

Quick Start Guide GV-VMS V18.1



Thank you for purchasing GV-VMS. This guide is designed to assist the new user in getting immediate results from the GV-VMS. For advanced information on how to use the GV-VMS, please refer to *GV-VMS User's Manual* online.

VMS181-QG-A

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

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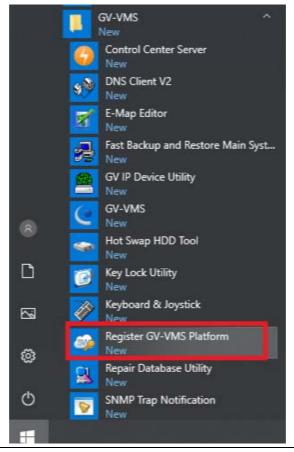
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GV-VMS Licensing

GV-VMS is a comprehensive video management system, and requires a purchased license starting from V18.1, that records up to 64 channels of GeoVision and/or third-party IP devices. Make sure your purchased *GV-Dongle* or *software license* has been inserted into or activated on the PC prior to running GV-VMS.

IMPORTANT: For users who have purchased a software license, it must be registered through the **License Activation Tool** using the corresponding serial key. For details on software licensing, click <u>here</u>.



Note: For users with GV-Dongle of earlier versions of GV-VMS, it must be upgraded to run V18.1 or later.



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Chapter 1 Introduction

Welcome to the *GV-VMS Quick Start Guide*. Through this guide, you will learn the basic settings of GV-VMS. For the complete instructions, refer to <u>*GV-VMS User's Manual*</u>.

1.1 License

GV-VMS V18.1 or later is a paid software that supports connection of up to 64 IP devices, and can connect up to 32 GV-IP devices upon initial purchase. If you need to connect more than 32 channels of GV-IP devices or connect with third-party IP devices, additional license(s) are required.

Supported Devices	Channels	License
	32 ch	Initial license required.
GV-IP Devices Only	64 ch	 2 licenses required: GV-VMS V18.1 or later initial license GV-VMS Pro license, 32 ch per license
	32 ch	 2 licenses required: GV-VMS V18.1 or later initial license 3rd-Party license, in increments of 1 ch
GV-IP Devices + 3 rd - Party IP Devices	64 ch	 3 licenses required: GV-VMS V18.1 or later initial license GV-VMS Pro license, 32 ch per license 3rd-Party license, in increments of 1 ch
Note:		

- 1. GV-USB Dongle comes in internal and external dongles. Internal dongle is recommended for the Hardware Watchdog function, which restarts the PC when Windows crashes or freezes.
- 2. For a list of supported third-party IP camera models, please visit GeoVision's website.

1.2 Minimum System Requirements

	GV-VMS (Up to 32 Channels)	GV-VMS Pro (Up to 64 Channels)
OS	64-bit Windows 10 / Server 2016	
CPU	4th Generation i3-4130, 3.4 GHz	4th Generation i7-4770, 3.4 GHz
Memory	8 GB RAM	16 GB RAM

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Note:

- 1. To use the fisheye dewarping function, the graphic card must support DirectX 10.1 or above.
- 2. H.265 decoding and searching of face recognition events by face images requires 6th Generation Intel Desktop Processor (Skylake) or above, which comes with onboard GPU.
- 3. The system requirements are determined in round-the-clock recording settings with live view only, while remote connections and video analysis being disabled.

1.3 Minimum Network Requirements

The data transmitting capacity of GV-VMS depends on the number of Gigabit connections available. The numbers of Gigabit network cards required to connect **64** channels are listed below according to the resolution and codec of the source video.

Codec	Resolution	Bitrate Used (Mbps)	Total FPS for 64 ch	Gigabit Network Cards Required	Max. Channels Supported per Network Card
	1.3 MP	5.05	1920	1	Max. 64 ch / card
	2 MP	7.01	1920	1	Max. 64 ch / card
	3 MP	10.48	1280	1	Max. 64 ch / card
H.264	4 MP	11.65	960	2	Max. 50 ch / card
	5 MP	16.48	640	2	Max. 38 ch / card
	8 MP	17.14	1600	2	Max. 38 ch / card.
	12 MP	16.67	960	2	Max. 38 ch / card
	3 MP	7.06	1920	1	Max. 64 ch / card
H.265	4 MP	9.44	1600	1	Max. 64 ch / card
H.265	5 MP	7.52	1920	1	Max. 64 ch / card
	1.3 MP	32.36	1920	3	Max. 22 ch / card
	2 MP	44.96	1920	4	Max. 16 ch / card
	3 MP	38.73	1280	4	Max. 18 ch / card
MJPEG	4 MP	40.35	960	4	Max. 17 ch / card
	5 MP	30.48	640	3	Max. 22 ch / card
	8 MP	58.52	1600	6	Max. 12 ch / card
	12 MP	65.98	960	6	Max. 11 ch / card
Note: The	e network require	ements may	vary dependir	ng on the bitrate of t	he streams.

