GeoVision inc.
The Vision of Security

GV-CMS Series

User's Manual

CSV1841_V201-UM-A

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Contents

Preface

GeoVision Center Monitoring System (CMS) series includes GV-Center V2, GV-Dispatch Server, GV-Vital Sign Monitor, GV-Control Center, and GV-GIS. The manual introduces GV-Center V2, GV-Dispatch Server, and GV-Vital Sign Monitor. For GV-Control Center and GV-GIS, please refer to *GV-Control Center User's Manual* and *GV-GIS User's Manual*.

IMPORTANT: GV-Center V2 Standard / Pro versions do not support AI-related functions, such as receiving AI and PVD Events from GV-Software and GV-Devices. It also does not support SDK events from GV-VMS V18, GV-VMS V20, or GV-AI Inference Server (GV-AIS) services.

To access these functions, both **GV-Center V2 AI** and **GV-Dispatch Server AI** license dongles are required. You can access full AI functionality once you activate the GV-Center V2 AI and GV-Dispatch Server AI versions. For details, see *1.2 Licenses* in the *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

Naming and Definition

Surveillance System	Refers to GV-NVR, GV-VMS and GV-AI Guard surveillance systems.
Subscriber	Refers to surveillance systems, GV-IP devices that are compatible with GeoVision central monitoring systems for central monitoring management.

GPU Decoding Specifications

GPU (Graphics Processing Unit) decoding can lower the CPU loading and increase the total frame rate supported by a GV-CMS system. GPU decoding can be performed by 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:

- 2nd ~ 8th Generation Intel Core i3 / i5 / i7 Desktop Processors
- 9th ~ 14th Generation Intel Core i3 / i5 / i7 / i9 Desktop Processors

For H.265 Video Compression

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

- 6th ~ 8th Generation Intel Core i3 / i5 / i7 Desktop Processors
- 9th ~ 14th Generation Intel Core i3 / i5 / i7 / i9 Desktop Processors

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Note: To get the best performance of 12th Generation Intel Processor or later versions, make sure to upgrade GV-Center V2 to V18.4 or later.

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 commute capability of the NVIDIA graphics cards, refer to: https://developer.nvidia.com/cuda-gpus

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Note:

1. One external NVIDIA graphics card is supported to perform GPU decoding for free.
2. GeForce GTX1060 is not supported.

Onboard GPU + External GPU: To have both the onboard GPU and external GPU perform GPU decoding, the GPUs must follow their respective specifications listed above.

Note:

1. If you have both onboard GPU and external GPU installed, the onboard GPU 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.

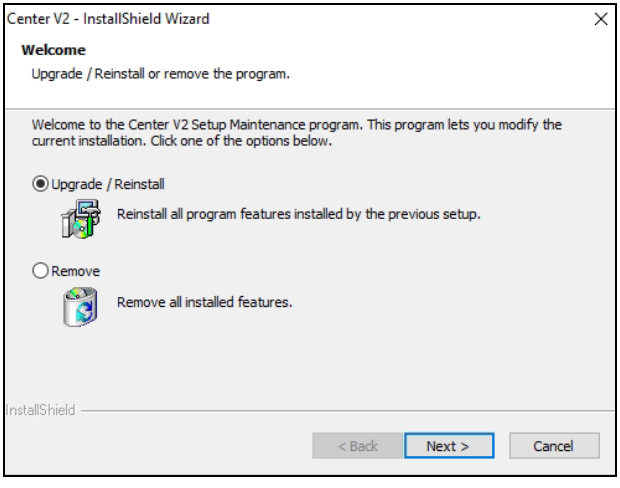
Software Specifications

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

		2nd Gen	3rd ~ 4th Gen	6th ~ 14th Gen
OS	**64-Bit**	Windows 10 / 11 / Server 2016 / Server 2019 / Server 2022		
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 / 8 MP / 12 MP
Codec		H.264		H.264 / H.265

Note for Upgrading GV-Software

To upgrade GV-Center V2, GV-Dispatch Server, or GV-Vital Sign Monitor, run the **Installer** (setup.exe) included in the latest software downloads from our website. Select **Upgrade / Reinstall** to start. The following is an example of GV-Center V2 Installer.



Chapter 1
GV-Center V2

GV-Center V2 enables the rapid deployment of a central monitoring station (CMS) by integrating multiple GV-NVR, GV-VMS, and GV-AI Guard surveillance systems, as well as GV-IP devices, into a single interface. The primary feature of GV-Center V2 is the ability to view live video, and receive video evidence (in an attachment format) when it receives alerts from the monitored sites. This makes it easier for a remote operator to determine the nature of an alert.

1.1 GV-Center V2 AI and GV-Dispatch Server AI Integration

GV-Center V2 is available in Standard, Pro, and AI versions. Key differences between GV-Center V2 AI and the Standard / Pro versions include:

- **GV-Center V2 AI can receive AI events** from GV-VMS V18, GV-VMS V20, and GV-AI Guard surveillance systems, GV-Cloud IP Cameras, GV-Cloud Bridge and GV-Cloud Bridge Pro bridge devices, and GV-AI Inference Server (GV-AIS). See *1.3 Compatible GeoVision Products* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.
- **GV-Center V2 AI must be integrated with GV-Dispatch Server AI** to manage and distribute surveillance data.

For GV-Center V2 AI and GV-Dispatch Server AI setup and integration details, see *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

- For system requirements, licensing, and installation, skip Chapters 1.2–1.3 of this guide and see *Chapter 1 Introduction* in the *Quick Start Guide*.
- For subscriber creation and connection setup between GV-Center V2, GV-Dispatch Server, subscribers, and GV-AIS, see *Chapter 2 Getting Started* in the *Quick Start Guide*.

1.2 Minimum System Requirements

Before installation, make sure your computer meets the following minimum requirements.

IMPORTANT: The system requirements here apply only to GV-Center V2 Standard / Pro. For details on the minimum system requirements, licensing and compatible GeoVision products of GV-Center V2 in **GV-Center V2 AI**, see *1.1.1 GV-Center V2 Requirements*, *1.2 Licenses*, and *1.3 Compatible GeoVision Products* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

Standard Version (Connects up to 5 subscribers & 160 channels)

OS	**64-bit**	Windows 10 / 11 / Server 2016 / Server 2019 / Server 2022
CPU		Intel Core i3 2130, 3.4 GHz
Memory		4 GB Dual Channels
Hard Disk		500 GB
Graphic Card		PCI-Express, 1024 x 768, 32-bit color
DirectX		9.0c
Software		.Net Framework 3.5 SP1 and Chart Control
Note: To perform GPU decoding, see *GPU Decoding Specifications* earlier in the manual.		

Professional Version (Connects up to 500 subscribers & 800 channels)

OS	**64-bit**	Windows 10 / 11 / Server 2016 / Server 2019 / Server 2022
CPU		Intel Core i7 2600, 3.4 GHz
Memory		8 GB Dual Channels
Hard Disk		500 GB
Graphic Card		PCI-Express, 1024 x 768, 32-bit color

DirectX	9.0c
Hardware	Internal or External GV-USB Dongle
Software	.Net Framework 3.5 SP1 and Chart Control

Note:

1. It is not recommended to install GV-Center V2 Pro and GV-Control Center on the same PC. Running the two software on the same PC may result in CPU overload error or system failure.
2. To perform GPU decoding, see *GPU Decoding Specifications* earlier in the manual.

Software License for Professional Version

Free License	N/A
Maximum License	500 subscribers, 800 channels
Increment for Each License	N/A
Combination	1. GV-Center V2 Pro 2. GV-Center V2 Pro + GV-Vital Sign Monitor
Dongle Type	Internal or external

Note: It is recommended to use the internal GV-USB Dongle to utilize the Hardware Watchdog function, which restarts the PC when Windows becomes unresponsive.

Compatible Products for GV-Center V2 Standard and GV-Center V2 Pro

- GV-NVR
- GV-VMS: V17.4.8 or later / V18.3.5 or later / V20.0.1 or later
- GV-SNVRs: GV-SNVR0412 / 0812 / 1612
- GV-IP Cameras*
- GV-Cloud Bridge (for connecting GV and 3rd-party IP cameras that do not have the GV-Center V2 setting page)
- GV-Cloud Bridge Pro (for connecting GV and 3rd-party IP cameras that do not have the GV-Center V2 setting page)
- GV-AI Guard

Note: *For compatible GV-IP Cameras with GV-Center V2 Standard / Pro, please check using the GV-Selector.

1.3 Installation

To install GV-Center V2, follow the steps below.

Note: The instructions here apply only to GV-Center V2 Standard / Pro. For details on the installation of GV-Center V2 in **GV-Center V2 AI**, see *1.4.1 GV-Center V2 Installation* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

Install from Software DVD

1. Insert the Software DVD to your computer. It runs automatically and a window appears.
2. Select **Install GeoVision Primary Applications**.
3. Click **Center V2** and follow the on-screen instructions.
4. To install .Net Framework 3.5 SP1, select **Download Microsoft .NET Framework 3.5**.
5. To install Microsoft Chart Controls, select **Download Microsoft Chart Controls [for .Net Framework 3.5]**.
6. To install the professional version, it is required to:
   A. Connect the GV-USB Dongle to the computer.
   B. Install the driver for the GV-USB Dongle. From the Software DVD, select **Install or Remove GeoVision GV-Series Driver** and select **Install GeoVision USB Device Driver**.

Download from GeoVision Website

1. Go to http://www.geovision.com.tw/download/product/GV-Center%20V2

2. Select **Primary Applications** from the drop-down list and click the Download icon of **GV-Center V2**.

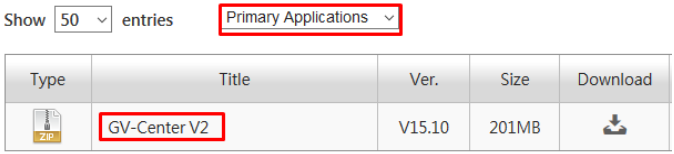


Figure 1-1

3. Download and install **.Net Framework 3.5 SP1** from https://www.microsoft.com/en-us/download/details.aspx?id=25150
4. Download and install **Microsoft Chart Controls** from https://www.microsoft.com/en-us/download/details.aspx?id=14422
5. To install the professional version, it is required to:
   A. Connect the GV-USB Dongle to the computer.
   B. Install the driver for the dongle. On the Website, select **Driver** from the drop-down list and click the **Download** icon of **GV-Series Card Driver / GV-USB Devices Driver**.

1.4 The GV-Center V2 Window

Figure 1-2

The controls on the GV-Center V2 window:

No.	Name	Description
1	Monitoring Window	Displays live video.
2	Status Panel	Indicates the date, time, remaining disk space, and the total number of online channels versus available channels.
3	Find a Subscriber	Type the desired ID in the Current Subscriber field and click this button to search.

No.	Name	Description
4	Subscriber List	Displays subscribers' ID names and online status. Right-click any subscriber to access the **Subscriber Address Book** and **PVD Enable Setting (only for GV-Center V2 AI)** panels. Additional functions include **Send E-Mail, E-Map, Audio, Microphone, Camera Monitor, Dispatch to Another CenterV2,** and **Event Log**. Right-click any camera under a GV-VMS subscriber to access the **PVD Setting (only for GV-Center V2 AI)** panel, as well as the **Copy Camera ID (only for GV-Center V2 AI)** function, which allows the ID to be pasted into GV-AIS VA Logs. See *3.3 Event Query* in *GV-AI Inference Server User's Manual* for details. **Blue Icon:** Indicates the subscriber is online. **Gray Icon:** Indicates the subscriber is offline. **Alarm Icon:** Indicates either motion has been detected or the I/O has been triggered at the subscriber's site.
5	Tools	Accesses Event Log, Event List, Event Chart, QView, audio and microphone control, SMS Server configuration, and short message notification.
6	Host Information	Displays the connection status of subscribers.
7	Accounts	Adds, deletes or modifies subscriber accounts.
8	Preference Settings	Brings up these options: System Configure, Event Log Settings, Notification, Password Setup, E-mail Setup, Customize Alarm Report, SMS Setup, I/O Device, Automatic Failover Support and Version Information.
9	Previous Page	Displays the previous page of camera views.
10	Next Page	Displays the next page of camera views.

No.	Name	Description
11	Refresh Channel	Refreshes the connection status.
12	Split Mode	In the 1024 x 768 resolution, select 6, 15, or 24 screen divisions for a single monitor; 9, 25, or 36 screen divisions for dual monitors. In the 1280 x 1024 resolution, select 6, 12, or 24 screen divisions for a single monitor; 9, 20, or 42 screen divisions for dual monitors. In the 1600 x 1200 resolution, select 6, 12, or 24 screen divisions for a single monitor; 9, 16, or 36 screen divisions for dual monitors. In the 1680 x 1050, 1920 x 1200 and 1440 x 900 resolutions, select 6, 15, or 28 screen divisions for a single monitor; 9, 20, or 42 screen divisions for dual monitors. In the 1920 x 1200 resolution, select 6, 15, or 28 screen divisions for a single monitor; 9, 20, or 42 screen divisions for dual monitors. In the 1280 x 800 resolution, select 6, 12, 24 screen divisions for a single monitor; 9, 16, 30 screen divisions for dual monitors. For resolution, see *1.16.2 Layout Settings*.
13	Exit	Closes or minimizes the GV-Center V2 window.
14	Flag	Flags an event for later reference.
15	Clipboard	Displays the Alarm Report dialog box.
16	Video Clip	Indicates an event with a recording attachment from a subscriber or a live recording at GV-Center V2. To open the recording file, double-click the event.
17	ID	Indicates a subscriber's ID.
18	Event Type	Indicates the event type: Alarm, Record, Connection, Login/Logout, Motion, System, Trigger

No.	Name	Description
		and Wiegand Data.
19	Message	Indicates associated information for each event type.
20	Message Time	Indicates when GV-Center V2 receives an event.
21	Start Time	Indicates when an event happens at the subscriber's site.
22	Event Categories	Sorts events by types, including All, System, Motion, Trigger, Connection, Alarm, Login/Logout, Record, Wiegand Data, Device Lost, Offline Event, PVD, AI, and Customized Event. The function is only available for the Professional version. For details, see *1.14.2 Using the Event Tabs*.

Note:

1. The **PVD** and **AI** categories receive PVD (People and Vehicle Motion Detection) and AI analytics events.
2. The **Record** category includes recording attachments from subscribers and live recordings at GV-Center V2.

The types and messages displayed on GV-Center V2:

Type	Message
System	Start/end service; IP change; Record failed; Status change of monitoring camera. On: xx Off: xx / (By Schedule); Stop/start all cameras monitoring; Start/stop I/O Monitoring. / (By Schedule); Schedule start; Schedule stop. All monitoring devise are stop too. Start monitoring all type events; Stop monitoring all type events; Subscriber session is not established. Wait-time expired; Unexpected logout before subscriber session is completed; Can't find USB Protection Key; IDS_PVD_ERRORxx (Error Code: 02, 04, 05, 06, 13, 14, and 15). **Note:** The IDS_PVD_ERRORxx message is only for GV-Center V2 AI.
Motion	Camera xx detected motion.
Trigger	Module xx triggered.
Connection	Camera xx video lost; Module xx I/O lost; Network abnormal; Fail to login to Dispatch Server; Dispatch server is shutdown; Video signal of xx has resumed; Module xx has returned to normal; Failed to login SMS server; Failed to send short message; SMS server is shutdown.
Alarm	Disk Full; Restarted Failed; Multicam Closed; There isn't enough space for recording; Multicam Surveillance System has been closed; An unexpected error occurred in Multicam Surveillance System. (Error Code: 1, 2, 3, 4, 5, 6, 7, 103, and 104); There is an intruder; Object Missing; Unattended Object; Alert Message of POS; Scene Change.
Login/Logout	Login; Logout.
Record	Record file of Camera xx.
Wiegand Data	Card No. xxxxxx (Camera xx)

Note:

1. In the **System** event category, the IDS_PVD_ERRORxx message (only for GV-Center V2 AI) has the following error codes:
   - Error Code 02: Incorrect username or password when logging in to GV-AIS.
   - Error Code 04: GV-AIS busy state.
   - Error Code 05: GV-AIS connection timeout.
   - Error Code 06: No available PVD analytics engine in GV-AIS for the specified AI event.
   - Error Code 13: Invalid image size for PVD analytics.
   - Error Code 14: Unsupported image format for PVD analytics.
   - Error Code 15: GV-AIS initialization in progress.
2. In the **Alarm** event category, the “An unexpected error occurred in Multicam Surveillance System” message has the following error codes :
   - Error Code 1: Codec error.
   - Error Code 2: Unable to write or record data due to hard drive failure or insufficient user privileges.
   - Error Code 3: Unable to write or record data due to an issue during the recording process.
   - Error Code 4: Hard drive not detected.
   - Error Code 5: Failure of the connected host software.
   - Error Code 6: Database failure.
   - Error Code 7: Disk abnormality.
   - Error Code 103: Host recovery from Error Code 3
   - Error Code 104: Host recovery from Error Code 4.

1.5 Subscriber Account

Create at least one subscriber before starting GV-Center V2 services. On the GV-Center V2 window, click the **Accounts** button (No. 7, Figure 1-2). The Address Book window appears.

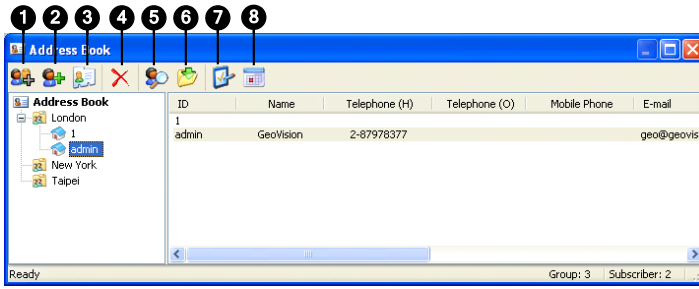


Figure 1-3

The buttons on the Address Book:

No.	Name	Description
1	Add a Group	Adds a group.
2	Add a Subscriber	Adds a subscriber.
3	View / Edit Subscriber Address Book	Highlight one subscriber and click this button to open Subscriber Address Book for viewing and editing.
4	Delete a Group / Subscriber	Highlight a group or a subscriber and click this button to delete it.
5	Find a Subscriber	Searches a subscriber account.
6	Import / Export Address Book	Imports or exports the address book data.
7	Subscriber Settings	Highlight one subscriber and click this button to configure the settings of video and alert formats.
8	Subscriber Schedule	Sets up subscription schedules.

1.5.1 Creating a Subscriber

To create a subscriber account, follow the steps below.

Note: For details on subscriber creation of GV-Center V2 and GV-Dispatch Server in **GV-Center V2 AI**, see *2.1 Creating Subscribers* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

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1. Click the **Add a Group** button (No. 1, Figure 1-3) to create a group.
2. Click the **Add a Subscriber** button (No. 2, Figure 1-3). This dialog box appears.

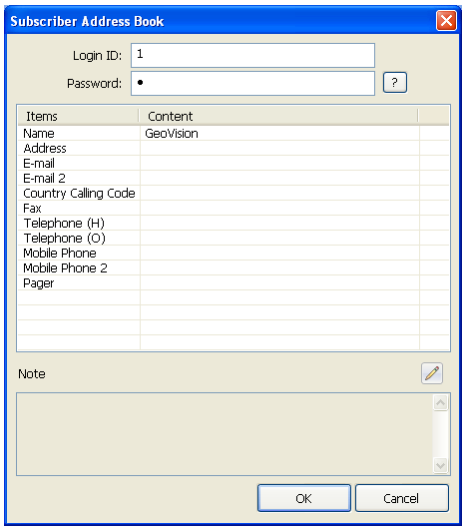

Figure 1-4

3. Type a Login ID and Password. These will be the subscriber's ID and Password to log into the GV-Center V2.

4. Optionally, type the subscriber's contact information in the remaining fields.
   - If you want to send e-mail alerts to a subscriber, type its e-mail accounts. Up to two e-mail accounts can be created for a subscriber. For e-mail settings, see *1.20 E-Mail Alerts*.
   - If you want to send SMS alerts to a subscriber, type its country code and mobile numbers. Up to two sets of mobile number can be created for a subscriber. For SMS Server settings, see *1.19 SMS Alerts*.
5. Click **OK** to save the settings. This dialog box appears.

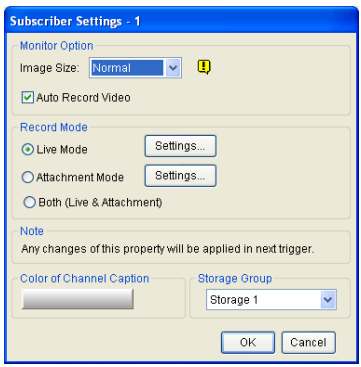

Figure 1-5

6. Assign a Storage Group using the drop-down list. For details, see *1.16.4 Recording Settings*.
7. The options in the dialog box (Figure 1-5) are discussed later. You can accept the default settings now, and change them later by clicking the **Subscriber Settings** button (No. 7, Figure 1-3) on the toolbar. After you click **OK**, the subscriber account is created.

1.5.2 Subscriber Settings

[Monitor Option]

- **Image Size:** Sets the size of the video from the subscriber. Each image size set in a subscriber corresponds to a specific size displayed on GV-Center V2. For example, if the video stream from a subscriber is 704 x 576 and you select **Middle**, the image size displayed on GV-Center V2 will be 720 x 288. For details on the image size, see *Image Size on GV-Center V2, Appendix*.

  GV-Center V2 supports megapixel resolution. If a subscriber sets the resolution to megapixel and the GV-Center V2 operator wishes to view the videos of the same size, the operator can select **Actual Size**. Note this setting will require a lot of bandwidth. It is recommended to enable this function in LAN environment.

Note: The Image Size options are not applicable to GV-IP Camera and GV-Video Server. The image size of these subscribers displayed on the GV-Center V2 varies according to the size of stream 1. To see the image size of stream 2 displayed, select **Normal** and enable **Enable Stream 2 from Video Server and IP Camera** (Preference Settings (No. 8, Figure 1-2) > System Configure > Network).

- **Auto Record Video:** GV-Center V2 automatically records events based on the following Record Mode.

[Record Mode]

- **Live Mode:** Streams live video to GV-Center V2. This is the default recording mode on GV-Center V2. Make sure you have enough bandwidth to receive video in live. To set the maximum duration of a video file recorded on GV-Center V2, click the **Settings** button.

- **Attachment Mode:** A defined time of event will be recorded before sending to GV-Center V2. The attachment will be sent out immediately once your subscriber is connected to GV-Center V2. The Attachment Mode also provides several options associated with the attachment. Click the **Settings** button to bring up the Record Settings – Attachment Mode dialog box. See *1.5.3 Attachment Mode Settings* for further setup.
- **Both (Live & Attachment):** Sends both live video and attachment files.

[Color of Channel Caption]

Changes the color of channel headings. For further setup, see *1.5.4 Channel Heading*.

1.5.3 Attachment Mode Settings

You can set up the number of video clips attached with a notification message when events occur at the subscriber site. You will see the attachment message like the examples below on the Event List. Double-click the message to play the video instantly.

Figure 1-6

Note: There are four types of attachment messages: **[Attachment]** for motion recordings, **[Input-trigger Attachment]** for an input device triggered recordings, **[Pre-Event Attachment]** for pre-event recordings, and **[Post-Event Attachment]** for post-event recordings.

In the Subscriber Settings dialog box (Figure 1-5), select **Attachment Mode**, and click the **Settings** button beside. This dialog box appears.

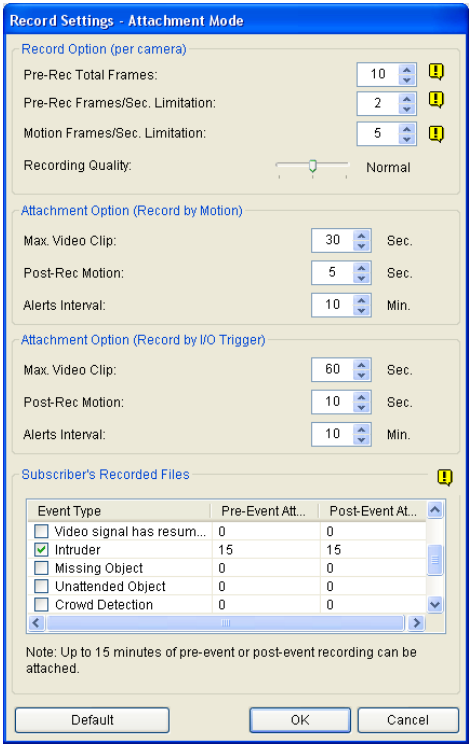

Figure 1-7

[Record Options (per camera)]

- **Pre-Rec Total Frames:** Determines the total pre-recorded frames in a video attachment.
- **Pre-Rec Frames/sec Limitation:** Determines the frame rate in the pre-recorded period.

Note: Dividing the Pre-Rec Total Frames by Pre-Rec Frames/Sec Limitation, you will get the total time of the video attachment.

- **Motion Frames/sec Limitation:** Determines the frame rate of the video to be sent as an attachment.
- **Recording Quality:** Use the slider bar to adjust the video quality in 3 levels.

[Attachment option (Record by Motion)] Defines the duration of the video attachment delivered upon motion.

- **Max video Clip:** Determines the duration of the video attachment.
- **Pos-Rec Motion:** Determines how many seconds of video to be sent after motion stops.
- **Alerts interval:** Determines the interval between notification messages attached with video clips.

[Attachment option (Record by I/O trigger)] Defines the duration of the video attachment delivered upon I/O trigger. The three options are the same as those in **[Attachment option (Record by Motion)]** above.

[Subscriber's Recorded Files] Receives up to 15 minutes of pre-event and post-event recordings respectively for the selected event from this subscriber. These video attachments inform the GV-Center V2 operator about what happened before and after the event. Note this function is only applicable to these event types: Motion, I/O Trigger, Video Signal Resumption, Intruder, Crowd Detection, Unattended Object, Scene Change, Missing Object, Advanced Unattended Object, Advanced Scene Change and Advanced Missing Object.

Select the desired event type, click the **Pre-Event Attachment** or **Post-Event Attachment** column, and select the number of clips to be attached with a notification message. For example, if a subscriber is set to record for 1 minute per clip, and the pre-event attachment is set to 15 (as illustrated in Figure 1-7), you will receive 15 notifications with attachments when the selected event occurs. However, if a subscriber is set to record for 5 minutes per clip, you will receive 3 notifications with attachments.

Note: To provide pre-event and post-event recordings, the subscriber must record in the round-the-clock mode.

1.5.4 Channel Heading

For easy identification, you can define the background color of channel headings for each subscriber.

1. On the GV-Center V2 window, click the **Accounts** button (No.7, Figure 1-2), highlight a subscriber, and click the **Subscriber Setting** button on the toolbar. The Subscriber Settings dialog box (Figure 1-5) appears.
2. Click the **Color of Channel Caption** button. The color dialog box appears.
3. Select a color you wish to use, and click **OK**. The **Color of Channel Caption** button now displays the color you selected.
4. On the GV-Center V2 window, click the **Preference Setting** button (No. 8, Figure 1-2) and select **System Configure**. The Preference dialog box (Figure 1-56) appears.
5. Click the **General** tab, and select **Use the subscriber setting color as background**. The background color of the channel heading will be in the color you selected.

Figure 1-8

1.6 Connecting to GV-Center V2

A single surveillance system, GV-NVR / GV-VMS / GV-AI Guard, can connect up to two GV-Center V2 systems simultaneously for central monitoring. To configure the surveillance system for a remote access to GV-Center V2, follow these steps:

Note: For details on connection setup between GV-Center V2, GV-Dispatch Server, subscribers, and GV-AIS in **GV-Center V2 AI**, see *Chapter 2 Getting Started* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

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1. Access the GV-Center V2 login dialog box in a surveillance system:
   - On GV-NVR's main screen: Click the **Network** button  , and select **Connect to Center V2**. This dialog box appears.
   - On GV-VMS / GV-AI Guard's main screen: Click **Home**, **Toolbar**, **Network** and then select **Connect to Center V2**. This dialog box appears.

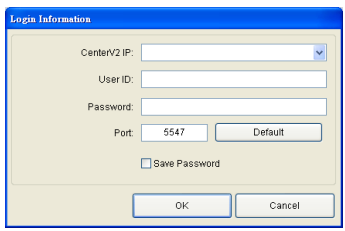


Figure 1-9

2. Type the IP address of the GV-Center V2, a subscriber's ID and password created in the GV-Center V2. Modify the default port if necessary. Click **OK**. This dialog box appears.

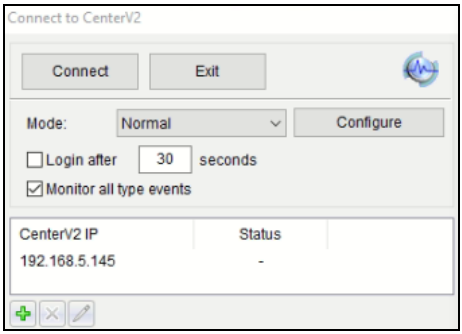


Figure 1-10

3. To connect to the second GV-Center V2, click button to add the other GV-Center V2.
4. To modify the login information of the established account, select the account under CenterV2 IP, and click the button.
5. To delete the established account, select the account under CenterV2 IP, and click the button.
6. When you finish the settings, click the **Connect** button to start. When the connection is established, GV-Center V2 will start receiving events, live images or attachments from the subscriber.

