

Introduction To GeoVision Digital Surveillance System

Technical Handbook Part I



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Service Technician	Phone	Email	Note

Quick Links

Item	Link
V8.4 User Manual	http://www.usavisionsys.com/download/downloadFile.php?category=39
V8.4 New Features Guide	http://www.usavisionsys.com/download/downloadFile.php?category=39
GV-IP Device User Manual	http://www.usavisionsys.com/download/downloadFile.php?category=40
IP Device Firmware Upgrade	http://www.geovision.com.tw/english/5_3.asp
Multiview Download	http://www.geovision.com.tw/english/5_5.asp
Remote Viewlog Download	http://www.geovision.com.tw/english/5_5.asp
Phone Apps Download	http://www.geovision.com.tw/english/5_4.asp

Version History

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Rev. 2.0	7/14/09	Frank Chang	Training Document
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Rev. 3.0	11/5/10	Frank Chang	Training Document edited for v8.4 release

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1. General Information

1.1 Purpose

The purpose of the training document is to provide introductory technical training for GeoVision V8.4 surveillance software as well as video playback, remote viewing, and useful utility applications.

1.2 Scope

The scope of the training document covers the basic operations of Multicam main system, video playback via Viewlog, and remote viewing via Multiview.

1.3 Naming and Definitions

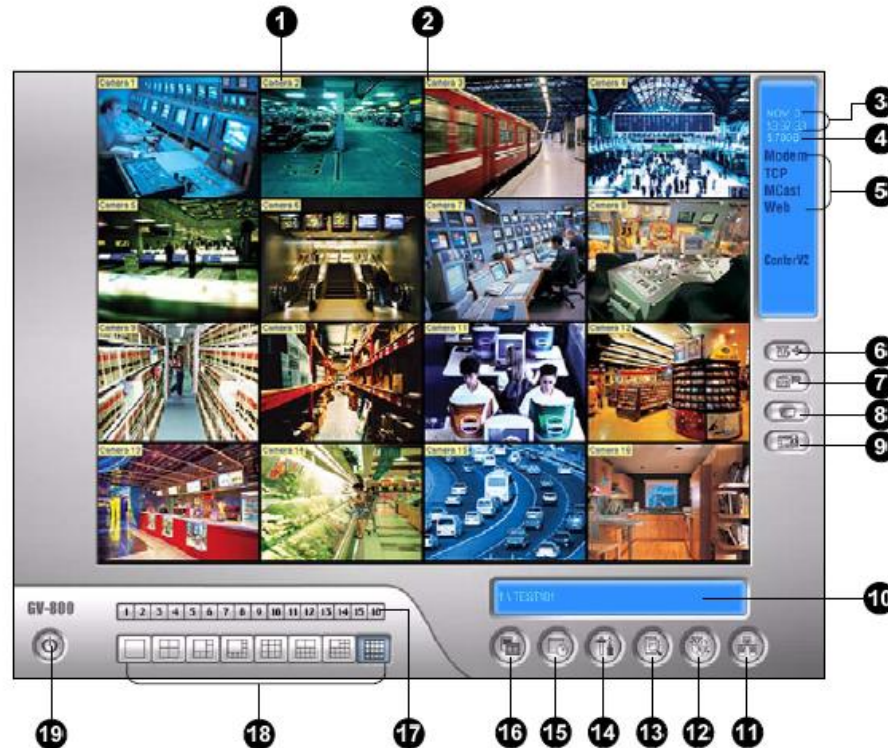
AView	GeoVision Android Phone Viewer
BBView	GeoVision Blackberry Viewer
GView	Microsoft PDA Viewer
IView	GeoVision iPhone Viewer
MSView	Microsoft Smart Phone Viewer
MultiCam	Main system software (Local)
MultiView	Remote live viewing software
POS Text Sender	Application for Windows-based POS systems
SSView	Symbian Phone Viewer
Remote ViewLog	Remote video playback software
ViewLog	Video playback software (Local)

1.4 Acronyms and Abbreviations

DDNS	Dynamic Domain Name Service
DHCP	Dynamic Host Configuration Protocol
DVR	Digital Video Recorder
FPS	Frames Per Second (image per second)
GV	GeoVision
IP	Internet Protocol
ISP	Internet Service Provider
LAN	Local Area Network
NVR	Network Video Recorder
POS	Point of Sale
PTZ	Pan Tilt Zoom
WAN	Wide Area Network

2. Main System

This chapter describes the basic operations of the essential functions on v8.4 Multicam. A list of software shortcuts can be found by clicking on “k” on the keyboard.