1.4 Installing GV-VMS

Before You Start

For optimal performance of your system, it is important to follow these recommendations before installing the GV-VMS:

- It is highly recommended to use separate hard disks; one for installing Windows OS and GV-VMS, while the other for storing recorded files and system logs.
- When formatting the hard disks, select NTFS as the file system.
- Due to GV-VMS storing video files of multi channels simultaneously, the drive containing the video files will be fragmented with the files scattered all over the drive, therefore it is unnecessary to perform disk defragmentation regularly.
- Since the size of transmitted data from IP cameras may be quite large and reach beyond the transfer rate of a hard disk, you should note the total of recording frame rates that you can assign to a single hard disk, as listed below:

	H.264		H.265			
Video Resolution	Frame Rate (fps)	Bitrate (Mbps)	Frame Rate (fps)	Bitrate (Mbps)		
1.3 MP (1280 x 1024)	660	5.05	N/A	N/A		
2 MP (1920 x 1080)	660	7.01	N/A	N/A		
3 MP (2048 x 1536)	440	10.48	660	5.35		
4 MP (2048 x 1944)	330	11.65	550	7.74		
5 MP (2560 x 1920)	220	16.48	660	6.73		
8 MP (3840 x 2120)	550	14.13	N/A	N/A		
12 MP (4000 x 3000)	330	14.47	N/A	N/A		
Note: The data above v	was determined	using the bitrat	te listed above an	d hard disks		

Frame rate limit in a single hard disk

with average R/W speed above 110 MB/s.

The frame rate limit is based on the resolution of video sources. The higher the resolutions, the lower frame rates you can assign to a single hard disk. In other words, the higher the frame rates you wish to record, the more hard disks you'll need to. For detailed information of

recording frame rates, refer to the user's manual of the IP camera that you wish to connect to.

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Installing GV-VMS

- Download GV-VMS by selecting **Primary Applications** from the drop-down list and clicking **Download** of **GV-VMS** do n <u>GeoVision's website</u>.
- 2. If you are using a USB dongle, insert the dongle to your computer. See *1.1 License* for connections requiring dongle license(s).
- To install USB driver, select Driver, F/W, Patch from the drop-down list and click
 Download of GV-Series Card Driver / GV-USB Device Driver.
 - To verify the driver is installed correctly, go to Windows Device Manager and expand **DVR-Devices**. You should see the **GV-Series USB Protector**.



1.5 Running GV-VMS

- 1. When you run GV-VMS for the first time, the system will prompt you for a Supervisor ID and Password.
- 2. Type the desired **ID**, **Password** and a **Hint** to remind you of the password.
- 3. Optionally click **E-Mail List** to enter e-mail addresses used to receive the password when forgotten.
- 4. Click **OK**. The main screen of GV-VMS and a dialog box appears.
- To choose how to save your system database, select Microsoft Office Access
 Database or Microsoft SQL Server and fill out the required fields.
- 6. Upon first-time starting of the GV-VMS, you are prompted with the **Automatic Setup** dialog box to assist you in quickly adding IP devices to the GV-VMS



1.6 Main Screen of GV-VMS

In the main screen of GV-VMS, the main setting buttons are located in the top-right corner.



Name	Description
Login ID	Click to manage accounts and passwords for accessing GV-VMS.
Audio	Click to control the volume of your PC.
Home	Shows the live view of connected cameras.
ViewLog	Shows a timeline of recorded events for playback.
	Brings up these options when Home is selected:
	Monitor: Start / Stop monitoring, I/O monitoring and schedule monitoring
	• Network: Enable Webcam Server and connection to other GeoVision software.
	Tools: Show / hide volume indicator and set up Object Index.
	• Configure: Set up camera, recording, system, schedule, video processing and I/O devices.
Toolbar	• Content List: Configure live view layout, of cameras, I/O devices and E-Maps.
	Brings up these options when ViewLog is selected:
	Display Play Panel: Display / Hide the ViewLog timeline.
	• Tools: Manage event search, system log, event backup and event export.
	Configure: Apply video effects and text overlay during playback.
	Content List: Manage playback layout and access camera list.
Exit	Click to Minimize or Exit GV-VMS.