1.6.1 Setting Normal Mode

To further define the communication conditions between the subscriber and GV-Center V2, select **Normal Mode** in the Connect to GV-Center V2 dialog box (Figure 1-10), and then click the **Configure** button for setup. A drop-down menu includes two options: **General Settings** and **Advanced Settings**. The Advanced Settings dialog box includes these tabs: (1) Camera, (2) Other, and (3) I/O Device.

1.6.1.1 General Settings

The settings define the retry modes and communication ports between a surveillance system and GV-Center V2.

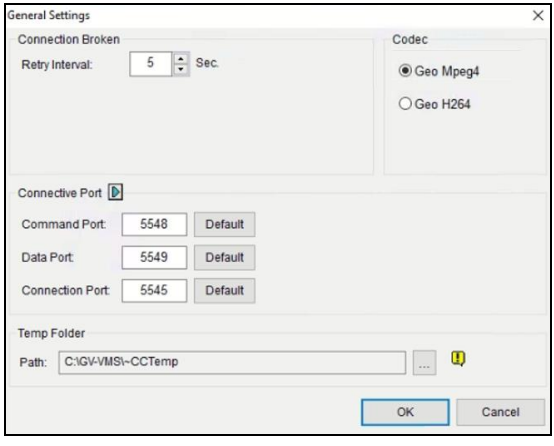


Figure 1-11

[Connection Broken]

- **Retry Interval:** Sets the interval between retries.

[Codec] Selects **Geo Mpeg 4** (default) or **Geo H264** as the compression method for video sent to GV-Center V2. Note that GV-VMS V20 does not support Geo Mpeg4 codec.
[Connective Port] Displays ports used for communication. It is recommended to keep the default settings, unless otherwise necessary.

To automatically configure these ports on your router by UPnP technology, click the **Arrow** button. For details on UPnP settings, see *UPnP Settings*, *Appendix*.

[Temp Folder] Attachments are temporarily stored in this folder while waiting to be sent to GV-Center V2. In case the connection is broken, attachments meant to be sent to GV-Center V2 could be found here. Once the connection is back to normal, events saved in the Temp Folder will be sent out immediately.

1.6.1.2 Advanced Settings

Camera

Use the **Camera** tab to define the camera conditions under which the GV-Center V2 system is notified. By default, the GV-Center V2 system is notified of all event types. To change this setting, first disable the **Monitor all type events** option (Figure 1-10).

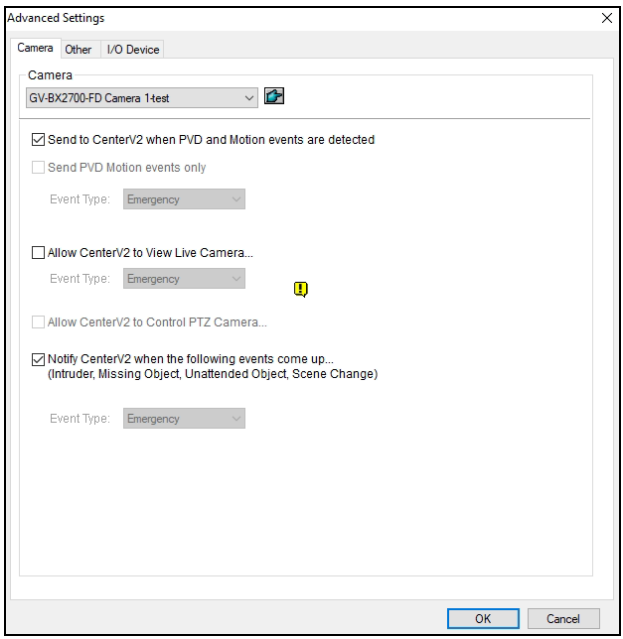


Figure 1-12

- **Camera:** Click the drop-down list to select a camera to be configured. Or you can click the **Finger** button to apply the settings to all cameras.

- **Send to Center V2 when PVD and Motion events are detected:** Sends notifications (video and text messages) to GV-Center V2 when motion and/or PVD motion is detected.
- **Send PVD Motion events only:** Sends notifications (video and text messages) to GV-Center V2 only when PVD motion is detected.

  Event Type: To always notify GV-Center V2 of motion or PVD events, select **Emergency**. To notify GV-Center V2 of the specified events only when an assigned input is triggered or within the established schedule, select **Normal**.

- **Allow Center V2 to View Live Camera:** Allows GV-Center V2 to view your camera at any time.
- **Allow Center V2 to Control PTZ Camera:** Allows GV-Center V2 to control your PTZ camera. Remember to properly set up camera mapping first. See *Mapping PTZ Cameras, Chapter 1* in *GV-DVR User's Manual* on the Software DVD.
- **Notify Center V2 when the following events come up:** Notifies GV-Center V2 when any of these alert events occur: Intruder, Missing Object, Unattended Object, Scene Change, Crowd Detection, Advanced Missing Object, Advanced Unattended Object and Advanced Scene Change.

  Event Type: To always notify GV-Center V2 of the alert events, select **Emergency**. If the subscriber wants to notify GV-Center V2 of the alert events only when an assigned input is triggered or within the established schedule, select **Normal**.

Note: To assign an input or set up a schedule for sending trigger notifications, see *[Security Service], [I/O Device]* and *Monitoring Schedule* respectively.

Other

Define other communication conditions between a surveillance system and GV-Center V2.

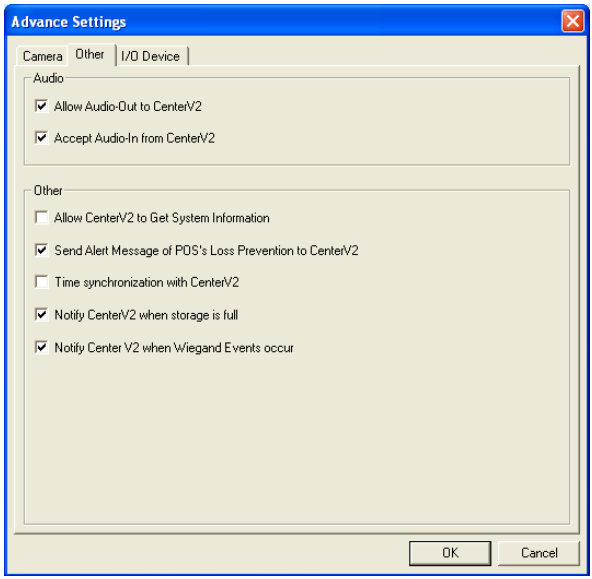


Figure 1-13

[Audio]

Applies any of the two options may generate privacy issues. Think before you make any selection.

- **Allow Audio-Out to CenterV2:** Allows GV-Center V2 to hear audio from a surveillance system.
- **Accept Audio-In from CenterV2:** Allows GV-Center V2 to use the talkback feature in the event of an emergency.

[Other]

- **Allow Center V2 to Get System Information:** Allows GV-Center V2 to retrieve system information from a surveillance system.
- **Send Alert Message of POS's Loss Prevention to Center V2:** Notifies GV-Center V2 of POS Loss Prevention events. Note that only a surveillance system with POS features can support this function.
- **Time synchronization with Center V2:** Synchronizes the time of a surveillance system with that of GV-Center V2.
- **Notify Center V2 when the storage space was full:** Notifies GV-Center V2 when the storage space of a surveillance system is insufficient.
- **Notify Center V2 when Wiegand Event occurs:** This option is used for the access control application with GV-Wiegand Capture. When a surveillance system receives the card number from GV-Wiegand Capture, GV-Center V2 will also receive the card number. Note that only a surveillance system with the Wiegand feature can support this function.

Note: When **Time synchronization with Center V2** is selected, time synchronization is activated when GV-Center V2 is started and is reactivated every 12 hours.

I/O Device

The settings define which I/O condition should notify GV-Center V2. To configure these settings, first disable the **Monitor all type events** option in Figure 1-10. Note this tab is only accessible when at least one I/O device is installed in the surveillance system.

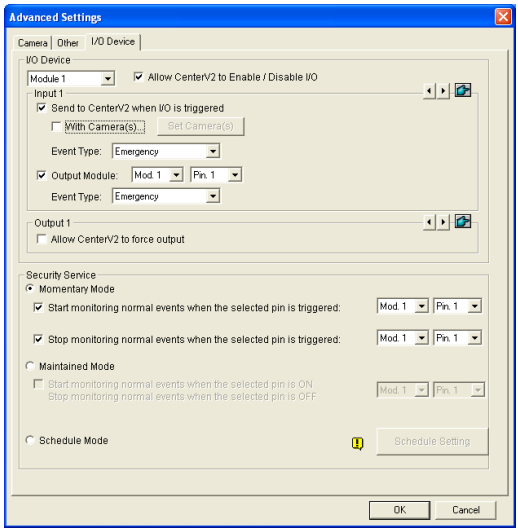


Figure 1-14

[I/O Device]

Notifies the GV-Center V2 of when I/O devices are triggered. Use the **Arrow** buttons to configure each I/O device, or click the **Finger** button to apply to all I/O devices.

- **Allow Center V2 to Enable / Disable I/O:** Allows GV-Center V2 to manually arm/disarm any I/O devices at the subscriber's site without interrupting monitoring.
  For example, when an alarm is triggered at the subscriber site, the GV-Center V2 operator can remotely deactivate it before the security staff arrives at the site. Meanwhile, the surveillance system remains under monitoring.
- **Send to Center V2 when I/O is Triggered:** Notifies GV-Center V2 when any selected input is triggered.

With Camera(s): Sends the camera video to GV-Center V2 when the selected input is triggered. Click the **Set Camera(s)** button to assign cameras for the application.

Event Type: If the subscriber wants GV-Center V2 always to get notified of the input trigger, select **Emergency**. If the subscriber wants GV-Center V2 to get notified of the input trigger only when an assigned input is triggered, select **Normal**.

Right Arrow button: Sets the delay time to notify GV-Center V2 of input trigger. This feature is only available when the **Normal** type is chosen.

- **Exit Delay:** While the system is activated, this feature provides an interval of time for the subscriber to exit the premises. During this time, the specified input (e.g. an exit/entry door) is inactive. Once the exit delay expires, the input will be fully armed.
- **Entry Delay:** While the system is activated, this feature provides an interval of time for the subscriber to entry the premises. During this time, the specified input (e.g. an exit/entry door) is inactive so that the subscriber can disarm the system. If the subscriber fails to do, once the entry delay expires, GV-Center V2 will get notified of the input trigger.

- **Output Module:** Enables the assigned output module when the selected input module is triggered.
  For the example of Figure 1-14, when the I/O Device (Module 1, Input 4) is triggered, the Output (Module 1, Pin 3) will be activated simultaneously.
  Right Arrow button: Sets the delay time to trigger the assigned output module.
  Event Type: If the subscriber wants GV-Center V2 always to get notified of the output trigger, select **Emergency**. If the subscriber wants GV-Center V2 to get notified of the output trigger only when an assigned input is triggered, select **Normal**.

Note:

1. To set an input trigger for the notification of **Normal** events, see *[Security Service]* below.
2. The delay settings in **Send to Center V2 when I/O is triggered** and **Output Module** allow you to enter your premises and disable input/output module before it is activated.
   To disable prior I/O settings, the subscriber may exit the connection to GV-Center V2 or use the **Stop monitoring normal events when selected pin is triggered** feature in Figure 1-14.

- **Allow Center V2 to Force Output:** Allows GV-Center V2 to manually trigger the subscriber's output devices.

[Security Service] Defines the input type or the schedule. Proceed to configure input and schedule settings.

- **Momentary Mode:** Push button switches that are normally open and stay closed only as long as the button is pressed. Momentary switches allow turn-on or turn-off from multiple locations.
  For example, certain premises have a designated entry/exit door. When the staff enters the entry door, the system starts monitoring. When the staff leaves from the exit door, the system stops monitoring.
- **Maintained Mode:** Push-on/push off button switches that stay open until thrown, and then stay closed until thrown again. Maintained switches are convenient for only one switch location.
  For example, in the business hour when the door is opened, the system stops monitoring; in the non-business hour when the door is closed, the system starts monitoring.

- **Schedule Mode:** Sets a time schedule to notify GV-Center V2 of the events that occur within the defined times. Click the **Schedule Setting** button to set special days and customize up to 4 time spans.

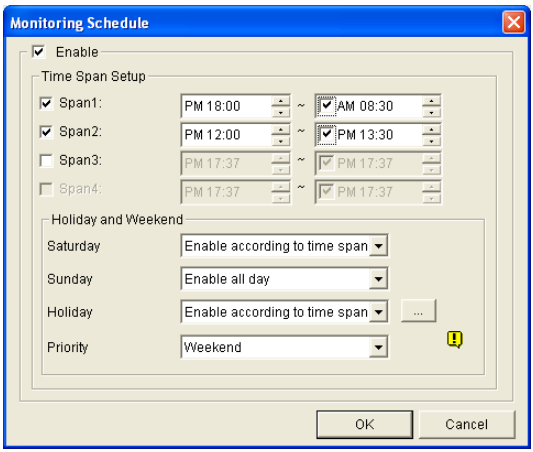


Figure 1-15

Monitoring Schedule

Without installing any I/O device, you can still set a time schedule to notify GV-Center V2 of the events that occur during the defined times. Click the **Schedule Setting** button on the right to define the time spans. The Monitoring Schedule dialog box appears (Figure 1-15)

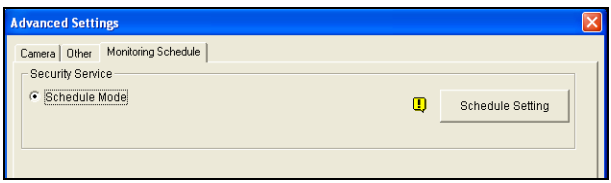


Figure 1-16

1.6.2 Setting Panic Button

You can add a panic alarm button to your surveillance system. In an emergency, press the button to send the associated video to GV-Center V2.

To set up a panic alarm, select **Panic Button** from the Mode drop-down list in the Connect to GV-Center V2 dialog box (Figure 1-10), click the **Configure** button and select **Advanced Settings**. This dialog box appears.

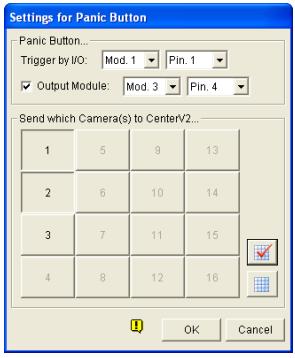


Figure 1-17

[Panic Button] Assigns an input device to be the panic alarm button.

- **Trigger by I/O:** Assigns an input module and a pin number.
- **Output Module:** Enables an assigned output module when the panic button is pressed.
  For the example of Figure 1-17, when the panic button (Module 1, Pin 1) is pressed, the output module (Module 3, Pin 4) will be triggered simultaneously.

[Send which Camera(s) to Center V2] Select which camera video should be sent to GV-Center V2 when the panic alarm button is pressed.

1.6.3 Detecting Input Status

The feature is designed to monitor all inputs for a change of state whenever the subscriber starts the live monitoring through GV-Center V2. A change from the previously defined state (N/O to N/C or N/C to N/O) will activate an alarm condition.

Click  in the Connect to GV-Center V2 dialog box (Figure 1-10). For details, see *Input State Detection*, *Chapter 6* in *GV-DVR User's Manual* on the Software DVD.

1.7 Live View

Live views are automatically displayed on the GV-Center V2 window when events and motion are detected at a subscriber. You can also enable the constant display of live views on GV-Center V2.

To enable live view of a camera:

1. The surveillance system must grant GV-Center V2 the permission to enable live viewing.
   - On GV-NVR: Click the **Network** button > **Connect to Center V2** > **Configure** > **Advanced Settings** > the **Camera** tab. The Advanced Settings dialog box appears.
   - On GV-VMS / GV-AI Guard: Click **Home** > **Toolbar** > **Network** > **Connect to Center V2** > **Configure** > **Advanced Settings** > the **Camera** tab. The Advanced Settings dialog box appears.
2. Select **Allow Center V2 to View Live Camera**.
3. To apply the setting to all the cameras, click the **Finger** button.
4. Connect the surveillance system to GV-Center V2.
5. On the GV-Center V2 window, right-click a camera under the subscriber and select **Live View**.

Figure 1-18

When a subscriber is in focus, you can enable live view to all its cameras.

1. Click a subscriber in the list and select **Focus on this subscriber only**.
2. Click the subscriber again and select **View All Cameras (Live)**.

Figure 1-19

Note: You can enhance coloring on live images. See the **Enable Directdraw** option in the General Setting dialog box (Figure 1-56).

1.8 Recording

GV-Center V2 records all subscriber events and motion by default. On the Event List, the message [Live Record] appears when a video is recorded.

Figure 1-20

Note: The default path for recorded files is:\\Center V2\Data\subscriber\Live

You can also start recording manually and instantly when you see any suspicious live images. To start recording manually:

1. To manually start recording at any time, the live view must be enabled already. See *1.7 Live View*.
2. To start recording, move your cursor to the live view and click the icon on the channel heading.
3. To stop recording, move your cursor to the live view and click the icon on the channel heading.
4. A message labeled with [Manual] appears on the Event List.

Figure 1-21

Note: The default path for manual initiated recordings is :\\Center V2\Data\subscriber\Manual

For related recording and storage settings, see *1.16.4 Recording Settings*.

1.9 Playback

You can play videos saved at GV-Center V2 by clicking the events with video clips (No. 16, Figure 1-2) from the Event List, or you can play video remotely from a remote subscriber.

1.9.1 Local Playback

When you click an event with the video clip from the Event List, the EZ player appears for playback operations.

Figure 1-22

No.	Name	Description
1	Tools	Adds effects to the image, including the options of Brightness, Contrast, Smooth, Sharpen, Grayscale and Undo. The other options include Copy, Save As (an image or an .avi file), Print and Setup.
2	Zoom In	Zooms in the video.
3	Zoom Out	Zooms out the video.

No.	Name	Description
4	Move	Moves the EZ Player window by clicking and holding on this button.
5	Play	Plays the video file.
6	Pause	Pauses the video file.
7	Stop	Stops the video file.
8	Previous Frame	Goes to the previous frame of the video file.
9	Next Frame	Goes to the next frame of the video file.
10	Top Frame	Goes to the beginning of the video file.
11	End Frame	Goes to the end of the video file.
12	Speed Control	Controls the play speed.
13	Right-Click Menu	■ **PIP View:** Refers to Picture in Picture. You can zoom in on the video. ■ **PAP View:** Refers to Picture and Picture. You can create a split video effect with multiple close-up views on the video. ■ **Wide Angle Lens Dewarping:** Corrects image distortion. See *Adjusting Distorted Views* in this section. ■ **Fit Window Size:** Adjusts image size to fit the screen.

Changing Playback Mode

You can choose to play back video one by one in the same player or separate players simultaneously.

1. Click the **Tools** button on the EZ player (No.1, Figure 1-22), and click **Setup** from the pop-up menu. This dialog box appears.

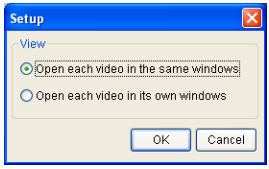


Figure 1-23

2. To play back one video at one time in the same player, select **Open each video in the same windows**.
3. To play back multiple videos in separte players simultaneoulsy, select each video in its own windows.

Adjusting Distorted Views

When viewing videos through EZ player, images may be curved near the corners. Use the Wide Angle Lens Dewarping feature to correct image distortion.

1. On EZ player, right-click the video image and select **Wide Angle Lens Dewarping** to enable this function.

2. Right-click the video image again and select **Wide Angle Lens Dewarping Settings**. The dialog box appears.

Figure 1-24

3. Move the slider at the bottom to correct the degree of distortion. The adjusted view is shown on the right.
4. Click **OK** to complete.

1.9.2 Remote Playback

You can retrieve recorded video from a remote subscriber. When you do not wish to enable recording on GV-Center V2 but wish to view videos for reference, this function is essential.

For remote playback to work, the subscriber must have the following function enabled:

- GV-NVR / GV-VMS / GV-AI Guard: Remote ViewLog Service
- GV-Video Server: ViewLog Server
- GV-Compact DVR: ViewLog Server

Note: The remote playback (Remote ViewLog) is not available for the events with video clips attached.

---

1. Double-click an event without a video clip from the Event List. This dialog box appears.

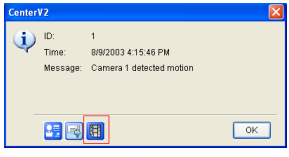


Figure 1-25

2. Click the **Remote Playback** button. This dialog box appears.

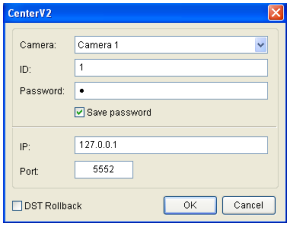


Figure 1-26

3. Select a camera. Type the ID, password and IP address of the subscriber. Keep the port as default value 5552 or modify it to match the related port at the subscriber. If you want to play the videos recorded during the Daylight Saving Time period, select **DST Rollback**. Click **OK**. This player appears.

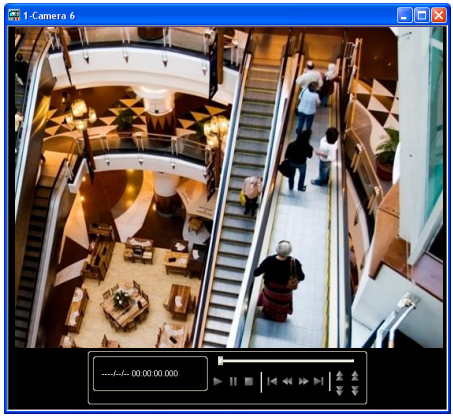
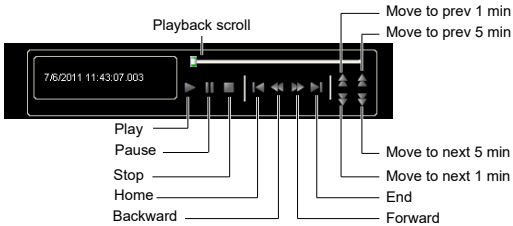


Figure 1-27



Right-click the Playback window to have the following features:

Name	Functions
Play Mode	• **Frame by Frame:** Plays back video frame by frame. • **Real Time:** Plays back video on real time. This mode saves waiting time for rendering, but drop frames to give the appearance of real-time playback. • **Key Frame:** Plays back video with key frames only. • **Smooth Playbacks:** Evenly distributes 30 frames per second. When the playback appears choppy, select this option to enhance the smoothness • **Audio:** Turns on or off the video sound. • **Auto play next 5 minutes:** Plays back video up to 5 minutes.
Render	• **Deinterlace:** Converts the interlaced video into non-interlaced video. • **Scaling:** Smoothens mosaic squares when enlarging a playback video, and applies the colorful mode to enhance the coloring. • **Deblocking:** Removes the block-like artifacts from low-quality and highly compressed video. • **Defog:** Enhances image visibility. • **Stabilizer:** Reduces camera shake. • **Text overlay's camera name and time:** Overlays camera name and time onto the video. • **Text overlay's POS/GV-Wiegand:** Overlays POS or GV-Wiegand Capture data onto the video. • **Full Screen:** Switches to the full screen view.

	• **Wide Angle Lens Dewarping:** Corrects image distortion. For setup detail, see *Adjusting Distorted Views*, *1.8 Recording.* • **Fisheye:** Select **Geo Fisheye** to choose a camera mode. • **Mega Pixel View:** Enables PIP or PAP view. • **Display GPS:** Shows the location on the map where the video is taken through GPS. • **Select GPS Map (Apply after restart):** Select a type of GPS map to apply. • **Full Screen:** Switches to the full screen view.
Tools	• **Snapshot:** Saves a video image. • **Save as AVI:** Saves a video as avi format. • **Download:** Downloads the video clip from the DVR or IP video device to the local computer.

Note: The Defog and Stabilizer only work when the functions have been applied on the recording from the DVR.

1.10 Two-Way Audio

The GV-Center V2 operator can perform two-way audio with subscribers.

Note: For GV-NVR, this function is only supported by version 8.0 or later.

1. The surveillance system must grant GV-Center V2 the permission to enable two-way communications.
   - On GV-NVR: Click **Network** > **Connect to Center V2** > **Configure** > **Advanced Settings** > the **Other** tab. The Advanced Settings dialog box appears (Figure 1-13).
   - On GV-VMS / GV-AI Guard: Click **Home** > **Toolbar** > **Network** > **Connect to Center V2** > **Configure** > **Advanced Settings** > the **Other** tab. The Advanced Settings dialog box appears. (Figure 1-13).
2. Under the Audio section, select **Allow Audio-Out to Center V2** and **Allow Audio-In from the Center V2**. Click **OK**.
3. Connect the surveillance system to GV-Center V2.
4. Move your cursor to the live view. The **Microphone** and **Audio** icons appear on the bottom left corner.

Figure 1-28

5. To speak to a subscriber, click the **Microphone** icon to turn it on. The control panel appears.

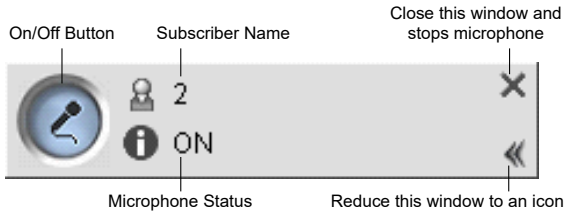


Figure 1-29

6. To listen to audio from a subscriber, click the **Audio** icon to turn it on. The control panel appears.

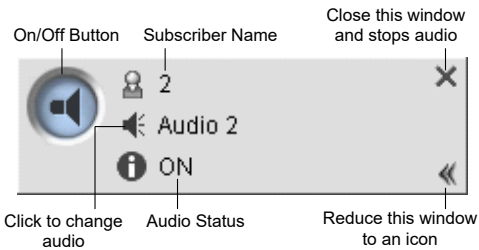


Figure 1-30

7. To switch to another subscriber, click the subscriber icon on the Microphone or Audio control panel, type the subscriber's ID in the Search Account dialog box and click **GO**.

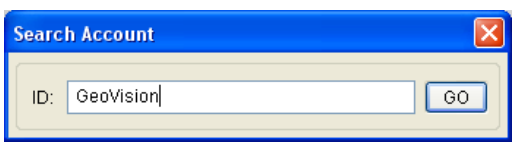


Figure 1-31

1.11 Advanced Monitoring and Management

This section describes how to monitor and manage subscribers in these parts: (1) Showing and Controlling I/O Status, (2) Camera/Audio Control, (3) Simple Microphone and Audio Panels (4) Camera Monitor (5) Viewing Subscriber Information (6) Subscription Control.

1.11.1 Showing I/O Status

You can view the status of input devices and force outputs at the subscriber's site.

Note: This function is applicable to the client GV IP devices of these firmware versions:

- GV-Compact DVR: Firmware V1.43 or above
- GV-IP Camera: Firmware V1.05 or above
- GV-Video Server: Firmware V1.45 or above

The GV-Center V2 operator can manually arm or disarm the I/O devices installed at subscribers without interrupting monitoring. To use this application, a subscriber must first enable the **Allow Center V2 to Enable/Disable I/O** and **Allow Center V2 to Force Output** options to grant GV-Center V2 access. For details, see Figure 1-14.

On the Subscriber List (No. 4, Figure 1-2), right-click one online subscriber, and select **Show I/O Status** to display this window.

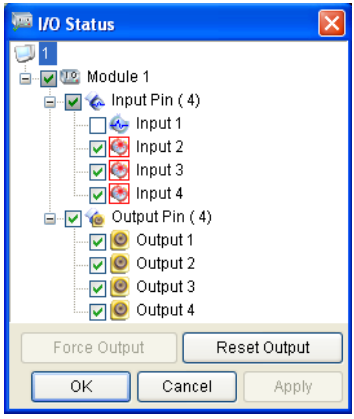


Figure 1-32

[Module] Shows the module's I/O status.
[Input] Shows the input device status. The blue icon indicates the input is deactivated; the red lightening icon indicates the input is activated.
[Output] Shows the output device status or to manually force an output or reset an output installed at the subscriber site.
To manually force an output to be triggered, click a desired output and click the **Force Output** button. Or select a desired output pin and click the **Force Output** button. To reset an output, click a desired output pin and select **Reset**. Or click the **Reset Output** button and select the desired module and output pin.

1.11.2 Camera/Audio Control Window

The Camera/Audio Control window allows two-way audio between CenterV2 and a subscriber, as well as PTZ control.

On the Subscriber List (No. 4, Figure 1-2), right-click one online subscriber and then select **Camera/Audio Control** to display this window.

Figure 1-33

The controls on the Camera/Audio Control:

No.	Name	Description
1	Change Camera	Switches to another camera of the same subscriber.
2	Change Size	■ **Size:** Changes the size of the live video. The size choices are only available when the video resolution is higher than 320 x 240. (see ***Image Size*** in *Subscriber Settings)* ■ **Defog:** Enhances image visibility. ■ **Stabilizer:** Stabilizes live images. ■ **Stream1/Stream2:** Switches video streams. ■ **PIP View:** Refers to Picture in Picture. You can zoom in on the video. ■ **PAP View:** Refers to Picture and Picture. You can create a split video effect with multiple close-up views on the video. ■ **Fisheye:** Enables a 360 degree view. This function only works with a Fisheye Camera. ■ **Wide Angle Lens Dewarping:** Corrects image distortion. See *Adjusting Distorted Views* in *1.9 Playback*.
3	Audio	Accesses the audio from the subscriber.
4	Microphone	Enables speaking to the subscriber.
5	Setting	Changes the audio and video settings
6	PTZ	Activates the PTZ control by selecting PTZ Panel or PTZ Automation.
7	Snapshot	Takes the snapshot of the displayed live video.
8	Zoom	Enlarges the video by selecting 1.0x, 2.0x and 3.0x.