The controls in the main screen:

No.	Name	Description
1	Camera Number	Indicates the camera number matching the port number in the GV video capture card.
2	Camera Name	Indicates the given camera name.
3	Date/Time	Displays the current date and time.
4	Storage Space	Indicates the remaining disk space.
5	Connection	Indicates the connection status of remote applications.
6	PTZ Control	Displays the PTZ control panel.
7	I/O Control	Displays the I/O control panel.
8	TV-Out	Displays the TV Quad control panel.
9	User-Defined	Accesses other applications.
10	Location Name	Indicates the GV-System's name, usually named by its geographical location.
11	Network	Enables the connection to remote applications.
12	Camera Scan	Rotates through the screen divisions.

13	ViewLog	Brings up these options: Video/Audio Log, System Log, Search POS Data, POS Live View, Live Object Index, Search Object Index and E-Map.
14	Configure	Accesses System settings.
15	Schedule	Set up recording schedule.
16	Monitor	Starts monitoring.
17	Camera Select	Select the desired camera number for main division view.
18	Screen Division	Select screen divisions.
19	Exit	Brings up these options: Login/Change User, Logout, Minimize, Restart Multicam and Exit.

2.1 Camera Installation

This section covers analog and IP camera setup procedure in Multicam. IP camera setup procedure also applies to GV-Video Server, GV-Compact DVR, and third-party IP cameras.

2.1.1 Analog Camera Setup

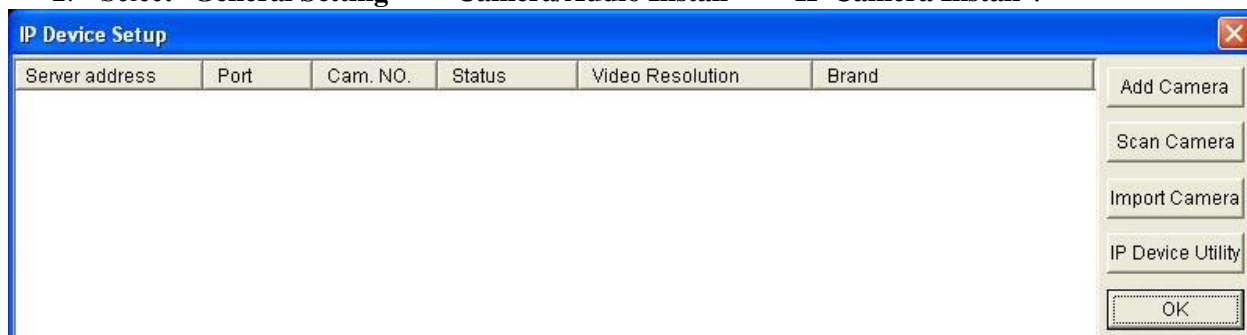
1. In Multicam, click on “**Configure**” icon.
2. Select “**General Setting**” -> “**Camera/Audio Install**” -> “**Camera/Audio Install**”.



3. Click on “**Activate**” button on the left and check each camera to be activated (or uncheck each camera to be deactivated).
 4. Click “**OK**”.
- ✓ For detailed instruction, refer to p.29 of v8.4 User Manual

