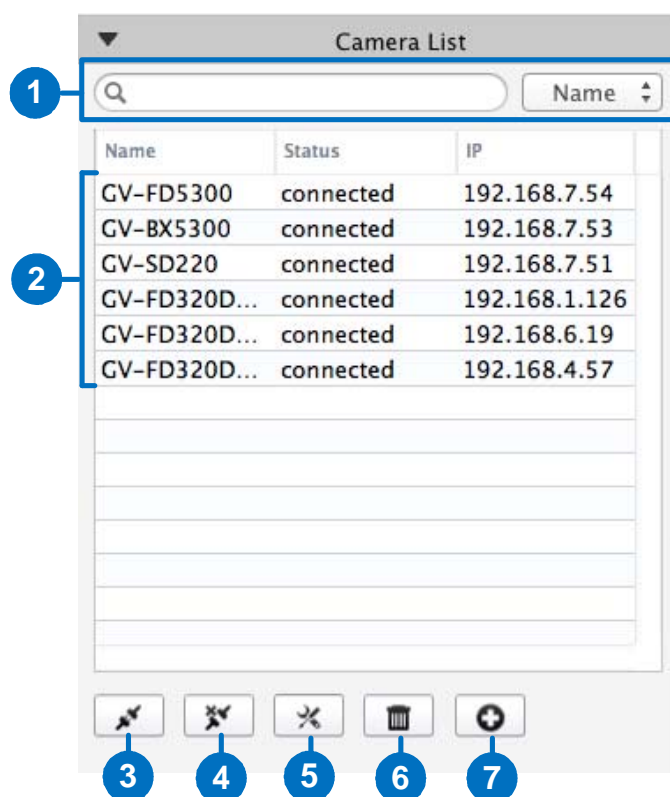


Figure 9-2

No.	Name	Description
1	Search	Search the hosts are under the same LAN with GV-Edge Recording Manager. Select <b>Name</b> or <b>IP</b> using the drop-down list and then type key words to search by host name or IP address.
2	Host Information	Displays the host information including host name, status and IP address. Click the header to sort the devices according to name, status or IP address.
3	Connect	Displays the live view of the selected host.
4	Disconnect	Removes the live view of the selected host.
5	Host Settings	Modifies host settings including the host name, IP address, username, password and connection ports.
6	Delete Host	Deletes the selected host from the Camera List.
7	Add Host	Adds a host. For details, see <i>10.2.2 Manually Adding a Host Manually</i> .

## 9.3 The Toolbar



**Figure 9-3**

No.	Name	Description
1	Controller	Click to extend the Live View Window (No. 3, Figure 9-1) to full screen.
2	Event List	Displays events with event type, device name and detection time. For details, see <i>12.6 Viewing Event List</i> .
3	Remote Playback	Click to access the recording calendar which notes dates in which recordings are done. For details, see <i>Chapter 14 Playback</i> .
4	Setup	Click to access the Camera List for host management. For details, see <i>9.2 The Camera List</i> .
5	Layout	Click to switch the live view division. You can choose among 1, 4, 6, 8, 9, 10, 13, 16, 25, 36 and 64 (with In-App Purchase) channels.

# Chapter 10 Getting Started

## 10.1 Installing the GV-Edge Recording Manager

Follow the steps below to install GV-Edge Recording Manager from the GeoVision Website.

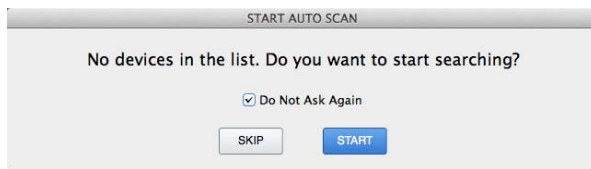
1. Go to the **Download** page of GeoVision Website:  
[http://www.geovision.com.tw/download/product/GV-Edge%20Recording%20Manager%20\(Mac%20Version\)](http://www.geovision.com.tw/download/product/GV-Edge%20Recording%20Manager%20(Mac%20Version))
2. Click the **Link** icon  of **GV-Edge Recording Manager (Mac)**.
3. Click the **View in Mac App Store**  tab. The browser redirects the content to the Mac App Store.
4. Click the **Install** button  .

## 10.2 Adding Hosts



At first startup, GV-Edge Recording Manager automatically searches and displays GV-IP Devices and servers installed with GeoVision software that are under the same LAN. To add multiple hosts, follow the instruction in *10.2.1 Automatically Adding Multiple Hosts*. To add a single host, follow the instruction in *10.2.2 Manually Adding a Host*.

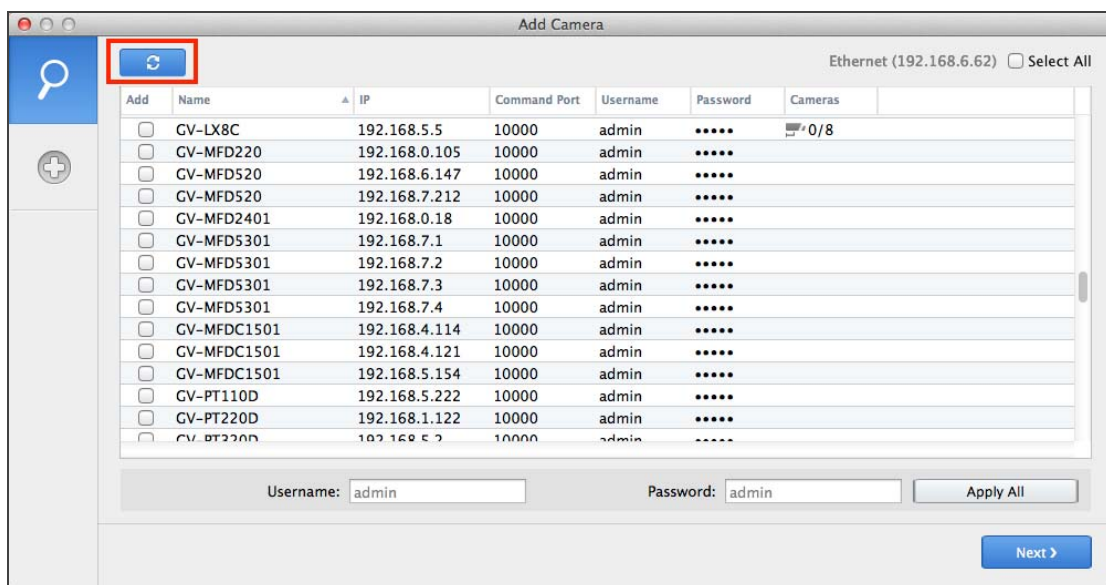
### 10.2.1 Automatically Adding Hosts

1. For the first startup, you will be prompted to search GV-IP Devices and servers installed with GeoVision software that are under the same LAN with GV-Edge Recording Manager. Click **Start** to search.



**Figure 10-1**

2. Click **Start** and click  from the Camera List. The Add Camera window appears and the searched devices are displayed.
3. To refresh the list, click . GV-Edge Recording Manager starts browsing for GV-IP Devices under the same LAN and the found devices are immediately listed.



**Figure 10-2**



4. To add multiple hosts:
  - A. Select hosts from the Add Camera window or click **Select All** to add all the hosts.
  - B. Type the username and Password and click **Apply All** to log in the selected hosts using the username and password or type the Username and Password for each camera. Click **Next**.

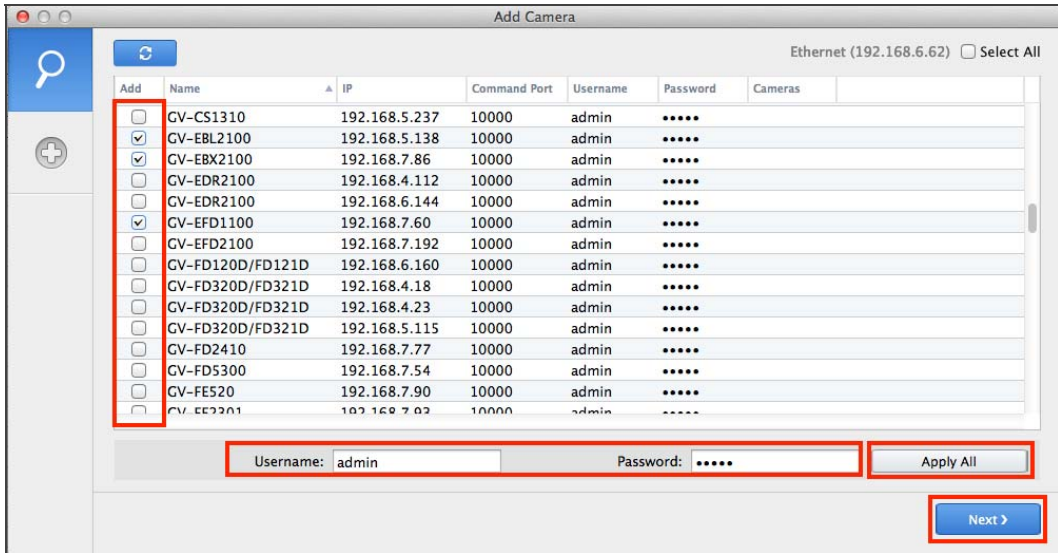


Figure 10-3

- C. The selected hosts are shown.

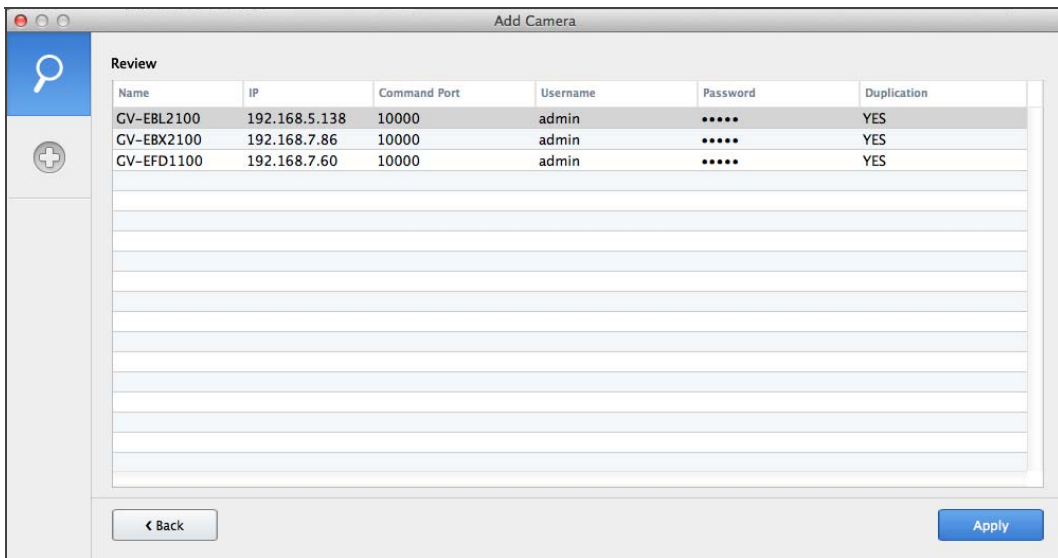
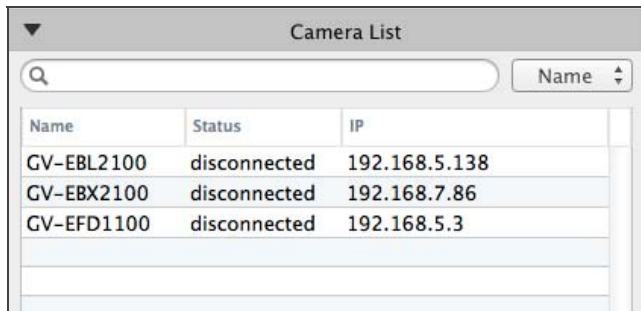



Figure 10-4

- D. To remove unwanted hosts, click **Back** to return to the previous step to unselect them. To add these hosts to Camera List, click **Apply**. They are immediately added.