Note: If the subscriber is using GV-NVR version 8.2 or earlier, an older style of Camera /Audio Control Window will appear. If the GV-NVR version V8.3 or later is in use, a new window will appear.

Window for V8.2 or earlier Window for V8.3 or later

Figure 1-34

1.11.3 Camera Monitor

Use the Camera Monitor window to define the following:

- Enable and disable live display
  (The subscriber must give the privilege first. See the **Allow Center V2 to View Live Camera** option in Figure 1-12)
- Define the interval between incoming events triggered by motion detection and video lost

1. On the Subscriber List (No. 4, Figure 1-2), right-click one online subscriber and select **Camera Monitor**.
2. The Camera Monitor window appears.

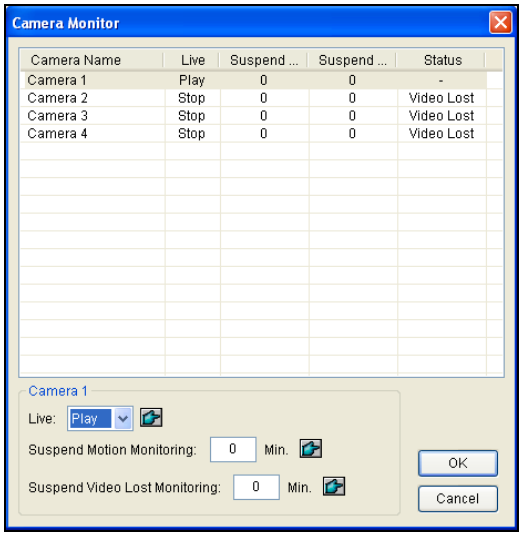


Figure 1-35

- **Live drop-down list:** Highlight one camera, and select **Play** (enable live display) or **Stop** (disable live video).
- **Suspended Motion Monitoring:** Highlight one camera, and set the interval between incoming events triggered by motion detection. Alternatively, you can right-click one live camera channel on the monitoring window and select **Suspend** for the same setting.
- **Suspend Video Lost Monitoring:** Highlight one camera, and set the interval between incoming events triggered by video lost.
- **Status column:** Displays the status of video lost from cameras or disconnection.

3. Click **OK** to apply the settings.

If the camera is enabled for live display, you will see  in the upper right corner of its monitoring window; otherwise, you will see  .

1.11.4 Viewing Subscriber Information

To view the general information about your subscribers, click the **Host Information** button (No. 6, Figure 1-2) on the GV-Center V2 window to display the Host Information window. Choose a subscriber from the list, and click the **View Information** button to view its related information.

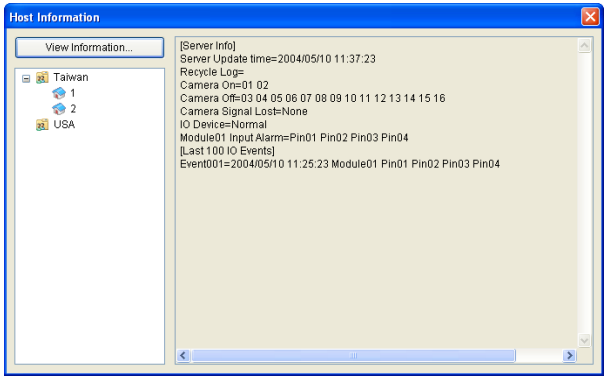


Figure 1-36

For the feature, a subscriber must grant GV-Center V2 permission. See the **Allow Center V2 to Get System Information** option in Figure 1-13.

1.11.5 Disabling Subscription

The GV-Center V2 operator can disable its services to an individual subscriber when subscription expires. In the Address Book (Figure 1-3), right-click one subscriber and select **Disable**. To restore the subscription, right-click that subscriber again and select **Enable**.

1.12 Subscriber Schedule

The GV-Center V2 operator can create schedules to monitor subscription status. When subscribers do not log in GV-Center V2 on the programmed time, the operator and subscribers will get notified.

- When a subscriber doesn't log in GV-Center V2 on time, this message will appear on the Event List: Service hour engaged; still waiting for subscriber to log in.
  When a subscriber logs out suddenly during a service time, this message will appear: Unexpected subscriber logout during service times.
- To activate the computer and output alarm to notify the operator while an SMS and E-mail message being sent out to a subscriber, use the **Notification** feature. For details, see *1.17 Notification Settings*.

1.12.1 Setting a Schedule

1. On the GV-Center V2 window, click the **Accounts** button (No. 7, Figure 1-2). The Address Book window appears.
2. Highlight one subscriber, and click the **Subscriber Schedule** (No. 7, Figure 1-3). The Schedule window appears.

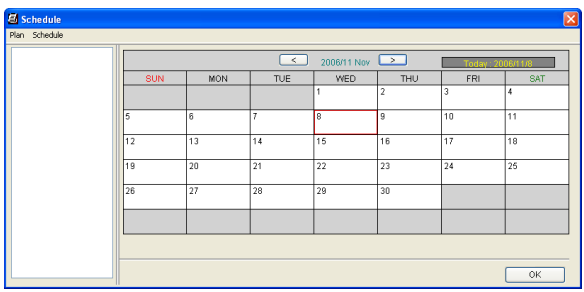


Figure 1-37

3. On the Schedule window menu, click **Schedule**, select **Setup Wizard** and follow the Wizard instructions.
4. When the following dialog box appears during the instructions, drag the mouse over the Login timeline to define the Start and End time.

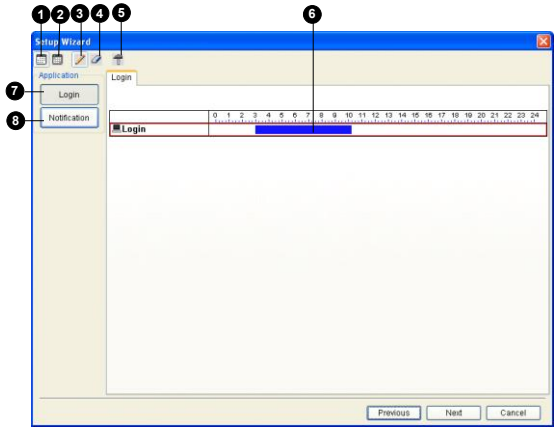


Figure 1-38

The controls on the Setup Wizard:

No.	Name	Description
1	Include	Displays task time.
2	Exclude	Displays non-task time.
3	Add	Draws task time.
4	Erase	Erases task time.
5	Advanced Setting	Selects alert notification methods. See *1.12.2 Scheduling Alert Notification*.
6	Timeline	Defines the time periods.
7	Login	Displays the Login timeline.
8	Notification	Displays the E-mail and SMS timelines.

5. Click **Next** when you finish the schedule. The Setup Wizard dialog boxes pops up again, and then click **Finish** to exit.

1.12.2 Scheduling Alert Notification

E-mails and SMS messages can be sent out within the scheduled period of time. The Schedule will work with your E-Mail and SMS settings to all alert conditions. To set up alert conditions, see *1.17 Notification Settings*.

Note: Once you enable the schedule function, you will not be notified when events occur outside the scheduled period of time.

1. On the Schedule window, double-click an established plan. A plan dialog box similar to Figure 1-38 appears.
2. Click the **Advanced Setting** button (No. 5, Figure 1-38). The Advanced Setting dialog box appears.
3. Expand the **Notification** folder, and select **SMS** or **E-Mail** to be scheduled.
4. On the plan dialog box, click the **Notification** button (No. 8, Figure 1-38), drag the mouse over SMS and / or E-mail timelines to define the Start time and End time to send out alerts.

1.13 Alarm Report

For every event, the GV-Center V2 operator can generate a report to evaluate certain conditions.

1.13.1 Creating an Alarm Report

1. In the Event List window, select an event and click on the report column (No. 15, Figure 1-2). This dialog box appears.

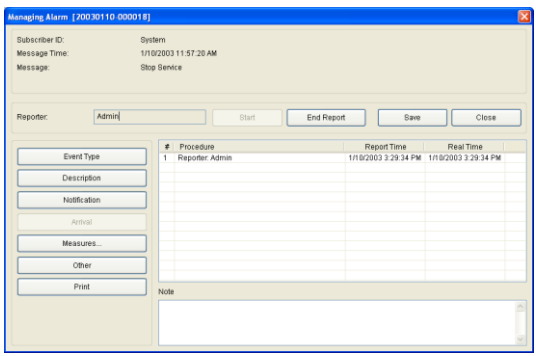


Figure 1-39

2. In the Reporter field, type the name, and click **Start** to begin the report.
3. There are 6 report categories. Click the desired category tabs for report.
   - **Event Type:** Select a type to classify the event.
   - **Description:** Select a description for the event.
   - **Notification:** Select the authority being notified, and type the notified time.

- **Arrival:** The button becomes available after you select a notified authority. Type the arrival time of the authority.
- **Measures:** Select the measure taken to deal with the event.
- **Other:** The button is available only when the e-mail and /or SMS alert are configured.
- **Print:** Prints out the alarm report.

4. When you finish the report and will not change the contents, click the **End Report**. Or click **Save** to edit later.

1.13.2 Editing Alarm Report Categories

The items in each category of the Alarm Report can be customized and edited to meet your needs. The changes made here will be available for each report.

1. On the GV-Center V2 window, click the **Preference Settings** button (No.8, Figure 1-2), and select **Customize Alarm Report**. This dialog box appears.

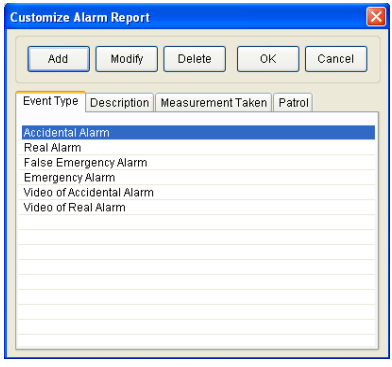


Figure 1-40

2. Click the desired category tab (**Event Type**, **Description**, **Measurement Taken**, and **Patrol**) to make the necessary changes.
3. Click **OK** to save the changes.

1.13.3 Printing Alarm Reports

You can print the alarm reports along with filtered logs.

1. To filter the logs with alarm reports, click the **Tools** button (No.5, Figure 1-2), select **View Event Log**, and click the **Filter** button. The Filter window appears.
2. Click the **Clipboard** icon  and select the type of alarm report from the drop-down list. For details, see *Filtering the Event Log* in *1.15 Event Log Browser***.**
3. Click **OK**. The search results are displayed in the Event Log Browser window.
4. To print the alarm reports along with the search results, click the **Page Setup** button (No.8, Figure 1-49), select **Print Managing Alarm Report** and click **OK**.
5. Click the **Print** button (No. 9, Figure 1-49). Find the alarm reports in the last part of the printouts.

Also see *Printout Settings* in *1.15 Event Log Browser.*

1.14 Event List

1.14.1 Marking the Events with Colorful Flags

Different colored flags are provided to distinguish between events. You will find them useful not only when navigating the Event List, but also when using the Filter function to sort the desired events.

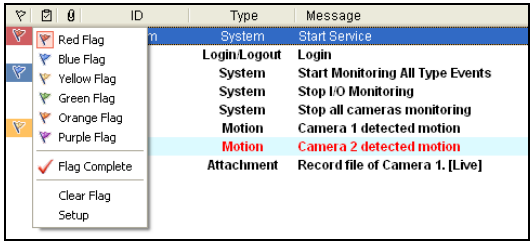


Figure 1-41

You can name the colorful flags with the provided texts or change the texts to meet your needs.

1. On the Event List window, select one event, and right-click in the flag column. The flag list appears (Figure 1-41).

2. Select **Setup**. This dialog box appears.

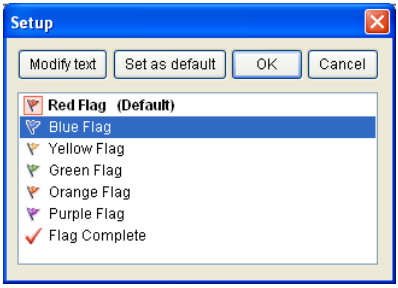


Figure 1-42

3. Select the desired flag, and click the **Modify text** button. A list of text options appears.
4. Select a predefined text (Pending, Assigned, In Process, Progressed, Resolve and Reject) or select **User Define** to define your own text.

1.14.2 Using the Event Tabs

At the bottom of the GV-Center V2 window, events are sorted under different tabs according to the type. You can utilize these tables to quickly monitor events by type and configure the **Customized Event** tab which contains self-chosen event types.

Note: This feature is only supported by the Professional version.

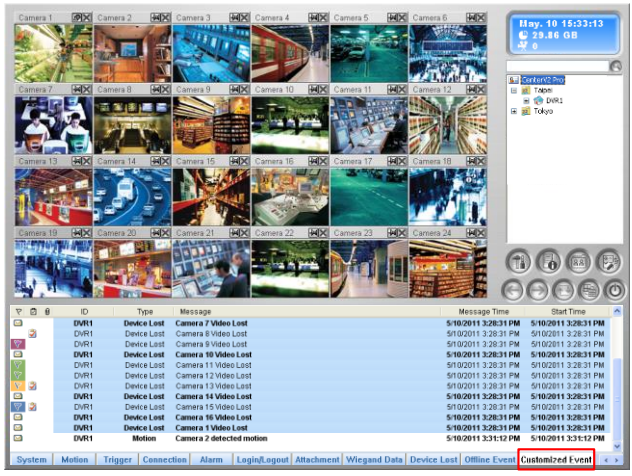


Figure 1-43

Configuring the Event Tabs

All the event tabs are enabled by default. You can also disable the unwanted tabs.

1. On the GV-Center V2 window, click the **Preference Settings** button and select **My Favorite Events**. A sub-menu appears.

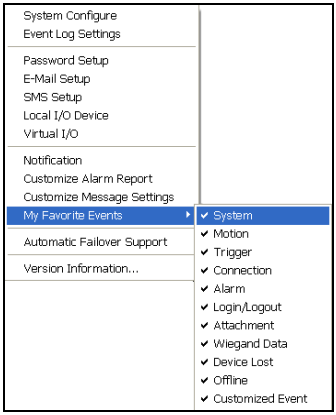


Figure 1-44

2. Unselect the event tab as required.

Setting up the Customized Event Tab

You can also configure the **Customized Event** tab which groups the selected event types under a single tab. With only a click of the Customized Event tab, you can monitor the desired events instantly.

1. On the GV-Center V2 window, click the **Preference Settings** button and select **Customize Message Settings**. The Customize Message Settings dialog box appears.

2. Select an event from the left and select **Add to Customized Event Tab**.

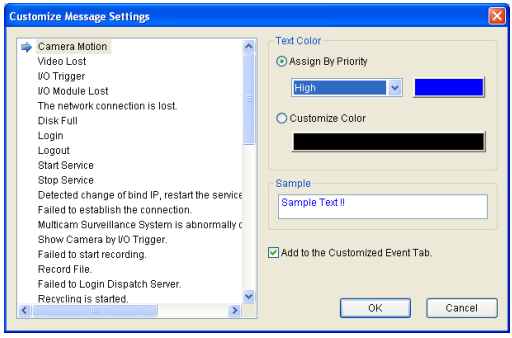


Figure 1-45

3. To view the customized events, select the **Customized Event** tab on the event category of the GV-Center V2 window.

Displaying the Event List on Another Monitor

If GV-Center V2 is equipped with multiple monitors, you can assign an event type to display on a different monitor. Right-click the desired event tab, select **Display on Another Monitor** and select a display monitor.

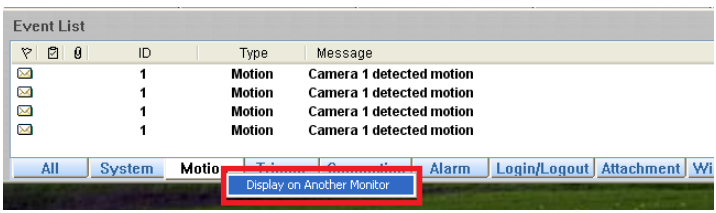


Figure 1-46

1.14.3 Setting Alert Levels of Event Messages

You can assign an alert level to each event type for monitoring and management purposes. Each alert level can be distinguished by color. You can customize the color for each alert level or assign a color exclusively for a particular event type.

Note: This feature is only supported by the Professional version using a GV-USB dongle.

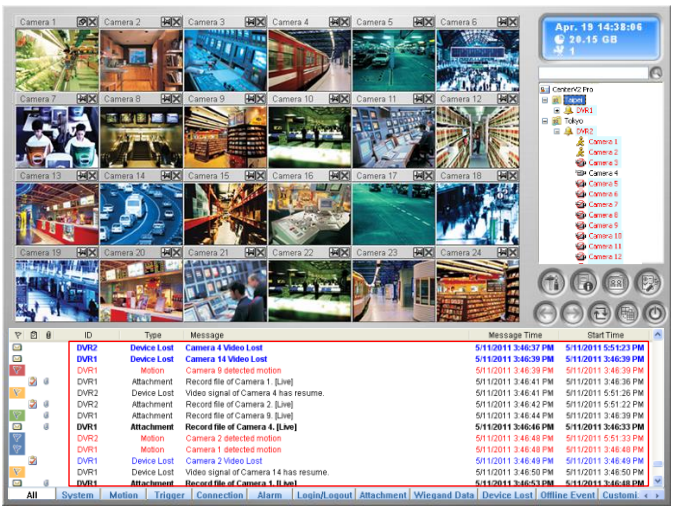


Figure 1-47

1. On the GV-Center V2 window, click the **Preference Settings** button and select **Customize Message Settings**. The Customize Message Settings dialog box appears.
2. On the left, select an event type you wish to configure.

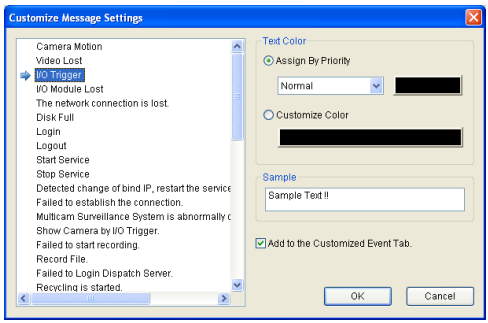


Figure 1-48

3. To assign an alert level, select **Using Priority Color** and choose from the drop-down list. To change the color for this alert level, click the color box and select a desired color.
4. To customize the color of this event type, select **Using Custom Color** and click the color box to assign a desired color.
5. Click **OK** to complete.

1.15 Event Log Browser

The Event Log Browser enables you to find a specific event. On the GV-Center V2 window, click the **Tools** button (No. 5, Figure 1-2) and select **View Event Log** to display the following window.

Tip: You can quickly access the Event Log of a specific subscriber, instead of filtering all events. Right-click one subscriber on the Subscriber list (No. 4, Figure 1-2), select **Event Log** and then click the desired log type.

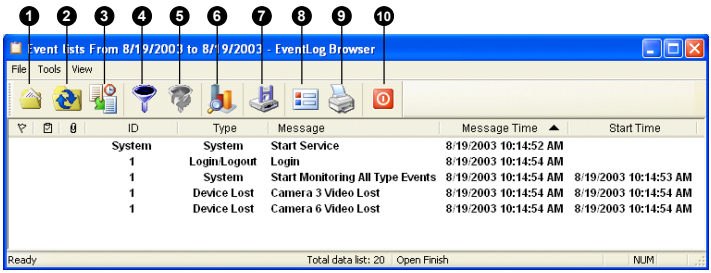


Figure 1-49

The buttons on the Event Log Browser:

No.	Name	Description
1	Open	Opens an event log.
2	Reload	Refreshes the event log manually
3	Start / Stop Synchronous Event Log	Refreshes the event log automatically.
4	Filter	Defines the search criteria.
5	Refresh the Filter Result	Refreshes the filter result.

No.	Name	Description
6	Event Chart	Provides the daily, weekly and monthly statistical charts based on different criteria.
7	Backup	Exports the current event list and video files.
8	Page Setup	Creates a header and footer for the printout of the event list.
9	Print	Prints the current event list.
10	Exit	Exits the browser.

1.15.1 Opening the Event Log

Click the **Open** button (No. 1, Figure 1-49) to launch the following Open Database dialog box. Define a time range and select the type of database. If you want to view the logs created by the system, select **System Log**. If you want to open the logs you have backed up to a local drive or CD/DVD, select **Backup Log**, and specify the log path. After clicking **OK**, the events matching the search criteria will be loaded to the Event Log Browser.

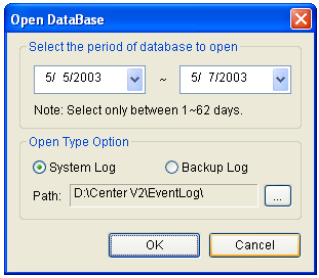


Figure 1-50

Note: By default, the display period is one day, the database type is System Log, and the log path is :\Center V2\EventLog. The default display period and log path can be modified by using the Event Log Settings (Figure 1-54).

For details on backing up logs, see *1.15.3 Backing up the Event Log*.

1.15.2 Filtering the Event Log

You can filter log events on the defined criteria. Click the **Filter** button (No. 4, Figure 1-49) to bring up the Filter window.

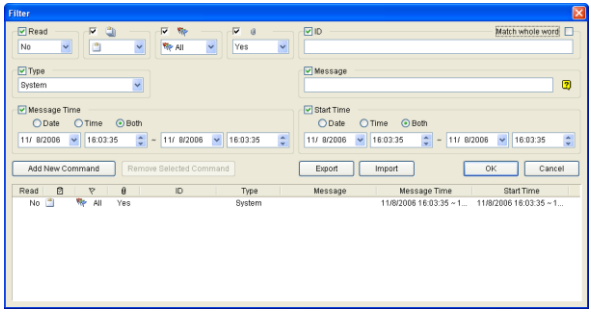


Figure 1-51

- **Read:** Searches for the events you have opened on the Event List that is at the bottom of the GV-Center V2 window.
- **Clipboard:** Searches for the events with alarm reports. The icon indicates the report has been completed. The icon indicates the report has not been completed or ended. The All icon indicates the above two types of reports.
- **Flag:** Searches for the flagged events.
- **Clip:** Searches for the events containing video attachments.
- **ID:** Searches for the events from a specific subscriber.
- **Type:** Searches for the events based on the nature of events.
- **Message:** Searches for the events by keywords.
- **Message Time:** Searches for the events by the arriving time or date to GV-Center V2.
- **Start Time:** Searches by the starting time of the events occurred at the subscriber site.

Applying Multiple Filters

This option allows you to define several filter commands for search. Click the **Add New Command** button to add a new filter command. When you click **OK**, all events matching the defined commands will be listed on the Event Log Browser.

Removing Filters

Select the filter command you wish to remove from the filter list, and then click the **Remove Selected Command** button to remove it.

1.15.3 Backing up the Event Log

You can back up logs to a local drive, or export them to CD and DVD.

1. On the Event Log Browser, click the **Backup** button (No.7, Figure 1-49). This dialog box appears.

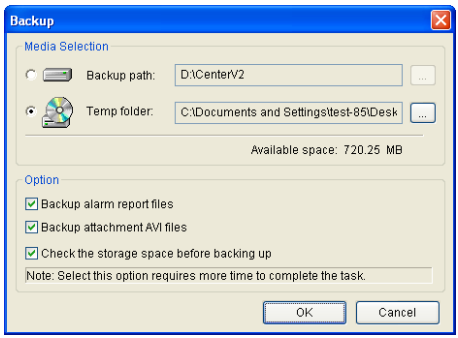


Figure 1-52

2. To back up logs to a local drive, select **Backup Path**, click the **[…]** button and assign a location wehere you want to save the files.
3. To export logs to CD and DVD, select **Temp folder**, click the **[…]** button and assign a location for temporary storage of backup data.
4. Select whether you want to back up alarm reports and AVI files along with logs.
5. Click **OK**.

6. If you select **Temp folder**, this dialog box appears for further setup.

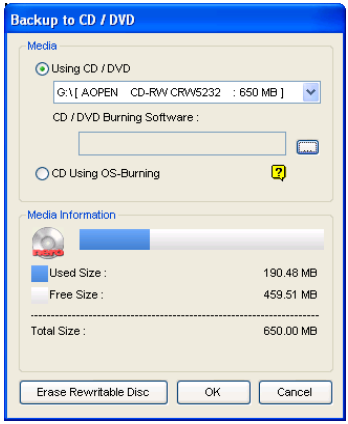


Figure 1-53

- **Using CD/DVD:** Click to back up files to the CD or DVD using the third-party software. Click the **[…]** button to assign the desired burning software (.exe file).
- **CD Using OS-Burning:** This option is only available when you use Windows XP, Server 2003, Vista or Windows 7. It burns files to the CD or DVD using the inbuilt software of the operating system. Note that your hard disk needs at least 1 G buffer space.

1.15.4 Setting the Event Log

On the GV-Center V2 window, click the **Preference Settings** button (No. 8, Figure 1-2), and select **Event Log Setting** to display the following dialog box:

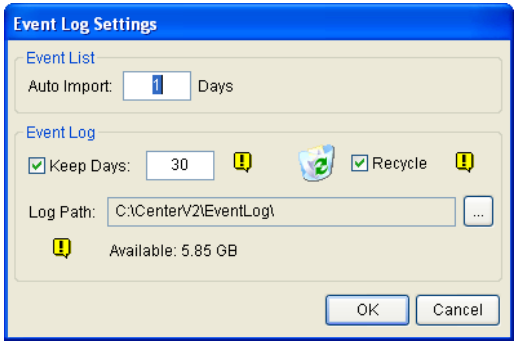


Figure 1-54

[Event List]

- **Auto Import:** Specify the number of days for which the logs are loaded to the Event List at the bottom of the GV-Center V2 window (Figure 1-2) and the Event Log Browser (Figure 1-49).

[Event Log]

- **Keep Days:** Select this option and type the number of days to keep log files. Otherwise clear the option to keep log files until the Recycle starts or the storage space is full.
- **Recycle:** Delete the files of the oldest day when storage space is lower than 500 MB.
- **Log Path:** Click the **[...]** button to assign a storage path.

1.15.5 Printing the Event Log

You can print out the filtered log events, define footers and headers for each printout, and choose whether to attach the Alarm Report with the data logs.

1. On the Event Log Browser, click the **Page Setup** button (No. 8, Figure 1-49) to display this dialog box.
2. Select the options and type the information that you want to print out.
3. Click **OK** to apply the settings.
4. Click the **Print** button (No.9, Figure 1-49) to start.

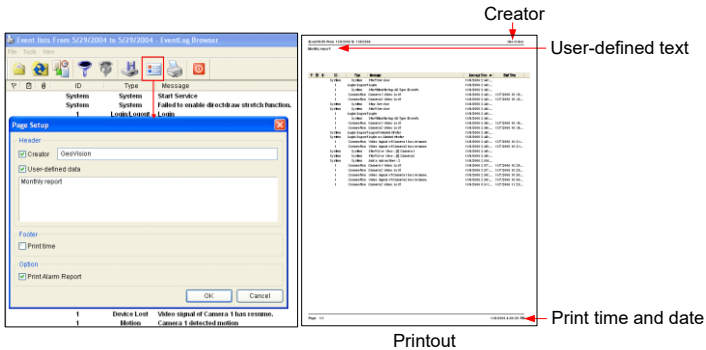


Figure 1-55

1.16 System Configuration

On the GV-Center V2 window, click the **Preference Settings** button (No. 8, Figure 1-2), and select **System Configure** to display the following Preference window. This window contains these tabs: (1) General, (2) Layout, (3) Network, (4) Record, (5) AIS (only for GV-Center V2 AI), and (6) Dispatch Server.

1.16.1 General Settings

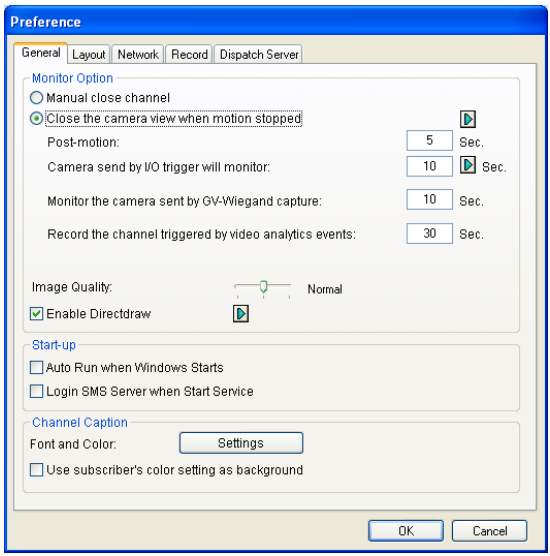


Figure 1-56

[Monitor Option]

- **Manual close channel:** Closes the triggered camera view manually.
- **Close the camera view when motion stopped:** Closes the triggered camera view automatically when motion stops.
- **Post Motion:** Specifies the duration of the camera view remaining on the monitoring window after motion stops.
- **Camera send by I/O trigger will monitor:** Specifies the duration of the camera view remaining on the monitoring window when an I/O device is triggered.
  To keep the camera view remaining on the monitoring window even after the alarm is finished, click the right-arrow button, and uncheck **Latch Trigger**. Then the camera view will remain on the monitoring window for the specified time. For example, the alarm is triggered for 5 minutes and you set 10 minutes, which means the total display time will be 15 minutes.
- **Monitor the camera sent by GV-Wiegand Capture:** Specifies the duration of the camera view remaining on the monitoring window when the access control system, connected to GV-Video Server, is triggered. For details, see *Chapter 8 CMS Configurations* in the *GV-Video Server User's Manual*.
- **Record the channel triggered by video analytics events:** Sets the total recording time for a video analytics event. The default length is **30** seconds. The valid range is **3** to **600** seconds.
- **Image Quality:** Adjusts the video quality. Moving the slide bar to the right side for better quality and bigger image size.
- **Enable Directdraw:** Enables an enhanced image performance for live video. To enhance coloring, click the right-arrow button, select **Use Colorful Mode** and restart the GV-Center V2 system to take it effect.