2.1.2 IP Camera Setup

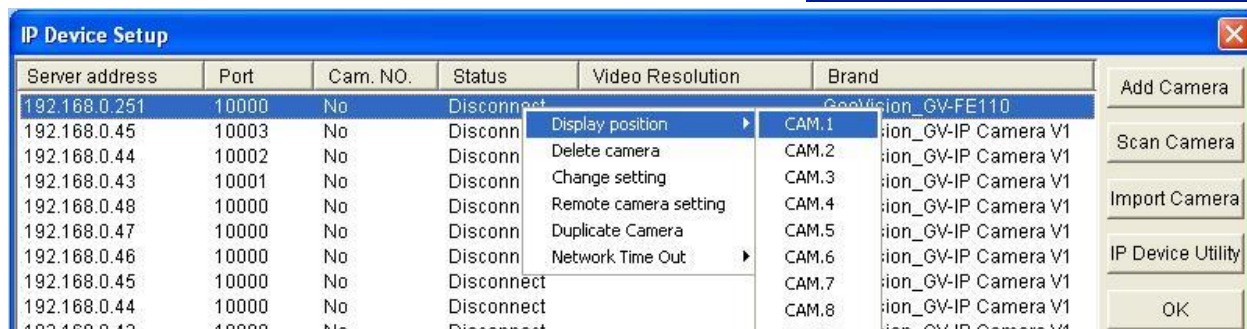
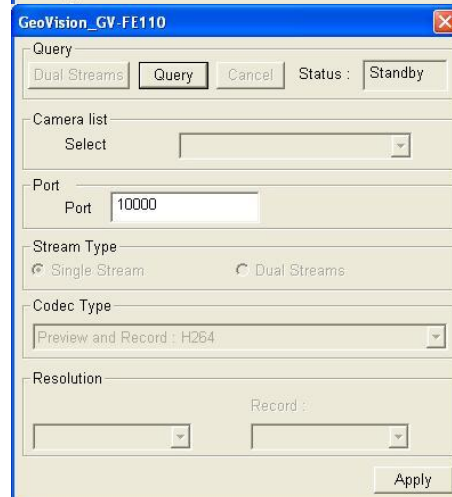
1. In Multicam, click on “**Configure**” icon.
2. Select “**General Setting**” -> “**Camera/Audio Install**” -> “**IP Camera Install**”.



3. If IP address is known, select “**Add Camera**” to manually add the camera by entering the IP address, port, user name, password, and camera model manually.

✓ *GeoVision IP Device’s default user name and password is **admin/admin***

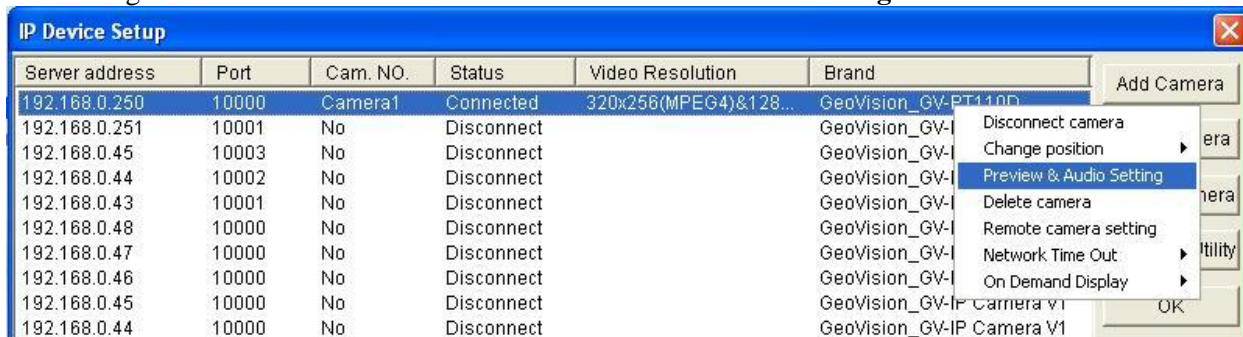
4. Otherwise, select “**Scan Camera**”.
 - a. In the search result, double-click on the desired IP Camera and enter the “**User name**” and “**Password**” of the IP Camera.
 - b. Select “**Query**”.
 - c. Click on “**Dual Streams**” button to switch from single stream to dual-stream model, if applicable.
 - d. Click on “**Apply**”.
 - e. Click on “**Close**”.
 - f. Right-click on the IP Camera in the IP Device Setup window.
 - g. Select “**Display position**” then map the camera on to desired camera position.
 - h. When the status of the connection changed to “**Connected**”, click on “**OK**”.