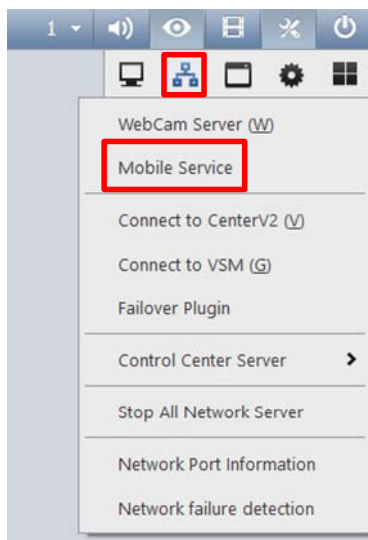
Name	Status	IP
GV-EBL2100	disconnected	192.168.5.138
GV-EBX2100	disconnected	192.168.7.86
GV-EFD1100	disconnected	192.168.5.3

**Figure 10-5**

5. You can display live view using any of the following method:
- Double-click a host
  - Drag and drop a host to the live view
  - Select a host on the Camera List and click 



**Note:**

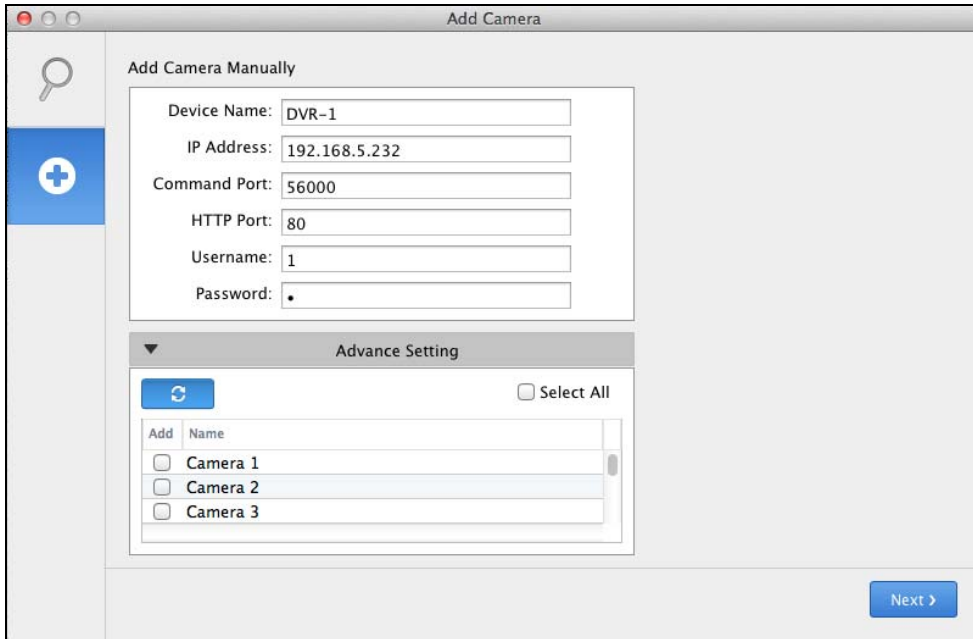
1. If a router or firewall is installed, ensure the following communication ports required by the Host Search function are open:
  - TCP/IP ports **5201** (for searching GV-VMS) and **5202** (for searching GV-IP Devices)
  - Multicast port **5200**
2. If antivirus software is installed, the Host Search function may be interfered and will not detect the available hosts. In this case, turn off the antivirus software and try again.
3. To add GV-VMS hosts, make sure that **Mobile Service** is enabled ahead to allow remote access from GV-Edge Recording Manager. (Network button > Mobile Service)



**Figure 10-6**

## 10.2.2 Manually Adding a Host

1. Click  from the Camera List. The Add Camera window appears.
2. Click . This page appears.




The screenshot shows the 'Add Camera' window with the following fields and sections:

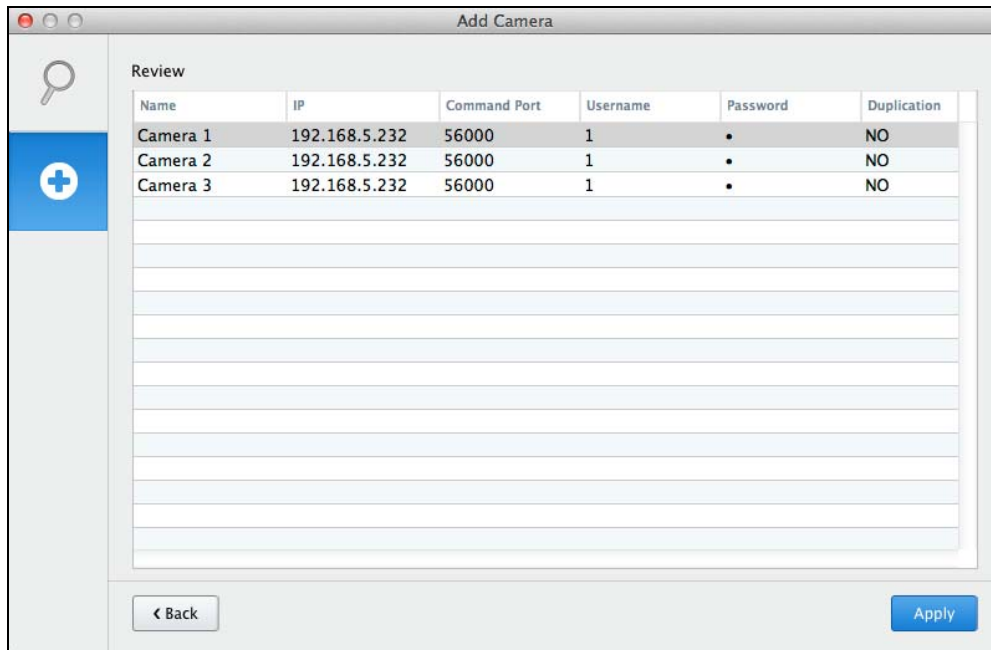
- Add Camera Manually** section:
  - Device Name: DVR-1
  - IP Address: 192.168.5.232
  - Command Port: 56000
  - HTTP Port: 80
  - Username: 1
  - Password: [masked]
- Advance Setting** section:
  - Refresh button (circular arrow icon)
  - Select All checkbox
  - Table with columns 'Add' and 'Name':
 

Add	Name
<input type="checkbox"/>	Camera 1
<input type="checkbox"/>	Camera 2
<input type="checkbox"/>	Camera 3
- Next >** button at the bottom right.

**Figure 10-7**

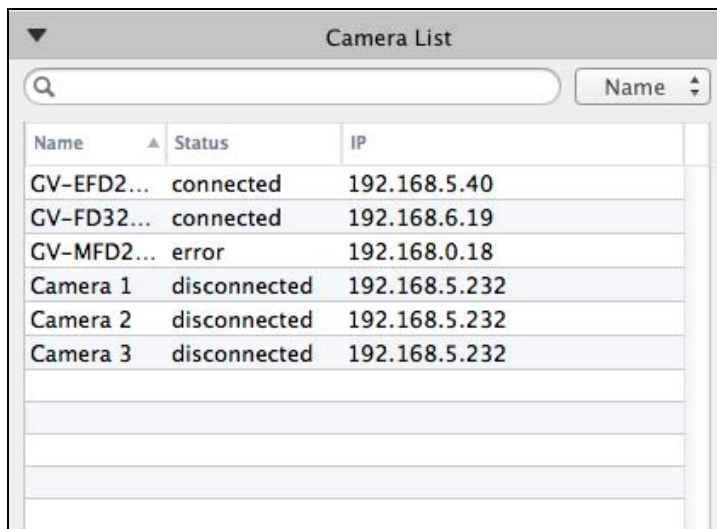
3. Type the host's device name, IP address, username and password. The default command port is **10000** for GV-IP Devices, **56000** for GV-VMS, **11000** for GV-Recording Server, and the default HTTP port is **80**. Only modify these values if necessary.
4. Optionally click  to obtain a list of cameras that are connected to the host. This function only applies to GV-VMS and GV-Recording Server which contain multiple cameras.

- Select the cameras to be added and then click **Next**. This page appears.



**Figure 10-8**

- Click **Apply**. These cameras are added to the Camera List.



**Figure 10-9**

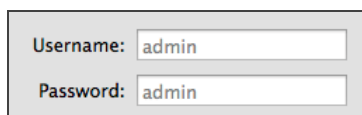
# Chapter 11 Batch Management

The batch functions are integrated interfaces designed for management of mass number of GV-IP Devices without the need to visit each device's Web interface. On these interfaces, you can change/assign IP address, rename devices, assign NAS and view storage space information of multiple GV-IP Devices.

---

## Note:

1. The batch management functions described in this chapter are only supported by GV-Video Server and GV-IP Cameras (**except** GV-ABL / ADR / AVD / EBD / TBL / TDR / TVD series, G-SD2322-IR / 2722-IR / 3732-IR).
2. By default, all the usernames and passwords for batch management functions (under Utilities) are **admin**. To use a different username and password, type in the Username and Password fields.



Username:

Password:

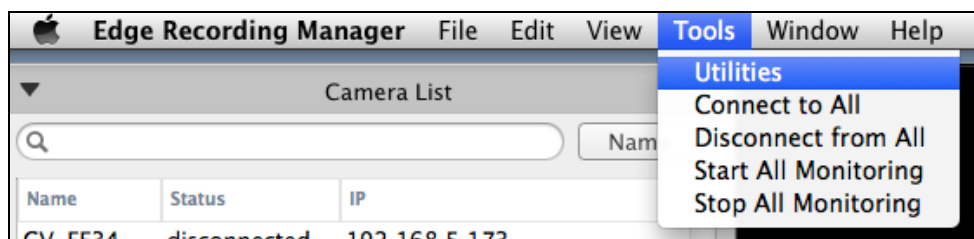
**Figure 11-1**

---

## 11.1 Configuring the IP Address

You can set the IP address of more than one GV-IP Devices at a time. Follow the steps below.

1. On the main screen, move the cursor to the top, from the emerging toolbar, click **Tools** and then click **Utilities**. The Utilities window appears.



**Figure 11-2**

- Click to browse for GV-IP Cameras under the same LAN. The devices found are listed.

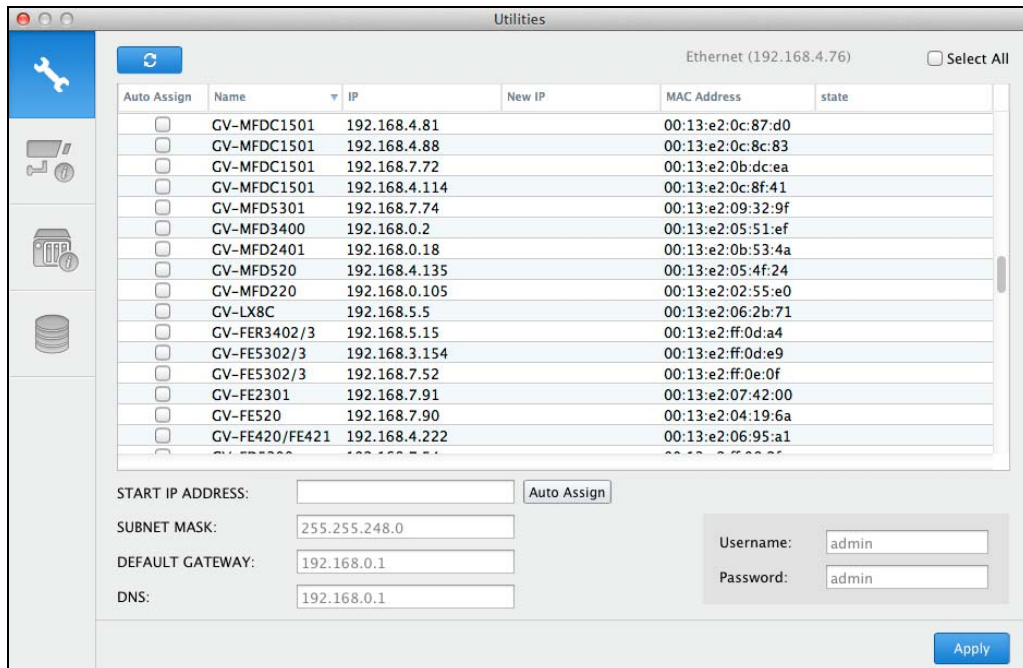


Figure 11-3

- Select at least one device, type the Start IP address, subnet mask, default gateway, DNS, username and password. For multiple devices, the IP address will proceed from the start IP address you specified.
- To preview the new IP addresses, click **Auto Assign**. The IP addresses to be assigned are shown in the New IP column.

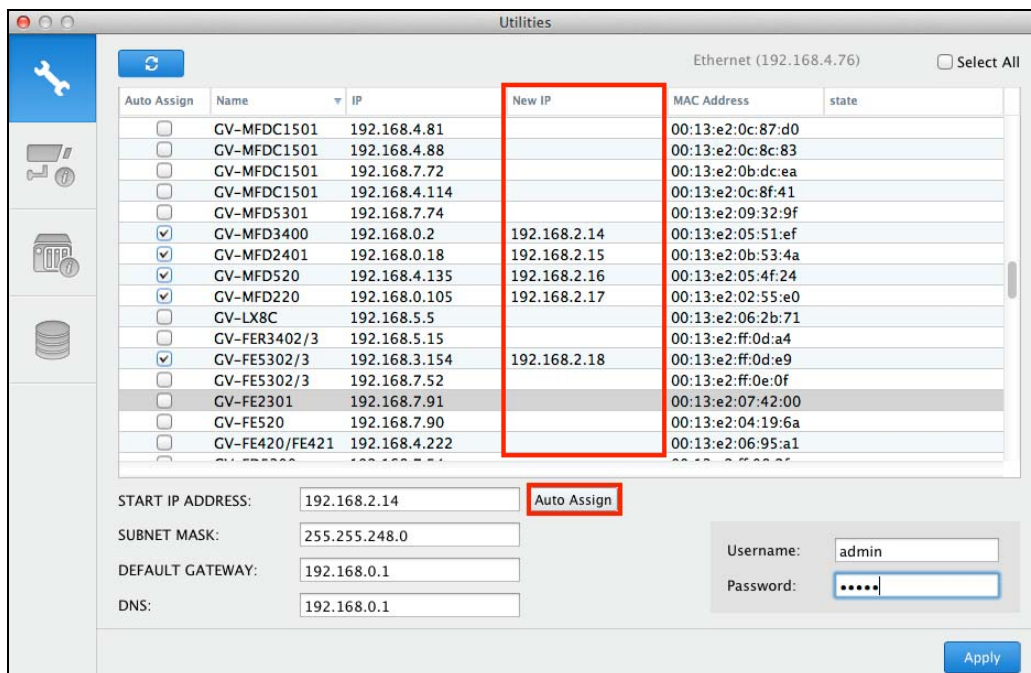


Figure 11-4

- Click **Apply** to start the update. When update is completed, the “Success” message appears in the State column.