[Start-up]

- **Auto Run when Windows Starts:** Automatically runs GV-Center V2 when Windows starts.

- **Login SMS Server when Start Service:** Automatically logs in SMS Server when GV-Center V2 starts. You will be prompted to type the IP address, Port, ID and Password of the SMS server.

[Channel Caption]

- **Font and Color:** Click the **Settings….** button to change the font and color of the captions.
- **Use the subscriber setting color as background:** Checks the option to apply the caption settings.
  For details, see *1.5.4 Channel Heading*.

1.16.2 Layout Settings

This feature transfers the Event List window to a separate monitor while the monitoring windows are displayed in the current monitor. For the application, your GPU card needs to support Twin View, and your Windows desktop must be properly set up for the display across two computer monitors.

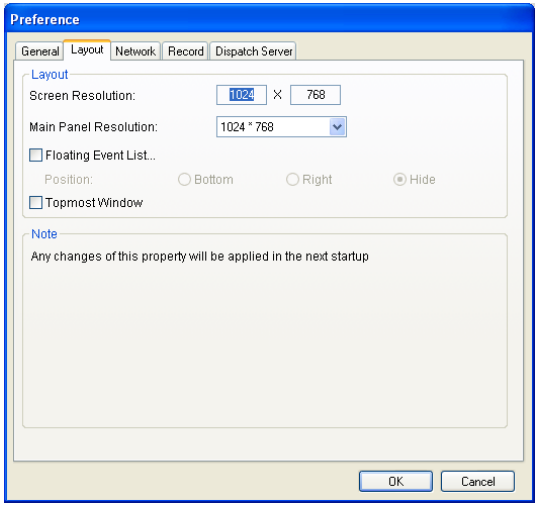


Figure 1-57

- **Screen Resolution:** Detects the current screen resolution on your PC.
- **Main Panel Resolution:** Sets the GV-Center V2 panel resolution to 1024 x768, 1280 x1024, 1600 x 1200, 1680 x 1050, 1920 x 1200, 1920 x 1080, 1280 x 800 or 1440 x 900. The new resolution is effective after next login.
- **Floating Event List:** Moves the Event List window to a separate window at the bottom, the right side or hide the window.

Note: To view the hidden Event List, click the **Tools** button (No.5, Figure 1-2) and then select **Maximize Event List** to display the Event List.

- **Topmost Window:** Keeps the GV-Center V2 window on top of other windows or dialog boxes.

1.16.3 Network Settings

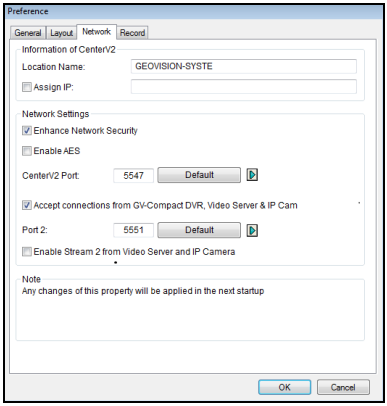


Figure 1-58

- **Location Name:** Indicates the name of the PC where GV-Center V2 is installed.
- **Assign IP:** When your router or system has more than one IP address, you can assign an IP address for the communication between a surveillance system and GV-Center V2.
- **Enhance Network Security:** Applies enhanced security for Internet. When the feature is enabled, all subscribers using earlier version than version 7.0 cannot access GV-Center V2 anymore.

- **Center Port:** Indicates the communication port used by GV-Center V2. The port should match the one in Figure 1-9. To automatically configure the port on your router by UPnP technology, click the **Arrow** button. For details on UPnP settings, see *UPnP Settings, Appendix*.
- **Accept the Connection of GV-Compact DVR, Video Server & IP Cam:** Enables the connection to GV IP devices. For connecting with GV IP devices, the default port is **5551**; or you can modify it to match the GV-Center V2 port on GV IP devices. For details, see their separate *User's Manuals*.
- **Enable Stream 2 from Video Server and IP Camera**: Applies the stream 2 of the IP devices as live view.

1.16.4 Recording Settings

In Recording Settings, you can configure storage locations, storage durations and recycling conditions of video recordings.

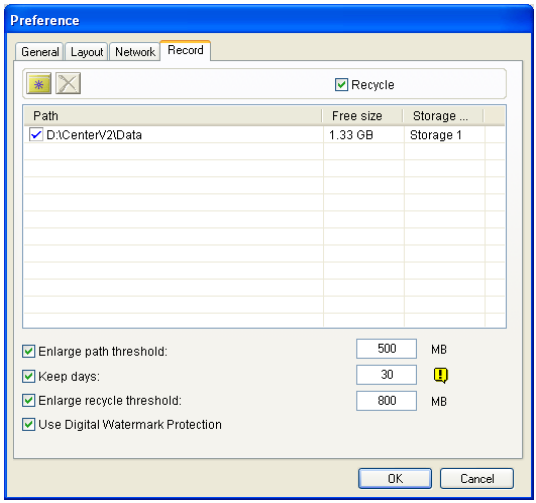


Figure 1-59

- **Recycle:** When 1 to 49 channels are connected to GV-Center V2 and the storage space falls short of the recycle threshold 800 MB (default recycle threshold), 400 MB of old files will be deleted. This recycle size increases by 100 MB with every addition of 50 channels. That is, with 50 to 99 channels connected, 500 MB of the old files will be deleted as the storage space falls short of the recycle threshold. See the following table for the corresponding recycle size:

No. of Channels Connected to GV-Center V2 Server	Recycle Size (MB)
1 ~ 49	400
50 ~ 99	500
⋮	⋮
800	1500

- **Storage Group:** You can store the recordings of different subscriber at separate locations using the storage group feature. For details, see the following section *Storing Video Files in Separate Locations*.
- **Enlarge Path Threshold:** When the space in a storage path falls short of the path threshold (500 MB by default), recordings are saved to the next path of the same storage group. To enlarge the path threshold, select this option and specify the path threshold. To add paths, see the following section *Storing Video Files in Separate Locations*.
- **Keep Days:** The recordings are stored for the specified number of days before they are recycled.
- **Enlarge Recycle Threshold:** When the current storage path falls short of the recycle threshold (800 MB by default), recycle starts. To enlarge the recycle threshold, select this option and specify the recycle threshold.
- **Use Digital Watermark Protection:** Protects the recording from being tampered by embedding digital watermarks in video streams. To verify the authenticity of the recording, see *Watermark Proof*, *Appendix*.

Storing Video Files in Separate Locations

You can keep video files from each subscriber in separate locations using the storage group feature. Follow the steps below to set up storage groups and then assign each subscriber with a storage group.

To add storage paths and set up storage groups:

1. Add storage locations using the **Add New Path** button .
2. Assign a storage group to each path using the drop-down list.

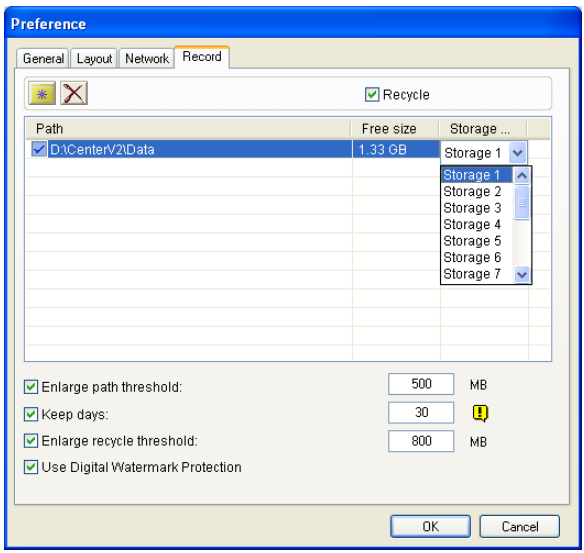


Figure 1-60

Important: The system will first save video files to the path that appears on the top of the list, and switch to the next path (of the same group) as soon as the current location reaches the specified path threshold.

To assign a storage group to a subscriber:

1. On the GV-Center V2 window, click the **Accounts** button (No. 7, Figure 1-2). The Address Book window appears.
2. Select the subscriber and click the **Subscriber Settings** button . The Subscriber Settings dialog box appears.
3. Select a storage group from the drop-down list.

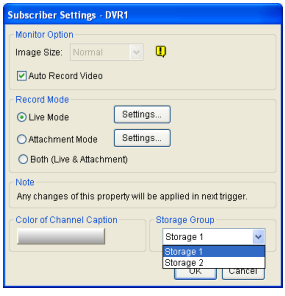


Figure 1-61

4. Repeat steps 1 to 3 to assign a storage group to another subscriber.

1.16.5 AIS Settings

The AIS Settings are only available in GV-Center V2 AI.

See *2.2 Connecting GV-Center V2 to GV-AIS* in *GV-AI Inference Server User's Manual*.

1.16.6 Dispatch Server Settings

See *2.7 Connecting GV-Center V2 to GV-Dispatch Server (GV-Center V2 Standard / Pro Only)*.

For GV-Center V2 AI, see *2.2 Connecting GV-Center V2 to GV-Dispatch Server* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

1.17 Notification Settings

When alert conditions occur, GV-Center V2 can automatically activate the assigned computer and output alarm to notify the operator while an SMS and an e-mail message are being sent out to subscribers. For this application, click the **Preference Settings** button (No. 8, Figure 1-2) on the GV-Center V2 window and select **Notification** to display this window.

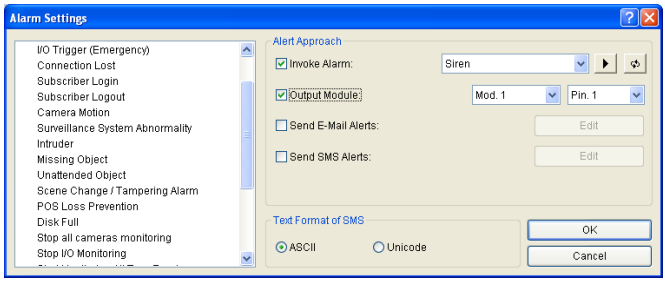


Figure 1-62

[List box] Select an alert condition in the left list box and configure its settings.

[Alert Approach]

- **Invoke Alarm:** Select a computer alarm from the drop-drown list. Or, select **User Define** from the list to import one desired .wav sound. Click the **Arrow** button beside to test the assigned alarm. Click the **Repeat Mode** button to keep the alarm on until the alarm is manually turned off.
- **Output Module:** Select an installed output model and pin number to alert the GV-Center V2 operator. To set up an I/O module on GV-Center V2, see *1.18 Output Alerts*.
- **Send E-Mail Alerts:** Enables e-mail alerts to send e-mails to subscribers. Click the **Edit** button to edit a message. For Mailbox settings, see *1.20 E-Mail Alerts*.

- **Send SMS Alerts:** Enables SMS alerts to send SMS messages to subscribers. Click the **Edit** button to edit a message. For SMS Server settings, see *1.19 SMS Alerts*.
- **Minimum Duration:** This option is only available for **Camera Motion** and **Connection Lost** alerts. It is the minimal time period that an event must persist for GV-Center V2 to be notified by alarm, output, e-mail and/or SMS. Select this option and click the **Edit** button to type the minimum duration. The default is **3** seconds.

Note: The minimum duration function is used to minimize false alarms (such as in an outdoor scene with flying insects) or to exclude connection lost alerts from cameras that reconnect to network instantly after disconnecting.

[Text Format of SMS] ASCII for English text, limited to 160 characters. Unicode for other languages, limited to 70 characters.

Note: To automatically send E-mail and SMS alerts when alert conditions occur, ensure to set up e-mail addresses and mobile numbers for each subscriber in the Subscriber Address Book (Figure 1-4).

1.18 Output Alerts

You can activate output devices locally (installed directly to the GV-Center V2 system) and/or virtually (through the network) to warn the GV-Center V2 operator when events occur. Up to nine (9) GV-I/O Boxes (including local and virtual) can be connected to one GV-Center V2 system.

Note:

1. Only 8-port and 16-port GV-I/O Boxes can be connected to GV-Center V2 through Ethernet.
2. The GV-I/O Box must be installed in the same LAN as GV-Center V2.

1.18.1 Configuring a Local GV-I/O Box

1. On the GV-Center V2 window, click the **Preference Setting** button (No. 8, Figure 1-2) and select **Local I/O Device**. This dialog box appears.

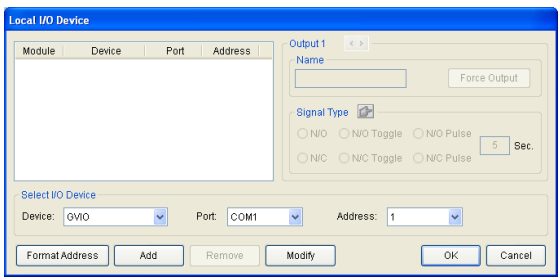


Figure 1-63

2. Select the **Device**, **Port** and **Address** using the drop-down lists and then click the **Add** button.
3. Click **OK** to finish adding the GV-I/O Box.
4. To trigger outputs automatically by event, see *1.18.3 Triggering Outputs by Event*.
5. To trigger outputs manually, see *1.18.4 Triggering Output Manually*.

1.18.2 Configuring a Virtual GV-I/O Box

1. On the GV-Center V2 window, click the **Preference Setting** button (No. 8, Figure 1-2) and select **Virtual I/O**. The Virtual I/O Device dialog box appears.
2. Click the **Add** button. This dialog box appears.

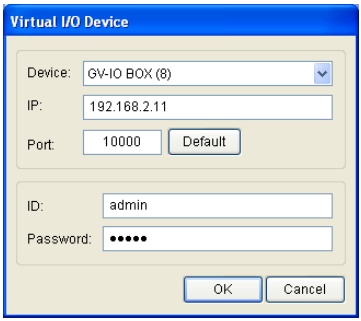


Figure 1-64

3. Select the device using the drop-down list, and type the **IP address**, **ID** and **Password** of the GV-I/O Box. You can look up the IP address of the GV-I/O Box using the **GV IP Device Utility**.
4. Click **OK** to finish adding the GV-I/O Box.
5. To trigger outputs automatically by event, see *1.18.3 Triggering Outputs by Events*.
6. To trigger outputs manually, see *1.18.4 Triggering Outputs Manually*.

1.18.3 Triggering Outputs by Event

1. On the GV-Center V2 window, click the **Preference Setting** button (No. 8, Figure 1-2) and select **Notification**. The Alarm Settings dialog box appears.
2. Select an event type for alarm output to be triggered.

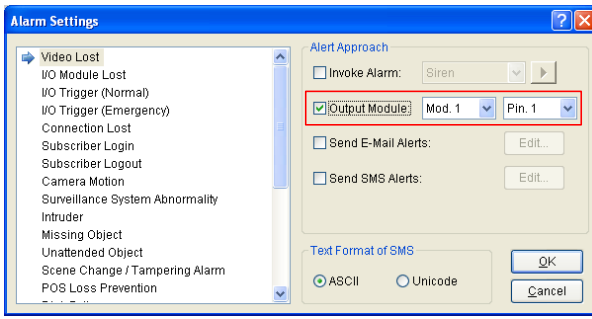


Figure 1-65

3. Select **Output Module** and define the module number and pin number using the drop-down lists.
4. To set up more event types for alarm output, repeat steps 2 and 3.

1.18.4 Triggering Outputs Manually

1. On the GV-Center V2 window, click the **Tools** button (No. 5, Figure 1-2) and select **Force Output**. This dialog box appears.

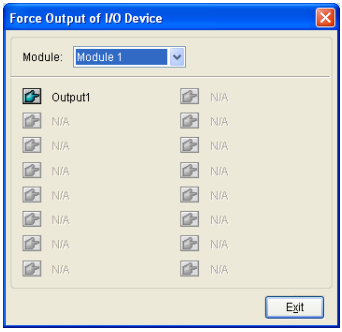


Figure 1-66

2. Select a desired module and then click the **Finger** button  to trigger the output.

You can also trigger the outputs connected at the subscriber site through the I/O Status interface. For details, see *Showing I/O Status*, *1.11 Advanced Monitoring and Management*.

1.19 SMS Alerts

You can send SMS messages to subscribers when alert conditions occur.

1.19.1 Setting SMS Server

Before sending SMS messages to an individual subscriber, you need to define SMS Server correctly.

1. On the GV-Center V2 window, click the **Tools** button (No. 5, Figure 1-2), and then select **Connect to SMS Server** to display this dialog box.

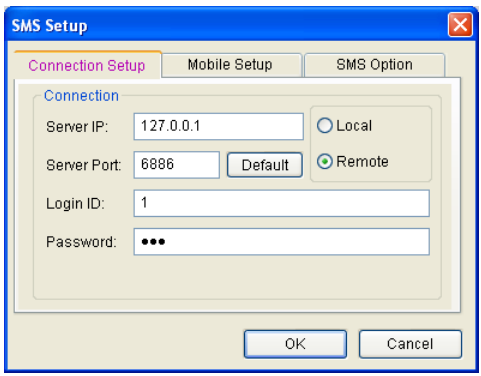


Figure 1-67

2. Type the IP address, communication port, Login ID and Password of the SMS Server.
3. If the SMS Server is installed at the same computer as GV-Center V2, select **Local.** If not, select **Remote**.

4. To set up three mobile numbers for GV-Center V2 operators to get notified when the GV-Center V2 loses connection to the SMS Server, click the **Mobile Setup** tab to display this window.

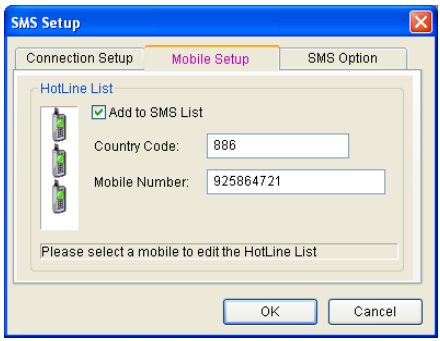


Figure 1-68

5. Select one mobile icon, check **Add to SMS List**, and type country code and mobile number.

6. To set time intervals between each SMS message when alert occurs, click the **SMS Option** tab to display this window.

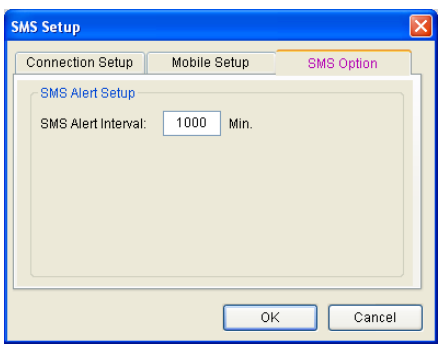


Figure 1-69

7. In the SMS Alert Setup field, set the interval between 0 and 1440 minutes.

For details on SMS Server, see *Chapter 10* in *GV-DVR User's Manual* on the Software DVD.

1.19.2 Connecting to SMS Server

In the GV-Center V2 window, click the **Tools** button (No.5, Figure 1-2), and then select **Connect to SMS Server** for connection.

1.19.3 Sending SMS

Once the connection of the SMS Server and GV-Center V2 is established, there are several ways to send SMS messages to subscribers. See the GV-Center V2 window for the following selections.

1. Click the **Tools** button (No.5, Figure 1-2) and select **Send Short Message**. This sends SMS to an individual subscriber manually.
2. On the Subscriber List (No. 4, Figure 1-2), right-click one subscriber and select **Send Short Message**. This sends SMS to an individual subscriber manually.
3. On the Event List, double-click one Event Type, except Attachment, to call up a message window. Click the **Send Short Message** icon on the window. This sends SMS to an individual subscriber manually.
4. Right-click one display channel and select **Send Short Message**. This sends SMS to an individual subscriber manually.
5. Click the **Preference Settings** button (No. 8, Figure 1-2), and select **Notification** to display the Alarm Settings window. Check the **Send SMS Alerts** item. This sends SMS to subscribers automatically when set alert conditions occur. For details, see *1.17 Notification Settings*.

1.19.4 Inserting Device Information

The subscriber name and ID can be inserted automatically into your SMS message when it is sent out.

1. On the GV-Center V2 window, click the **Preference Settings** button (No. 8, Figure 1-2) and select **Notification**. This dialog box appears.

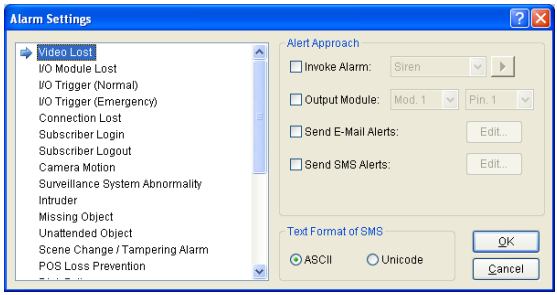


Figure 1-70

2. Select the event into which you wish to insert the subscriber name and ID, and select **Send SMS Alerts**. This dialog box appears.

Figure 1-71

3. Type the message text and click the **Macros** button. This dialog box appears.

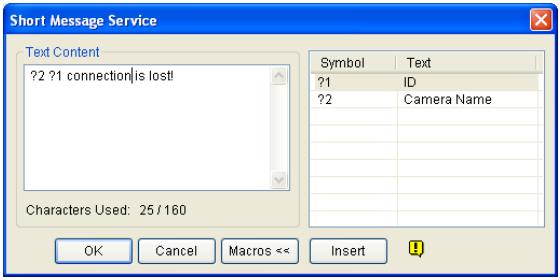


Figure 1-72

4. Place the pointer to where you wish to insert the subscriber name and ID in the text, select the corresponding symbol and click **Insert**. The symbols will be replaced with real information when the message is displayed to the user.

1.20 E-Mail Alerts

You can send e-mails to subscribers when alert conditions occur.

1.20.1 Setting Mailbox

Before you can send e-mails to a separate e-mail account, you need to define your mailbox correctly.

Setting up the mailbox

1. On the GV-Center V2 window, click the **Preference Settings** button (No. 8, Figure 1-2), and then select **E-Mail Setup**. This dialog box appears.

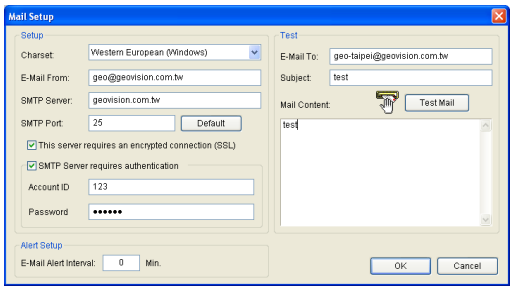


Figure 1-73

2. In the Charset field, select the set of characters and symbols that the e-mail uses.
3. In the E-Mail From field, enter your e-mail address.
4. In the SMTP Server field, type the outgoing server address.
5. If your e-mail server requires an SSL (Secure Sockets Layer) authentication for connection, select **This server requires an encrypted connection (SSL)**.

6. If your e-mail service provider requires authentication for sending e-mails, select **SMTP Server requires authentication**, and type the account ID and password of your SMTP.
7. If you want to set time intervals between each e-mail message when alert occurs, in the Alert Setup field, set the interval between 0 and 1440 minutes.
8. Click **OK**.

Sending a test e-mail

After setting up your mailbox, you can use the Test section and send a message to your own e-mail account for testing.

1. Enter your own e-mail address in the E-Mail To field.
2. Enter a subject for the e-mail.
3. Type the desired message in the Mail Content field.
4. Click the **Test Mail** button.

1.20.2 Sending E-Mail

There are several ways to send e-mail alerts. See the GV-Center V2 window for the following selections.

1. On the Subscriber List (No. 4, Figure 1-2), right-click one subscriber, and then select **Send E-Mail**. This sends the e-mail to an individual subscriber manually.
2. Right-click one display channel, and then select **Send E-Mail**. This sends the e-mail to an individual subscriber manually.
3. On the Event List, double-click one Event Type, except Attachment, to call up a message window. Click the **Send E-Mail** icon on the window. This sends the e-mail to an individual subscriber manually.
4. Click the **Preference Settings** button (No. 8, Figure 1-2), and select **Notification** to display the Alarm Settings window. Check the **Send E-Mail** item. This sends e-mails to subscribers automatically when set alert conditions occur. See *1.17 Notification Settings*.

1.20.3 Inserting Device Information

The subscriber name and ID can be inserted automatically into your email message when it is sent out. For setup details, see *Inserting Device Information* in *1.20 E-Mail Alerts*.

1.21 E-Map Alerts

You can configure an instant E-Map alert to lay out the locations of triggered cameras, sensors and alarms within a floor plan.

For this application, subscribers must already create their own E-Maps using the E-Map Editor and activate **WebCam Server**.

To access the E-Map at GV-Center V2, right-click one online subscriber on the Subscriber List (No. 4, Figure 1-2) and select **E-Map**. The Remote E-Map window will appear. When motion or input trigger is detected on the subscriber, the camera or input icon on the E-Map will blink for alert. You can also double-click the camera icon to see its live view.

1.21.1 The Remote E-Map Window

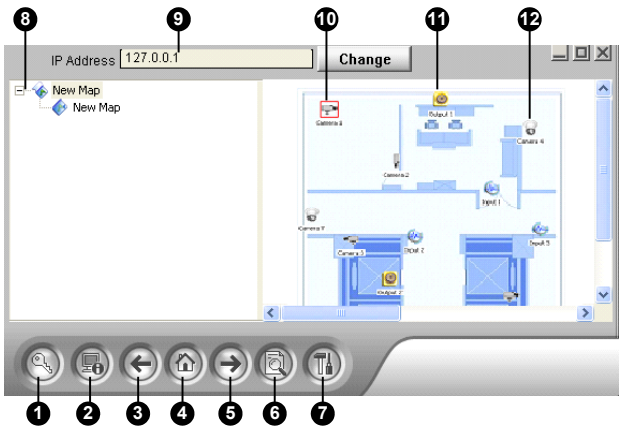


Figure 1-74

The controls on the Remote E-Map window:

No.	Name	Description
1	Login	Click to log in up to 500 hosts.
2	Host Information	Click to view the information of incoming events upon motion detected and I/O devices triggered.
3	Previous	Click to go to the previous E-Map file.
4	Home	Click to back to the top of the tree view.
5	Next	Click to go to the next E-Map file.
6	ViewLog	Click to access the Remote ViewLog function.
7	Configure	Click to configure the Remote E-Map.
8	Tree List	The list displays all created E-Map files and folders.
9	IP Address	Displays the IP Address of the connected host.
10	Blinking Icon	The blinking icon represents a triggered camera or I/O device.
11	Output Icon	Click to manually force the output device.
12	Camera/Dome Icon	Click to view the live video associated with that camera/dome. Up to 16 live videos can be accessed simultaneously.

1.21.2 Configuring the Remote E-Map

Click the **Configure** button (No. 7, Figure 1-74) to display the following dialog box:

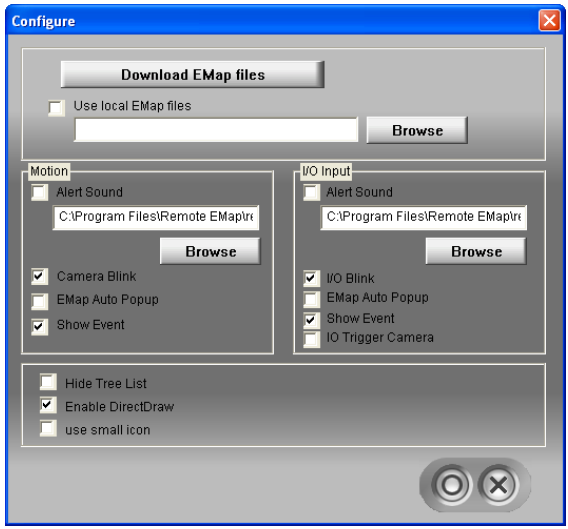


Figure 1-75

[Download EMap files] Click to download E-Map files from the subscriber server to the local computer. This option can reduce network load when you want to view E-Maps of multiple subscribers.

- **Use local EMap files:** Once downloading E-Map files to the local computer, you can use these E-Map files for connection.

[Motion] / [I/O Input]

- **Alert Sound:** Select this option and assign a .wav file to alert the operator when motion is detected or input devices are triggered.
- **Camera Blink, I/O Blink:** When cameras or input devices are triggered, their icons on the E-map flash.

- **EMap Auto Popup:** When cameras or input devices are triggered, the related map will be displayed on the Remote E-Map window instantly.
- **Show Event:** Select this option to display motion or input triggered events on the Host Information window.
- **I/O Trigger Camera:** When input devices are triggered, the related camera views will be displayed on the Remote E-Map window instantly. For this function to work, input devices must be mapped to cameras on the Main System.
- **Hide Tree List:** Select this option to hide the tree list.
- **Enable DirectDraw:** The DirectDraw is enabled by default. Some GPU cards might not support DirectDraw and can produce distorted frames. In this case, disable the feature.
- **Use small icon:** The Remote E-Map uses the large icons of cameras and I/O devices by default. Select this option if you want to use small icons.