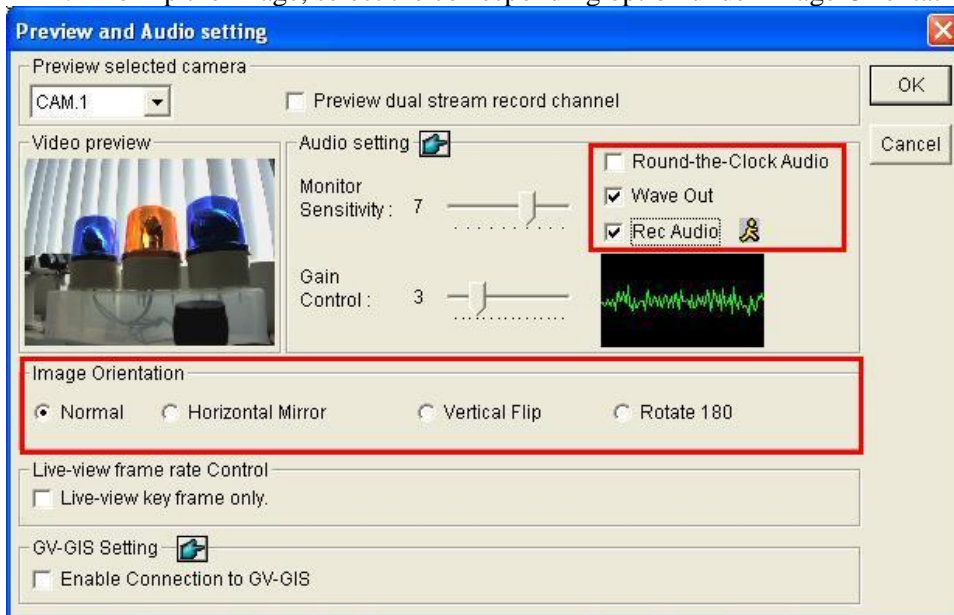
✓ For detailed instruction, refer to p.123 of v8.4 User Manual

2.1.3 Image and Audio Setup

1. In Multicam, click on “**Configure**” icon.
2. Select “**General Setting**” -> “**Camera/Audio Install**” -> “**IP Camera Install**”.
3. Right-click on the IP camera and select “**Preview & Audio Setting**”.



4. To flip the image, select the corresponding option under Image Orientation.



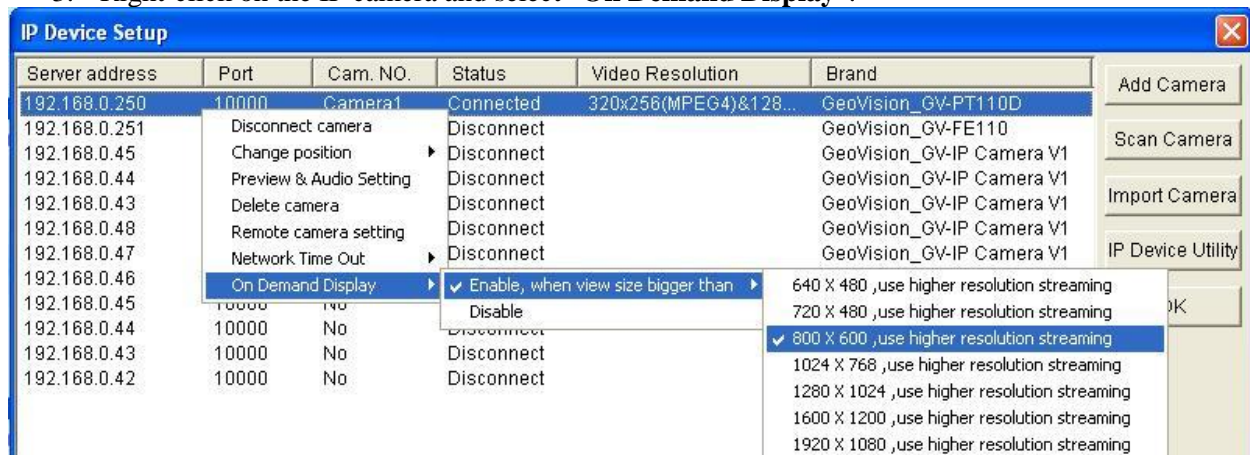
5. To enable audio, check “**Wave Out**”.
6. To enable audio recording, check “**Rec Audio**”.
 - a. Adjust Monitor Sensitivity to adjust audio detection sensitivity.
 - b. Adjust Gain Control to increase or decrease audio volume.
7. Click “**OK**”.
8. Click “**OK**” again to exit IP Device Setup.