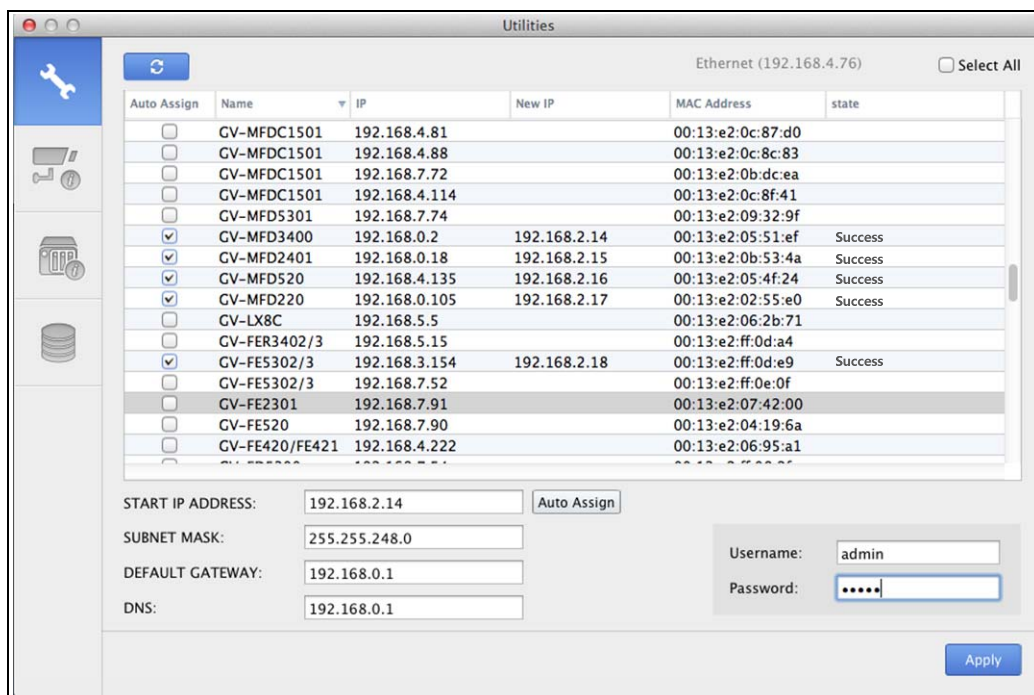
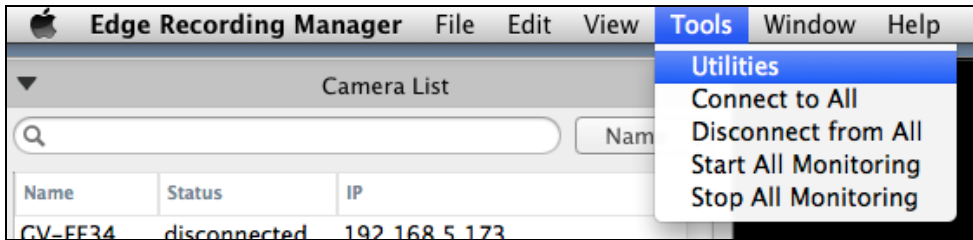


Figure 11-5



## 11.2 Renaming Devices

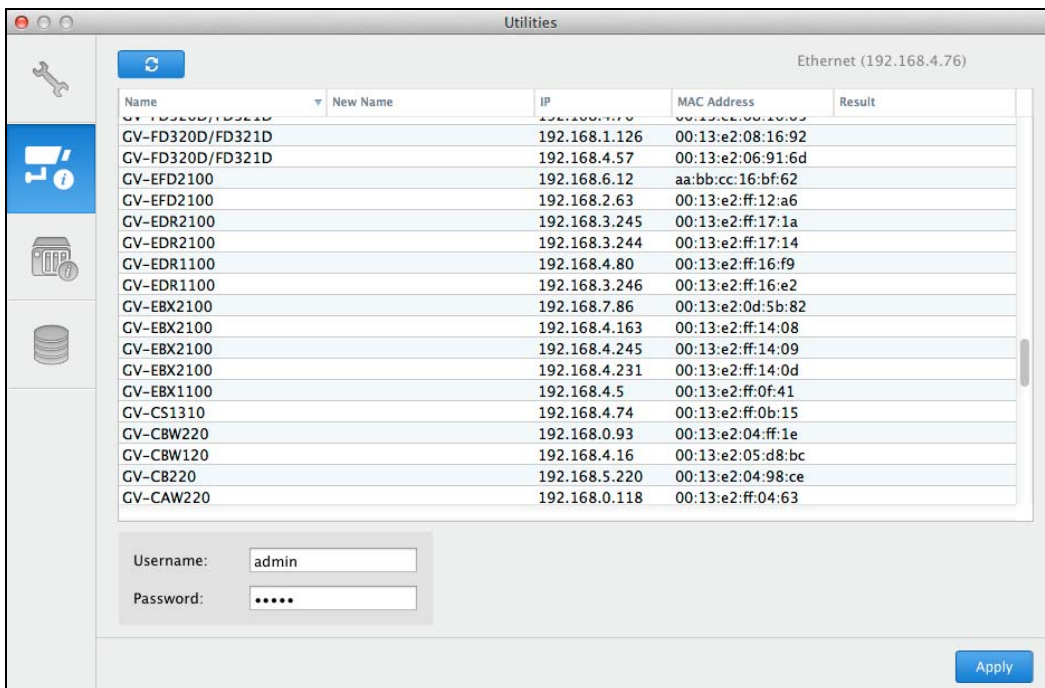
You can modify the device name for multiple devices through a single interface, without visiting each device's settings page.

1. On the main screen, move the cursor to the top, from the emerging toolbar, click **Tools** and then click **Utilities**. The Utilities window appears.



**Figure 11-6**

2. Click  to switch to the Camera Name page and then click  to browse for GV-IP Cameras under the same LAN. The cameras found are listed.



**Figure 11-7**



3. Type the new device name in the New Name column, username and password and then click **Apply** to start the update. When the update is completed, the “Success” message appears in the State column.

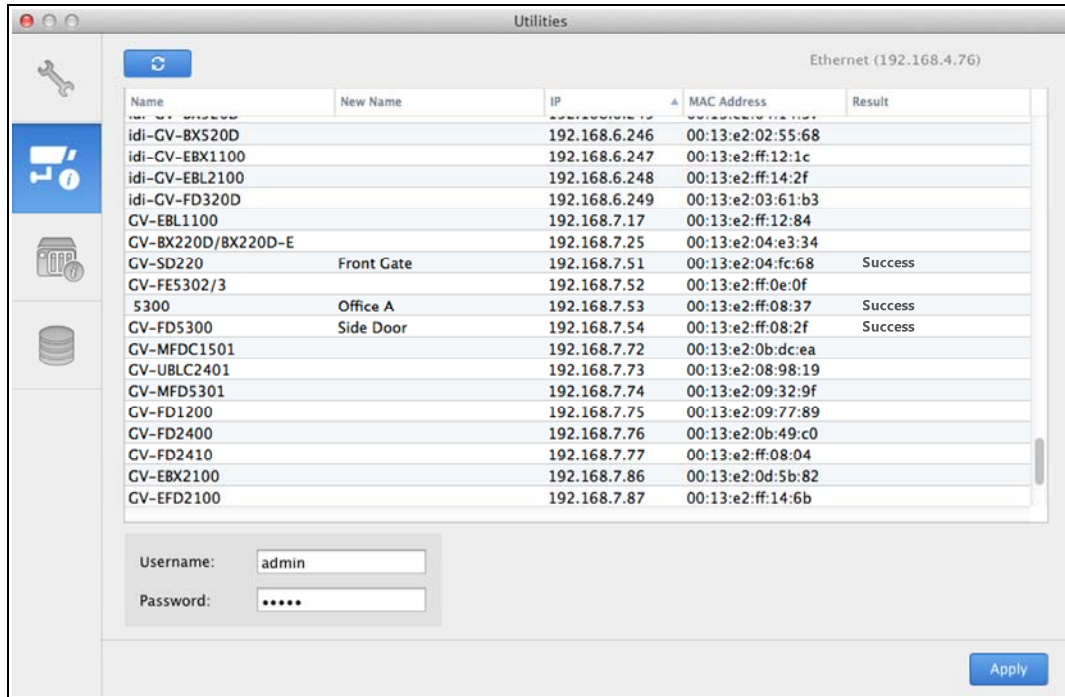


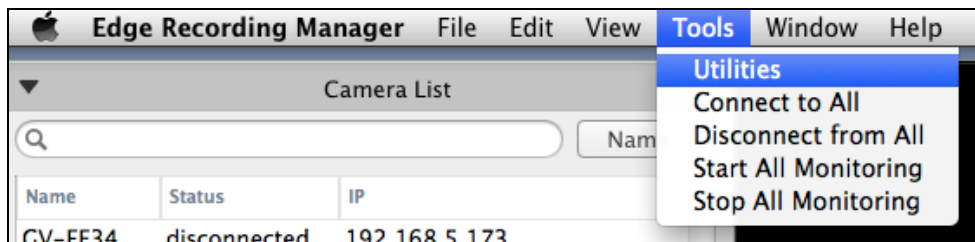
Figure 11-8

## 11.3 Viewing Storage Information



You can view the free and total storage space on this page.

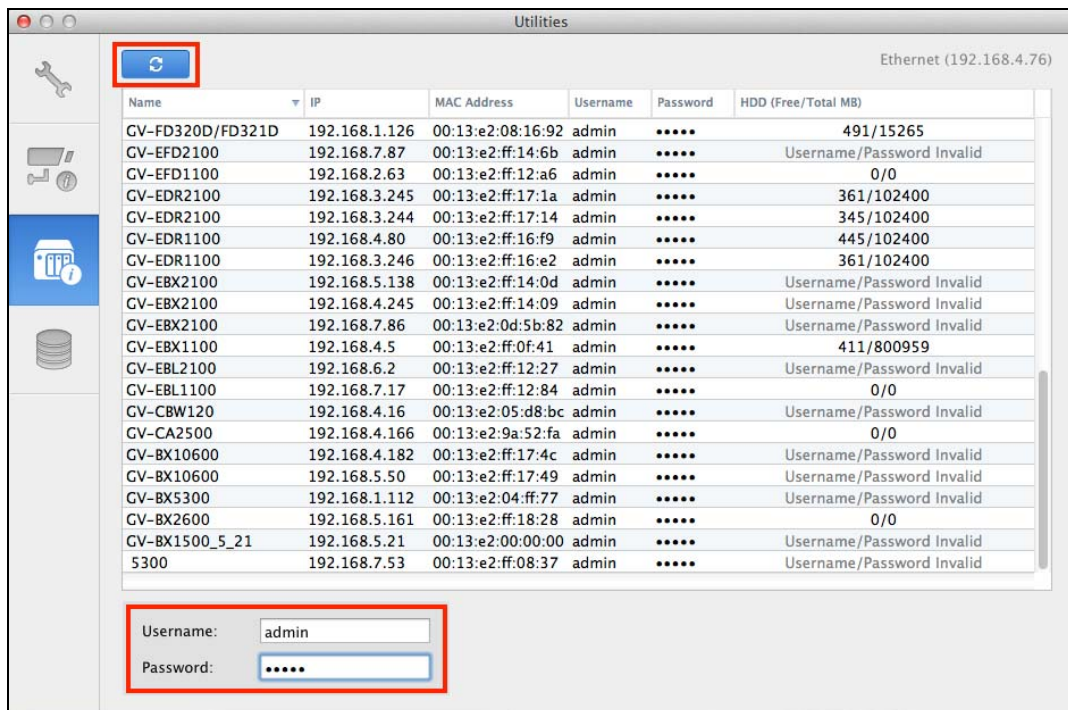
**Note:** This function is only available for GV-IP Devices. For the supported firmware version, see *Supported GV-GeoVision Products* in *Introduction* of this manual.

1. On the main screen, move the cursor to the top, from the emerging toolbar, click **Tools** and then click **Utilities**. The Utilities window appears.



**Figure 11-9**

2. Click  to show the HDD Information page.
3. Type the username and password of the devices you wish view, and then click  to browse for GV-IP Devices under the same LAN.



**Figure 11-10**

- Click an HDD entry to view the device's free and total storage. This information is only accessible for devices with valid username and password.