1.22 Event Chart

The Event Chart can provide you the daily, weekly and monthly statistical chart based on different criteria. These statistical charts allow the administrator to analyze the occurrence of different event types, message types, and the events that occur on different subscribers.

To display the Event Chart, you need to install the following software on the computer. Use the links in the Software DVD or click **Here** below to download the software.

- Microsoft .NET Framework 3.5 SP1 (Click Here)
- Microsoft Chart Controls (Click Here)

1.22.1 Accessing the Event Chart

1. Click the **Tools** button (No. 5, Figure 1-2) and select **Event Chart**. This window appears.

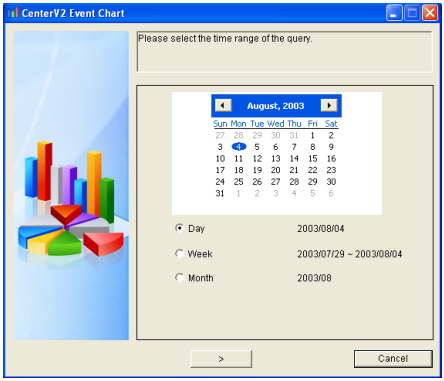


Figure 1-76

2. Specify a day or select a week or month to query the event data. Click the **Next** button. This dialog box appears.

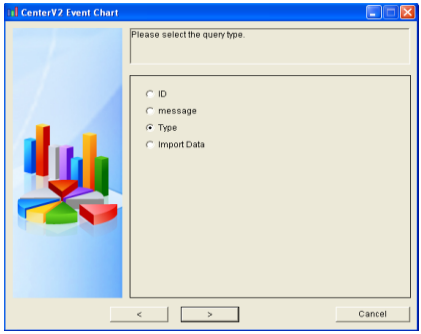


Figure 1-77

3. Select **ID** to query the events based on subscriber's ID and **message** or **Type** to query the events based on message types. **Import Data** allows you to query the events based on your previously-exported query settings (see Step 5).

   Here we select **Type** as an example. Click the **Next** button. This dialog box appears.

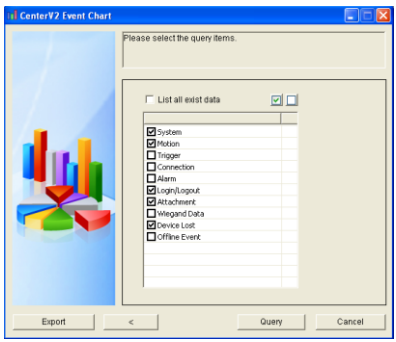


Figure 1-78

4. Select **List all exist data** to query all the event types, or disable it to select the desired event types.
5. You can optionally click **Export** at the left bottom of the window to export the settings for next-time use.

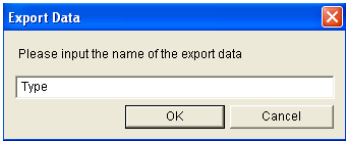


Figure 1-79

6. Click the **Query** button to display the statistical chart.

Note: If you select **ID** or **Message** to query the events, you need to type the subscriber ID or message type you want to query.

1.22.2 Event Chart

You can click each item on the chart to view more detailed information.

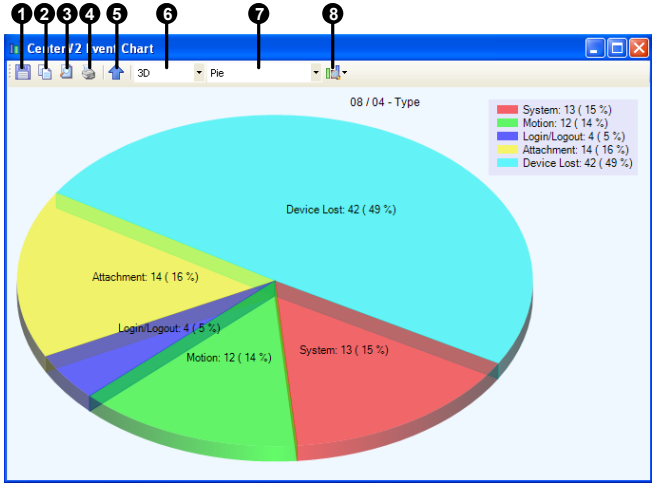


Figure 1-80

No.	Name	Description
1	Save Image	Saves the chart image.
2	Copy Image	Copies the chart image.
3	Preview	Previews the chart image for print.
4	Print	Prints the chart image.
5	Up one level	Goes to the previous chart image.
6	3D/2D	Presents the chart in 3D or 2D mode.
7	Pie/Line/Column	Presents the event data in pie, line or column chart.
8	View	Presents the title, label, legend, name, count or percentage in the chart.

1.23 Failover Server

You can configure up to two failover servers in case that the primary GV-Center V2 system fails. In the event of GV-Center V2 failure, the failover server takes over subscriber connections and continues to provide monitoring services.

1. To import subscriber accounts from the primary server to the failover server, click the **Import / Export Address Book** button (No. 6, Figure 1-3) on the Address Book toolbar, and select **Import** to transfer the address book data.
2. On the GV-Center V2 window, click the **Preference Settings** button (No. 8, Figure 1-2), and select **Automatic Failover Support**. This dialog box appears.

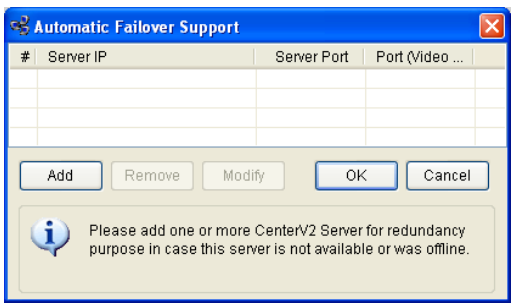


Figure 1-81

3. Click the **Add** button to add one server. This dialog box appears.

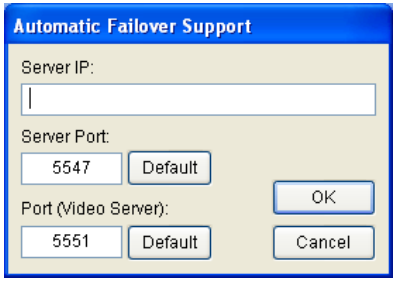


Figure 1-82

4. Type the IP Address of the failover server. Keep the default port settings or modify them if necessary.
5. Click **OK**. When the GV-Center V2 system fails, all connections from subscribers will be diverted to the failover server automatically.

Note: Once the primary GV-Center V2 system is ready to resume services, it is required to close the failover server so that subscribers can return to the primary GV-Center V2.

1.24 Assigning a Subscriber to Another GV-Center V2

You can assign a subscriber to another GV-Center V2 without ending the current connection.

Note:

1. For a GV-NVR subscriber, this function is only supported for versions 8.3 or later.
2. The function is not available for the subscribers of GV-Video Server, GV-Compact DVR, GV-IP Camera and GV-SNVR.

1. In the Subscriber List, right-click the desired subscriber, and select **Dispatch to other Center V2**. This dialog box appears.

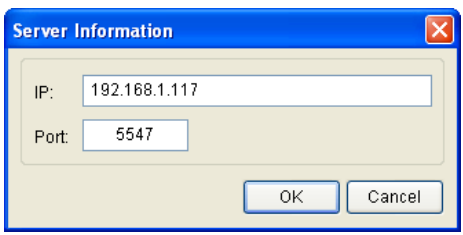


Figure 1-83

2. Type the IP address of another GV-Center V2. The default port value is 5547. Modify it if necessary.
3. Click **OK**. The subscriber will be therefore assigned to the designated GV-Center V2. In the Subscriber List of the local GV-Center V2, that subscriber's icon shows offline.

1.25 Channel Display on Another Monitor

If GV-Center V2 is equipped with multiple monitors, you can use the QView feature to display a selected channel on another monitor screen.

1. On the GV-Center V2 window, click the **Tools** button (No. 5, Figure 1-2) and select **QView**. This dialog box appears.

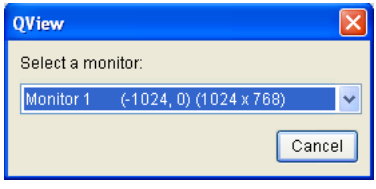


Figure 1-84

2. Use the drop-down list to select a desired monitor.
3. Click one channel to be displayed on that monitor.

Select a channel to be displayed on another monitor screen

The selected channel is displayed on another monitor screen

Figure 1-85

4. To switch to another channel, simply click another channel.

Chapter 2
GV-Dispatch Server

The availability of GV-Center V2 servers may be threatened by network overload. Through GV-Dispatch Server, the concern can be settled by arranging and distributing subscribers' requests to the least busy GV-Center V2 servers. With GV-Dispatch Server, a central monitor station can run several GV-Center V2 servers and serve numerous subscribers with the fastest responding time. If any of GV-Center V2 servers needs maintenance, GV-Dispatch Server can automatically redistribute subscribers' requests to other GV-Center V2 within a server farm or to servers in another location.

2.1 GV-Center V2 AI and GV-Dispatch Server AI Integration

GV-Dispatch Server is available in GV-Dispatch Server and GV-Dispatch Server AI versions. Key differences between GV-Dispatch Server AI and the previous version include:

- **GV-Dispatch Server AI can receive AI events** from GV-VMS V18, GV-VMS V20, and GV-AI Guard surveillance systems, GV-Cloud IP Cameras, GV-Cloud Bridge and GV-Cloud Bridge Pro bridge devices, and GV-AI Inference Server (GV-AIS). See *1.3 Compatible GeoVision Products* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.
- **GV-Dispatch Server AI must be integrated with GV-Center V2 AI** to manage and distribute surveillance data.

For GV-Center V2 AI and GV-Dispatch Server AI setup and integration details, see *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

- For system requirements, licensing, and installation, skip Chapters 2.2–2.3 of this guide and see *Chapter 1 Introduction* in the *Quick Start Guide*.
- For subscriber creation, and connection setup between GV-Center V2, GV-Dispatch Server, subscribers, and GV-AIS, skip Chapters 2.6–2.9 of this guide and see *Chapter 2 Getting Started* in the *Quick Start Guide*.

2.2 Minimum System Requirements

Before installation, make sure that your computer meets the following requirements.

IMPORTANT: The system requirements here apply only to GV-Dispatch Server with GV-Center V2 Standard / Pro. For details on the minimum system requirements, licensing, and compatible GeoVision products of GV-Dispatch Server in **GV-Center V2 AI**, see *1.1.2 GV-Dispatch Server Requirements*, *1.2 Licenses*, and *1.3 Compatible GeoVision Products* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

Standard Requirements

OS	**64-bit**	Windows 10 / 11 / Server 2016 / Server 2019 / Server 2022
CPU		Intel Core i3 2130, 3.4 GHz
Memory		4 GB Dual Channels
Hard Disk		500 GB
Graphic Card		PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color
DirectX		9.0c
Hardware		Internal or External GV-USB Dongle
Software		.Net Framework 3.5 SP1 and Chart Control
Note: To perform GPU decoding, refer to the *GPU Decoding Specifications* earlier in the manual.		

Advanced Requirements (Connects to 100 subscribers or more)

OS	**64-bit**	Windows 10 / 11 / Server 2016 / Server 2019 / Server 2022
CPU		Intel Core i5 2500, 3.7 GHz
Memory		4 GB Dual Channels
Hard Disk		500 GB
Graphic Card		PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color
DirectX		9.0c
Hardware		Internal or External GV-USB Dongle
Software		.Net Framework 3.5 SP1 and Chart Control
Note: To perform GPU decoding, refer to the *GPU Decoding Specifications* earlier in the manual.		

Software License

Free License	N/A
Maximum License	● Supports up to 50 GV-Center V2 servers ● Supports up to 25,000 subscribers from GV-Center V2 servers
Increment for Each License	N/A
Combination	1. GV-Dispatch Server 2. GV-Dispatch Server + GV-Vital Sign Monitor
Dongle Type	Internal or external
Note: It is recommended to use the internal GV-USB Dongle to utilize the Hardware Watchdog function, which restarts the PC when Windows becomes unresponsive.	

2.3 Installation

To install GV-Dispatch Server, follow the steps below.

Note: The instructions here apply only to GV-Dispatch Server with GV-Center V2 Standard / Pro. For details on the installation of GV-Dispatch Server in **GV-Center V2 AI**, see *1.4.2 GV-Dispatch Server Installation* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

Install from Software DVD

1. Connect the GV-USB Dongle to the computer.
2. Insert the Software DVD to your computer. It runs automatically and a window appears.
3. To install the dongle driver, select **Install or Remove GeoVision GV-Series Driver** and select **Install GeoVision USB Device Drivers**.
4. To install GV-Dispatch Server, select **Install GeoVision Primary Applications**.
5. Click **Dispatch Server** and follow the on-screen instructions.
6. To install .Net Framework 3.5 SP1, select **Download Microsoft .NET Framework 3.5**.
7. To install Microsoft Chart Controls, select **Download Microsoft Chart Controls [for .Net Framework 3.5]**.

Download from GeoVision Website

1. Connect the GV-USB Dongle to the computer.
2. Install the driver for the dongle.
   A. Go to http://www.geovision.com.tw/download/product/GV-Dispatch%20Server

B. On the Website, select **Drivers** from the drop-down list, and click the **Download** icon of **GV-Series Card Driver / GV-USB Devices Driver**.

C. Select **Primary Applications** from the drop-down list and click the Download icon of GV-Dispatch Server.

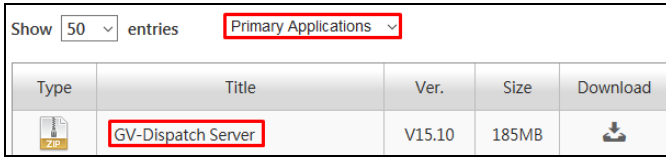


Figure 2-1

3. Download and install **.Net Framework 3.5 SP1** from https://www.microsoft.com/en-us/download/details.aspx?id=25150

4. Download and install **Microsoft Chart Controls** from https://www.microsoft.com/en-us/download/details.aspx?id=14422

2.4 The GV-Dispatch Server Window

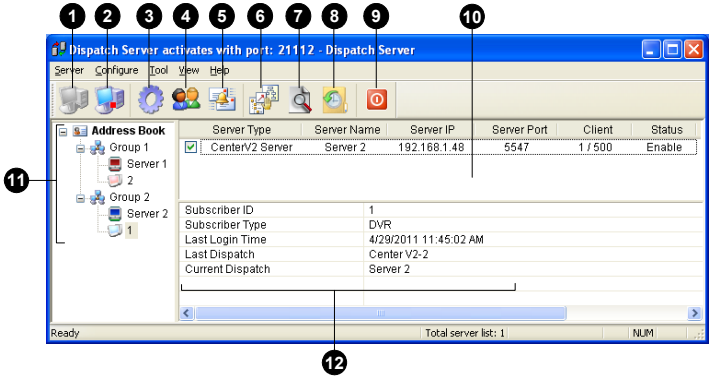


Figure 2-2

The controls on the GV-Dispatch Server window:

No.	Name	Description
1	Start Server	Starts GV-Dispatch Server.
2	Stop Server	Stops GV-Dispatch Server.
3	Server Setting	Configures GV-Dispatch Server.
4	Account	Adds, edits and deletes the accounts of GV-Center V2 servers and subscribers.
5	Subscriber Notification Setting	Sets the alert conditions and methods
6	Manual Dispatch	Enables manual distribution of subscribers. Click this button and drag a subscriber to the desired GV-Center V2 server.

No.	Name	Description
7	Stop/Start Query GV-Center V2 Event	Specifies an event query.
8	Real-Time CenterV2 Event	Views real-time events occurring on GV-Center V2 servers (not available in GV-Center V2 AI).
9	Exit	Closes the GV-Dispatch Server window.
10	Center V2 Status	This part lists the connected GV-Center V2 servers and their status. Subscribers can be distributed to the ticked GV-Center V2 servers. Unchecking will disable the distribution service.
11	Tree View	The list displays all created group folders, servers, and subscribers. **Only for GV-Center V2 AI:** Right-click **Address Book** and select **License Information** to view the available and used channels for each license type, as well as the license types assigned to each camera under each subscriber. Right-click any subscriber to call up the **Subscriber Address Book**, **License Setting (only for GV-Center V2 AI),** and **PVD Enable Setting (only for GV-Center V2 AI)** panels. However, the subscriber must be online to access the **Camera/Audio Control** panel. For details, see *1.11.2 Camera/Audio Control Window*. **Blue Icon** : The server / subscriber is online. **Red Icon** : The server / subscriber is offline.
12	Subscriber Status	Displays subscriber information such as subscriber ID, type, last login time, last dispatch, and current dispatch. Click the desired subscriber from the tree view to display this information.

2.5 Subscriber Account

GV-Dispatch Server can serve up to **50** GV-Center V2 servers and **25,000 GV-Center V2**'s subscribers simultaneously. To create a subscriber account on GV-Dispatch Server, click the **Account** button (No. 4, Figure 2-2) to display this Address Book window.

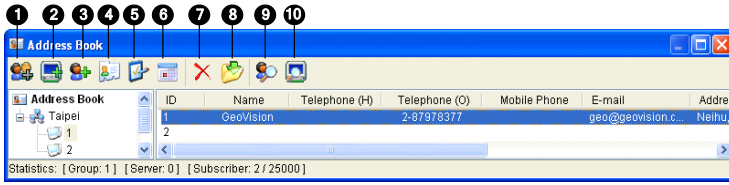


Figure 2-3

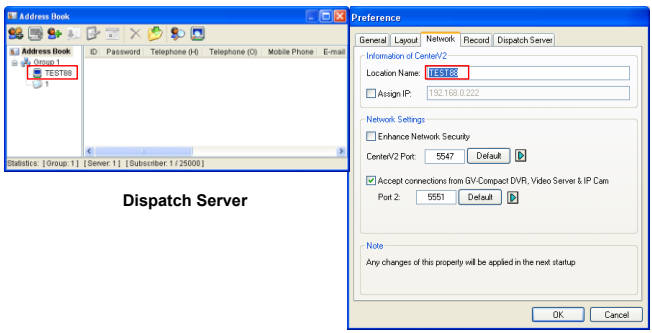
The toolbar on the Address Book window:

No.	Name	Description
1	Add A Group	Adds a group folder.
2	Add A Server	Adds a GV-Center V2 server/system.
3	Add A Subscriber	Adds a subscriber.
4	View/Edit Subscriber Address Book	Opens Subscriber Address Book for viewing and editing.
5	Subscriber Setting	Highlight one subscriber and click this button to configure the settings of video and alert formats. For details, refer to *1.4.2 Subscriber Settings* and *1.4.3 Attachment Mode Settings*.
6	Subscriber Schedule Setting	Sets up subscription schedules
7	Delete A Group/Server/Subscriber	Highlight a group, a server or a subscriber and click this button to delete it.
8	Import / Export Address Book	Imports or exports the address book data.
9	Find A Subscriber	Searches a subscriber account.
10	Find A Server	Searches a server account.

Creating a Subscriber Account

To create a subscriber account, follow the steps below.

1. On the GV-Dispatch Server Window, click the **Account** button . The Address Book window appears.
2. Click the **Add a Group** button to create a group.
3. Click the **Add a Server** button to to create a GV-Center V2 server account. A server icon appears. Rename the server to match the location name of the GV-Center V2 server, configurable in GV-Center V2 **> Preference Settings > System Configuration > Network**.



Dispatch Server

Center V2 Server

Figure 2-4

4. Click the **Add a Subscriber** button to create a subscriber account. The Subscriber Address Book dialog box appears.
5. Create an ID and password for the subscriber. The ID and password will be used when the GV-Center V2's subscriber wants to log into the GV-Dispatch Server.

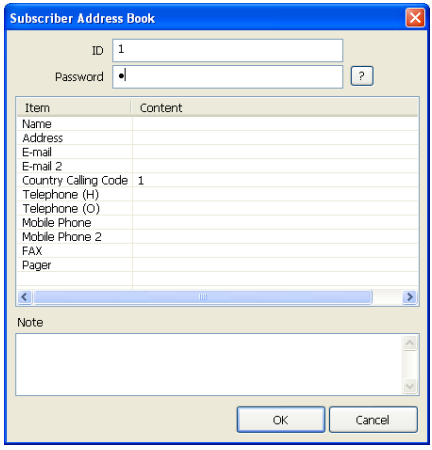


Figure 2-5

6. Click **OK** to finish.

Note:

1. You can create sub-groups beneath a group; every sub-group can only include one GV-Center V2 server; every GV-Center V2 server can include up to **500** subscribers.
2. When one GV-Center V2 server stops running, its own subscribers will be distributed to available GV-Center V2 servers at the same or higher level of the hierarchical file system.
3. If you do not arrange GV-Center V2 servers and subscribers into groups, they will be distributed to the GV-Center V2 server with fewer subscribers.

2.6 Service Startup

After subscriber accounts are created, you are ready to establish connections to GV-Dispatch Server. Follow the steps below.

Note: The instructions here apply only to GV-Dispatch Server with GV-Center V2 Standard / Pro. For details on connection setup between GV-Center V2, GV-Dispatch Server, subscribers, and GV-AIS in **GV-Center V2 AI**, see *Chapter 2 Getting Started* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

---

1. Click the **Server Setting** button (No. 3, Figure 2-2) on the main screen. The GV-Dispatch Server Setting dialog box appears.
2. Type an **Identification Code**. This code will be used for connecting GV-Center V2 to GV-Dispatch Server. Click **OK** to apply the settings.

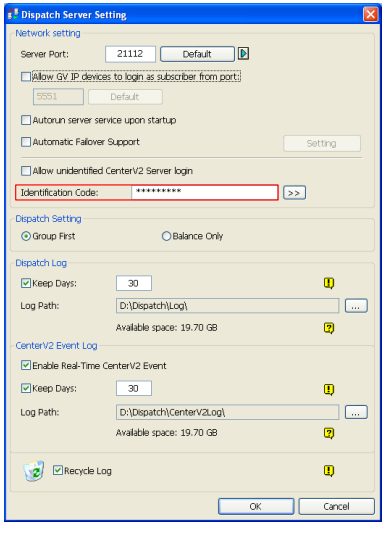


Figure 2-6

3. Connect GV-Center V2 to GV-Dispatch Server. See *2.7 Connecting GV-Center V2 Standard / Pro to GV-Dispatch Server*.
4. To connect GV-NVR / GV-VMS / GV-AI Guard as a subscriber to GV-Dispatch Server, see *2.8 Connecting to GV-Dispatch Server (with GV-Center V2 Standard / Pro)*.
5. To connect a GV-IP device as a subscriber to GV-Dispatch Server, see *2.9 Connecting GV-IP Device to GV-Dispatch Server (with GV-Center V2 Standard / Pro)*.
6. Click the **Start Server** button (No. 1, Figure 2-2) on the main screen to start the service.

2.7 Connecting GV-Center V2 to GV-Dispatch Server

Follow these steps to connect GV-Center V2 to GV-Dispatch Server:

Note: The instructions here apply only to GV-Dispatch Server with GV-Center V2 Standard / Pro. For details on connection setup between GV-Center V2, GV-Dispatch Server, subscribers, and GV-AIS in **GV-Center V2 AI**, see *Chapter 2 Getting Started* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

1. Start the GV-Dispatch Server service.
2. At GV-Center V2, click the **Preference Settings** button (No. 8, Figure 1-1), select **System Configuration** to display the Preference window, and then click the **Dispatch Server** tab. The Preference dialog box appears.
3. Click the GV-Dispatch Server tab. Type the identification code, IP address, and the port of the GV-Dispatch Server.

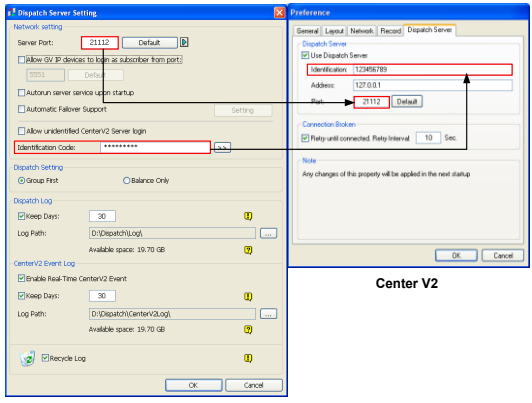


Figure 2-7

4. Click **OK**.
5. Restart GV-Center V2 to apply the settings. Without this step, GV-Center V2 will not connect to GV-Dispatch Server.

2.8 Connecting to GV-Dispatch Server

Follow the steps below to configure and connect a GV-NVR / GV-VMS / GV-AI Guard surveillance system to GV-Dispatch Server:

Note: The instructions here apply only to GV-Dispatch Server with GV-Cener V2 Standard / Pro. For details on connection setup between GV-Center V2, GV-Dispatch Server, subscribers, and GV-AIS in **GV-Center V2 AI**, see *Chapter 2 Getting Started* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.

---

1. Access the GV-Center V2 login dialog box (Figure 1-9) in a surveillance system.
   - On GV-NVR's main screen: Click the **Network** button  , and then select **Connect to GV-Center V2**.
   - On GV-VMS / GV-AI Guard's main screen: Click **Home**, **Toolbar**, **Network**, and then select **Connect to GV-Center V2**.
2. In the Center IP field, type the IP address of GV-Dispatch Server.
3. Type a subscriber's ID and password created in GV-Dispatch Server.
4. Change the port number from 5547 (GV-Center V2 port) to **21112** (GV-Dispatch Server port).
5. Click the **OK** button. The Connect to GV-Center V2 dialog box appears.
6. Click the **Connect** button to enable connecting to GV-Dispatch Server.

Note: If you want to modify the GV-Center V2 login information, on the Connect to CenterV2 dialog box, click a listed GV-Center V2 IP and then select **Modify**.

2.9 Connecting GV-IP Device to GV-Dispatch Server

GV-Dispatch Server can distribute GV-IP devices to GV-Center V2 servers based on predefined groups or balance loading of GV-Center V2 servers. Follow these steps to connect a GV-IP device to GV-Dispatch Server:

Note:

1. The instructions here apply only to GV-Dispatch Server with GV-Center V2 Standard / Pro. For details on connection setup between GV-Center V2, GV-Dispatch Server, subscribers, and GV-AIS in **GV-Center V2 AI**, see *Chapter 2 Getting Started* in *GV-Center V2 AI & GV-Dispatch Server AI Quick Start Guide*.
2. If the camera does not have the GV-Center V2 setting page, it is required to use GV-Cloud Bridge / Cloud Bridge Pro to connect between the camera and GV-Center V2. For details, see *1.10.2 Connecting to GV-Center V2 / GV-Dispatch Server* in *GV-Cloud Bridge Installation Guide* and *11.3 Connecting to GV-Center V2 / GV-Dispatch Server* in *GV-Cloud Bridge Pro Installation Guide*.

---

1. On the main screen, click **Configure** and select **Setting**. The GV-Dispatch Server Setting dialog box appears.
2. Select **Allow GV IP devices to login as subscriber from port** to allow GV-IP devices to log in as subscribers. Change the port when necessary.

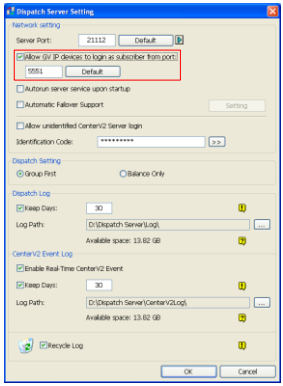


Figure 2-8

3. On the Web interface of the GV-IP Device, click **Events and Alerts** and select GV-Center V2.

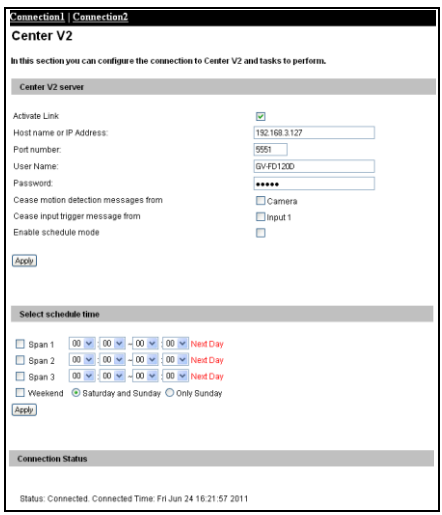


Figure 2-9

4. Enable connection to GV-Dispatch Server.
   A. **Active Link:** Click to configure and enable the connection.
   B. **Host Name or IP Address:** Type the host name or IP address of GV-Dispatch Server.
   C. **Port Number:** Match this port to the port value in step 2 (Figure 2-8) to connect to GV-Dispatch Server.
   D. **User Name:** Type a user name already established in GV-Dispatch Server to log in.
   E. **Password:** Type a valid password to log into GV-Dispatch Server.
   F. Click **Apply**. The Connection Status should display “Connected” and the connection time.
5. This subscriber will be automatically distributed to an online GV-Center V2 server that has the least number of subscribers.

2.10 Setting a Primary GV-Center V2 Server

You can set up a primary GV-Center V2 server to which subscribers are distributed whenever the GV-Center V2 server is connected. This function is useful when you want to ensure that a specific GV-Center V2 server has monitoring priority over a specific subscriber.

1. Click **Configure** on the main screen and select **Customize Dispatch Setting**. The Customize Dispatch Setting dialog box appears.
2. Select a primary GV-Center V2 server using the drop-down list.