✓ For detailed instruction, refer to p.126 of v8.4 User Manual

2.1.4 On Demand Display

On Demand Display is only applicable to IP devices which support dual-stream function. Dual-stream can be enabled on GeoVision IP cameras via the web interface. For more information, refer to IP Camera's user manual.

1. In Multicam, click on “**Configure**” icon.
2. Select “**General Setting**” -> “**Camera/Audio Install**” -> “**IP Camera Install**”.
3. Right-click on the IP camera and select “**On Demand Display**”.



4. Select **Enable** or **Disable**.
5. Select the resolution limit for higher resolution streaming.
 - a. For the example above, with resolution limit of 800x600, the IP camera will stream 320x256 resolution by default when the camera is viewed in multiple-channel division. The IP camera will stream 1280x1024 instead when going into four-division view or single-channel view, when live view resolution of the camera is greater than 800x600.

✓ For detailed instruction, refer to p.137 of v8.4 User Manual

2.1.5 Supported IP Device Brands List

GeoVision v8.4 software supports the following IP device brands.

To view a specific list of IP device models supported associated with each brand, visit GeoVision's website at http://www.geovision.com.tw/english/4_21.asp

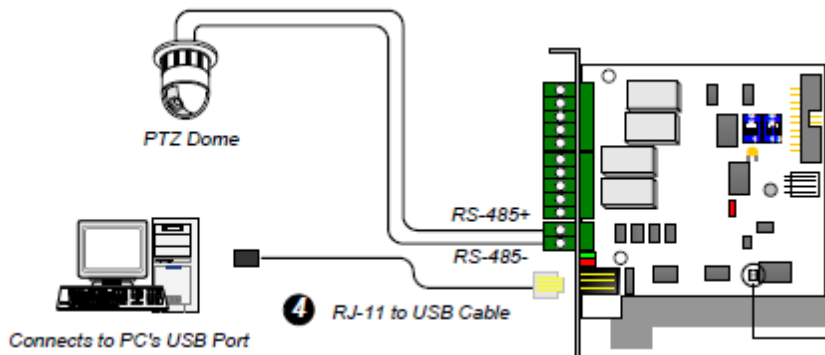
GeoVision
ACTi
Arecont Vision
AXIS
Bosch
Canon
CNB
D-Link
Etrovision
Hikvision
IQinVision
JVC
MOBOTIX
Panasonic
Pelco
Sanyo
SONY
UDP
Verint
VIVOTEK

2.2 PTZ Camera Setup

2.2.1 Analog PTZ Camera

Hardware Connection

1. Analog PTZ setup requires RS485 +/- connection from the PTZ camera to a GV-COM Box, GV-Net Card, or GV-Net I/O Card. For GV-DVR system, GV-Net I/O Card can be found in the back of the unit.