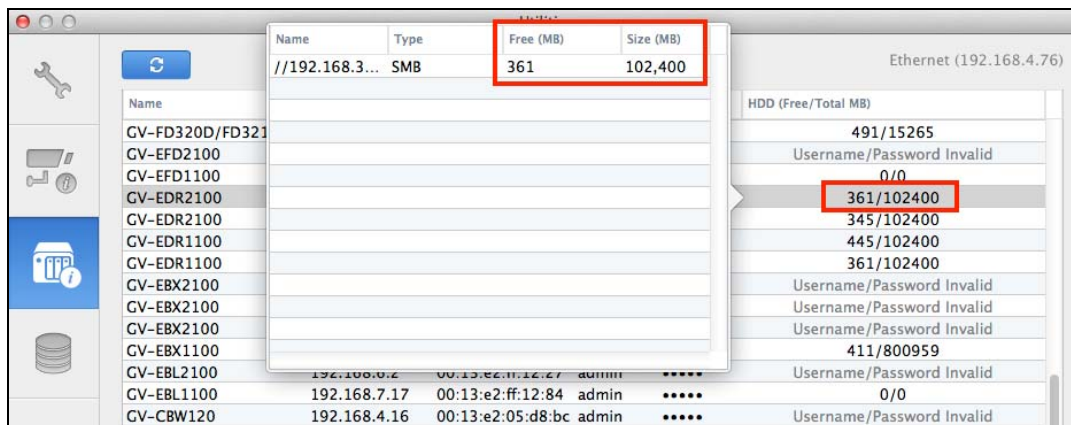


Figure 11-11

## 11.4 Assigning NAS Storage for Recording

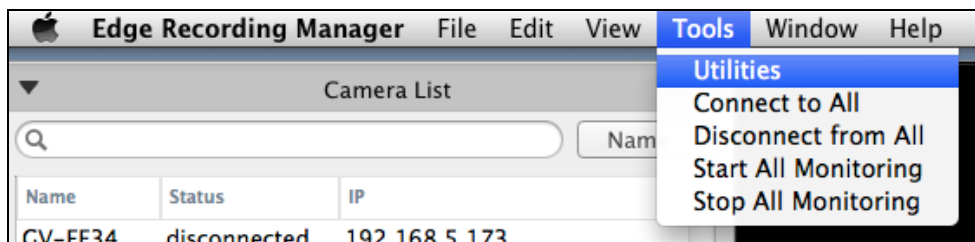
You can record multiple GV-IP Cameras and GV-Target Cameras to NAS through GV-Edge Recording Manager.

---


### IMPORTANT:

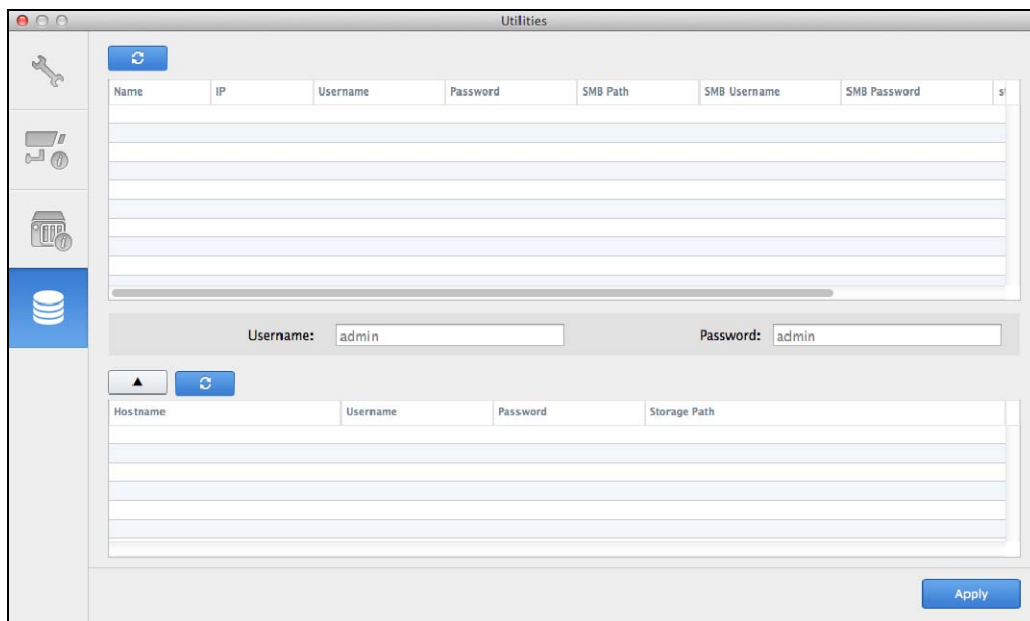
1. For the NAS application, it is required to use GV-IP Cameras (firmware V3.00 or later) and GV-Target Cameras (firmware V1.02 or later), GV-EFD2101/EFD3101/EVD2100/EVD3100 (firmware V1.00 or later).
  2. For system performance and compatibility, it is highly recommended to use GV-NAS Systems for recording.
  3. Make sure the computer installed with GV-Edge Recording Manager is under the same LAN with the NAS.
- 

1. On the main screen, move the cursor to the top, from the emerging toolbar, click **Tools** and then click **Utilities**. The Utilities window appears.




**Figure 11-12**

2. Click  to show the Storage Setup page.



**Figure 11-13**

3. Type the username and password of the cameras you wish to search and click  to browse. In this example, we search for cameras with the username and password **admin**. This dialog box appears.

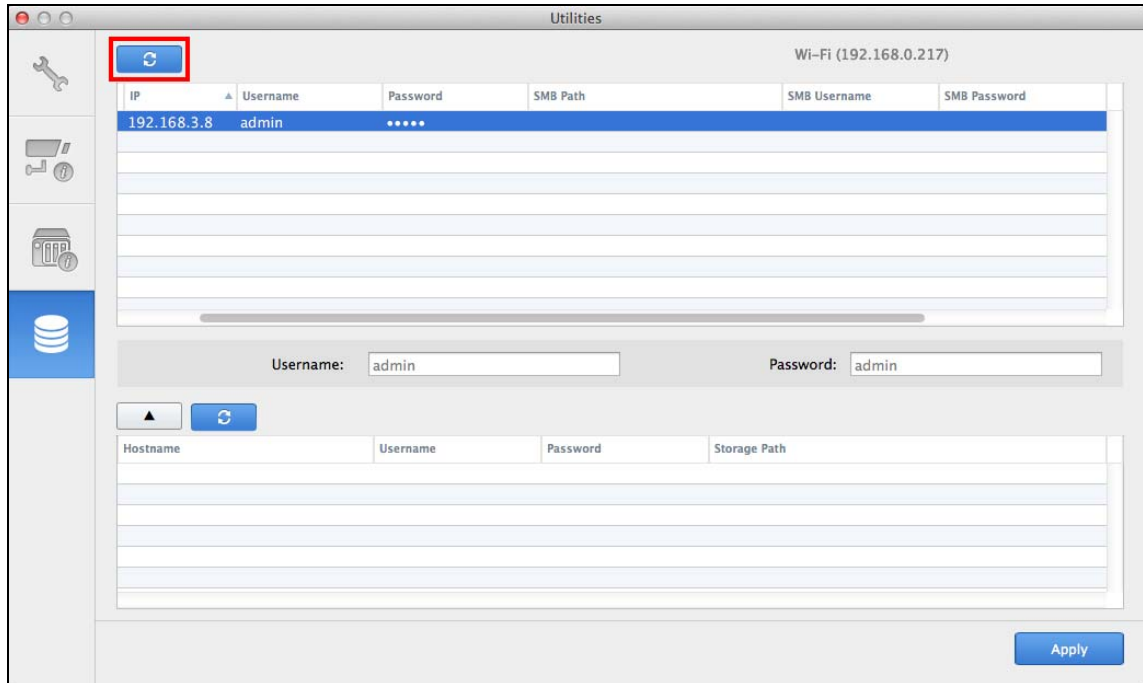


Figure 11-14

4. Select a camera and click  to browse for NAS servers under the same LAN.

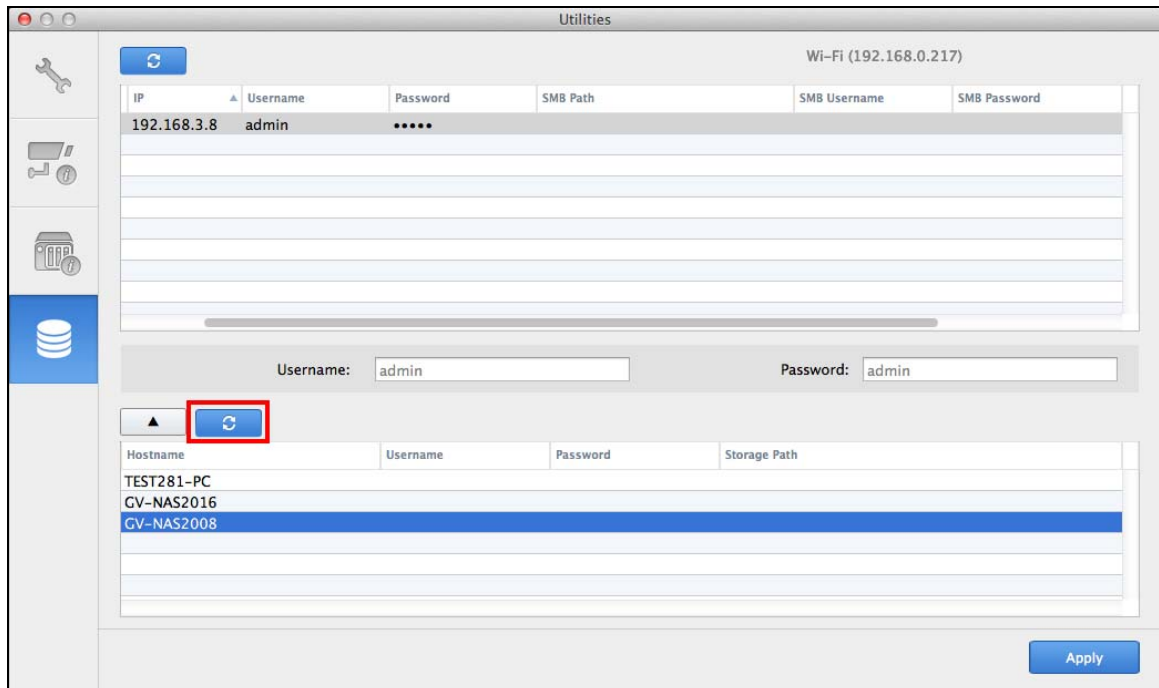
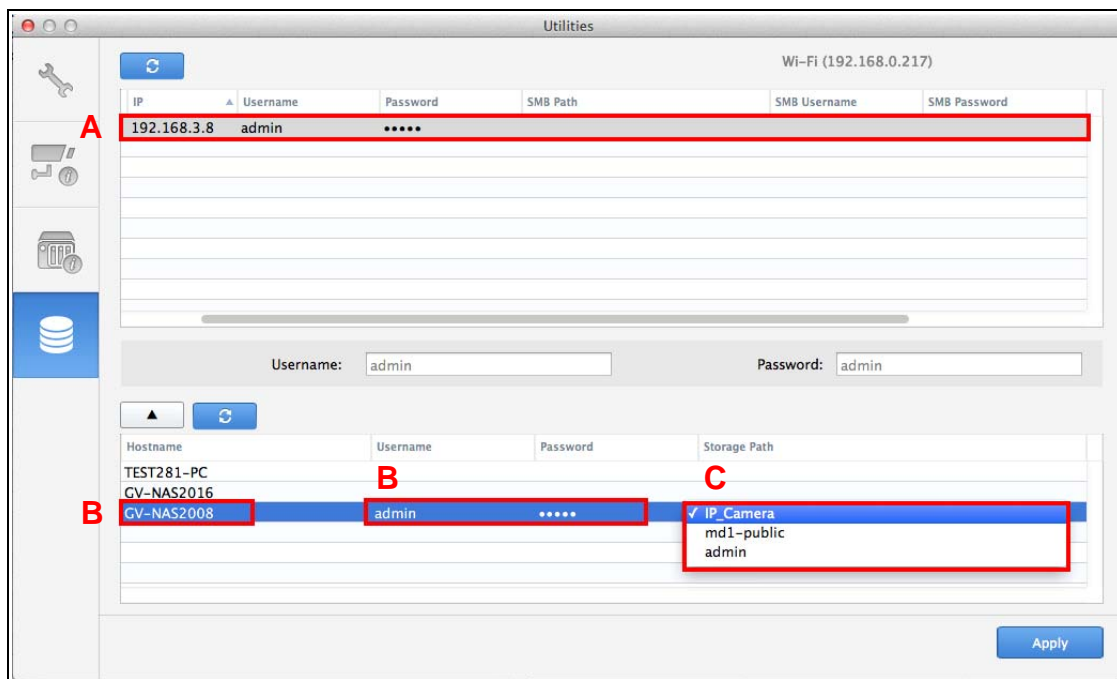



Figure 11-15

5. To assign the storage path, follow the steps below.



**Figure 11-16**

- A. Select a camera from the top list.
- B. Select a NAS server from the bottom list and type the administrator username and password of the NAS server. For GV-NAS Systems, the default username and password are both **admin**.
- C. Optionally click on the folder name to change the storage folder.