Chapter 2 Getting Started

2.1 Adding IP Cameras to GV-VMS

When logging in for the first time after installing GV-VMS, the **Automatic Setup** dialog box appears. Follow the steps below to add IP cameras.

1. Click **Automatic Setup** to search for IP cameras on the LAN. Then select / deselect the desired cameras and click **Apply**.

letwork adapter :	P[192.168.4.223] Realte	k RTL8168C(P)	/8111C(P) Family PCI-E	Gigab - Port : 15000
Automatic Setup		Progress :		
lame	IP Address	Port	MAC Address	Brand
GV-CAW120	192.168.4.95	10000	0013E204FC0D	GeoVision_GV-CAW120
GV-MFD520	192.168.5.115	10000	0013E2054F24	Geovision_GV-MFD520
GV-BX2500	192.168.5.125	10000	0013E209C3F3	GeoVision_GV-BX2500
GV-PT320D	192.168.5.168	10000	0013E20550C5	GeoVision_GV-PT320D
				•

- 2. The default login information for cameras is **admin** / **admin**. Double-click the camera to modify the login info of cameras if needed.
- 3. Cameras added are now listed in the IP Device List.

	1	ID	Status	Server address	Port	Video Resolution	Bitrate	Brand	Setting
		2	0	192.168.4.88	10000	1280X1024(H264) / 320X256(H264)	81 / 18 kbps	GeoVision_GV-EBX1100	*
	6	7	•	192.168.7.25	10000	1920X1080(H264) / 448X252(H264)	2736 / 140 kbps	GeoVision_GV-BX220D/BX2300_Series	%
;	5	10	•	192.168.5.181	10000			GeoVision_GV-FD120D/FD1200/FD1210_Series	24
	5	1	0	192.168.5.115	10000			GeoVision_GV-MFD520_Series	%
	1	3		192.168.4.89	10000			GeoVision_GV-UBX2301_Series	*

Status icons illustrated:

	Connected	The camera is connected.
•	Connecting	GV-VMS is trying to connect to the camera.



- Connection Failed Unable to connect to the camera. Move the cursor onto the red icon to see the error message.
- **Inactive Camera** The camera is inactive. Click the checkbox to connect.
- Started Monitoring The camera is under monitoring.
- **Pre-Rec Enabled** Pre-recording is enabled.
- 4. To adjust camera settings, click **Setup** knext to the camera. Refer to 3.2 *Configuring Camera Settings* for details.
- 5. Close the dialog box by clicking X in the top-right corner. When adding camera for the first time, the cameras will be automatically assigned to the live view grid.

Note:

- You can also access the IP Device Setup dialog box by clicking Home Toolbar
 > Configure > Camera Install.
- 2. If your camera was not detected during the scan in Automatic Setup, you can click the **Manual Setup** button **O** to type the camera connection information manually.

2.2 Accessing Camera Live View

After adding cameras, you can access camera live view by dragging the camera in the Content List to the live view grid.

Click Home > Toolbar > Content List . Then click Camera to see the list of cameras added, and drag the desired cameras to the live view grid.

C firedlision GV-VMS 😂 465.06 GB TEST198-PC 5/27/2014 3:13:22	PM	_	1 • •1) ⊙ ⊟ ⊀ ©
	 Content List 	×	
	# Layout	×.	
	🗩 Camera (3)	^	
	0 0		
	A Camera1 A Camera2 A Camera3		
	📼 Panorama	~	
	I/O Device (0)	~	

For details, see Chapter 4 Live View in this Quick Start Guide.

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2.3 Start Monitoring

After setting up cameras and the live view, be sure to start monitoring the cameras to activate the following functions.

- Recording (See Section 3.1)
- Video Analysis (See Chapter 5)
- I/O Applications (See Section 7.1)

To start monitoring of connected cameras, click **Toolbar** \ge > Monitor \square > Start All Monitoring or select individual cameras.

To see how to access recorded videos, refer to Chapter 6 Video Playback and Backup.

Note: If you have set a schedule, you can select **Start Schedule Monitoring**. The schedule takes precedence and the functions listed above will enable and disable accordingly. See *7.2 Setting up Schedules*.