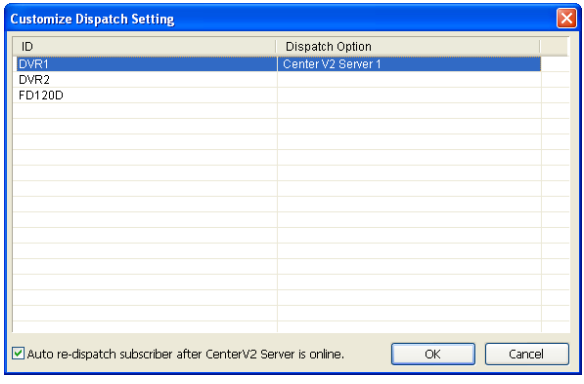


Figure 2-10

3. Select **Auto re-dispatch subscriber after GV-Center V2 Server is online**.
4. Click **OK**. This subscriber will be distributed to the selected GV-Center V2 server whenever it is connected to GV-Dispatch Server.

2.11 Event Query

This feature allows you to locate an event by querying GV-Center V2 servers. Click the **Stop/Start Query GV-Center V2 Event** button (No. 7, Figure 2-2) on the toolbar to display the following dialog box. Select the desired query items (Type, ID, Date and/or Time), define your query condition for each item, and then click **OK** to display the query results.

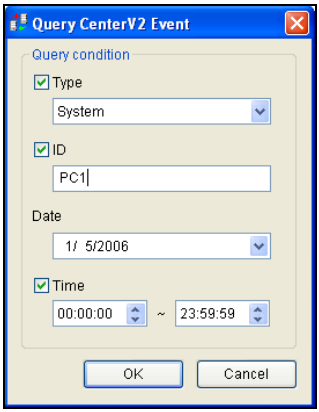


Figure 2-11

The Query feature supports remote playback when folder sharing is enabled on the recording folder of GV-Center V2. Any found event with a video attachment can be played by double-clicking it on GV-Dispatch Server.

Note: To enable folder sharing on the recording folder of GV-Center V2, right-click the folder and select **Sharing and Security**. Click the **Sharing** tab, in the **Network sharing and security** section, select **Share this folder on the network**. Click **OK**. The default path for recordings is :\\Center V2\ Data.

2.12 Event List

The feature allows you to view the real-time events that occurred on GV-Center V2 servers.

Note: The instructions here apply only to GV-Dispatch Server with GV-Center V2 Standard / Pro. The Event List function is not available in GV-Dispatch Server in GV-Center V2 AI.

For the application, make sure the **Enable Real-Time CenterV2 Event** option is enabled; see Figure 2-14. Then click the **Real-Time Event** button (No. 8, Figure 2-2) on the toolbar to display the following window.

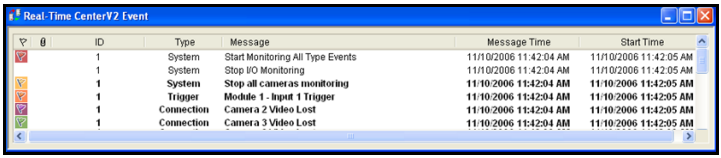


Figure 2-12

The controls on the Real-Time Center V2 Event window:

1. The window supports the remote playback when folder sharing on the recording folder of GV-Center V2 is enabled. Double-clicking any event with video attachment can play it back on GV-Dispatch Server.
2. You can flag an incoming event for later reference. Click in the flag column to flag an event. Click the flag icon to remove it.

Note: Different colored flags are provided to distinguish between events. You will find them useful not only when navigating the Real-Time CenterV2 Event List window, but also when using the Filter function in the Log Brower to sort the desired events.

A list of Types and Messages from GV-Center V2 will be displayed:

Type	Message
Motion	Camera detected motion
Trigger	I/O Trigger; Module xx Trigger Resume; Video of Camera xx (By: Module xx)
Connection	Video Lost; Module Lost; The network connection is lost; The connection of (client xx) is abnormal; Camera cannot be controlled; Ping Timeout; Failed to establish the connection; Video signal of Camera xx has resume; Module xx has returned to normal; Failed to Login SMS Server; Failed to send short message; SMS Server is shutdown.
Alarm	There isn't enough space for recording; There isn't enough space for recording; The storage for Event Log is low, Event Log will not take any new entries; An unexpected error occurred in Multicam Surveillance System (Error Code: 1, 2, 3, 4, 103, and 104); There is an intruder; Object Missing; Unattended Object; Alert Message of POS.
Attachment	Record file of Camera xx [Live, Attachment or offline].
System	Start Recycle; Recycle Event Log; Status change of monitoring cameras. On: (camera no.) Off: (camera no.) / (By Schedule); Stop all cameras monitoring; Start all cameras monitoring; Start I/O Monitoring. / (By Schedule); Stop I/O Monitoring. / (By Schedule); Schedule Start; Schedule Stop. All monitoring devices are stop too; Start monitoring all type events; Stop monitoring all type events; Subscriber session is not established. Wait-time expired; Unexpected logout before subscriber session is completed.

Note:

- Error Code 1 indicates a codec error.
- Error Code 2 indicates that users can't write or record any data due to HD failure or insufficient user privileges.
- Error Code 3 indicates that users can't write or record any data due to issues during the recording process.
- Error Code 4 indicates HD is undetected.
- Error Code 103 indicates that the host has resumed from Error Code 3
- Error Code 104 indicates that the host has resumed from Error Code 4.

2.13 Subscription Schedule

The GV-Dispatch Server operator can create schedules to monitor subscription status. When subscribers don't log in GV-Dispatch Server on the programmed time, the operator and subscribers will get notified.

- To set up a schedule, see *1.12 Subscriber Schedule*.

- When a subscriber doesn't log in GV-Dispatch Server on time, this message will appear on the Event List: Service hour engaged; still waiting for subscriber to log in.
  When a subscriber logs out suddenly during a service time, this message will appear: Unexpected subscriber logout during service times.

- To notify subscribers by SMS and E-Mail, see *2.17 SMS Alerts* and *2.18 E-Mail Alerts*.

2.14 Live View

You can view live videos from subscribers. To access a live view, right-click any online subscriber on the tree view of the GV-Dispatch Server window (No. 10, Figure 2-2) and select **Camera/Audio Control**.

You can enhance the coloring to have more vivid and saturated images. Click **Configure** on the menu bar, select **DirectDraw Configuration**, select **Use Colorful Model**, click **OK** and restart the GV-Dispatch Server program for the mode to take effect. Right-click any online subscriber and select **Camera/Audio Control** to see the enhanced live video.

2.15 Log Browser

The following two log browsers let you locate the events of GV-Dispatch Server and GV-Center V2 easily.

Note: Different colored flags are provided to distinguish between events. You will find them useful when using the Filter function in the Log Brower to sort the desired events.

2.15.1 Dispatch Log Browser

The browser lets you view and locate the system status of GV-Dispatch Server, the login/out status of GV-Center V2. Click **View** on the window menu and then select **Dispatch Log** to display the following log browser. For details on Log Browser, see *1.15 Event Log Browser.*

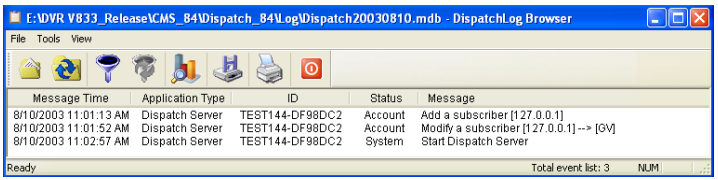


Figure 2-13

A list of Status and Messages will be displayed:

Status	Message
System	Start Dispatch Server; Failed to start Dispatch Server; Stop Dispatch Server; Can't find KeyPro; Start to recycle the Dispatch Server; Start to recycle the CenterV2 Event Log.
Login/logout	CenterV2 Server (IP: CS_IP) connects to Dispatch Server; CenterV2 Server (IP: CS_IP) disconnects from Dispatch Server; CenterV2 Server (IP: CS_IP) disconnects from Dispatch Server abnormally; CenterV2 Client login; CenterV2 Client logout

Status	Message
Connection	CenterV2 Server (IP: CS_IP) is disconnected by Dispatch Server; CenterV2 Server changes IP from (CS_old_IP) to (CS_new_IP); CenterV2 Server (IP: CS_IP) is transferred to another Dispatch Server (DS_IP:DS_Port).
Control	CenterV2 Server [CS_Name] is enabled; CenterV2 Server [CS_Name] is disabled.
Dispatch	ID: login_ID is dispatched to [CS_Name] (IP: CS_IP); Invaild login ID; Invaild login Password; This account has already logged in; There is no server online for CenterV2 Client; All online CenterV2 Servers have utmost service.

2.15.2 Event Log Browser

The browser enables you to find the desired real-time events from GV-Center V2 servers. Click **View** on the window menu, and then select **Event log** to display Event Log Browser. For details on Log Browser, see *1.15 Event Log Browser.*

2.16 System Configuration

To configure GV-Dispatch Server, click the **Server Setting** button (No. 3, Figure 2-2) on the toolbar to display the following dialog box.

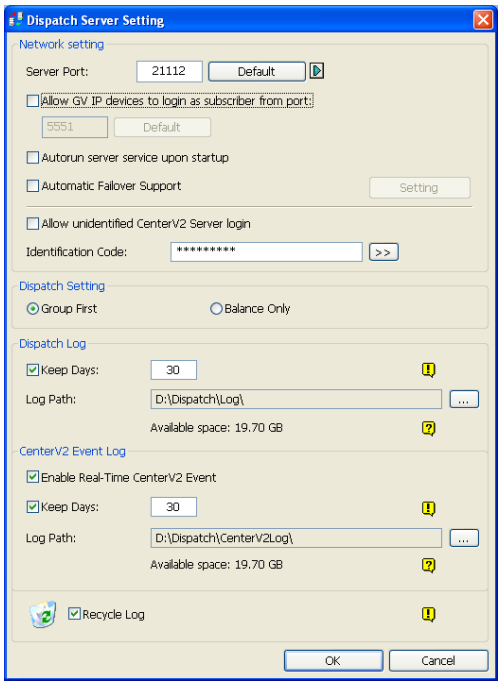


Figure 2-14

Note: The CenterV2 Event Log settings are not available in GV-Center V2 AI.

[Network Setting]

- **Server Port:** The port should match with the GV-Dispatch Server Port of GV-Center V2 (Figure 2-8). Or, keep the port setting as default. To automatically configure these ports on your router by UPnP technology, click the Arrow button. For details on UPnP settings, see *UPnP Settings*, *Appendix*.
- **Allow GV IP devices to login as subscriber from port:** Enables the connection to the GV-Video Server, GV-IP Camera, and GV-Compact DVR. The default port is 5551, or modify it to match the GV-Center V2 port on the GV IP devices. For details, see *GV-Video Server User's Manual*, *GV-IP Camera User's Manual or GV-Compact DVR User's Manual*.
- **Auto run server service upon startup:** Automatically starts the Dispatch service when its program starts.
- **Automatic Failover Support:** Distributes GV-Center V2 servers to another GV-Dispatch Server when the serving GV-Dispatch Server breaks down. Enabling this item, you will be prompted to enter the IP address and port of another GV-Dispatch Server. For details, see *2.20 Failover Server.*
- **Allow unidentified CenterV2 Server login:** Allows GV-Center V2 to access GV-Dispatch Server without entering the Identification Code.
- **Identification Code:** The code protects GV-Dispatch Server against unauthorized Internet access. GV-Center V2 will need the code to log in GV-Dispatch Server.

[Dispatch Setting]

- **Group First:** Keeps subscribers in the assigned groups and GV-Center V2 servers.
- **Balance Only:** Distributes subscribers to GV-Center V2 servers with fewer subscribers.

Note: An unassigned subscriber will be automatically dispatched to a GV-Center V2 server by balance loading.

[Dispatch Log]

- **Keep Days:** Select the option and specify the number of days to keep Dispatch Logs. Otherwise clear the option to keep log until the Recycle starts or storage space is full.
- **Log Path:** Click the button next to the item to assign a storage path.

[CenterV2 Event Log]

Note: The CenterV2 Event Log settings are not available in GV-Center V2 AI.

- **Enable Real-Time CenterV2 Event:** Allows real-time event messages from GV-Center V2 servers.
- **Keep Days:** Select the option and specify the number of days to keep GV-Center V2 event logs. Otherwise clear the option to keep log until the Recycle starts or storage space is full.
- **Log Path:** Click the button next to the item to assign a storage path.

[Recycle Log] Deletes the files of the oldest days when storage space is lower than 500 MB.

2.17 SMS Alerts

This feature automatically sends SMS messages to subscribers when they don't log in on the programmed time. For this, ensure to type a mobile number for each subscriber in the Subscriber Address Book (Figure 2-3).

To set up SMS Server, click **Configure** on the window menu and select **SMS Setup**. For details, see *1.19 SMS Alerts*.

To define alert conditions to send SMS messages, click the **Subscriber Notification Setting** button (No. 5, Figure 2-2) on the toolbar to display the Notification Setting dialog box. For setup details, see *1.17 Notification Settings*.

2.18 E-Mail Alerts

This feature automatically sends e-mails to subscribers when they don't log in on the programmed time. For this, ensure to type an e-mail address for each subscriber in the Subscriber Address Book (Figure 2-3).

To set up mailbox, click **Configure** on the window menu and select **E-Mail Setup**. For details, see *1.20 E-Mail Alerts*.

To define alert conditions to send e-mails, click the **Subscriber Notification Setting** button (No. 5, Figure 2-2) on the toolbar to display the Notification Setting dialog box. For setup details, see *1.17 Notification Settings*.

2.19 Event Chart

GV-Dispatch Server can display log data in line chart, bar chart or pie chart.

To display the Event Chart, you need to install the following software on the computer. Use the links in the Software DVD or click **Here** below to download the software.

- Microsoft .NET Framework 3.5 SP1 (Click Here)
- Microsoft Chart Controls (Click Here)

To access the Event Chart:

1. Click **View** from the menu bar and select **Dispatchlog**.
2. Click the **Event Chart** button on the Dispatch Log Browser. This dialog box appears.

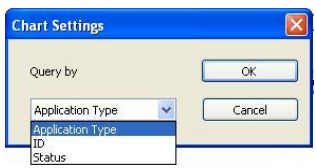


Figure 2-15

3. From the drop-down list, select **Application Type** to display events by server type, **ID** to display events by ID, or **Status** to display events by status type. **Application Type** includes GV-Dispatch Server, GV-Center V2 servers, and GV-Center V2 subscribers. When **Status** is selected, events are categorized into Account, System, Login/logout, Connection, Control and Dispatch.

4. Click **OK** to see the data displayed in a chart.

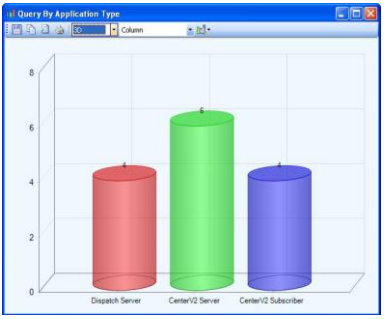


Figure 2-16

This feature is similar as that in GV-Center V2. See *1.22 Event Chart* for more information on the controls of the chart window.

2.20 Failover Server

You can configure up to two failover servers in case that the primary GV-Dispatch Server fails. In the event of GV-Dispatch Server failure, the failover server takes over subscriber connections and continues to provide dispatching services.

1. To import subscriber accounts from the primary GV-Dispatch Server to the failover server, click the **Import / Export Address Book** button (No. 8, Figure 2-3) on the Address Book toolbar, and select **Import Address Book** to transfer the address book data.
2. On the GV-Dispatch Server window, click the **Server Setting** button (No. 3, Figure 2-2). The GV-Dispatch Server Setting dialog box (Figure 2-10) appears.
3. Select the **Automatic Failover Support** option. This dialog box appears.

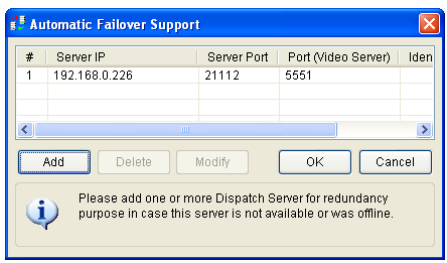


Figure 2-17

4. Click the **Add** button. The Setting dialog box (Figure 2-14) appears.
5. Type the IP address of the failover server, and change the default port settings if necessary.

6. Type **Identification Code** matching to that in CenterV2 Identification Setting. If the information is inconsistent, the connection to the failover server cannot be established.

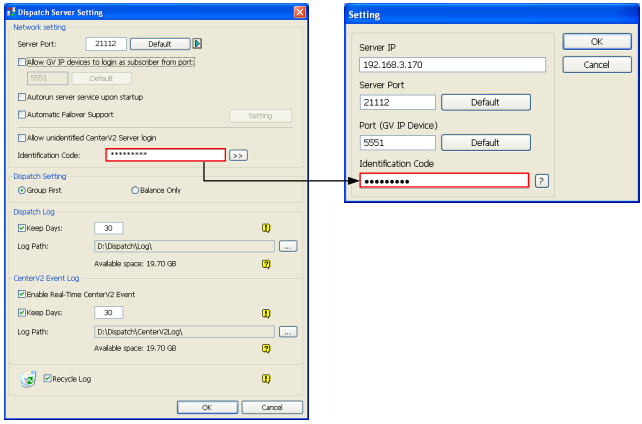


Figure 2-18

Note: Once the primary GV-Dispatch Server is ready to resume services, it is required to close the failover server so that subscribers can return to the primary server.

Chapter 3
GV-Vital Sign Monitor

Vital Sign Monitor applies to the center monitoring station that monitors multiple GeoVision surveillance systems and IP devices. When alert events occur in a surveillance system or device, Vital Sign Monitor receives alert text messages, which activate computer alarms or output alarms, and sends SMS or e-mail messages to subscribers.

3.1 Minimum System Requirements

Before installation, make sure your computer meets the following requirements:

Standard Requirements

OS	**64-bit**	Windows 10 / 11 / Server 2016 / Server 2019 / Server 2022
CPU		Intel Core i3 2130, 3.4 GHz
Memory		4 GB Dual Channels
Hard Disk		500 GB
Graphic Card		PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color
DirectX		9.0c
Hardware		Internal or External GV-USB Dongle
Note: To perform GPU decoding for playback, refer to the *GPU Decoding Specifications* earlier in the manual.		

Advanced Requirements (for 1,000 Subscribers)

OS	**64-bit**	Windows 10 / 11 / Server 2016 / Server 2019 / Server 2022
CPU		Intel Core i5 2500, 3.7 GHz
Memory		4 GB Dual Channels
Hard Disk		500 GB
Graphic Card		PCI-Express, 800 x 600 (1280 x 1024 recommended), 32-bit color
DirectX		9.0c
Hardware		Internal or External GV-USB Dongle
Note: To perform GPU decoding for playback, refer to the *GPU Decoding Specifications* earlier in the manual.		

Software License

Free License	N/A
Maximum License	1,000 subscribers
Increment for Each License	N/A
Combination	1. GV-Vital Sign Monitor 2. GV-Vital Sign Monitor + GV-Control Center 3. GV-Vital Sign Monitor + GV-Control Center + GV-Video Wall 4. GV-Vital Sign Monitor + GV-Center V2 Pro 5. GV-Vital Sign Monitor + GV-Dispatch Server
Dongle Type	Internal or external
Note: It is recommended to use the internal GV-USB Dongle to utilize the Hardware Watchdog function, which restarts the PC when Windows becomes unresponsive.	

When multiple GV-NVR, GV-V-VMS, and GV-AI Guard surveillance systems are connected to Vital Sign Monitor, make sure you meet the following bandwidth to ensure the download quality.

Number of Subscribers	Recommended Bandwidth
100	512 Kbps
500	2 Mbps
1,000	4 Mbps

Compatible Products (Subscribers)

- GV-NVR
- GV-VMS
- GV-AI Guard
- GV-Recording Server / Video Gateway
- GV-SNVR: GV-SNVR0412 / 0812 / 1612
- GV-Video Server: GV-VS21600 (HD Video Encoder)
- GV-IP Camera: only supports the following models
  - GV-MD8710-FD, GV-EFD4700, GV-MFD2700
  - GV-VD5711/ VD2712 / VD2702
  - GV-EBL4702
  - GV-FER12700 / FER5701 / EFER3700
  - GV-BX12201 / BX8700-FD / BX4700 / BX2700-FD / BX2600-FD
- UA-HD DVR
  - UA-XVL810: firmware V1.12 or later
  - UA-XVL1610: firmware V1.11 or later
  - UA-XVL1611: firmware V1.00 or later
  - UA-XVR810: firmware V1.11 or later
  - UA-XVR1620: firmware V1.02 or later
- UA-SNVR
  - UA-SNVRL810-P: firmware V1.11 or later
  - UA-SNVR1620-P: firmware V1.12 or later
  - UA-SNVR3240-N: firmware V1.10 or later
- GV-RNVR
  - GV-RNVRL810-P
  - GV-RNVR256G0-N
  - GV-RNVR3240-N

Note: Integration with UA-HD DVR, UA-SNVR, and GV-RNVR series models are for GV-Vital Sign Monitor V18.4.0 or later.

3.2 Installation

Install from Software DVD

1. Connect the GV-USB Dongle to the computer.
2. Insert the Software DVD to your computer. It runs automatically and a window appears.
3. To install the USB device driver, select **Install or Remove GeoVision GV-Series Driver** and select **Install GeoVision USB Device Drivers**.
4. To install Vital Sign Monitor, select **Install GeoVision Primary Applications**.
5. Click **GV-Vital Sign Monitor** and follow the on-screen instructions.

Download from GeoVision Website

1. Connect the GV-USB Dongle to the computer.
2. Install the driver for the dongle.
   A. Go to http://www.geovision.com.tw/download/product/GV-Vital%20Sign%20Monitor
   B. On the Website, select **Driver** from the drop-down list and click the **Download** icon of **GV-Series Card Driver / GV-USB Devices Driver**.
3. Select **Primary Applications** from the drop-down list and click the Download icon DOWNLOAD of **GV-Vital Sign Monitor**.

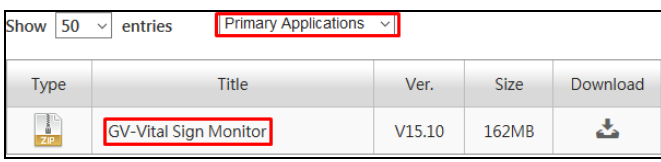


Figure 3-1

3.3 The Vital Sign Monitor Window

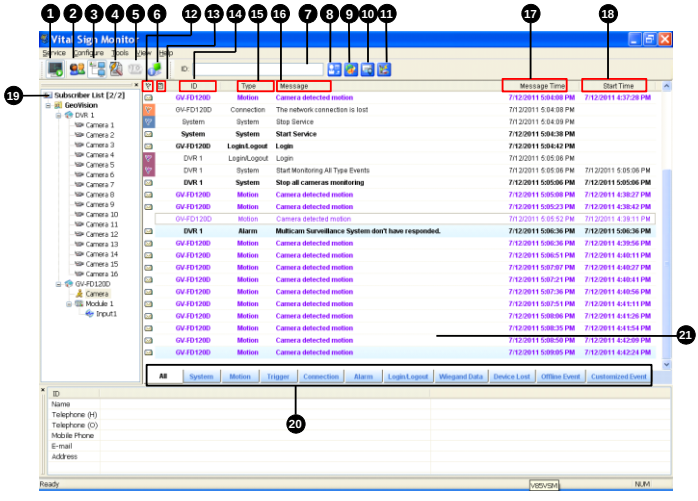


Figure 3-2

The controls on the Vital Sign Monitor window:

No.	Name	Description
1	Start / Stop Service	Starts or stops the Vital Sign Monitor service.
2	Account	Adds, deletes or modifies subscribers.
3	Show / Hide Subscriber List	Shows and hides the Subscriber List.
4	View Event Log	Launches Event Log Browser.
5	Force Output	Activates output devices manually to alert the Vital Sign Monitor operator.
6	View Subscriber Information	Accesses the subscriber's storage and monitoring information.
7	ID	Enter an ID for further search.

No.	Name	Description
8	View Subscriber Address Book	Enter an ID, and then click this button to view the subscriber's address book.
9	View Subscriber Status	Enter an ID, and then click this button to see the subscriber's status.
10	Send E-Mail	Sends e-mails to subscribers.
11	Send Short Message	Sends SMS to subscribers.
12	Flag	Flags an event for later reference.
13	Clipboard	Displays the Alarm Report dialog box.
14	ID	Indicates the subscriber's ID.
15	Type	Indicates the event types, including System, Connection, Login/Logout, Motion, Trigger, and Alarm.
16	Message	Indicates associated information for each event type.
17	Message Time	Indicates the Vital Sign Monitor's time when receiving an event message.
18	Start Time	Indicates the subscriber's time when sending out the event message.
19	Subscriber List	Indicates the number of online subscribers and displays the ID and status. Right-click any subscriber to call up a menu containing buttons No. 4, 8, 9, 10 and 11. The numbers of online subscribers and total subscribers are shown in brackets next to the Subscriber List. **Blue Icon:** Indicates the subscriber is online. **Gray Icon:** Indicates the subscriber is offline. **Alarm Icon:** Indicates either motion has been detected or the I/O has been triggered at the subscriber's site.
20	Event Categories	Events can be sorted in these categories: System, Motion, Trigger, Connection, Alarm, Login/Logout, Wiegand Data, Device Lost, Offline Event and Customized Event. To sort the events, click **View** from the menu bar and select **My Favorite Events.**
21	Event List	Displays a list of events occurred.

A list of Types and Messages are displayed on Vital Sign Monitor:

Type	Message
Motion	Camera xx detected Motion.
Trigger	Module xx-Input xx Triggered
	Module xx-Input xx Trigger Resume
Connection	Camera xx Video Lost
	Video Signal of Camera xx has resumed
	Module xx Lost
	Module xx has resumed to normal
Alarm	There isn't enough space for recording
	Connection Lost
	Multicam Surveillance System has been closed
	Status change of monitoring cameras: on: camera xx, off: camera xx
	Keep Days (xx) Alarm of Video Log is lower than xx days; Schedule Start/Stop
	An unexpected error occurred in Mulicam Surveillance System (Error Code: 1, 2, 3, 4, 5, 6, 7, 103 and 104)
	There is an intruder
	Missing Object; Unattended Object
	Alert Message of POS; Scene Change
	Crowd Detection
	Advanced Missing Object
	Advanced Unattended Object
	Advanced Scene Change
	Critical Temperature Alarm [xx°C] or Critical Temperature Alarm [xx°F]
Login/Logout	Login
	X succeeded to log in Surveillance System
	Logout

Type	Message
System	Start/End Service
	Fail to Start Service
	Stop all camera monitoring
	Start all camera monitoring
	Start monitoring all type events
	Stop monitoring all type events
	Service hour engaged
	Still waiting for subscriber to log in
	Unexpected subscriber logout during service times
	Can't find USB Protection Key
	Disk Error
	The Multicam Surveillance System starts recycling. [Storage 1]
	The POS is offline [POS 1, Mapping Camera:x, IP address]
Wiegand Data	Card No. xxxxxx (Camera xx)

Note:

- Error Code 1 indicates a codec error.
- Error Code 2 indicates that users can't write or record data due to HD failure or insufficient user privileges.
- Error Code 3 indicates the users can't write or record data due to issues during the recording process.
- Error Code 4 indicates HD is undetected.
- Error Code 5 indicates that a failure of the connected host software.
- Error Code 6 indicates database failure.
- Error Code 7 indicates disk abnormality.
- Error Code 103 indicates that the host has resumed from Error Code 3
- Error Code 104 indicates that the host has resumed from Error Code 4.

3.4 Subscriber Account

Vital Sign Monitor can serve up to **1,000** subscribers at a time. Create at least one subscriber before starting services. To create a subscriber, follow these steps:

1. On the Vital Sign Monitor widow, click the **Account** button (No. 2, Figure 3-2) to display the Address Book window.

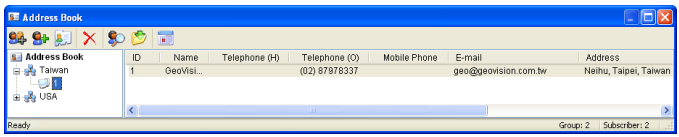


Figure 3-3

2. Click the **Add A Group** button  to create a group folder.
3. Click the **Add A Subscriber** button  to display the Subscriber Address Book dialog box.
4. Type a login ID and password. These will be the subscriber's ID and Password to log in to the Vital Sign Monitor. See Figure 3-4.
5. Optionally, type the subscriber's contact information in the remaining fields.
   - If you want to send e-mail alerts to a subscriber, type its e-mail address. Up to two e-mail accounts can be created for the subscriber. For e-mail settings, see *E-Mail Alerts* later in this chapter.
   - If you want to send SMS alerts to a subscriber, type its country code and mobile number. Up to two sets of mobile number can be created for this subscriber. For SMS server settings, see *SMS Alerts* later in this chapter.

6. Click **OK**. This adds the subscriber to the group folder created before. Returning to the Vital Sign Monitor window, you will see a message: *Add a subscriber – xxx*. (Subscriber xxx has been added.)

3.5 Service Startup

After subscriber accounts are created, Vital Sign Monitor is ready to provide services. Clicking the **Start/Stop Service** button (No. 1, Figure 3-2) on the Vital Sign Monitor window to receive events from subscribers.