- Click  to assign this path to the camera. The storage path appears immediately in the SMB Path column.

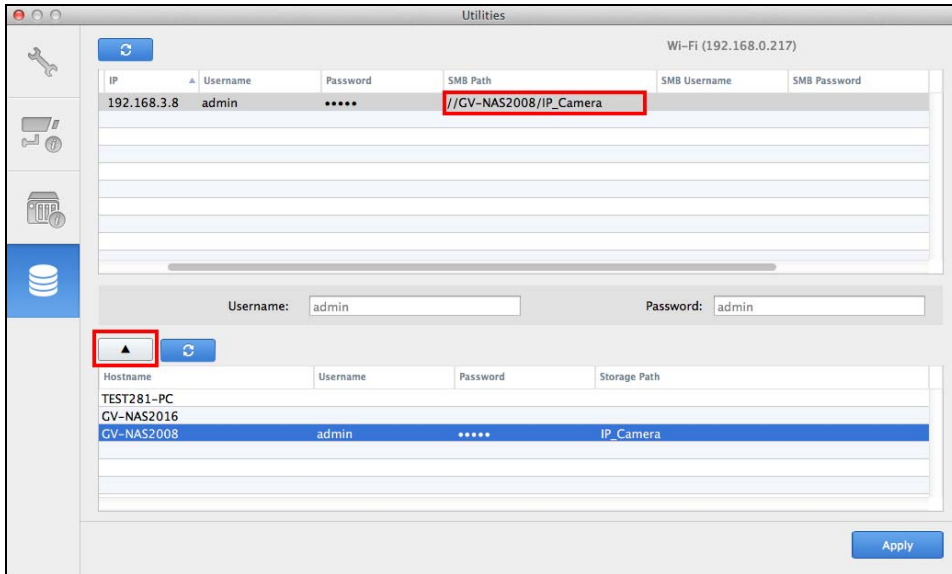


Figure 11-17

- Type the username and password of an established account in the NAS server. For example, the default username and password for a GV-NAS System is **Cam01** and **12345678**.

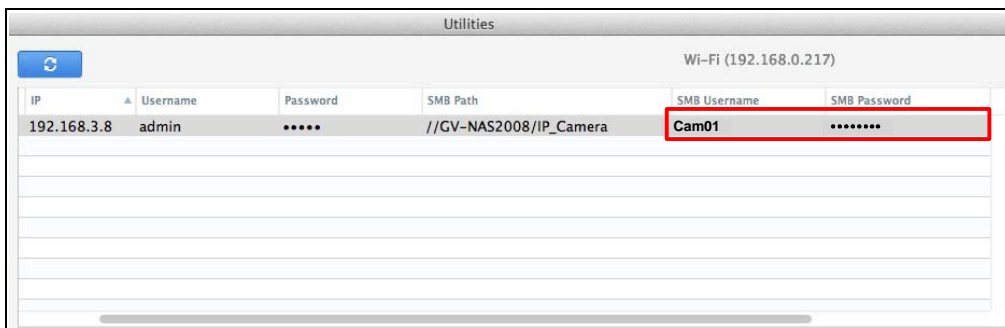


Figure 11-18

**Note:**

- Be sure that you assign each IP camera to record to a different user account in GV-NAS Systems to avoid disrupting the recycling process.
- For GV-NAS2008 / 4008, the default user name is **Cam01** up to **Cam08** for each of the 8 user accounts; for GV-NAS2016 / 4016, the default user name is **Cam01** up to **Cam16** for each of the 16 user accounts. The default passwords are all **12345678**. For details, see *GV-NAS System Quick Start Guide* and *User's Manual*.

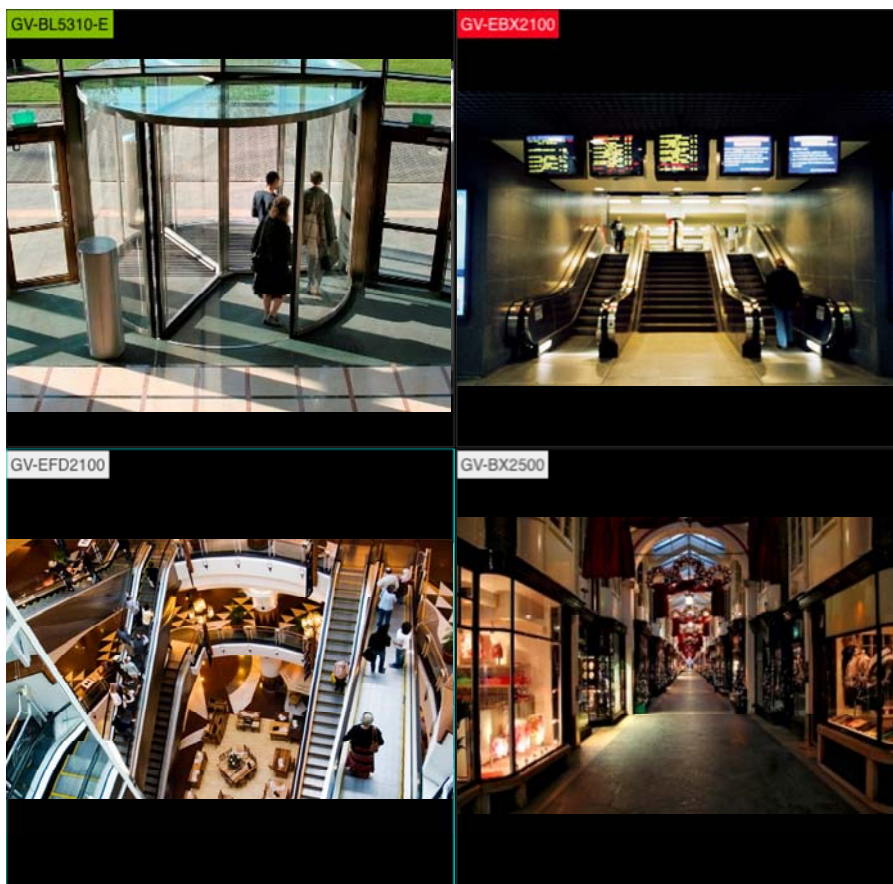
- To assign a different recording path for another camera, follow steps 6 and 7.
- Click **Apply** to save the settings.

# Chapter 12 Live View

You can utilize GV-Edge Recording Manager to manage multiple live views and their recording status.


## 12.1 The Live View Window

The Live View Window can display up to 64 channels and support functions including snapshot, image rotation, PTZ control, monitoring and time synchronization.



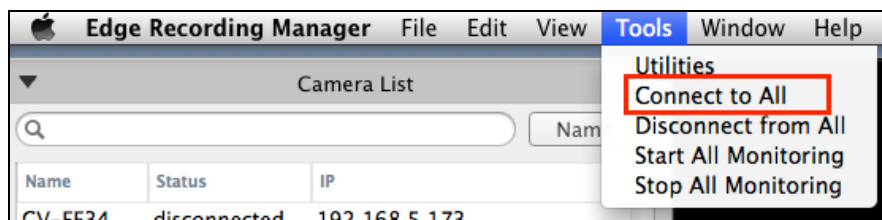
**Figure 12-1**

Use any of the following method to display live view on this window:

- Drag and drop cameras from the Camera List (Figure 9-2).
- Double-click a camera from the Camera List (Figure 9-2) and double-click again to disconnect.
- Select a device from the Camera List (Figure 9-2) and click .




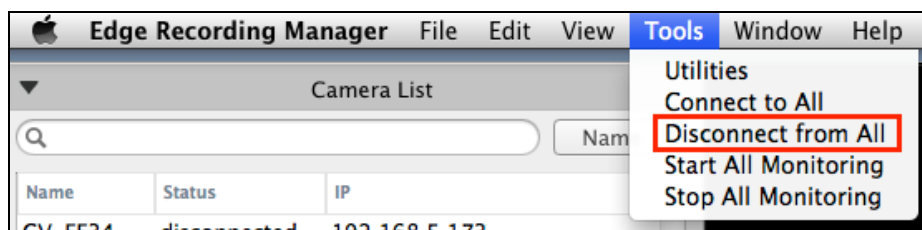
- To connect the first 64 cameras, move your cursor to the top of the main screen, from the emerging toolbar, click **Tools** and then click **Connect to All**.



**Figure 12-2**

To disconnect a live view:

- Right-click a live view and select **Disconnect**.
- Double-click a device from the Camera List (Figure 9-2).
- Select a device from the Camera List (Figure 9-2) and click .
- To disconnect all cameras on the live view, move your cursor to the top of the main screen, from the emerging toolbar, click **Tools** and then click **Connect to All**.



**Figure 12-3**

---

**Tip:**

1. Double-click a channel to display it in full screen and double-click the channel again to resume the current division setting.
  2. If you do not have all the live views displayed on one channel, scroll your mouse to view more live views.
-

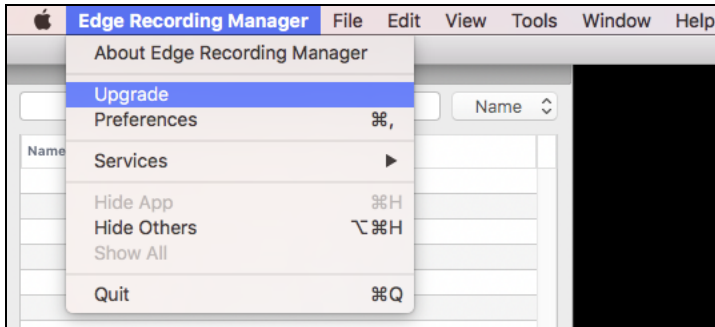
Right-click the live view to access the following features:

No.	Name	Description
1.	Snapshot	Takes a snapshot of the select channel. For details, see <i>12.5 Taking Snapshots</i> .
2.	Audio	Receives audio from the host. For details on audio communication, see <i>Chapter 13 Audio Communication</i> .
3.	Rotation	Displays the live view rotated at 0°, 90°, 180° and 270°.
4.	PTZ	Enables the PTZ panel. Note this function is only supported by IP Cameras that support the PTZ function.
5.	PIP	The Picture-in-Picture view is used to show a closed-up view or a zoom view of a portion of the live view. For details, see <i>4.9 PIP and PAP View</i> .
6.	PAP	The Picture-and-Picture view is used to create multiple close-up views on the video. For details, see <i>4.9 PIP and PAP View</i> .
7.	Monitoring	Enables monitoring (recording) the channel. For details, see <i>12.4 Enabling Host Recording</i> .
8.	Time Synchronize	Synchronizes the device time with the GV-Edge Recording Manager.
9.	Video Stream	Switches between stream 1 and 2. Note this function is only available when <b>Auto Change Video Stream</b> function is disabled. For details, see <i>15.1 General Settings</i> .
10.	Enable Video Decode Acceleration	Enable Video Decode Acceleration on live view to provide a smoother video
11.	Fisheye	Dewarps the fisheye view. This function is only available for GV-Fisheye Camera. For details, see <i>12.3 Fisheye View</i> .
12.	Disconnect	Disconnects the device and removes its live view.

## 12.2 Purchasing License

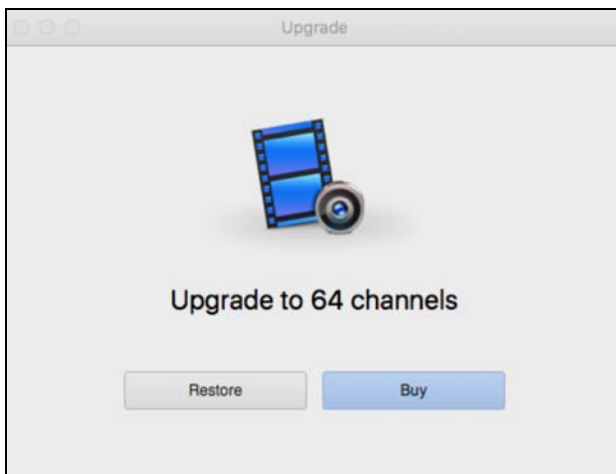
You can access live view of up to 64 channels by purchasing license online:

1. Select **Edge Recording Manager**, and select **Upgrade**.



*Figure 12-4*

2. Click **Buy** to confirm the purchase.



*Figure 12-5*

## 12.3 Enabling Host Recording

You can remotely enable/disable monitoring on the connected GV-IP Cameras.

