

# GV-Control Center

Handy Tool  
For Security  
Control Center  
Operations



## Introduction

The GV-Control Center is integrated security management software that provides a handy tool to maintain central monitoring station. GV-Control Center is a comprehensive solution for central operators to efficiently control GV-System (GV-DVR/NVR), GV-VMS, GV-Recording Server and I/O devices. With GV-Control Center, multiple GeoVision surveillance and video management systems can be managed and maintained efficiently to enhance their monitoring performance and ensure smooth operation.





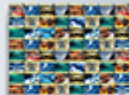
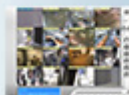
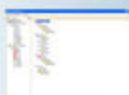

GV-DVR / NVR / VMS



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INTERNET

## SITE SURVEILLANCE CONTROL CENTER APPLICATIONS

- 
**Remote DVR**  
*Full control of local DVR settings*
- 
**Remote Desktop**  
*Remote access to local DVR desktop*
- 
**Matrix View**  
*Video display, recording and playback from different groups of cameras*
- 
**Remote ViewLog**  
*Playback of recorded videos from local GV-DVR / NVR / VMS*
- 
**I/O Central Panel**  
*Group, manage and trigger related I/O devices*
- 
**Video Wall**  
*Remote control of up to 200 Video Walls*

## I T M A I N T E N A N C E

## Key Features

The Control Center's features and capabilities include the followings.

### ▶ **Remote DVR Configuration: Full control of local DVR settings**

The Remote DVR facilitates the administrator to remotely configure local GV-System's specific settings from one single workstation. When the Remote DVR is on the run, the local GV-System loses its full control of the DVR operations and the Control Center takes full control of the configuration.

### ▶ **Remote Desktop: Remote access to local DVR desktop**

When the Remote Desktop is on the run, the Control Center will receive the same desktop view of local DVR. In the meantime, the security administrator can remotely control the local GV-System's full operations and even configure Windows operation system of the networked GV-System at low bandwidth.

### ▶ **Matrix View: Remotely monitor, record and playback from 1000 hosts**

The Matrix View is a single display where videos from a group of maximum 96 cameras will be displayed, e.g. groups of office area cameras, exit cameras, or street cameras. The GV-Control Center supports up to 8 Matrix View displays with 768 cameras on 8 monitors at a time. Depending on various surveillance needs, the center operator can open 8 Matrix View displays simultaneously to view more videos from different DVRs / NVRs. Each Matrix View supports live monitoring, recording and video playback.

### ▶ **Remote ViewLog: Playback of recorded videos from local GV-Systems**

The Remote ViewLog function enables playback of all video archives from different GV-Systems. The security administrator can utilize this Remote ViewLog to save video clips for future event retrieval or for video evidence.

### ▶ **I/O Central Panel: Group, manage and remotely configure I/O devices**

The Control Center provides a useful I/O Central Panel for the security administrator to remotely manage all I/O devices connected with GV-Systems. Administrators can group function-related I/O devices together for ease of control, e.g. groups of IR sensors, alarms, or fire exits. In case of building fire, for example, the Control Center can trigger all alarms on the networked GV-Systems and force opening all the fire exits or water spray systems at the same time.

### ▶ **Authentication Center**

Authentication Center is an account and access rights management system that provides centralized control over multiple GV-Control Centers. The hosts in the Authentication Center can be grouped by different locations and purposes. Administrators can configure each user account to have specific access rights for every group. When a GV-Control Center is connected through the Authentication Center, the users are able to see the hosts for the group(s) in the Group List they have been granted access to.

### ▶ **Video Wall (optional)**

A video wall is an establishment of multiple monitors on a server. In this setup, the number of monitors allowed depends on the capability of the server's graphic card. With the Video Wall function of Control Center, you can create layout, Zoom Window and Scan Window. The Control Center can manage up to 200 video walls.

## Specifications

Features	Control Center
GV-VMS / DVR / NVR Hosts	Unlimited *
IP Camera Hosts	
GV-Video Server Hosts	
GV-Compact DVR Hosts	
GV-Recording Server / GV-Video Gateway Hosts	
GV-SNVR System Hosts	
Remote DVRs	Unlimited *
Remote DVR Desktops	Unlimited *
GV-ASManager Hosts	Unlimited *
Remote ViewLogs	8
Video Wall (optional)	1 to 200 licenses
I/O Hosts (only for GV-IP Devices)	Unlimited * * One host supports up to 9 sets of 16-in and 16-out I/O modules.
Remote E-Map Hosts / Maps	500 / Unlimited
Live View	Single View Window: 1 Window Multiple View Window: 36 Divisions
Matrix Views / Groups / Channels	8 Matrix Views / Unlimited / 768 Channels in total (For 1920 x 1200, 1920 x 1080 resolution)
VMD Groups / Channels (Only for GV-IP Devices)	1 Group / 1200 CH Group Channel (Only for GV IP products): <ul style="list-style-type: none"> <li>DVR: 1000 Channels</li> <li>GV-Video Server + GV-Compact DVR + GV-IP Camera: 200 Channels</li> </ul>
Panorama Views / Channels	4 Panorama Views / 32 Channels per view
Matrix Resolutions / Channels	1024 x 768 / 64 Channels (Total: 512 Channels on 8 Matrix)
	1280 x 1024 / 64 Channels (Total: 512 Channels on 8 Matrix)
	1680 x 1050 / 80 Channels (Total: 640 Channels on 8 Matrix)
	1600 x 1200 / 64 Channels (Total: 512 Channels on 8 Matrix)
	1920 x 1200 / 96 Channels (Total: 768 Channels on 8 Matrix)
	1920 x 1080 / 96 Channels (Total: 768 Channels on 8 Matrix)
	1280 x 800 / 48 Channels (Total: 384 Channels on 8 Matrix)
Language	1440 x 900 / 48 Channels (Total: 384 Channels on 8 Matrix)
	Arabic, Bulgarian, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hebrew, Hungarian, Indonesian, Italian, Japanese, Lithuanian, Norwegian, Persian, Polish, Portuguese, Romanian, Russian, Serbian, Simplified Chinese, Slovakian, Slovenian, Spanish, Swedish, Thai, Traditional Chinese, Turkish

- Note:**
- The maximum number of hosts allowed depends on the performance of Control Center server.
  - For the GV-Control Center to support up to 8 Matrix views with 768 cameras at a time, the minimum CPU and memory requirements are Core i7-3770 and 16 GB dual channels respectively.