Chapter 3 Camera Setup

3.1 Configuring Recording Settings

To configure the recording settings of connected cameras, click **Home** > **Toolbar** > **Configure** > **System Configure** > **Record Setting**.

deo Record	Databased									
Max Video Clip: 5 🗸 Min.		Database Folder								
PreRecord: 💌		C:\GV-VMS\CameraDBs\								
Recycle	🗌 Use Dig	ital Wa	termark Protection							
Register Event	Sync red	cording	from camera SD card when	n reco	nnected					
Storyline 🖃										
Record Error Process : 💌										
1	2		3		4		6			
amera	Y I		T		Y		T T			Ę
Camera Name	Record Type	•	Video record frame rate	•	Storage	₽⁄	Stream		%	ľ
Camera1	Motion Detection	*	Urgent Event	۲	Storage 1		Main Stream	~	%	
Camera2	Motion Detection	~	Urgent Event	~	Storage 1		Main Stream	~	%	

- 1. Select the camera(s) you want to configure.
- 2. Under Record Type, select **Disable**, **Motion Detection** or **Round-the-Clock**.
- 3. You can set different recording frame rates. Select **Urgent Event** to record in full frame rate or **General Event** to record only the key frames.

The frame rate for General Event and Urgent Event can be defined in the camera's General Setting page. See *General Setting* in *3.2 Configuring Camera Settings*. Normally, you would set a higher frame rate for Urgent Events (e.g. full frame) and a lower frame rate for General Events (e.g. key frame only).

Note: By default, the recording mode is set to Motion Detection and the Recycle function is enabled with the Recycle Threshold set to 32 GB.

 If there are more than one storage locations, click the ✓ next to Storage to specify where to store the recorded videos. To configure storage settings, click Add Log Location.

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5. Under **Stream**, select the stream(s) you want to record. By default, **Main Stream** is set to record high-resolution video images, while **Sub Stream** records lower-resolution video images. Select **Main Stream and Sub Stream** to record both streams simultaneously.

For details on Motion Detection settings, see *Setting up Motion Detection*, Chapter 1, *GV-VMS User's Manual*.

3.2 Configuring Camera Settings

To configure camera settings, click the **Setup** button soft of an active camera in the IP Device List. The settings available vary depending on the camera's firmware and whether the camera is connected or not.

There are three setup dialog boxes in the left menu of the camera's setting dialog box: **Video Setting**, **Audio Setting**, and **General Setting**. Clicking the Finger button is to apply the same settings to all connected cameras.

[Video Setting]

In Video Setting, you can configure the camera name, codec, frame rate, GOP, bitrate, resolution, trigger output, lens, video attributes and image orientation of the camera. Note that changes made to the Video Setting dialog box will change the settings on the IP camera.

Video Setting	🗄 Video Setting	Set camera	name		
General Setting	General Setting			Video Lost / Connection Lost	
	Camera Name : Camera	a2		Trigger output	
	IP Address : 192.16	8.6.79		Mod. 1 Pin	. 1 🔹 🚺
	Port : 10000		-	Set	video attribute
	User name : admin			Camera Lens	
	Password :			General	
				Video Attribute	
	Stream Setting Main stream			Brightness:	50
				Contrast:	0
Set codec and FPS .	Codec Selection :	H265			
	FPS :	30 .	-	Saturation:	50
	GOP :	1.00	-	Sharpness :	50
	Quality / Bitrate		_	Gamma :	50
	O VBR		-	Default	Save
	Quality :	Good	÷		- Jore
	Max. Bitrate :	12 Mbit		Image Orientation Normal	Horizontal Mirror
	CBR			Vertical Flip	Rotate 180
	Max, Bitrate :	14096 Kbps	T.	Rotate 270	Rotate 90
	Smart Stream			Rotate 270	Kotate 90
	Static Scene :	(-		11
	Quality :	Good			
	Max. Bitrate :	4 Mbit	-	11 12	
	Dynamic Scence :	(F.).	-		
	Quality :	Good			
	Max. Bitrate :	8 Mbit	•	A Altra .	in all the long
	Bitrate Reduction Level :	700			
		300 (30 - 300)			
		The bigger the lower b	itrate.	2	Mary Constant
	Resolution				The Fill of the state
	4_3		-		a supplier of the
	Main stream :	2592x1944	-		
	Sub Stream :	640x480	3		
		1			



[Audio Setting]

In Audio Setting, you can configure audio functions for live view and recording, which are disabled by default.

Settings	×
Video Setting Audio Setting Audo Setting Audo Setting Audo Gain Wave Out Wave Out Wave Out Wave Out Penoise Penoise Penoise Rec Audio By Sensitivity Round-the-Clou Audo Format 16 KHz, 16 bit	Select Wave Out
	OK Cancel

- 1. To listen to the audio around the camera, enable **Wave Out**.
- 2. To record the audio around the camera, enable **Rec Audio** and select **By Sensitivity** or **Round-the-Clock**.