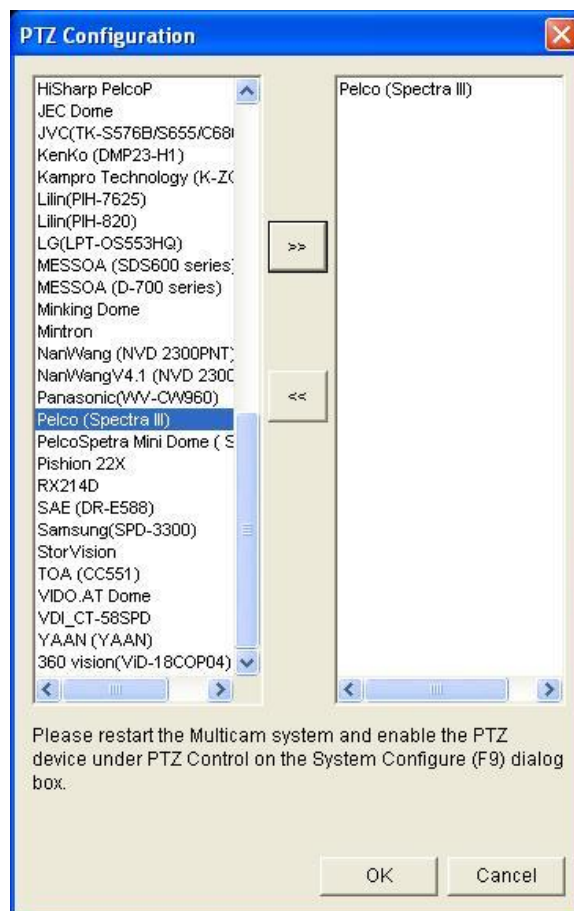


2. From GV-COM Box, GV-Net Card, or GV-Net I/O Card, it is necessary to connect a RJ45 to RS232 cable or a RJ45 to USB cable to establish a connection to the DVR.
3. If RJ45 to USB cable is used, check under Device Manager for the correct COM port created.
 - a. To access Device Manager, right-click on **My Computer**, select **Manage**, then select **Device Manager**.
 - b. If RJ45 to RS232 cable is used, COM 1 is the default COM port.

Add PTZ Device in Multicam

1. In Multicam, click on the “**Configure**” icon.
2. Select “**Accessories**” -> “**Add/ Remove PTZ**”.
3. Select the appropriate PTZ protocol from the list on the left then click on “>>” to enable the PTZ protocol.
4. Click “**OK**”.
5. Restart Multicam by Last Settings.

- ✓ *To verify PTZ protocol, refer to PTZ manufacturer user manual, technical document, or check with PTZ manufacturer directly. You may also find tested PTZ models in the next section.*



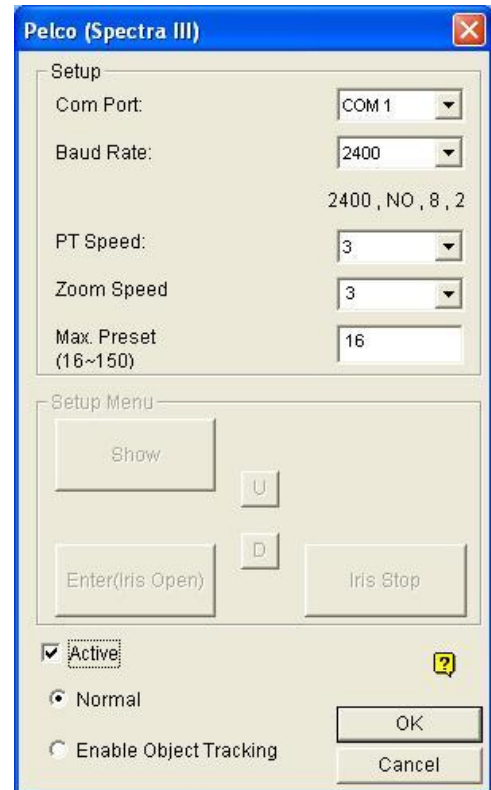
6. Click on the “**Configure**” icon.
7. Select “**General Setting**” -> “**System Configure**”.
8. Under System Configure, place a checkmark by “**PTZ Device Setup**”. Then select corresponding PTZ protocol in the drop-down list.



9. Click on “**PTZ Setup**” button.



10. Check on “**Active**”.
11. Select “**COM Port**” for which the PTZ camera is connected through (refer to 2.2.1 step 3), and then select “**Baud Rate**” that matches the PTZ baud rate.
12. Click “**OK**”.



- ✓ To verify PTZ baud rate, refer to PTZ manufacturer user manual for options. It is typically setup via dipswitches on the PTZ camera.

13. Repeat above steps to add multiple PTZs using different protocols and COM ports.

- ✓ For multiple PTZ cameras (with the same protocol) connected via the same COM port, it is necessary to assign a different ID (address) to each PTZ camera. In general, ID for each camera can be set via dipswitches on the PTZ camera.