## Minimum System Requirements

OS	64-bit Windows 7 / 8 / 8.1 / 10 / Server 2008 R2 / Server 2012 R2
CPU	Core i7 2600K, 3.4 GHz
RAM	16 GB Dual Channels
Hard Disk	1 GB
Graphic Card	Please see the GPU Decoding Specifications below.
Direct X	9.0c
LAN Card	Gigabit Ethernet x 2
Hardware	Internal or External GV-USB Dongle

### Note:

- We do not recommend installing GV-Center V2 (Pro) and GV-Control Center modules on the same PC. **Running GV-Center V2 (Pro) and GV-Control Center on the same PC may result in CPU overload error or system failure.**
- To display a megapixel IP channel across monitors, make sure the external graphic cards on a server are of the same brand, model and driver version, and the capacity of graphic cards are of NVIDIA GTS 450 or higher to ensure maximum efficiency.
- When you find CPU usage is high or live view is unsmooth (dropping frames), you may need to increase the CPU thread and memory or decrease the number of connected cameras to improve the system performance.
- For the GV-Control Center to support up to 8 Matrix views with 768 cameras at a time, the minimum CPU and memory requirements are Core i7-3770 and 16 GB dual channels respectively.

## Software License

Free License	N/A
Maximum License	Unlimited number of hosts
Increment for Each License	N/A
Optional Combinations	<ol style="list-style-type: none"> <li>Control Center</li> <li>Control Center + Video Wall (1 to 200 license)</li> <li>Control Center + Vital Sign Monitor</li> <li>Control Center + Vital Sign Monitor + Video Wall (1 to 200 license)</li> </ol>
Dongle Type	Internal or external

### Note:

- For the Video Wall function, make sure you insert a GV-USB dongle with Video Wall function to Control Center server.
- It is recommended to use the internal GV-USB Dongle to have the Hardware Watchdog function which restarts the PC when Windows crashes or freezes.
- The Maximum License is a paid service.

## GPU Decoding Specifications

A higher total frame rate can be achieved if your CPU or external VGA supports GPU decoding.

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

For **H.264** Video Compression

- 2nd Generation Intel Core i3 / i5 / i7 Desktop Processors (Sandy Bridge) - only support 1 MP to 2 MP videos
- 3rd Generation Intel Core i3 / i5 / i7 Desktop Processors (Ivy Bridge)
- 4th Generation Intel Core i3 / i5 / i7 Desktop Processors (Haswell / Haswell Refresh)
- 6th Generation Intel Core i3 / i5 / i7 Desktop Processors (Skylake)

For **H.265** Video Compression

- 6th Generation Intel Core i3 / i5 / i7 Desktop Processors (Skylake)

**External VGA:** GPU decoding is only supported when using NVIDIA graphics cards with compute capability 3.0 or above and memory 2 GB or above. To look up the compute capability of the NVIDIA graphics cards, refer to:

<https://developer.nvidia.com/cuda-gpus>

**Note:** NVIDIA graphic cards do not support H.265 GPU decoding.

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

**Note:**

1. This specification does not apply to GV-Video Wall.
2. If you have both on-board VGA and external VGA installed, the on-board VGA must be connected to a monitor for H.264 / H.265 GPU decoding.
3. You can install multiple external graphics cards if needed.
4. CUDA compute capability 5.0 or higher is required to ensure optimal performance.

### Supported GeoVision IP Devices and Software

- GV-System (GV-DVR/NVR) V8.5 or later
- GV-VMS V14.1 or later
- GV-ASManager V4.3 or later
- GV-SNVR0400F/1600 firmware V1.1 or later; GV-SNVR0411 firmware V2.0 or later
- GV-VS11 / 12 / 14; GV-VS2420 firmware V1.00 or later; GV-VS2400 firmware V1.01 or later

### Options

Optional Devices	Description
Internal USB Dongle	The USB dongle can provide the Hardware Watchdog function to the GV-Control Center by restarting the computer when Windows crashes. You need to connect the dongle internally on the motherboard.
GV-IO Box (8 Ports)	GV-IO Box 8 Ports provides 8 inputs and 8 relay outputs, and supports both DC and AC output voltages. You can connect through network by using its Ethernet module. <b>Note:</b> GV-Control center can only connect to GV-IO Box 8/16 ports through network.
GV-IO Box (16 Ports)	GV-IO Box 16 Ports provides 16 inputs and 16 relay outputs, and supports both DC and AC output voltages. You can connect through network by using its Ethernet module. <b>Note:</b> GV-Control center can only connect to GV-IO Box 8/16 ports through network.
GV-Joystick V2	GV-Joystick V2 allows you to easily control PTZ cameras. It can be either plugged into the GV-Control Center for independent use or connected to GV-Keyboard.
GV-Keyboard V3 for GV-Control Center	GV-Keyboard V3 is used to program and operate GV-Control Center and PTZ cameras. Through RS-485 configuration, it can control up to 36 GV-Control Center. In addition, you can connect PTZ cameras directly to the keyboard for PTZ control.