Note: After Wave Out is enabled here, you can enable audio on the live view of the camera by clicking the **Tools** icon **X** and select **Set to Wave Out**.



[General Setting]

In General Setting, you can configure network timeout, on-demand display, live view frame rate, and recording frame rate settings.

ettings	Set live view frame rate
Video Setting Video Setting Video Lost / Connection Lost Natification	Frame rate control for live view decoding Uve view frame rate control (Main stream) Maximum live-view frame rate. Uve view frame rate. Waximum live-view frame rate. Waximum record frame rate. Recording frame rate. Record key frame only. Set codec and resolution automatically Set codec and resolution automatically

Set recording frame rate

- 1. Under Live view frame rate control (Main / Sub Stream), you can set the live view frame rate.
 - When using **MJPEG**, every frame is a key frame, so you can specify the number of key frames to decode for live view.
 - When using H.264 / H.265, only 1 key frame is transmitted per Group of Pictures (GOP), so you can decode Key frames only to omit all intermediate frames or Max. frame to include key frames and all intermediate frames.

Note:

- 1. The **GOP** setting can be configured in the **Video Setting** page (*Video Setting*, *3.2 Setting Camera Setting*). A GOP of 30 means that there is 1 key frame for every 30 frames, so an IP device with a frame rate of 30 fps will have 1 key frame per second.
- You can change the camera's main stream and sub stream to H.264, H.265 or MJPEG in the Video Setting page (Video Setting, 3.2 Setting Camera Setting). After changing codec, you need to click OK to apply the change before switching to the General Setting. Note that changing the camera's main stream and sub stream to H.264, H.265 or MJPEG will affect the frame rate setting options under General Setting.



2. Under Recording frame rate control, define the recording frame rates for **Urgent event** and **General event**. Refer to the step above for details. Make sure the related settings are configured accordingly in the Recording Settings dialog box as described in step 3 of *3.1 Configuring Recording Settings*.

For details on Video Setting, Audio Setting, and General Setting, see *Configuring Individual IP Cameras*, Chapter 2, *GV-VMS User's Manual*.

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Chapter 4 Live View

4.1 Arranging Live View Layouts

1. In the Content List, click Layout.



- 2. To add a layout, click Add ^O and click Add Layout. The Add New Layout dialog box appears.
- 3. Name the new layout and select one of the three available methods under Layout Setup to define a layout and click **OK**.
- 4. 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 squares and click **Merge** to create a larger square.
 - c. Click **OK** when you are done.

A message appears. Click **Yes** if you want to automatically assign the cameras to the new layout.



4.2 Functions on the Live View

Place the mouse cursor on the camera live view to see the icons below.



Icons	Functions		
Instant Play	Plays back the video recorded.		
Snapshot 🔯	Captures a snapshot of the current live view.		
Talk Back Toggle / Push-to-Talk	Talk to the surveillance site. For details, refer to [The behavior of the talk back button] in <i>1.6.1 Configuring General Setting</i> , GV-VMS User's Manual.		
Tools 🔀	Includes the following options:		
	Monitor: Starts monitoring of the camera.		
	Properties:		
	 Show Caption: Shows camera name on live view using the specified font size. 		
	- Keep Image Ratio: Locks aspect ratio of the camera image.		
	Close: Removes the camera from the layout grid.		
	The following options are available when related function is enabled:		
	• Set to Wave Out: Enables live view audio. (See [Audio Setting] in Section 3.2)		
	• PTZ Control: Enables PTZ functions. (See Section 4.4)		
	• Add to bookmark: Bookmarks a scene to watch later in ViewLog. This function is only available when the channel is recording.		
	• Storyline: Records a sequence of short video clips of a specific incident.		
Zoom 🗉	Switches the live view to full screen. If there is a designated Zoom window, clicking the Zoom button will replace the live view in the zoom window instead.		
Volume Indicator	Display an audio volume indicator on the top-left corner of the camera live view. Click Home <a>> Toolbar <a>> Tools <a>> Audio > Show Volume Indicator.		



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

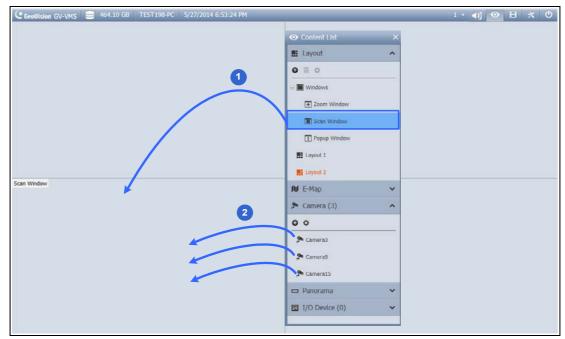
The live view screen can be controlled using the actions below.