14. At this stage, a PTZ button should appear on the right side of Multicam. Click on the button to bring up PTZ control panel to control PTZ via Multicam.

- ✓ To control a different PTZ, select the address from the drop-down list corresponding to the desired PTZ.
- ✓ If PTZ camera cannot be controlled, verify your hardware connection first. Then, verify that the protocol, COM port, and baud rate settings for your PTZ cameras are correct.

PTZ Camera Mapping

For DVR systems with more than one PTZ cameras, PTZ camera mapping will

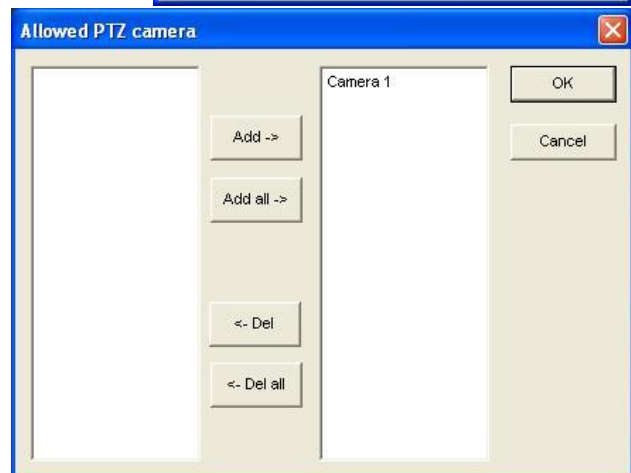
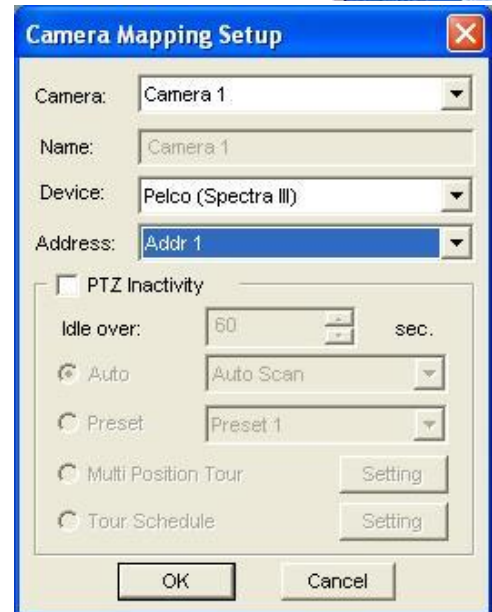
allocate each PTZ to its respective channels base on the address of the PTZ camera.

15. In Multicam, click on the “**Configure**” icon.
16. Select “**Accessories**” -> “**PTZ Device**”-> “**Camera Mapping PTZ Dome**”.
17. Under Camera Mapping Setup window, select the camera number with PTZ camera, then select “**Device**” and then the “**Address**” for the PTZ camera from the drop-down list.
18. Repeat step 17 for each of the PTZ cameras.
19. Click “**OK**”.

Enable PTZ for Webcam

20. In Multicam, click on the “**Network**” icon.
21. Select “**Webcam Server**” to bring up Server Setup window.
22. Select “**Video**” tab, then click on “**Allowed PTZ camera**”.
23. Select individual camera to add or click on “**Add all**”.
24. Click “**OK**”.
25. Click “**OK**” again to exit Server Setup.

- ✓ For detailed instruction, refer to p.89 of v8.4 User Manual



2.2.2 Compatible PTZ Camera List

PTZ Protocol and Model
AcutVista SSD-7971D
Ademco (Jupiter)
Bosch G3
Bosch (TC700 / 8560)
Canon VCC3
Canon VCC4 / VCC5i
CBC GANZ (ZC-S120 Series)
Chiper (CPT-V9KRV)
COP(15-CD53W) Pelco D
COP(15-CD55TW) Pelco D
COP(15-CD55W) Pelco D
COP(CD55X) Pelco D
Direct Perception (PTU Series)
D-max Dome
DongYang Dome (DOH-240)
DynaColor (D-7720 / 7722)
DynaColor Dome
Dynacolor DynaHawk-ZH701
ELBEX (Matrix / 1000)
Elmo PTC-200C
Elmo PTC-400C
Elmo PTC-1000
EverFocus (EPTZ 1000 / 500)
Eyeview T-Power (T2-SA27)
GKB (SPD-221)
HiSharp Pelco D
HiSharp Pelco P
JEC Dome
JVC (TK-S576B / S655 / C686E)
Kalatel CyberDome