---

**Note:** This function is only available for GV-IP Cameras..

---

### Enable Monitoring for a Single Channel

Right-click a live view from the Live View Window, and then select **Monitoring**. Select the same option again to disable. The monitoring & recording status is indicated by the color of device name on the Live View Window:

Channel Color	Monitoring & Recording Status
GV-BX2500	Not under monitoring
GV-BL5310-E	Under monitoring but not being recorded
GV-EBX2100	Under monitoring and is being recorded

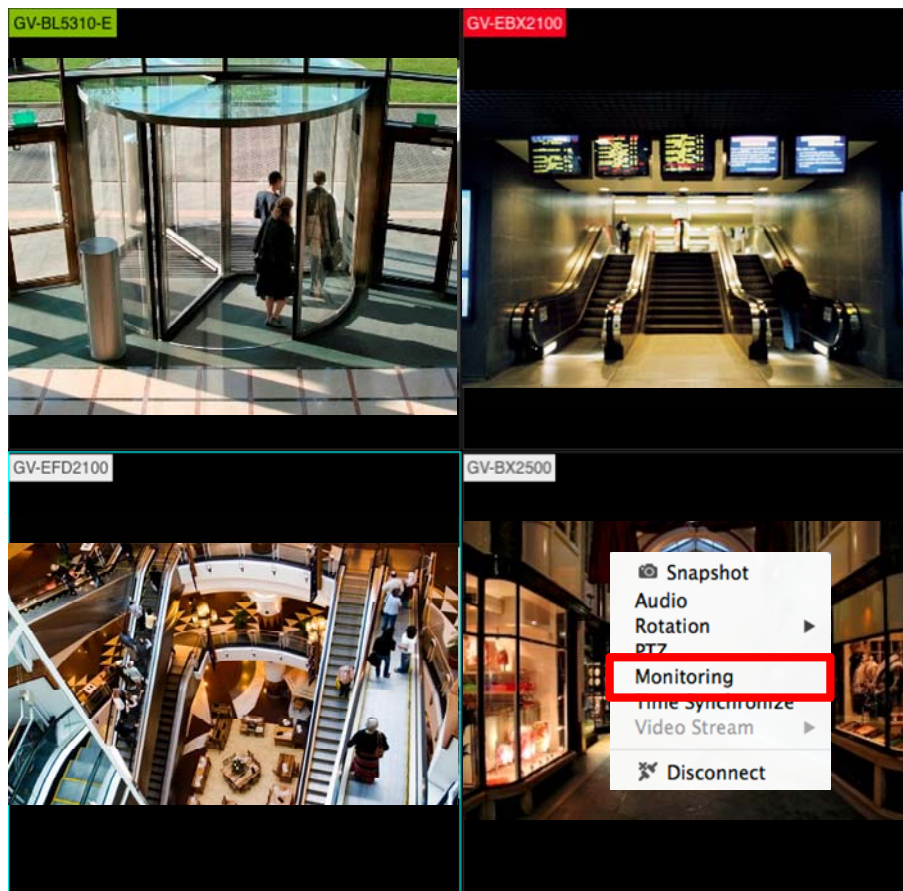
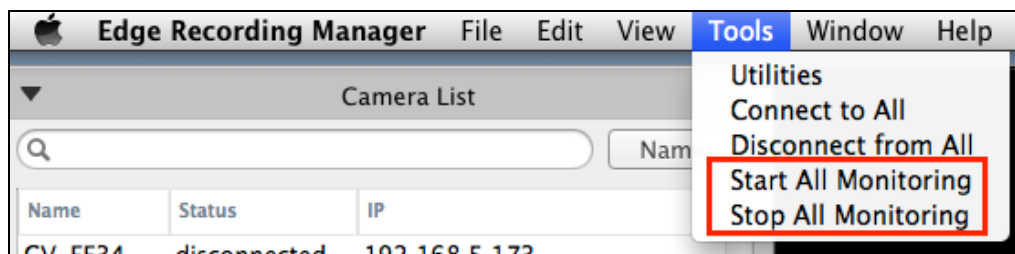


Figure 12-7

### Enable Monitoring for All Channels

On the main screen, move the cursor to the top, from the emerging bar, select **Tools** and then select **Start All Monitoring**. To disable monitoring, select **Tools** again and then select **Stop All Monitoring**.



*Figure 12-8*

## 12.4 Taking Snapshots

You can take snapshot of live view images. Right-click a live view on the Live View Window (Figure 11-1) and select **Snapshot**. The snapshot is immediately saved and a message appears at the top-right corner of the Live View Window. By default, snapshots are saved to **/user/<username>/Documents/GeoVision/edge\_record\_mgr/snapshot**. To configure the storage path for snapshots, see **Snapshot Folder** in *15.1 General Settings*.

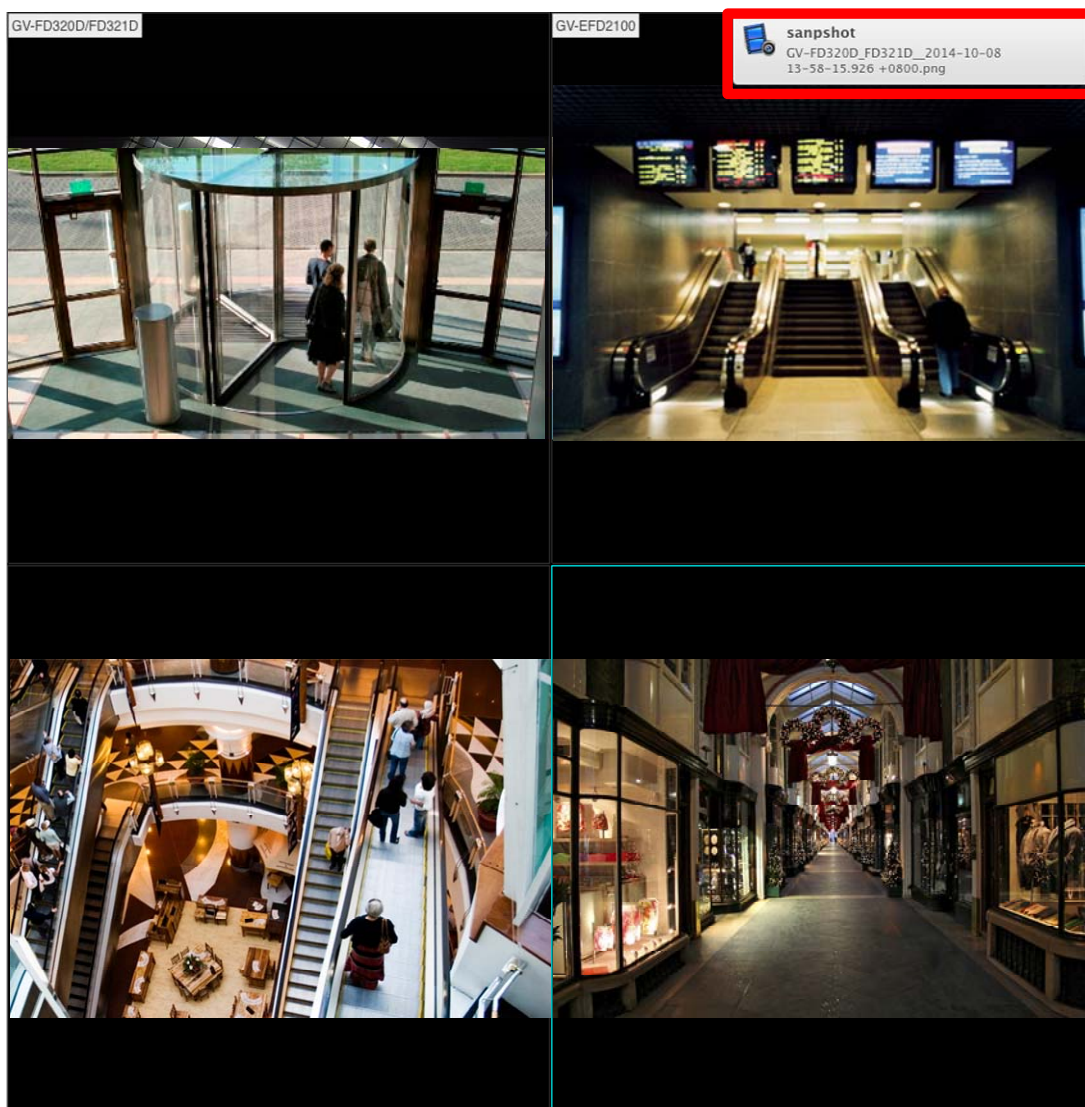



Figure 12-9

## 12.5 Viewing Event List

You can view a list of events from standalone GV-IP Cameras, GV-Target Cameras, GV-SD220/220S, GV-Video Server and IP Cameras/GV-Target Cameras connected to GV-Recording Server. Click the **Live** button  on the main window. The Event list appears next to the Live View Window.

### Note:

1. Make sure that the motion detection function is enabled ahead for each GV-IP Camera, GV-Target Camera, GV-SD220/220-S and GV-Video Server.
2. GV-VMS is not supported for this function.

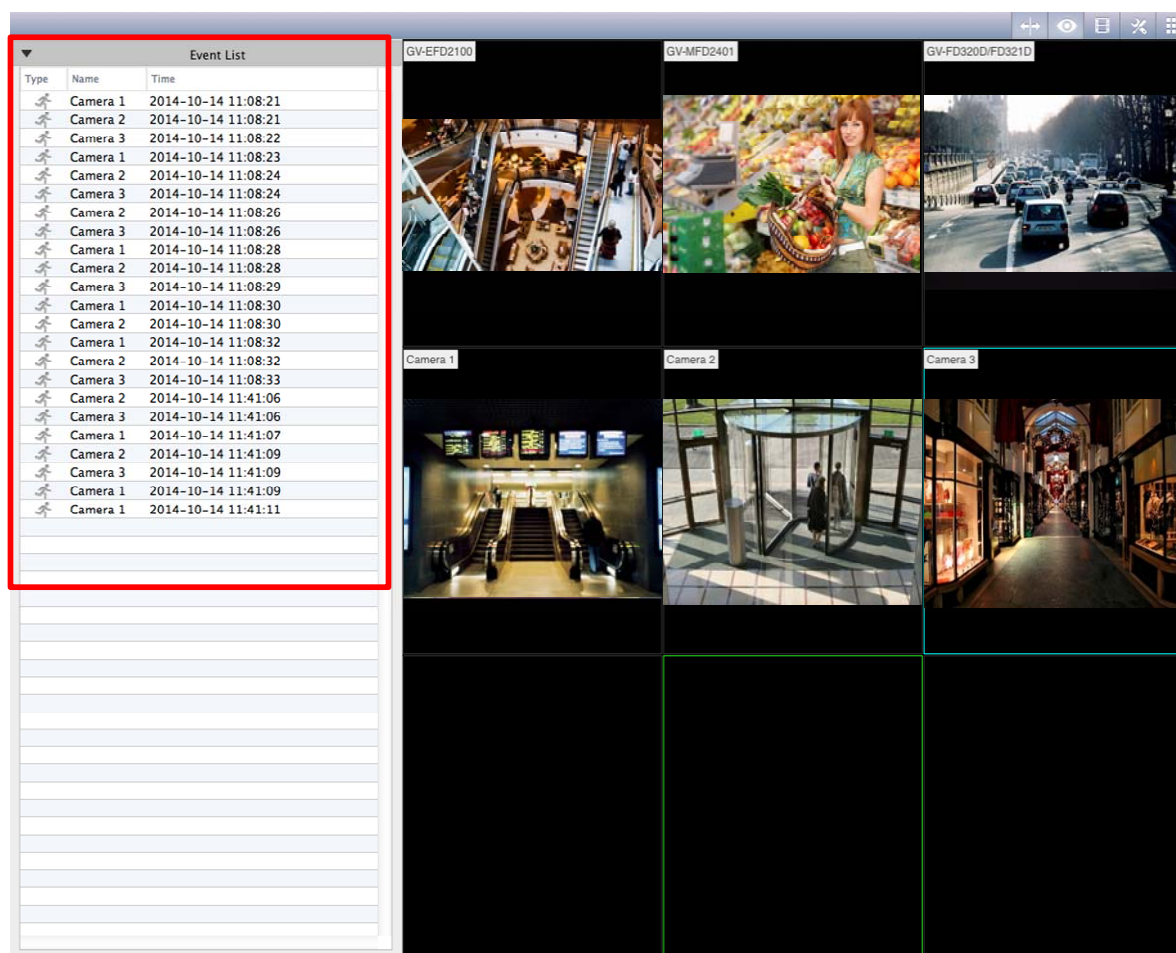


Figure 12-10

## 12.6 Fisheye View

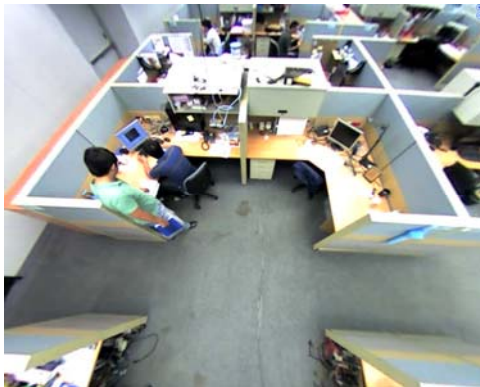
The hemispherical image of a fisheye host can be converted to a conventional rectilinear projection and displayed on the Live View Window.