4.2.1 Zoom Window

- To designate a Zoom Window to see a close-up view of the camera without changing the live view layout, click Layout > Windows in the Content List and drag Zoom Window to a live view grid.
- 2. Move the mouse cursor to a camera live view and click **Zoom** in the top-right corner. The camera live view is displayed in the Zoom Window.
- To remove the camera from the Zoom window, place the cursor on the live view, click Tools % and select Close. To change the live view grid back to a normal window, repeat this step again to close the Zoom Window.

4.2.2 Scan Window

- To assign multiple cameras to a Scan Window, to be shown in sequence, click Layout
 > Windows in the Content List and drag Scan Window to a live view grid.
- 2. Drag multiple cameras into the Scan Window.





3. Move the cursor to the Scan Window, click **Tools X** and select **Properties**.

Scan Pro	operties	
1	Name	Scan Interval
Ŧ	Camera1	5
	Camera7	5
Ê	Camera8	5
	Default Scan Interval:	
	5 🚔 Sec. 🚰	
	Show Caption	
	Font size: 10 🔹	
	🗏 Keep Image Ratio	
	ОК	Cancel

- 4. To adjust the order of a camera, click **Up** 1 and **Down** 4.
- 5. To specify how many seconds to show the live view, click and adjust the **Scan Interval** of each camera. Optionally click the **Finger** to apply this Scan Interval to all cameras.

4.2.3 Popup Window

You can designate a Popup Window to display live images of cameras, upon events, on a separate monitor. For this function to work, you must first create a live view layout on another monitor.

- 1. In the Content List, click Layout > Add O > Add Layout to create a new layout.
- 2. After clicking **OK**, select a desired monitor from the **Apply to...** list to activate the layout on the designated monitor.
- 3. In the Content List, click **Windows** > **Add** > **Add camera popup window** to select the cameras to be displayed in the Popup Window.
- 4. Rename the Popup Window if necessary and drag the Popup Window from the Content List to the layout created in Step 3.



4.2.4 Focus View and PIP

Focus View

You can create up to 7 close-up views per camera and place these created close-up views inside live view grid. This function is not supported for Fisheye and PTZ Cameras.

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

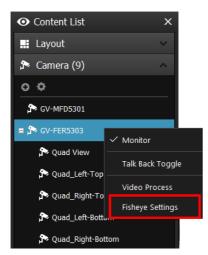
⊙ Content List ×	Focus View - Camera6
📰 Layout 🖌 🗸	
🗫 Camera (2) 🔺	
• •	
📌 Camera6	
Monitor	
Talk Back Toggle	
Video Process	
Focus View Setup	
	Color:
	Focus View Area:
	OK Cancel

- 2. Click **Enable** and draw a box on the camera view to create a focus view. You can create multiple focus views if needed.
- 3. Optionally click the **Color** drop-down list to change the color of the box.
- 4. Click **OK**. The created focus views are listed under the camera.
- 5. You can now drag the focus views to live view grids.



4.3 Setting up Fisheye Cameras

- 1. From the Content List, drag the fisheye camera (circular source image) or one of the dewarpped fisheye images (e.g. Quad View) to the live view grid.
- 2. To change the fisheye settings, right-click the fisheye camera from the Content List and select **Fisheye Settings**. The Fisheye Setting dialog box appears.



3. Right-click on the Fisheye Setting dialog box, point to Fisheye Option to access settings.

For details on the fisheye functions, see 3.18.1 Fisheye View, GV-VMS User Manual.

4.4 Setting up PTZ Cameras

- 1. Move the cursor to the camera live view and click **Tools X**.
- 2. Click **PTZ Control** to enable PTZ function.



- 3. You can control GV-IP Speed Domes using the following actions:
 - **Double-Click:** The camera will center on the spot you clicked.
 - **Drag:** You can select Random Move or Center Move after right-clicking the live view.



- **Random Move:** Drag a line on the live view and the camera will move toward the direction you dragged.
- Center Move: Drag a box on the live view and the camera will zoom in on the area you dragged.

For details, see 1.11.1 Accessing PTZ Control Panel and Auto Functions, GV-VMS User Manual.



Chapter 5 Video Processing

GV-VMS offers a number of video processing functions. To configure video processing functions, follow the steps below.