3.6 Connection to Vital Sign Monitor

A single surveillance system, GV-NVR / GV-VMS / GV-AI Guard, can connect to up to 5 Vital Sign Monitor systems simultaneously for center monitoring. To configure a surveillance system for a remote access to Vital Sign Monitor, follow these steps:

1. Access the Vital Sign Monitor connection dialog box on a surveillance system.
   - On GV-NVR's main screen: Click the **Network** button, and select **Connect to Vital Sign Monitor**. This dialog box appears.
   - On GV-VMS / GV-AI Guard's main screen: Click **Home**, **Toolbar**, **Network** and then select **Connect to Vital Sign Monitor**. This dialog box appears,

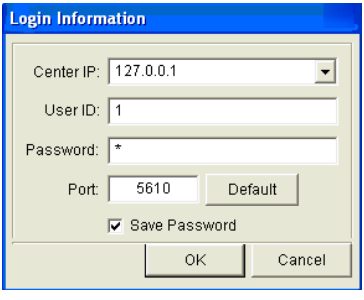


Figure 3-4

2. Type the IP address of the Vital Sign Monitor, a subscriber's ID and password created in the Vital Sign Monitor. Click **OK**. This dialog box appears.

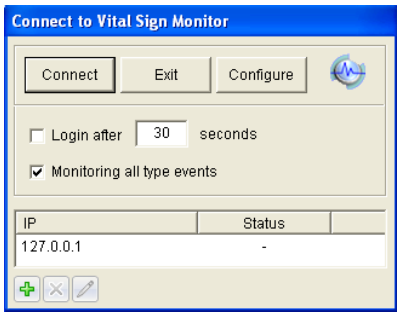


Figure 3-5

3. If you want to add another Vital Sign Monitor, click the button.
4. If you want to modify the login information of the established account, select the account in the dialog box, and click the button.
5. If you want to delete the established account, select the account in the dialog box, and click the button.
6. Click the **Connect** button to connect to all established Vital Sign Monitor systems. Make sure these Vital Sign Monitor systems are also started for connection.

3.6.1 Advanced Settings for Subscription

To further define the communication conditions between the subscriber and Vital Sign Monitor, click the **Configure** button on the Connect to Vital Sign Monitor dialog box (Figure 3-5) to display the Advanced Settings dialog box. There are four tabs: (1) General, (2) Camera, (3) I/O Device and (4) System Information.

General

The settings define the retry mode between a surveillance system and Vital Sign Monitor.

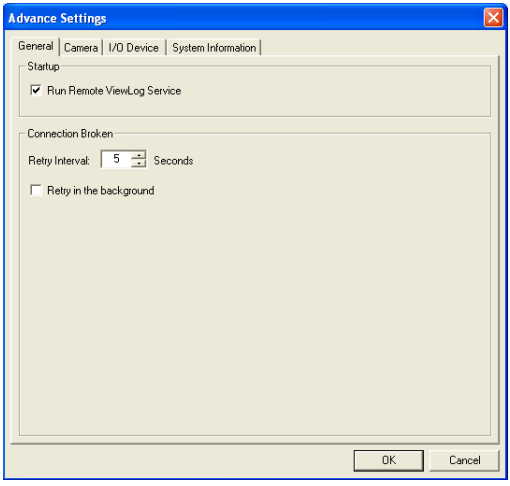


Figure 3-6

- **Run Remote ViewLog Service:** Allows Vital Sign Monitor to retrieve recordings for playback. For details, see *3.10 Remote Playback*.
- **Retry Interval:** Specify the retry interval when the connection is not immediately available.
- **Retry in the background:** Hides the retries in the background.

Camera

The settings define the camera conditions to notify Vital Sign Monitor.

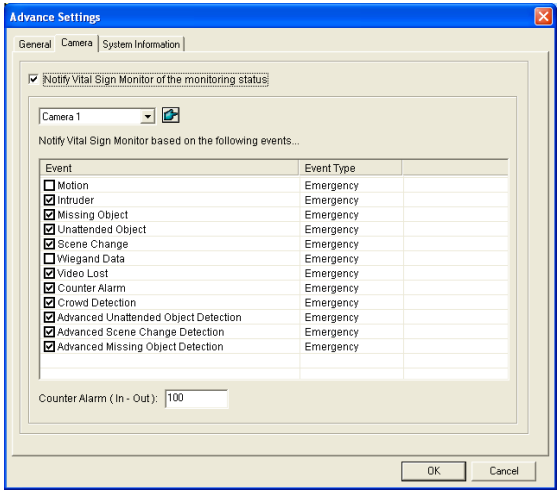


Figure 3-7

- **Notify Vital Sign Monitor of the monitoring status:** Enable live monitoring through Vital Sign Monitor. Select one camera and select the alert events for which you like Vital Sign Monitor to be notified. Click the Finger button to apply the same settings to all cameras.

  Event Type: Select **Emergency** to always notify Vital Sign Monitor of the alert events. Select **Normal** to notify Vital Sign Monitor only when an assigned input is triggered at this subscriber or when the time is within the established schedule.

Note: To assign an input or set up a schedule for sending trigger notifications, see *Security Service, [I/O Device]* and *Monitoring Schedule* respectively.

- **Counter Alarm (In-Out):** Set a number to receive a notification when the count result (In number – Out number) exceeds the specified number. Note that the Object Counter function must be enabled and **Counter Alarm** must be selected under the Event Type list.

I/O Device

The settings define which I/O condition should notify Vital Sign Monitor. To configure these settings, first disable the **Monitor all type events** option in Figure 3-5. Note this tab is only accessible when at least one I/O device is installed in the surveillance system.

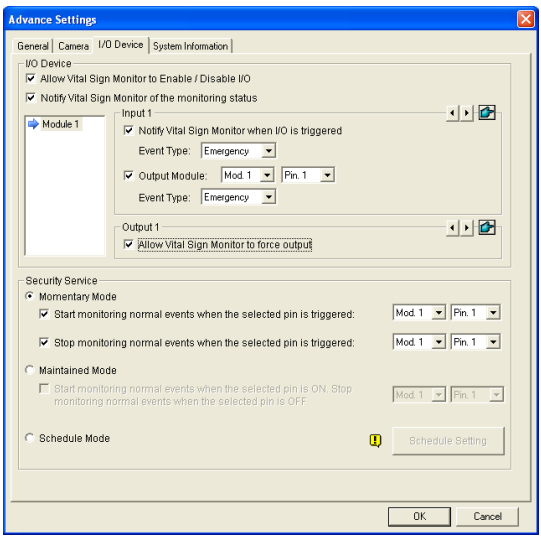


Figure 3-8

[I/O Device] Notifies Vital Sign Monitor when I/O devices are triggered. Use the **Arrow** buttons to configure each I/O device, or click the **Finger** button to apply the same settings to all I/O devices.

- **Allow Vital Sign Monitor to Enable / Disable I/O:** Allows Vital Sign Monitor manually arm/disarm any I/O devices at the subscriber's site without interrupting monitoring.
  For example, when an alarm is triggered at the subscriber site, the Vital Sign Monitor operator can remotely deactivate it before the security staff arrives at the site. Meanwhile, the surveillance system remains under monitoring.
- **Notify Vital Sign Monitor when I/O is Triggered:** Notifies Vital Sign Monitor when any selected input is triggered.

  Event Type: To always notify Vital Sign Monitor of the input trigger, select **Emergency**. If the subscriber wants to notify Vital Sign Monitor of the input trigger only when an assigned input is triggered, select **Normal**.

  Right Arrow button: Sets the delay time to notify Vital Sign Monitor of the input trigger. This feature is only available when the **Normal** type is chosen.
  - **Exit Delay:** While the system is activated, this feature provides an interval of time for the subscriber to exit the premises. During this time, the specified input (e.g. an exit/entry door) is inactive. Once the exit delay expires, the input will be fully armed.
  - **Entry Delay:** While the system is activated, this feature provides an interval of time for the subscriber to entry the premises. During this time, the specified input (e.g. a exit/entry door) is inactive so that the subscriber can disarm the system. If the subscriber fails to do, once the entry delay expires, the Vital Sign Monitor will get notified of the input trigger.

- **Output Module:** Enables the assigned output module when the selected input module is triggered.
  For this example of Figure 3-8, when the I/O Device (Module 1, Input 4) is triggered, the Output (Module 1, Pin 3) will be activated simultaneously.

  Event Type: To always notify Vital Sign Monitor of the output trigger, select **Emergency**. If the subscriber wants to notify Vital Sign Monitor of the output trigger only when an assigned input is triggered, select **Normal**.
  Right Arrow button: Sets the delay time to trigger the assigned output module. This feature is only available when the **Normal** type is chosen. The **Exit Delay** and **Entry Delay** options are similar to those described in the input trigger.

Note: To set an input trigger for the notification of Normal events, see *[Security Service]* below.

- **Allow Vital Sign Monitor to Force Output:** Allows Vital Sign Monitor to manually trigger the subscriber's output devices

[Security Service] Notify Vital Sign Monitor of events only when an input is enabled or when events occur within the defined schedule. For details, see *[I/O Device], Advanced Settings* in *1.6 Connection to GV-Center V2.*

System Information

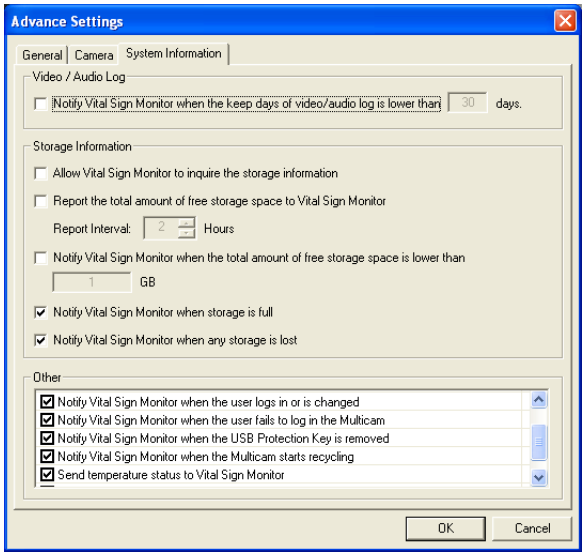


Figure 3-9

[Video/Audio Log] Notifies Vital Sign Monitor when the duration of the video/audio logs is less than the specified days.

[Storage Information]

- **Allow Vital Sign Monitor to inquire the storage information:** Allows Vital Sign Monitor to inquire the subscriber's storage information.
- **Report the total amount of free storage space to Vital Sign Monitor:** Reports the subscriber's free storage space.
- **Notify Vital Sign Monitor when the total amount of free space is lower than xx GB:** Notifies Vital Sign Monitor when the subscriber's storage space is insufficient. The space limit is 1 GB at least.

- **Notify Vital Sign Monitor when the storage space is full:** Notifies Vital Sign Monitor when the subscriber's storage space is full.
- **Notify Vital Sign Monitor when any storage is lost:** Notifies Vital Sign Monitor when the storage device is lost.

[Other]

- **Time synchronization with Vital Sign Monitor:** Synchronizes the time of a surveillance system with that of Vital Sign Monitor.
- **Send Alert Message of POS' Loss Prevention to Vital Sign Monitor:** Notifies Vital Sign Monitor of POS Loss Prevention events. Note that only the surveillance system with POS features can support this function.
- **Notify Vital Sign Monitor when the user logs in or is changed:** Notifies Vital Sign Monitor of user login in the surveillance system.
- **Notify Vital Sign Monitor when the user fails to log in Multicam:** Notifies Vital Sign Monitor when the surveillance system users enter wrong IDs or passwords for login.
- **Notify Vital Sign Monitor when the USB Protection Key is removed:** Notifies Vital Sign Monitor when the USB Protection Key is removed from the surveillance system.
- **Notify Vital Sign Monitor when the Multicam starts recycling:** Notifies Vital Sign Monitor when the recycle starts.
- **Send temperature status to Vital Sign Monitor:** Notifies Vital Sign Monitor when the internal temperature of the surveillance system reaches or exceeds the critical temperature specified.
- **Send POS device connection status to Vital Sign Monitor:** Notifies Vital Sing Monitor of POS device connection status. Note that only the surveillance system with POS features can support this function.

Note:

1. When **Time synchronization with Vital Sign Monitor** is selected, time synchronization is activated when Vital Sign Monitor is started and is re-activated every 12 hours.
2. The **Send temperature status to Vital Sign Monitor** is only supported in GV-DVR installed with GV-3008 Card and certain models of GV-IP camera.
3. The **Send POS device connection status to Vital Sign Monitor** option is only supported when a POS device is connected to the surveillance system through LAN or the Internet.

Monitoring Schedule

Without installing any I/O device, you can set a time schedule to notify Vital Sign Monitor of the events during the specified times. Set time ranges by clicking the **Schedule Setting** button. The Monitoring Schedule dialog box appears (Figure 1-13)

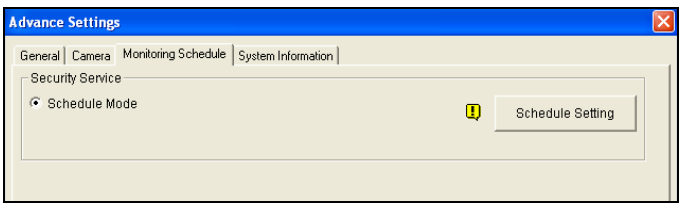


Figure 3-10

3.6.2 Detecting Input Status

The feature is designed to monitor all inputs for a change of state whenever the subscriber starts the live monitoring through Vital Sign Monitor. A change from the previously defined state (N/O to N/C or N/C to N/O) will activate an alarm condition.

Click  on the Connect to Vital Sign Monitor dialog box (Figure 3-5). For details, see *Input State Detection*, Chapter 6, *GV-DVR User's Manual* on the Software DVD.

3.7 Subscriber Monitoring

3.7.1 Viewing Subscriber Status

To view the subscriber status, highlight one online subscriber on the Vital Sign Monitor window, and then click the **View Subscriber Status** icon (No. 9, Figure 3-2) on the toolbar. The following window appears.

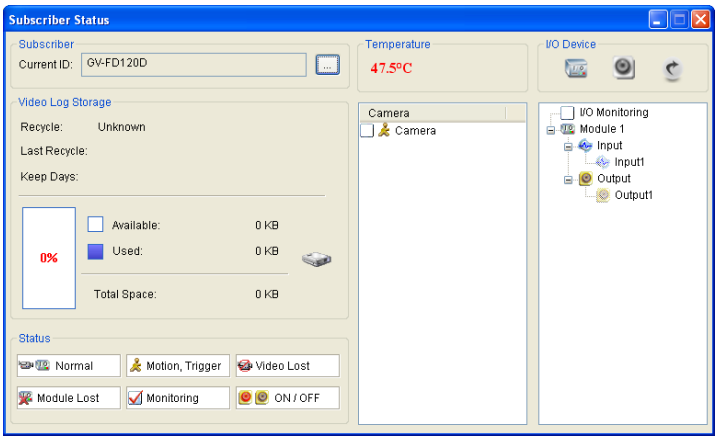


Figure 3-11

[Subscriber] Indicates the subscriber ID. You can change the subscriber by clicking the **[…]** button.

[Video Log Storage] Indicates the information of video log and hard disk space. To view the detailed information of multiple storage groups in the subscriber, click the **[…]** button.

To use this function, subscribers must grant the permission first. See the **Allow Vital Sign Monitor to inquire the storage information** option in Figure 3-9.

[Status] Indicates the meanings of icons.
[Temperature] Indicates the temperature of the subscriber. This feature is only supported in certain GV-IP camera models, and GV-DVR installed with GV-3008 Card.

Note:
1. For the GV-IP cameras that support temperature display, refer to the *GV-IPCAM H.264 User's Manual* for details.
2. The option **Send temperature status to Vital Sign Monitor** must be enabled on GV-DVR installed with GV-3008 Card. For details, see *[System Information]*, *Advanced Settings for Subscription*, *3.6 Connection to Vital Sign Monitor*.

[I/O Device]

- **Force Output:** To enable this tab, highlight one output from the tree list, and click this tab to force the output at the subscriber site to be triggered. For this function to work, the subscriber must grant the required permission first. See the **Allow Vital Sign Monitor to Force Output** option in Figure 3-8.

1. **Enable/Disable I/O:** Allows the Vital Sign Monitor to arm or disarm any I/O devices at the subscriber site without interrupting monitoring. For this function to work, the subscriber must grant the required permission first. See the **Allow Vital Sign Monitor to Enable / Disable I/O** option in Figure 3-8.

Note: This function also supports the client GV IP devices of these firmware versions:
GV-Compact DVR: Firmware V1.43 or later
GV-IP Camera: Firmware V1.05 or later
GV-Video Server: Firmware V1.45 or later

3.7.2 Viewing Storage Information

With the above Subscriber Status window, you can see one subscriber's storage information. When the Vital Sign Monitor is monitoring many subscribers, the following windows give you an overview of subscribers' storage information and monitoring status.

On the Vital Sign Monitor window, click the **View Subscriber Information** button (No 6, Figure 3-2) to display the following window.

Monitoring

Indicates whether camera and I/O monitoring are enabled at the subscriber's sites.

Figure 3-12

Storage

Indicates the total storage size and free space at the subscriber's sites. For this subscribers must grant this privilege first. See *[System Information]* in Figure 3-9.

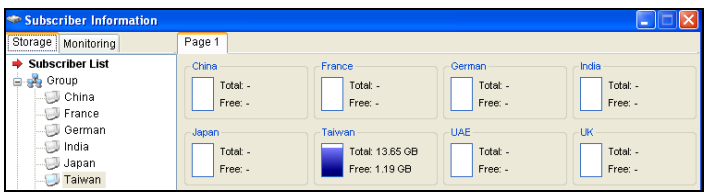


Figure 3-13

3.7.3 Disabling Subscription

The Vital Sign Monitor operator can disable its services to an individual subscriber when subscription expires.

On the Address Book (Figure 3-3), right-click one subscriber and select **Disable**. To restore the subscription, right-click again to select **Enable**.

3.8 Subscriber Schedule

The Vital Sign Monitor operator can create schedules to monitor subscription status. When subscribers don't log in the Vital Sign Monitor on the programmed time, the operator and subscribers can get notified.

- To set up a schedule, see *1.12 Subscriber Schedule*.
- When a subscriber doesn't log in the Vital Sign Monitor on time, this message will appear on the Event List: *Service hour engaged; still waiting for subscriber to log in.*
  When a subscriber logs out suddenly during a service time, this message will appear: *Unexpected subscriber logout during service times.*
- To activate the computer and output alarm to notify the operator while an SMS and an e-mail message being sent out to a subscriber, use the **Notification** feature. For details, see *Notification Settings* later in this chapter.

3.9 Alarm Report

For every event, the Vital Sign Monitor operator can generate a report to evaluate certain conditions.

This function is the same as that of the Center V2. For details, see *1.13 Alarm Report*.

3.10 Remote Playback

You can retrieve the recordings from a subscriber for playback.

The following function must be enabled ahead to allow remote access:

- **GV-NVR / GV-VMS / GV-AI Guard:** Enable the **Run Remote ViewLog Service** option in Figure 3-6, and start recording.
- **GV-Video Server/GV-Compact DVR:** Enable the **Remote ViewLog** function, and start recording.

1. On the Event List (No. 21, Figure 3-2), double-click one motion event. This window appears.

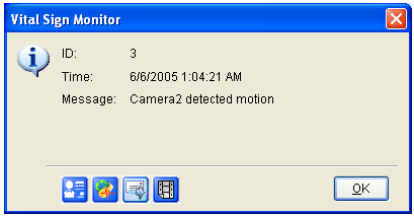


Figure 3-14

2. Click the **Remote Playback** icon. A setting dialog box appears.
3. Select the desired camera to be viewed, enter the ID and password to log in the DVR, and click **OK**. The Remote Playback window appears.
4. For the controls on the Remote Playback window, see *1.9.2 Remote Playback.*

3.11 Event List

On the bottom of the Vital Sign Monitor window, events can be sorted under different tabs according to the type. You can utilize these tabs to quickly monitor events by type. You can also configure the **Customized Event** tab which contains self-chosen event types.

3.11.1 Adding Event Tabs

You can add event tabs to sort events by type.

1. On the main screen, click **View** and select **My Favorite Events**. A sub-menu appears.

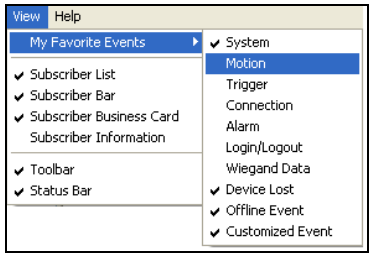


Figure 3-15

2. Select the desired event. The selected event type should appear as a tab at the bottom of the main screen.
3. To remove the event tab from the main screen, repeat steps 1 and 2 to unselect.

3.11.2 Setting up the Customized Event Tab

You can configure the **Customized Event** tab which groups the selected event types under a single tab. With only a click of the Customized Event tab, you can monitor the desired events instantly.

1. On the main screen, click **Configure** and select **Customize Message Settings**. The Customize Message Settings dialog box appears.
2. Select a desired event from the left and select **Add to Customized Event Tab**.

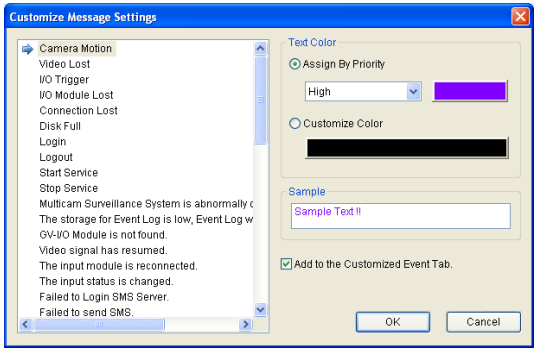


Figure 3-16

3. To add other event types into the Customize Event tab, repeat step 2.
4. On the main screen, click **View**, select **My Favorite Events**, and select **Customized Event** to add this tab to the main screen.

3.11.3 Setting Alert Level of Event Messages

You can assign an alert level to each event type for monitoring and management purposes. Each alert level can be distinguished by color. You can customize the color for each alert level or assign a color exclusively for a particular event type.

On the main screen, click **Configure** and select **Customize Message Settings**. The Customize Message Settings dialog box appears. For setup details, see *1.14.3 Setting Alert Levels of Event Messages*

3.12 Event Log Browser

To launch Event Log Browser, click **Tools** on the window menu and select **Event Log Browser**. This feature is the same as that in Center V2. For details, see *1.15 Event Log Browser.*

3.13 System Configuration

On the window menu, click **Configure** to see these options: (1) System Configure, (2) Password Setup, (3) Event Log Settings, (4) Local I/O Device (5) Virtual I/O (6) Notification and (7) Alerts Interval. These options are discussed in this section.

3.13.1 System Settings

Click **Configure** on the window menu, and then select **System Configure** to open this dialog box:

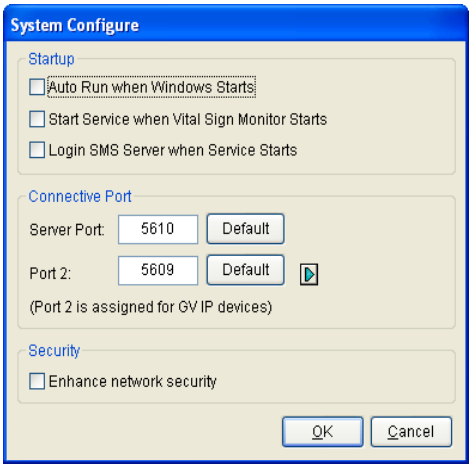


Figure 3-17

[Startup]

- **Auto Run when Windows starts:** Automatically runs Vital Sign Monitor at Windows startup.
- **Start Service when Vital Sign Monitor starts:** Automatically starts the service when Vital Sign Monitor starts.
- **Login SMS Server when Service starts:** Automatically logs in the SMS Server when the Vital Sign Monitor service starts. You will be prompted to enter the related information of the SMS server.

[Connective Port]

- **Server Port:** Sets the communication port to match that of the subscriber, or keep it as default.
- **Port 2:** To set the appropriate port for the connection to the GV-Video Server, GV-IP Camera and GV-Compact DVR, keep the default port 5609, or modify it to match the Vital Sign Monitor port on the GV IP devices. For details, see *GV-Video Server User's Manual*, *GV-IP Camera User's Manual*, or *GV-Compact DVR User's Manual.*

[Enhance network security] Enable to enhance Internet Security. Please notice when this feature is enabled, the subscribers using earlier version than version 7.0 cannot access the Vital Sign Monitor any more.

[Arrow Button] The arrow button, in the Connective Port section, provide the UPnP function to configure the ports on your router automatically. For details on UPnP settings, see *UPnP Settings*, *Appendix*.

3.13.2 Password Settings

You can create administrator and user accounts with different privileges. Click **Configure** and then select **Password Setup** to open this dialog box.

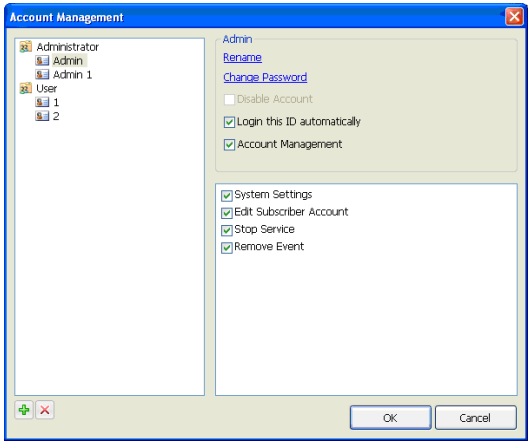


Figure 3-18

To change the login account, on the Vital Sign Monitor window, click **Service**, select **Login/Change User**, and type the desired account ID and password for login.

3.13.3 Event Log Settings

Click **Configure** on the window menu, and select **Event Log Settings** to display the Event Log Settings dialog box. The settings are the same as those in Center V2. For details, see *Setting the Event Log* in *1.15 Event Log Browser.*

Also see *3.13 Event Log Browser*.

3.13.4 Notification Settings

When alert conditions occur, the Vital Sign Monitor can automatically activate the assigned computer and output alarm to notify the operator while an SMS and an e-mail message are being sent out to subscribers.

To configure this function, click **Configure** on the window menu and select **Notification** to display the Alarm Settings window.

[Alert Approach]

- **Minimum Duration:** This option is only available for **Camera Motion**, **Connection Lost** and **Video Lost** alerts. It is the minimal time period that an event must persist for Vital Sign Monitor to be notified by computer alarm, output device, e-mail or SMS. Select this option and click the **Edit** button to type the minimum duration. The default is **3** seconds.

Note: For **Video Lost** alert, the minimum duration function is used to exclude video lost alerts from cameras that reconnect to a surveillance system after disconnecting.

The other settings are the same as those in Center V2. For detail, see *1.17 Notification Settings*. Also see *3.15 Output Alerts*, *3.16 SMS Alerts*, *and 3.17 E-Mail Alerts*.

3.13.5 Alerts Interval Settings

You can define the frequencies of the motion-detected and video-lost alert messages. Click **Configure** on the window menu and select **Alerts Interval** to open this dialog box.

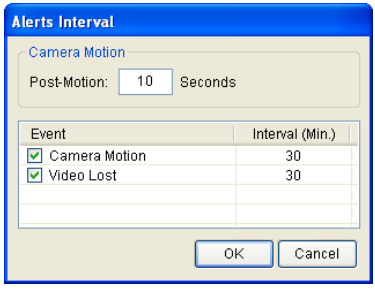


Figure 3-19

- **Post-Motion:** Specify how long the incoming alert messages of motion detection stay red-highlighted on the Event List (No. 21, Figure 3-2).
- **Event and Alerts Interval:** Specify the interval between the incoming messages upon motion detection or video lost. Select the event type and click on the interval column to change the period of time.

Note: The alert messages for the two types of events will still be shown on the Event List even if you don't select them. The settings here only affect the frequency of displaying the alert messages.

3.14 Output Alerts

You can activate output devices installed at the Vital Sign Monitor site (local) and/or through the network (virtual) to warn the Vital Sign Monitor operator when events occur. Up to nine (9) GV-I/O Boxes (including local and virtual) can be connected to a single Vital Sign Monitor.

Note: Only 8-port and 16-port GV-I/O Boxes can be installed through the network.

3.14.1 Configuring a Local GV-I/O Box

On the window menu, click **Configure** and then select **Local I/O Device**. This I/O Device dialog box appears. For setup details, see *Configuring a Local GV-I/O Box* in *1.18 Output Alerts*.

3.14.2 Configuring a Virtual GV-I/O Box

On window menu, click **Configure** and then select **Virtual I/O**. The Virtual I/O Device dialog box appears. For setup details, see *Configuring a Virtual GV-I/O Box* in *1.18 Output Alerts*.

3.14.3 Triggering Outputs by Event

Click **Configure** on the window menu and select **Notification**. The Alarm Settings dialog box appears. For detail, see *Triggering Outputs by Event* in *1.18 Output Alerts*.

3.14.4 Triggering Outputs Manually

1. Click the **I/O Device** button on the Vital Sign Monitor window. This dialog box appears.

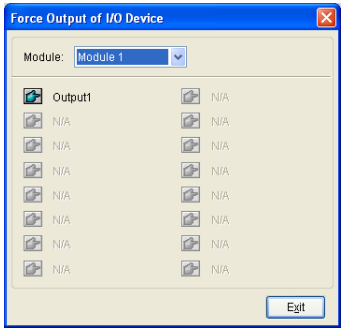


Figure 3-20

2. Select a desired module and then click the **Finger** button to trigger the output.

You can also trigger the output devices installed at the subscriber site by using the **Force Output** button on the Subscriber Status. For details, see [I/O Device], *Viewing Subscriber Status, 3.7 Subscriber Monitoring*.