---

**Note:** This function only supports GV-Fisheye Cameras.

---

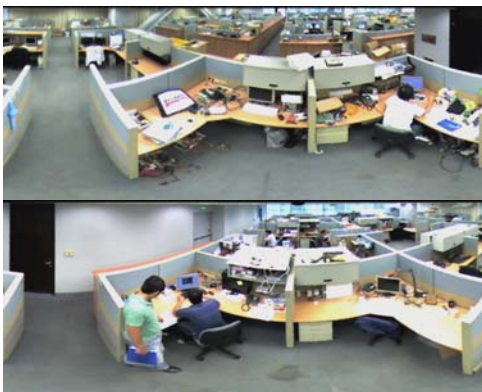
You can choose among four view modes and adjust the PTZ views to different angles.



**PTZ:** 1 PTZ view



**Panorama 360:** 2 PTZ view & 1 360° view



**Panorama 180:** 2 180° views



**Quad:** 4 PTZ views

**Figure 12-6**



### 12.6.1 Setting Up the Fisheye View

1. Right-click the live view and select **Fisheye** to enable the dewarped view. By default, the original hemispherical view is converted to the PTZ view.
2. To customize other settings, right-click the channel to access the following:
  - **Fisheye Alignment:** Aligns the center and part for live view display. Double-click the channel to display it in full screen first before alignment. Unselect this option when alignment is set.
  - **View Mode:** You can choose among four view modes.
    - **PTZ:** Composed of one PTZ view.
    - **Panorama 360:** Composed of two PTZ views and one 360° panoramic view.
    - **Panorama 180:** Composed of two 180° views.
    - **Quad:** Composed of four PTZ views.
  - **Mount Type:** Select **Ceiling**, **Wall** or **Ground** according to where the camera is mounted.
3. You can drag and drop any PTZ view to adjust the viewing angle. Display the channel in full-screen to allow for drag-and-drop control.

## Chapter 13 Audio Communication

You can receive sounds from a selected host. Right-click a channel and select **Audio**. The function is immediately enabled and a speaker icon appears on the channel.

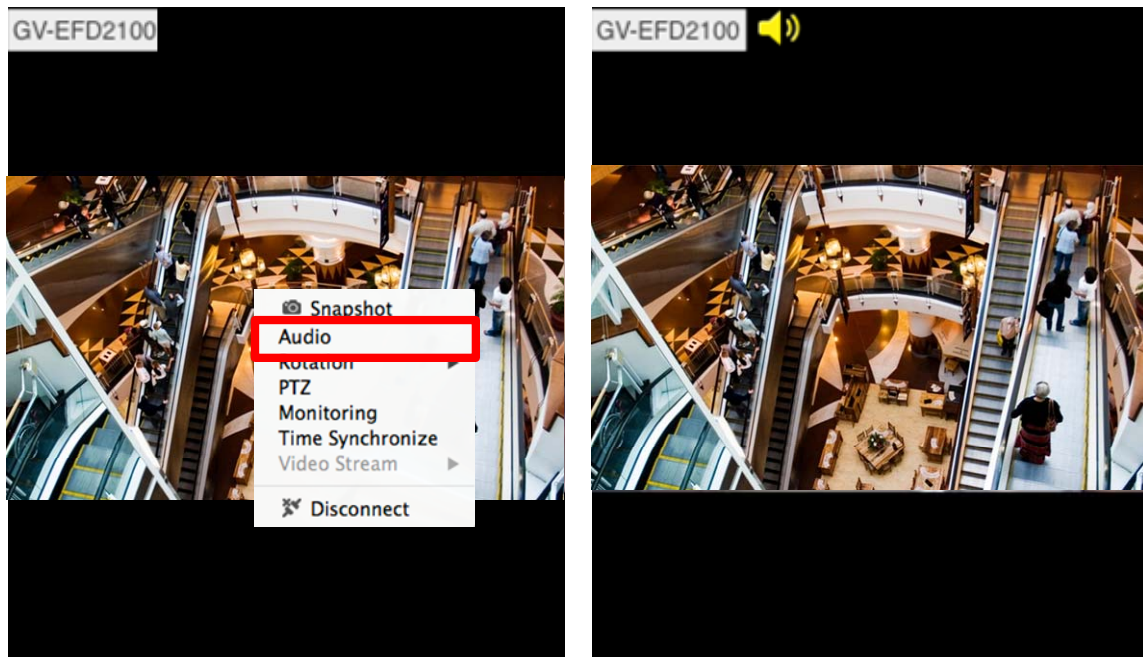


Figure 13-1



# Chapter 14 Playback

You can remotely play back host recordings on GV-Edge Recording Manager.

## Note:

1. For a GV-DVR / NVR / VMS host, make sure **Remote ViewLog Service** (under Control Center Service) is enabled ahead to allow remote access from GV-Edge Recording Manager for playback.
2. Audio playback is not supported by the Mac version of GV-Edge Recording Manager.

Follow the steps below to playback:

1. Click the **Playback** button  on the main window. The Playback page appears.
2. Select a device from the left. A calendar appears below.
3. Click to select a date for playback. Recordings of the selected date are listed (if any).
  - On AVI Player: The current date is underlined in green and the selected date blue.
  - On MPEG4 Player: The current date is underlined in green, the selected date blue and dates with recordings are circled red.
4. Double-click an entry and click . The recording is immediately played back.

**[AVI Player]** Click an entry to play back.

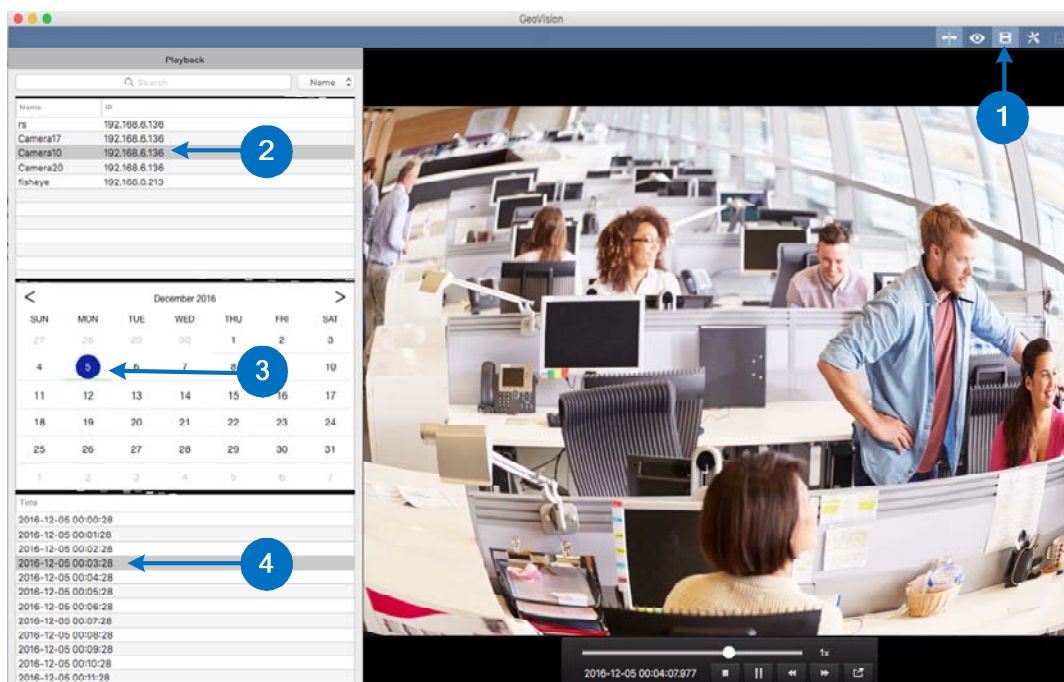


Figure 14-1

### [MPEG4 Player]

Files saved on GV-NAS Systems are played back by the MPEG4 player.

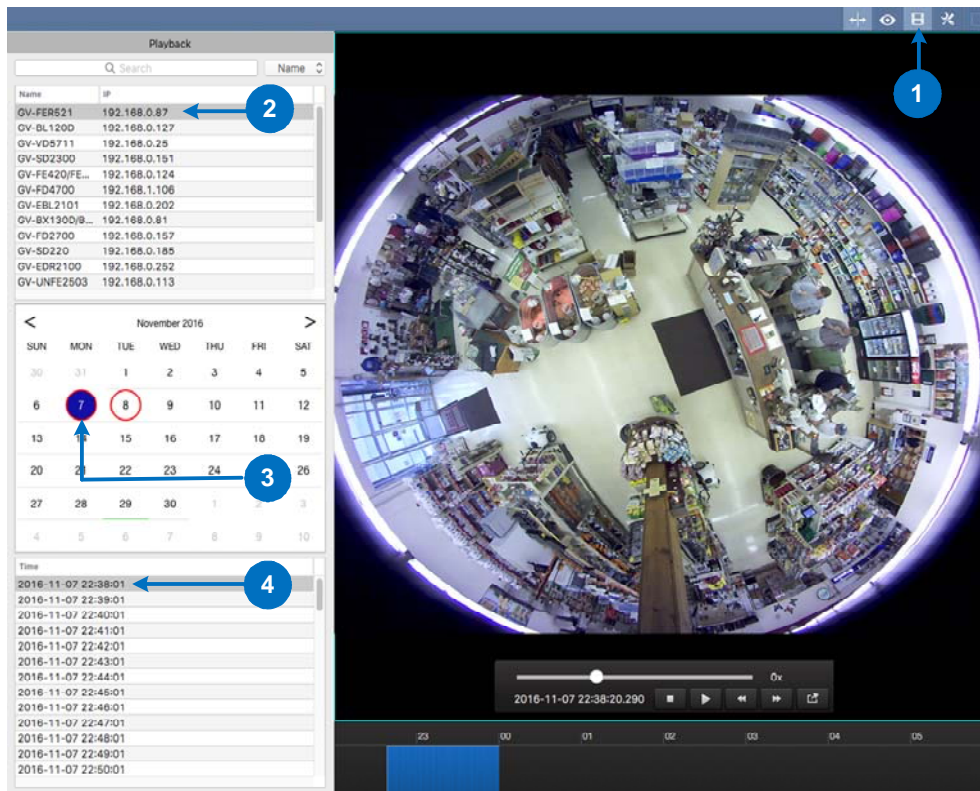


Figure 14-2

The MPEG4 player contains a control panel and a timeline.

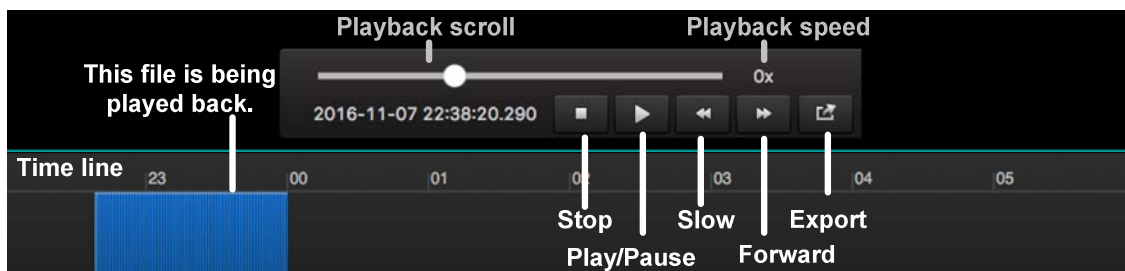


Figure 14-3

- Each recording entry is represented by a blue block. Click to play back.
- Use the mouse scroll to change the displayed hours of the timeline.
- Hold and drag the hour numeral to move to different parts of the timeline.

To access more playback features, right-click the Remote Playback window.

Name	Functions
Snapshot	Saves a video image.
PIP	The Picture-in-Picture view is used to show a closed-up view or a zoom view of a portion of the live view. For details, see <i>4.9 PIP and PAP View</i> .
PAP	The Picture-and-Picture view is used to create multiple close-up views on the video. For details, see <i>4.9 PIP and PAP View</i> .
Disconnect	Removes the live view of the selected host.

# Chapter 15 System Configuration

This chapter describes GV-Edge Recording Manager's general settings, panel settings and network settings.

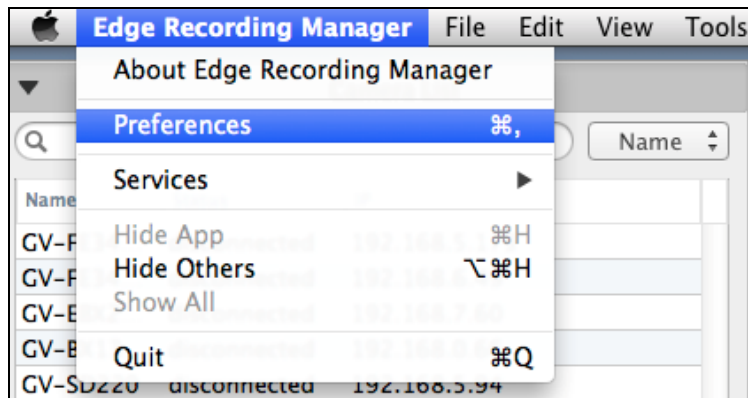


Figure 15-1

## 15.1 General Settings

On the main screen, move the cursor to the top, from the emerging bar, select **Edge Recording Manager** and then select **Preferences**. This window appears.