1. Click **Home** > **Toolbar** × > **Configure** × > **Video Process**. This dialog box appears.

Setup	×
Camera list Camera1 Camera7 Camera8	Video Analysis Object Index Setting Clear All Select All OK
	Cancel
	Send Event Alerts
	Max 16 Select 0

- 2. Select a function under Video Analysis.
- 3. In the Camera List, select the camera(s) you want to configure.
- 4. Click the **Setting** button to access the configuration page.
- 5. To send e-mail notification upon video analysis events, click next to **Send Event Alerts**.

For details on event alert functions, see 3.21 Event Alert through E-mail Notification, GV-VMS User's Manual.

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The following Video Processing functions are only enabled when you **start monitoring** on the cameras.

- Object Index/Monitor Setup
- Counter / Intruder Alarm Setting
- Crowd Detection
- Advanced Unattended Object Detection
- Advanced Scene Change Detection
- Advanced Missing Object Detection
- Face Count
- Text Overlay Setting
- Heat Map
- Video Analysis by Camera (IPCVA)

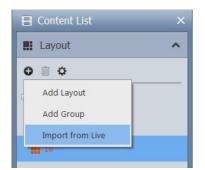
If you have set an AVP schedule, Video Processing functions will be enabled according to the schedule regardless of monitoring. See *7.2 Setting up Schedules* on how to set a schedule.

For details on video processing functions, see *Chapter 3 Video Analysis*, *GV-VMS User's Manual*.

Chapter 6 Video Playback and Backup

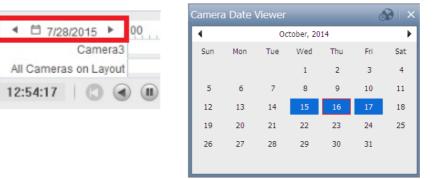
6.1 Playing Back Recorded Videos

- 1. Select ViewLog 📃 > Toolbar 🔀 > Content List 📕. The Content List appears.
- 2. Select Add **•** > Import from Live to import current live views to the playback screen.

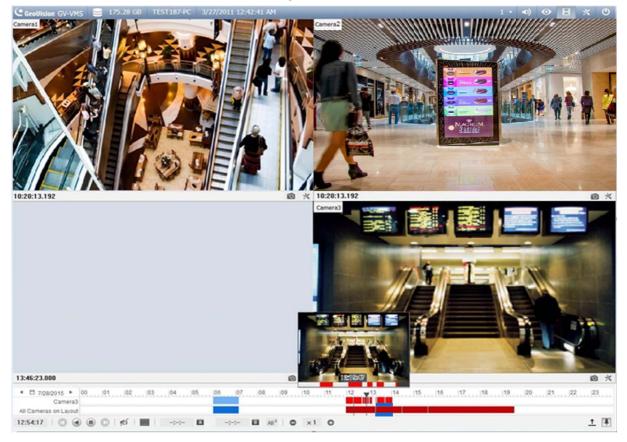


3. Optionally drag and drop more cameras from the Content List to the playback screen.

4. On the timeline, click the arrows or the date to select a date from a pop-up calendar.



- 5. Click on the timeline to select a time with video recordings. You can scroll the mouse to zoom in and out on the timeline.
 - Light Blue areas: videos recorded in round-the-clock mode.
 - Red areas: motion and other alarm events.
 - Dark Blue areas: audio recorded during motion and other alarm events.



- 6. Use the playback control buttons to play back recordings. Place the cursor on the buttons to see the name of the function.
- 7. Click **Play** to start playing back.

For details, see Chapter 4 Video Playback, GV-VMS User's Manual.

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6.2 Backing Up Recorded Videos

1. In ViewLog, click Toolbar 🔀 > Tools 🔲 > Backup. This dialog box appears.

ackup			
Media		Add time frame	
🔘 Using Hard Disk			
C:\SIBK20141216\			
Backup Folder Name :			
SIBK20141216			
Using CD / DVD / BD			
E:\[DV-W520GM : 4.70 GB]	•		
Burning Software :			
Osing OS-Burning	?		
Media Information			
Used Size :	120.65 MB		
Free Size :	4.58 GB	Include Player	
Total Size :	4.70 GB	Viewlog	•
Erase Rewritable Disc		Add time frame	ОК
			Cancel

- 2. Select a destination media to back files using **Hard Disk**, **CD / DVD / BD** or **OS-Burning**.
- 3. Click the **Add Time Frame** button to define a time period and which files to back up.
- 4. To include the player to the backup files, select **Include Player** at the right bottom of the Backup dialog box and select **ViewLog** or **Single Player**.
- 5. Click **OK** on the Backup dialog box to start the backup.

For details on backing up files, see 5.2 Backing Up Recorded Files, GV-VMS User's Manual.