3.15 SMS Alerts

This feature lets you send out SMS messages to subscribers when alert conditions occur.

3.15.1 Setting SMS Server

Before sending SMS messages to an individual subscriber, you need to define SMS Server correctly.

Click **Configure** on the window menu and select **SMS Setup**. For setup details, see *1.19 SMS Alerts*.

3.15.2 Sending SMS

Once the connection between the SMS Server and Vital Sign Monitor is established, there are several ways to send out SMS messages to subscribers. See the Vital Sign Monitor window for the following selections.

1. Click the **Send Short Message** button (No. 11, Figure 3-2). This sends SMS to an individual subscriber manually.
2. On the Event List, double-click any event type to call up a message window, and then click the **Send Short Message** icon. This sends SMS to an individual subscriber manually.
3. On the Subscriber List (No. 18, Figure 3-2), right-click one subscriber and select **Send Short Message**. This sends SMS to an individual subscriber manually.
4. Click **Configure** on the window menu, and select **Notification** to display the Alarm Settings window. Select **Send SMS Alerts**. This sends SMS to subscribers automatically when alert conditions occur. See *Notification Settings* earlier in this chapter.

3.15.3 Inserting Device Information

The subscriber's ID and camera name can be automatically inserted to your SMS message when it is sent out.

Click **Configure** on the window menu and select **Notification**. The Alarm Settings dialog box appears. For details, see *Inserting Device Information*, *1.19 SMS Alerts*.

3.16 E-Mail Alerts

You can send e-mails to subscribers when alert conditions occur.

3.16.1 Setting Mailbox

Before you can send e-mails to an e-mail account, you need to define your mailbox.

Click **Configure** on the window menu and select **E-Mail Setup**. For setup details, see *1.20 E-Mail Alerts*.

3.16.2 Sending E-Mail

There are several ways to send e-mail alerts. See the **Vital Sign Monitor** window for the following selections.

1. Click the **E-Mail** button (No. 10, Figure 3-2). This sends an e-mail to an individual subscriber manually.
2. On the Subscriber List (No. 19, Figure 3-2), right-click one subscriber, and then select **Send E-Mail**. This sends an e-mail to an individual subscriber manually.
3. On the Event List, double-click one event to call up a message window, and then click the **e-mail** icon. This sends an e-mail to an individual subscriber manually.
4. Click **Configure** on the window menu and select **Notification** to display the Alarm Settings window. Select **Send E-Mail Alerts**. This sends e-mails to subscribers automatically when alert conditions occur. See *Notification Settings* earlier in the chapter.

3.16.3 Inserting Device Information

The subscriber's ID and camera name can be automatically inserted to your e-mail message when it is sent out.

Click **Configure** on the window menu and select **Notification**. The Alarm Settings dialog box appears. For details, see *Inserting Device Information*, *1.19 SMS Alerts*.

3.17 Temperature Alarm

You can set temperature alarm which notifies the **Vital Sign Monitor** operator when the internal temperature of its subscriber reaches or exceeds the critical temperature specified.

Note:

1. This feature is only supported by certain GV-IP camera models and GV-DVR installed with GV-3008 Card.
2. For the GV-IP cameras that support temperature display, refer to the camera's user's manual for details.

To configure the temperature alarm:

1. If you have a GV-DVR subscriber, make sure the **Send temperature status to Vital Sign Monitor** option is enabled. For details, see *[System Information]*, *Advanced Settings for Subscriber* in *3.6 Connection to Vital Sign Monitor*.
2. On the Vital Sign Monitor window, click **Configure** and select **Temperature Monitoring**. The Temperature Monitor dialog box appears.
3. In the Units section, select **Celsius** or **Fahrenheit**. The selected unit will be used in the alarm message.

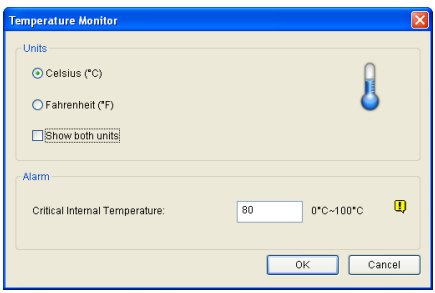


Figure 3-21

4. To show both units in the Subscriber Status (see Figure 3-11), select the **Show both units** option.

Tip: With the **Show both units** option is selected, select either **Celsius** or **Fahrenheit** for the unit to come before the other in the Subscriber Status.

5. In the Alarm section, specify the critical temperature.
6. Click **OK**. Once the temperature reaches or exceeds the critical temperature, an alarm event such as “Critical Temperature Alarm [77.5°C]”, will be shown on the Vital Sign Monitor window.

You can also invoke computer alarm and local output device, and send SMS and e-mail alerts using the Alarm Settings. For details, see *1.17 Notification Settings*, *2.17 SMS Alerts* and *2.18 E-Mail Alerts* respectively.

3.18 Event Chart

The Event Chart can provide you the daily, weekly and monthly statistical chart based on different criteria. This feature is similar as that in Center V2. For details, see *1.22 Event Chart*. To launch the Event Chart, click **Tools** on the window menu and select **Event Chart**.

3.19 Failover Server

You can configure up to two failover servers in case that the primary Vital Sign Monitor system fails. In the event of Vital Sign Monitor failure, the failover takes over subscriber connections and continues to provide monitoring services.

To access this feature, on the Vital Sign Monitor window menu (see Figure 3-2), click **Service**, and select **Automatic Failover Support**. This feature is the same as that in Center V2's. For details on setup, see *1.23 Failover Server*.

3.20 Connection to HD DVR, SNVR, RNVR

Vital Sign Monitor can connect directly to UA-HD DVR, UA-SNVR, and GV-RNVR devices to receive alert text messages, allowing the center monitoring operator to take prompt action. The alert events supported from the devices include the following:

- Motion
- Login/Logout
- Video Lost
- Video Tampering (Advanced Scene Change)
- Disk Full
- Faulty Disk
- Disk Missing

For a full list of supported devices, see *Compatible Products (Subscribers)* in *3.1 Minimum System Requirements*.

Note:

1. The following **Video Tampering** events are not available:
   - Events from UA-XVL810's IP channels.
   - Events from UA-XVL1610's analog and IP channels.
   - Events from UA-XVR810's IP channels.
   - Events from UA-SNVRL810-P and UA-SNVR1620-P.
2. Vital Sign Monitor currently only supports alert text messages for the first 64 channels of GV-RNVR256G0-N.

To add a device to Vital Sign Monitor, it is required to run the VSM Bridge program:

1. To create a subscriber account for the device, follow the steps in *3.4* Subscriber *Account*.
2. To open the VSM Bridge program, click **Tools** > **VSM Bridge** from the menu bar of the main screen. The program is minimized to the Windows' notification area.
3. Click the **VSM Bridge** icon from the notification area. This window appears.

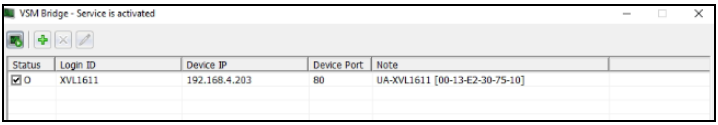


Figure 3-22

4. Click the Add icon on the toolbar. This dialog box appears.

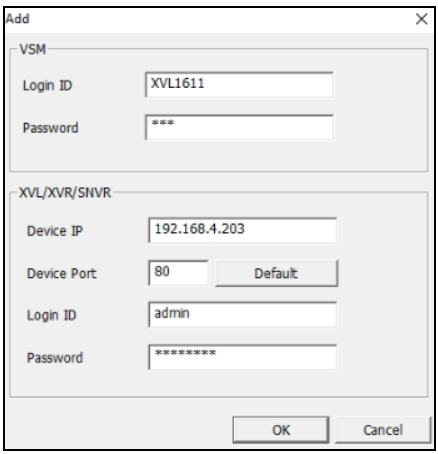


Figure 3-23

5. Under VSM, type the subscriber ID and password created for the device on Vital Sign Monitor.
6. Under XVL/XVR/SNVR, type the device's IP address, login ID and password. Keep the default port 80 or modify it if necessary. Note the login ID and password must belong to the device's administrator account.
7. Click **OK**.
8. On the VSM Bridge window, click **Connect/Disconnect to VSM server**  to connect to the device.

Appendix

A. Dongle Description

Note the following requirements and limitations for GV-USB Dongle.

- An appropriate USB dongle of “Black” color is required for each CMS module to work.
- Using more than one Black Dongle on the same computer is possible. But remember the rule that **GV-Control Center** and **GV-Center V2** cannot be run together, and it is recommended that **GV-Center V2** and **GV-Dispatch Server** be run on separate computers.
- The Black Dongle can be upgraded to include more functions.
- It is required to install drivers for the Black Dongle to work.

Dongle Options for GV-Center V2 Pro

- GV-Center V2 Pro
- GV-Center V2 Pro + GV-Vital Sign Monitor

Connection of GeoVision IP devices to GV-Center V2 Pro: GV-Center V2 Pro accepts any video stream from GeoVision IP video devices. There is no need to use an extra dongle.

Dongle Options for GV-Dispatch Server

- GV-Dispatch Server
- GV-Dispatch Server + GV-Vital Sign Monitor

Dongle Options for GV-Vital Sign Monitor

- GV-Vital Sign Monitor
- GV-Vital Sign Monitor + GV-Control Center
- GV-Vital Sign Monitor + GV-Control Center + GV-Video Wall
- GV-Vital Sign Monitor + GV-Center V2 Pro
- GV-Vital Sign Monitor + GV-Dispatch Server

B. Upgrading the Black Dongle

The Black Dongle can be upgraded to include more functions or enhance the system. You need to collect the data from your dongle and send it back to GeoVision for an upgrade. The upgrade is a charged service. To upgrade your dongle, follow these steps:

1. Each dongle has its own serial number. Find it on the side of the dongle. Later, this serial number will be used in naming the files for upgrading.

Figure B-1

2. Insert the dongle to the computer.
3. In the GV folder, double-click **GVUsbKeyUpClient.exe**. This dialog box appears.

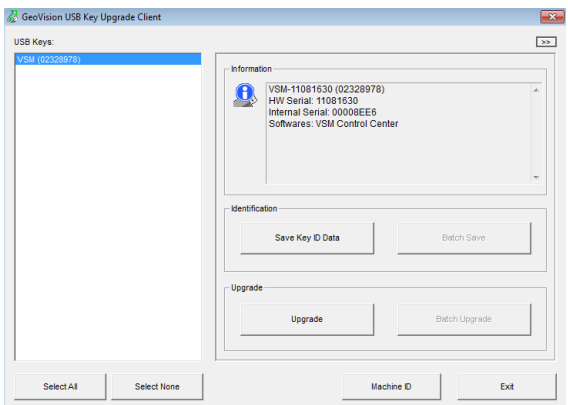


Figure B-2

4. To retrieve the data from the dongle, click **Select All**. The information of the dongle is displayed in the information field. Note the displayed number of “HW Serial” should be the same as that on the dongle.
5. To save the data to your local computer, click **Save Key ID Data**. If you have more than one dongle to upgrade, click **Batch Save**. Different dongle data will be saved as separate files. The file will be named after the serial number on the dongle and saved as ***.out**. For example, if a dongle serial number is 7116442, the file is named “NVR-7116442.out”.
6. Send this data file to GeoVision at sales@geovision.com.tw. The GeoVision will examine the data file and send an ***.in** file back to you. The file name also includes the serial number of that dongle. In this example, the data file you will receive is named “NVR-7116442.in”.
7. After you receive the updated file, insert the correct dongle matching the .in file you receive, and then run **GVUsbKeyUpClient.exe**.
8. Click **Select All** to read the dongle, click **Upgrade** and then open the updated file to upgrade the dongle. You can also select more than one dongle in the list and click **Batch Upgrade** to upgrade them at the same time. Make sure these dongles match the updated files you receive.

C. Fast Backup and Restoration

With the Fast Backup and Restore (FBR) solution, you can change interface skin for GV-Center V2 and GV-Control Center, as well as back up and restore your configurations in CMS applications.

Installing the FBR Program

1. Insert the Software DVD, click **Install GeoVision Supplemental Utilities**, select **GV-Fast Backup and Restore Multicam System**, and follow the on-screen instructions.
2. After the installation is complete, run **GV-Fast Backup and Restore Main System** from the Windows Start menu. This window appears.

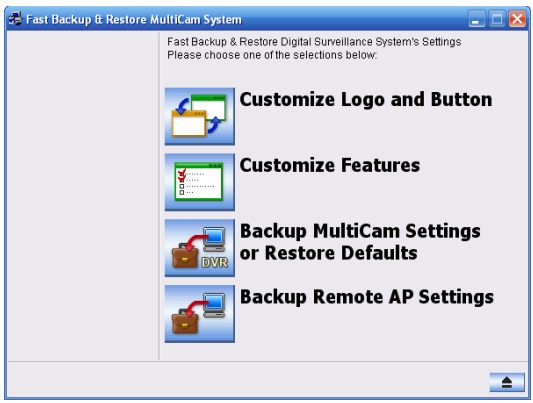


Figure C-1

Backing Up and Restoring Settings

You can back up the configurations you made in the CMS application, and restore the backup data to the current system or import it to another site.

Backing Up the Settings

1. In the FBR window (Figure C-1), click the **Backup Remote AP Settings** icon, and select the desired application from the menu. For example, we select Vital Sign Monitor Server. This dialog box appears.

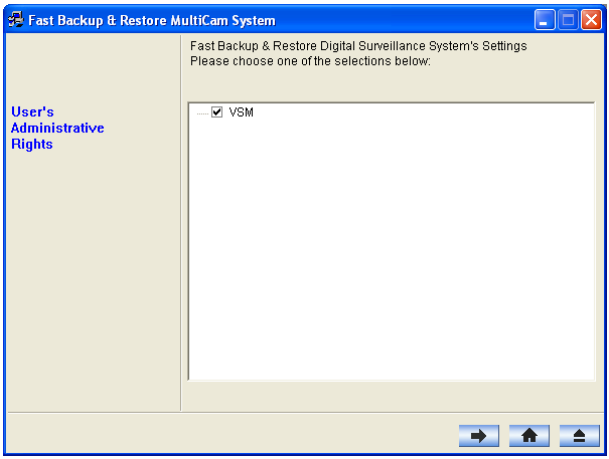


Figure C-2

2. Click the **Next Step** button  . The Save As dialog box appears.
3. Select the destination drive to store the backup file. When the backup is complete, this message will appear: *Successfully Backup Vital Sign Monitor Server Settings*.

Restoring the System

You can restore the current application settings with the backup of configuration file. Also, you can copy this backup file to configure another application at different site with the same settings as the current application.

1. Open the backup file (*.exe) you previously stored. A valid ID and password are required to display this window.

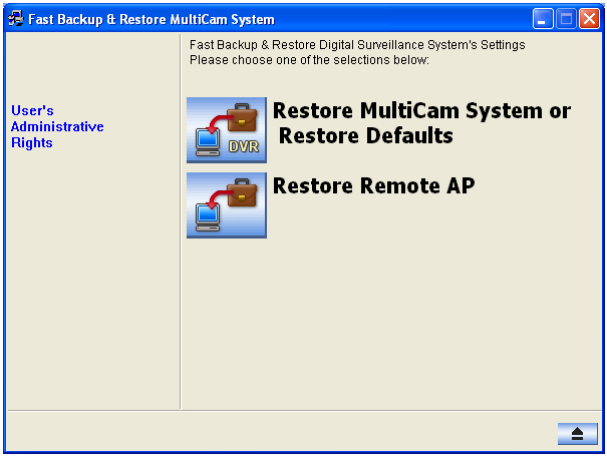


Figure C-3

2. Click the **Restore Remote AP** icon, and then select the application that you want to restore its backup settings. For example, we select Vital Sign Monitor Server for restoration.
3. Click the **Next Step** button  to start restoring.
4. When the restoration is complete, this message will appear: *Successfully Restore Vital Sign Monitor Server Settings*.

D. Watermark Proof

Watermark Proof is a watermark-checking program by which you can verify the authenticity of the recordings.

1. Locate and run **WMProof.exe** in the GV-Center V2 folder.
2. In the Watermark Proof window, click **File** from the menu bar, select **Open** and locate the recorded file (.avi). The selected file is then listed on the window. Alternatively, you can drag the file directly from the storage folder to the window.

Note: The default path of recorded files is :\\Center V2\Data\subscriber\Live

3. If the recording is unmodified, a check mark will appear in the **Pass** column. On the contrary, if the recording is modified or does not contain watermark during recording, a check mark will appear in the **Failed** column. To play the recording, double-click the listed file on the window.

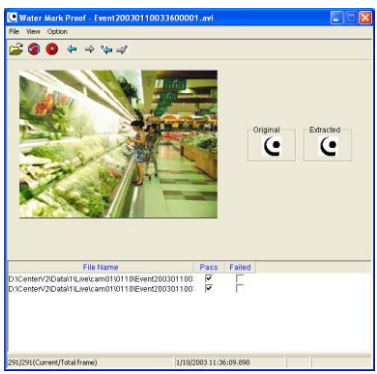


Figure D-1

E. PTZ Control Using GV-Joystick V2

You need to run the following program in the background when using the GV-Joystick V2 to control PTZ. For details on the GV-Joystick V2 operations, see *GV-Joystick V2 User's Manual*.

- **GV-Center V2**

PTZ cameras can been controlled with GV-Joystick in **Camera/Audio Control** (see Figure 1-28). Up to 8 GV-Joystick V2 can be connected to control PTZ cameras.

1. Run **mcamctrl.exe** from the program folder. This dialog box appears.

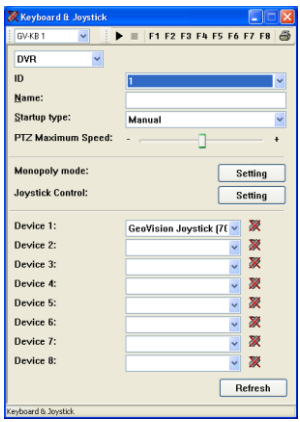


Figure E-1

2. For the connected GV-Joystick V2, select **GeoVision Joystick** from the Device drop-down list.
3. Click the **Start Service** button ►(Figure D-1) and then you can use the GV-Joystick V2 to control the PTZ camera.
4. If more than one GV-Joystick V2 is connected, repeat Step 2 to set up and use another GV-Joystick V2.

F. Image Size on GV-Center V2

See the table below for the image size on GV-Center V2 (base on the source size from the subscriber and the size setting on GV-Center V2).

Subscriber / GV-Center V2	Normal	Middle	Large	Actual Size
320 x 240	320 x 240	320 x 240	320 x 240	320 x 240
352 x 240	352 x 240	352 x 240	352 x 240	352 x 240
352 x 288	352 x 288	352 x 288	352 x 288	352 x 288
640 x 240	320 x 240	640 x 240	640 x 240	640 x 240
640 x 480	320 x 240	640 x 240	640 x 480	640 x 480
720 x 240	352 x 240	720 x 240	720 x 240	720 x 240
704 x 480	352 x 240	720 x 240	704 x 480	704 x 480
704 x 576	352 x 288	720 x 288	704 x 576	704 x 576
1280 x 960	320 x 240	640 x 240	640 x 480	1280 x 960
1280 x 1024	352 x 288	720 x 288	720 x 576	1280 x 1024
1600 x 1200	320 x 240	640 x 240	640 x 480	1600 x 1200
1920 x1080	352 x 240	720 x 240	720 x 480	1920 x 1080
2048 x 1536	320 x 240	640 x 240	640 x 480	2048 x 1536
2048 x 1944	352 x 288	704 x 288	704 x 576	2048 x 1944
2560 x 1920	320 x 240	640 x 240	640 x 480	2560 x 1920

Figure F-1

G. UPnP Settings

GV-Center V2, Dispatch Server and Vital Sign Monitor support UPnP technology (Universal Plug and Play) to allow automatic port configuration to your router.

In order for UPnP to be enabled, the following requirements must be met:

- Windows XP Service Pack 2 or above
- Windows XP must be configured to use UPnP (see below)
- UPnP must be enabled on your router (consult your router's documentation)

To enable UPnP in Windows XP:

1. Go to Windows Start, click the **Start** button, select **Settings**, and select **Network Connections**. This window appears.

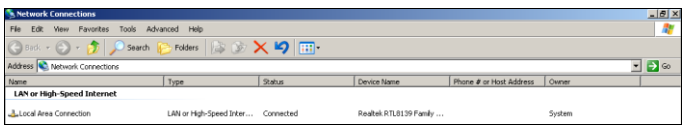


Figure G-1

2. Right-click one **Local Area Connection**, select **Properties**, and click the **Advanced** tab. This dialog box appears. Click **Settings**.

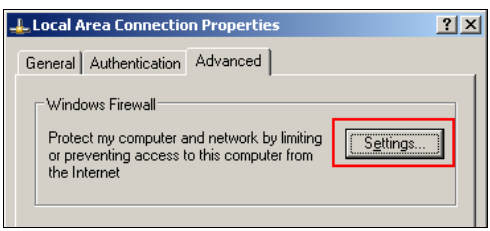


Figure G-2

3. Click the **Exceptions** tab. This dialog box appears.

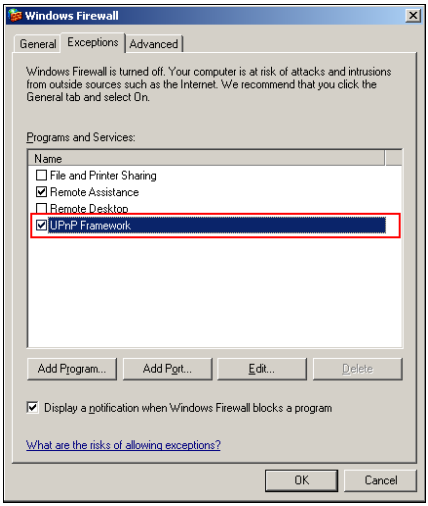


Figure G-3

4. Select **UPnP Framework**, and click **OK**.

H. Supported IP Device Brands and Protocols

The supported third-party IP device brands and protocols are listed below.

Brands	
ACTi	LG
Arecont Vision	Messoa
Axis	Mobotix
Bosch	Panasonic
Canon	Pelco
CNB	Samsung
D-Link	Sanyo
EtroVision	SONY
Hikvision	UDP
HUNT	Verint
IQinVision	Vivoteck
JVC	

Protocols
ONVIF
PSIA
RTSP

Note: Third-party IP devices can only be connected to GV-Center V2, Dispatch Server and Vital Sign Monitor through GV-NVR / GV-VMS / GV-AI Guard.

I. MultiLang Tool for Translated Text

The user interface has been translated from English into 30 other languages. If you find the translation to be unsuitable and would like to correct it, you can use the MultiLang Tool to revise the translation. Next, you can apply the revised text to the applications and export an .exe file to make the same revision on another computer. You can also send the revision back to GeoVision to have the revision included in future software releases.

Note: When using the MultiLang Tool, it is recommended to revise an entire sentence at a time instead of simply searching a single word and replacing the word in all other strings.

To revise the translated text:

1. To install MultiLang Tool, insert the Software DVD and select **Install GeoVision Supplemental Utilities**.
2. Click **GV-MultiLang Tool** and follow the on-screen instructions.
3. Close all GeoVision applications first and then double-click **MultilingualConfig.exe**. This dialog box appears.

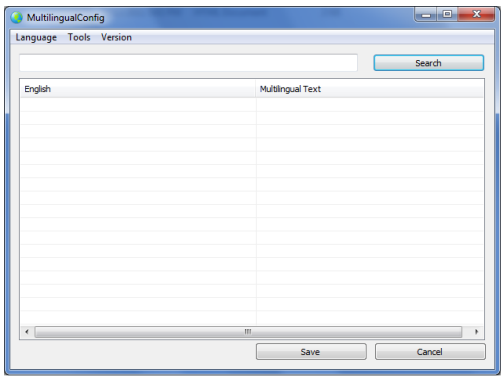


Figure I-1

4. Click **Language** and select the language of the text you want to revise.
5. In the **Search** field, type all or part of the text in English or the target language and click **Search**.

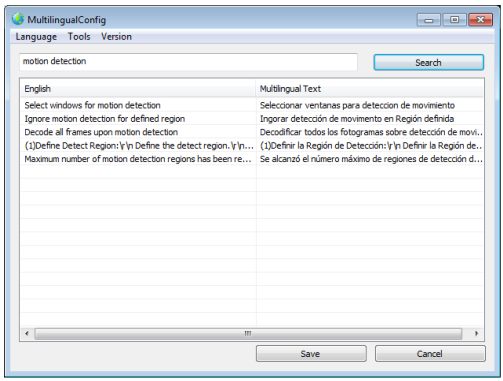


Figure I-2

Note:

1. The search is case sensitive.
2. Before making any revision, click **Tools** and select **Revision Note** to read the revision instructions.

6. Double-click the text you want to revise. This dialog box appears.

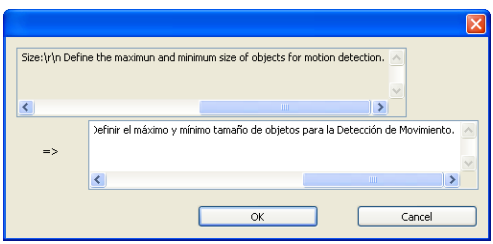


Figure I-3

7. Revise the translated text and click **OK**.

Tip: The text may contain symbols such as **%d** or **\n** that instruct the application to perform certain functions. Be careful not to change the symbols in the translated text.

To apply the revised text:

1. To apply the revised translation to the applications, click **Save**. For the following applications, the system will automatically locate the corresponding files on your computer and replace with the revised translation.
   - GV-VMS
   - GV-System
   - Remote ViewLog
   - Fast Backup and Restore (FBR)
   - GV-IP Device Utility
   - Multi View
   - Remote E-Map
   - GV-Center V2
   - GV-Vital Sign Monitor
   - GV-Dispatch Server
   - GV-GIS
   - MCamCtrl Utility
   - POS Text Sender
   - Authentication Server
   - SMS Server
   - Audio Broadcast
   - Multicast
   - Bandwidth Control Client Site
   - Backup Viewer
   - Mobile Server

2. After applying the revision, a dialog box appears to show which applications have been revised. Click **OK**.

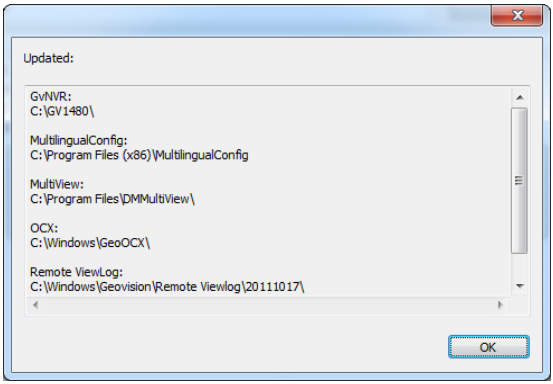


Figure I-4

3. The message "*Do you want to apply the revised multilingual texts to another folder?*" appears. If the storage path for the application has been changed or if the associated application is not listed in the dialog box, click **Yes** and select the folder of the application.

To export or send the revised text:

1. To export the revision as an executable file, click **Tools**, **Export** and **Export executable file**. You can copy the .exe file to another computer and apply the same translation revision by running the .exe file.
2. To report the translation revision back to GeoVision,
   - If your default mail client is Outlook, Outlook Express or Mozilla Thunderbird, click **Tools**, **Export** and **Send Report** to send the revision.
   - If your default mail client is not set up or supported, click Tools, Export and Export text file, and email the exported text file to gvlocalize@geovision.com.tw.

J. Specifications

Product specifications are subject to change without notice.

GV-Center V2

Feature	Note
Maximum of Subscribers (standard)	5
Maximum of Subscribers (professional)	500
Maximum of Channels (standard)	160
Maximum of Channels (professional)	800
Control of GV-Joystick V2	Yes
Backup to CD/DVD	Yes
Alarm Reports of Events	Yes
Notification of SMS Alerts	Yes
Notification of E-mail Alerts	Yes
Notification of E-Map Alerts	Yes
Automatic Connection Recovery	Yes
Support for Mega Pixel Resolution	Yes
Real-Time Monitoring	Yes
Remote PTZ Control	Yes
Remote I/O Control	Yes

GV-Dispatch Server

Feature	Note
Maximum No. of Channels	40,000
Maximum No. of Subscribers	25,000
Maximum No. of GV-Center V2	50
Maximum No. of Sensors / Alarms	3,600,000
Real-Time Audio Monitoring	Yes
Remote PTZ Control	No
Remote I/O Control	No
Auto Recording	No
Event List Viewer	Yes
Event List Filter	Yes
Dual Monitor Support	No
Network Load Support	Yes
Automatic Connection Recovery	Yes

Comparison of GV-Vital Sign Monitor and GV-Center V2 Pro

Feature	GV-Vital Sign Monitor	GV-Center V2 Pro
Subscriber	1,000	500
Group	Yes	Yes
Bandwidth	4 Mbps	25 Mbps
Record Mode	No	Live / Attachment / Both
Live Subscriber Status	Yes	No
Auto Login	Yes	Yes
I/O Control	Yes	Yes
SMS Message	Yes	Yes
Time Synchronization	Yes	Yes
Keep Day Notify	Yes	No
Event Message	Yes	Yes
Notification Setting	Yes	Yes
Event Log	Yes	Yes
Connection Lost Detection	Yes	Yes
I/O Device Support	Yes	Yes
Subscriber Storage Info.	Yes	No