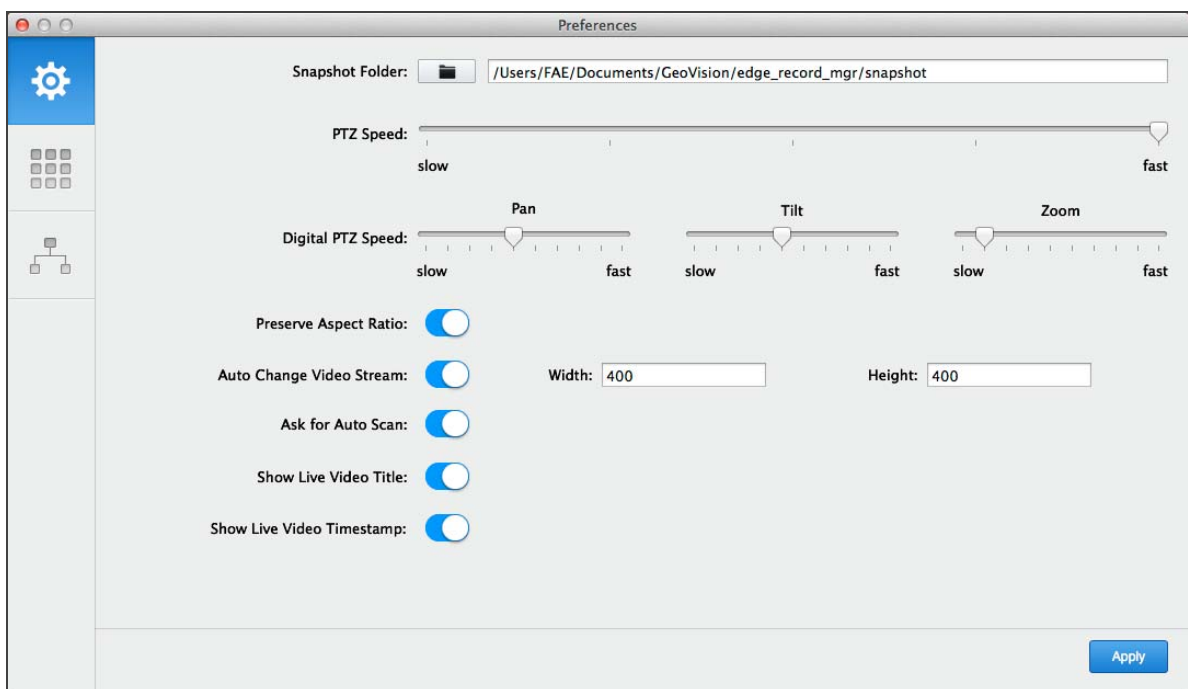




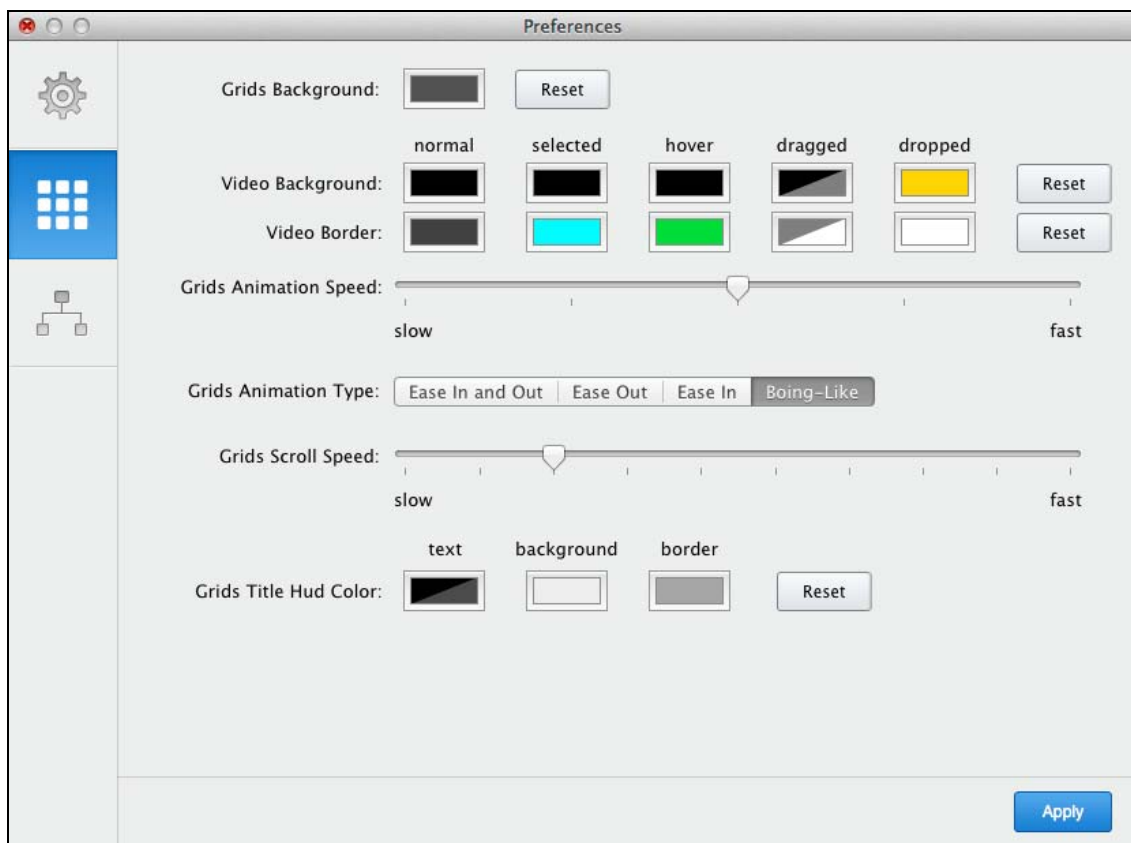
Figure 15-2

- **Snapshot Folder:** Specifies the storage path for snapshots. By default, snapshots are saved to `/user/<username>/Documents/GeoVision/edge_record_mgr/snapshot`. You can type the storage path in the blank or click  to select a folder.
- **PTZ Speed:** Specifies the PTZ speed for PTZ control panel.
- **Digital PTZ Speed:** Specifies the speed for digital pan, tilt and zoom. Under single channel display, you can scroll to zoom the live view and then drag and hold to see different parts of the live view.
- **Keep Video Aspect Ratio:** Displays live view in ratio with its current resolution.
- **Auto Change Video Stream:** Displays stream 1 on live view when the source video exceeds the specified Width and Height. By default, this function is enabled and the Weight and Height are both **400** pixels.
- **Ask Auto Scan:** Prompts the user to search and add GV-IP Devices at startup (of GV-Edge Recording Manager) when the Camera List (Figure 9-2) is empty.
- **Show Live Grid Title:** Shows the device name on live view
- **Show Live Grid Timestamp:** Shows the device time on live view

## 15.2 Live View Color Settings

You can define the color of grid background, video background and video border, grid title hud color, grid animation speed, grid animation type and scroll speed.

On the main screen, move the cursor to the top, select **Edge Recording Manager**, select **Preferences** and then click . This page appears. Click each option or move the slider bar to change the settings.




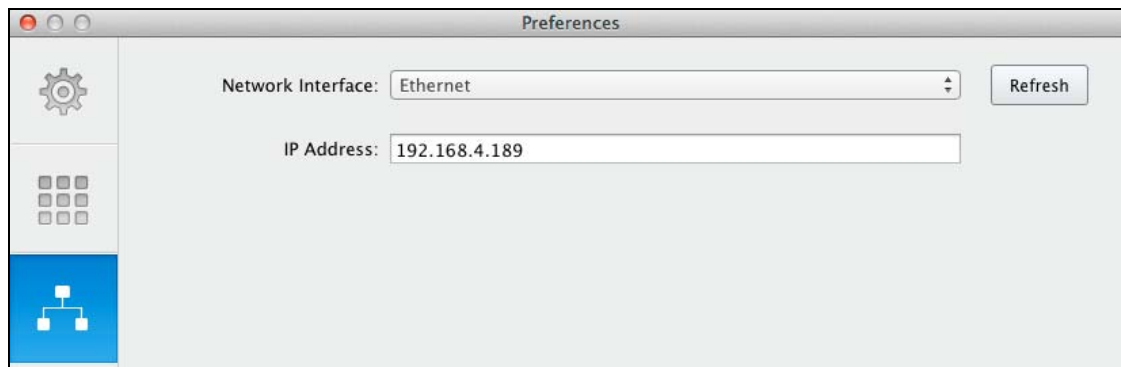
**Figure 15-3**



## 15.3 Network Settings

You can change the network interface and look up the current IP address of the computer to which GV-Edge Recording Manager is installed.

On the main screen, move the cursor to the top, select **Edge Recording Manager**, select **Preferences** and then click . This page appears.



*Figure 15-4*

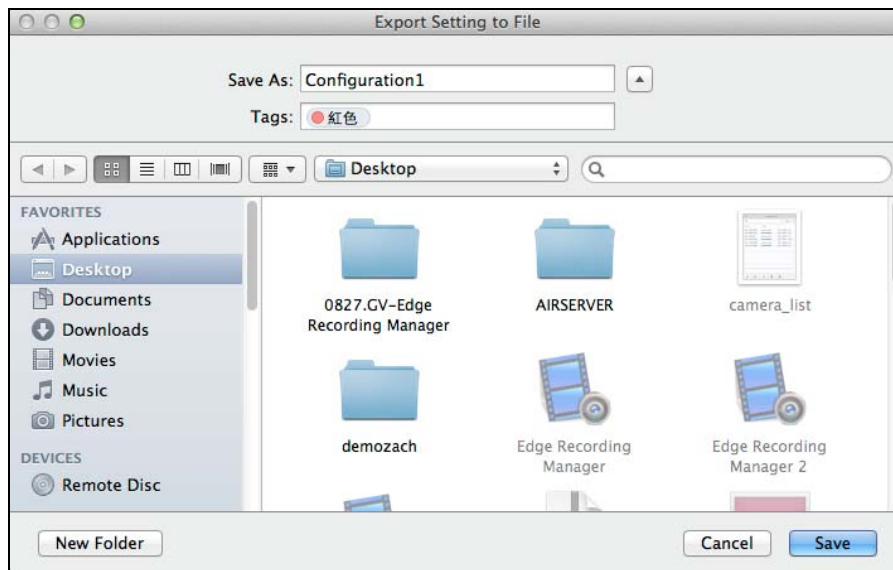
- **Network Interface:** Click arrow button to select a network card. To update the network card options, click **Refresh**.
- **IP Address:** Displays the current IP address.

## 15.4 Exporting and Importing Settings

### 15.4.1 Exporting Settings

You can back up the settings in camera list (Figure 9-2) and live view window (Figure 11-1).

1. On the main window, move the cursor to the top, from the emerging toolbar, select **File** and then select **Export**. This window appears.



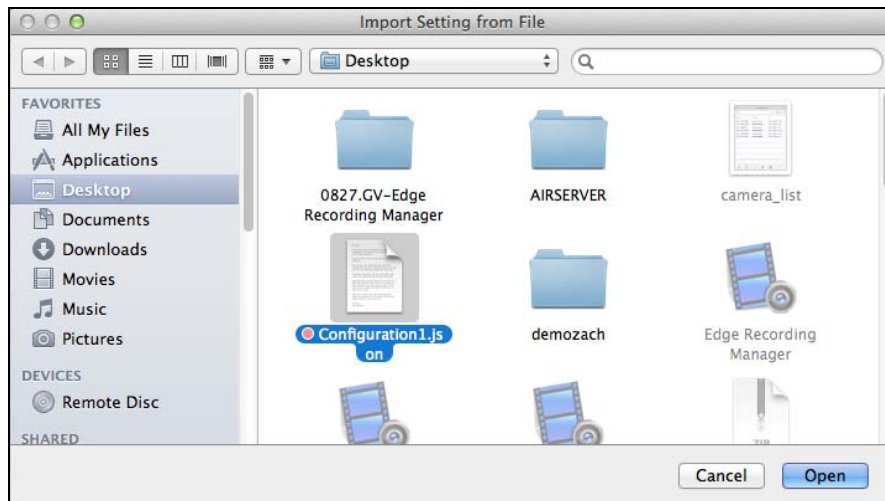
**Figure 15-5**

2. Select a storage location and modify the file name if necessary.
3. Click **Save**.

## 15.4.2 Importing Settings

You can import previously saved settings.

1. On the main window, move the cursor to the top, from the emerging toolbar, select **File** and then select **Import**. This window appears.



**Figure 15-6**

2. Select a previously saved file and click **Open**. The settings are immediately applied.

# Specifications

For specifications, see details in:

- [Datasheet GV-Edge Recording Manager \(Windows Version\)](#)
- [Datasheet GV-Edge Recording Manager \(Mac Version\)](#)
- [Comparison Chart for GV-Edge Recording Manager Versions](#)