Chapter 7 Other Important Features

7.1 Setting up I/O Functions

1. To set up I/O devices on GV-VMS, click **Home** > **Toolbar** > **Configure** > **Accessories** (if available) > **I/O Device** (if available) > **I/O Device Setup**.

I/O Device Setup		
Add Remove Modify Module Device Description 1 GVIOBox IOBOX-01(192.168.7.117)	Input 1 Name Input1 Input1 Input1 Input1 Input1 Input	
	Output 1 Name Output 1 Signal Type	
	N/O N/O Toggle N/O Pulse N/C Toggle N/C Toggle N/C Pulse	
	OK Cancel]

Note: The **Accessories** option only appears when GV-Keyboard or GV-Joystick has been set up on the GV-VMS. The **I/O Device** option only appears after at least one I/O device has been added.

- 2. Click Add. Then select IO Box (USB), GV IP Device, or IO Box (IP) and configure its connection settings.
- 3. For I/O devices connected through USB, you can configure **Signal Type** and **Latch Trigger** on GV-VMS.



4. After the I/O devices are added, select **Toolbar** > **Configure** > **Accessories** (if available) > **I/O Device** > **I/O Application Setup**. This dialog box appears.

	I/O Application Setting
Module 1 Module 1 Input1 Module 1 Input2 Module 1 Input3 Module 1 Input3 Module 1 Input3 Module 1 Input4 Module 1 Input4 Module 1 Input4 Module 1 Input5 Module 1 Input5 Module 1 Input5 Module 1 Input5 Module 1 Input6 Input7 Module 1 Input8 Input	Monitor Input Rec. Video: 5 Sec. Urgent Event Invoke Alarm: Invoke to Send Alerts: Output Module: Mod. 1 Pin. 1 Register Input Event Input Overlay: Preset Go by I/O: Preset Go by I/O:
Preset Go by I/O - Alarm On Dwell Time Never Recycling Input - Triggered Ev I/O Error Sound I/O Error Alert Deactivate notification when selected	vents
Momentary Mode Maintained M Start/Stop Camera Monitoring by I Start/Stop IO Monitor by I/O	
	OK Cancel

- 5. Select an input and specify the actions to take when the input is triggered.
- 6. Click **OK** to apply the settings.
- 7. To activate I/O functions, click Home <a>> Toolbar <a>> Monitor <a>> I/O Monitoring or Start All Monitoring.

For details on I/O setup, see Chapter 6 I/O Applications, GV-VMS User's Manual.

7.2 Setting up Schedules

You can create a schedule to enable and disable recording, video analysis, I/O monitoring, connection with Center V2 / Vital Sign Monitor / WebCam Server / Mobile Service / GV-Edge Manager and PTZ object tracking at specific times each day.

1. Click Home > Toolbar > Configure > Schedule Edit. This dialog box appears.

		<	2014 May	\geq	Today : 2	014/5/29
SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

- 2. Click Schedule and select Setup Wizard. The Setup Wizard dialog box appears.
- 3. Specify when to apply the schedule plan and click Next.
- 4. Name the schedule plan and click **Next**.
- 5. Select a button on the left (**Camera**, **AVP**, **I/O Monitoring**, **or Server** or **PTZ Object Tracking**) and drag across the timeline to enable it during that time.

Setup Wizard		X
🔲 🖿 🥖 🖉	Ť	
Application		
Camera		
AVP		0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
	Round the Clock Rec	
I/O Monitoring	Motion Detection Rec	
Server	Alarm Trigger	
	Enable Webcam Con	
PTZ Object	Enable ERM/Control	
Tracking	-	·

To set a recording schedule, click **Camera**, select a camera and click and drag on the desired time periods to specify how the camera is monitored throughout the day.



6. Click **Next** and **Finish** when you are done. The plan created appears on the calendar.

🗏 Weekend Sch			<	2014 May		Today : 2	2014/5/29
	SUN	MON	TUE	WED	THU	FRI	SAT
					1	2	3 Weekend Sch
	4 Weekend Sch	5	6	7	8	9	10 Weekend Sch
	11 Weekend Sch	12	13	14	15	16	17 Weekend Sch
	18 Weekend Sch	19	20	21	22	23	24 Weekend Sch
	25 Weekend Sch	26	27	28	29	30	31 Weekend Sch

Tips:

- 1. You can add multiple plans to the calendar.
- 2. You can also add a plan to the calendar by dragging an existing plan and dropping it on a date in the calendar.
- 7. Click Home > Toolbar × > Monitor Start Schedule Monitoring.

For details on setting schedule, see 1.8 Schedule, GV-VMS User's Manual.