Kampro Technology (K-ZC23)
KenKo (DMP23-H1)
LG (LPT-OS553HQ)
Lilin PIH
Lilin PIH-7625
Lilin PIH-820
MESSOA SDS600 Series
MESSOA D-700 Series
Minking Dome
Mintron (54G2AHN/P)
NanWang (NVD 2300PNT)
NanWang V4.1 (NVD 2300PNT)
Panasonic WV-CS850
Panasonic WV-CW960
Pelco Dome
Pelco (Spectra III)
Pelco Spetra Mini Dome (SD4-WO)
Pishion 22X
PTZ in I/O
RX214D
SAE (DR-E588)
Samsung (SCC-641 / 643)
Samsung SPD-1600
Samsung SPD-3300
Sensormatic (Ultra IV)
Sony (EVI-D100)
StorVision PTZ
TOA (CC551)
VDI CT-58SPD
VIDO.AT Dome
YAAN Dome
360 Vision (ViD-18COP04) Pelco P

- ✓ *For PTZ cameras not listed above, users may try using generic protocols such as Pelco D or Pelco P. However, please be aware that generic protocols may or may not be able to perform the full functions in OEM PTZ cameras. Thus, users may observe loss of certain advanced features (such as OSD menu and auto-touring etc), if available.*

2.2.3 Compatible Object Tracking PTZ Camera List

Dual-Camera Tracking (Object Tracking and Zooming)

Brand / Model
AcutVista SSD-7971D
Dynacolor DynaHawk Zh701
GeoVision IP Speed Dome
Messoa SDS600 Series
Messoa D-700 Series
Pelco Spectra III
Sensormatic Ultra IV
VIDO. AT Dome

Advanced Single Camera Tracking

Brand / Model
AcutVista SSD-7971D
COP(15-CD55W) Pelco D
GeoVision IP Speed Dome
Lilin (PIH-7625)
Messoa D-700 Series
Pelco Spectra III
VIDO.AT Dome

2.2.4 IP PTZ Camera

In general, IP PTZ Cameras (or analog PTZ cameras connected via GV-Video Server or GV-Compact DVR) have the same setup procedure as IP cameras. (Refer to 2.1.2 IP Camera Setup). Then, after the IP PTZ cameras are connected to Multicam, follow the steps below:

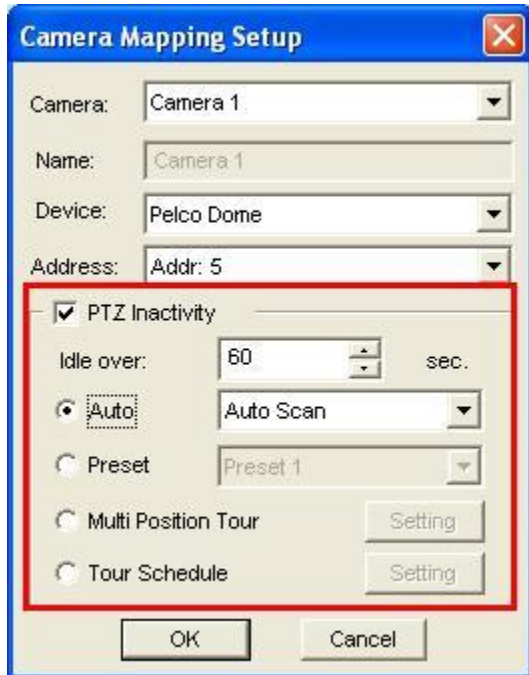
1. In Multicam, click on the “**Configure**” icon.
2. Select “**General Setting**” -> “**System Configure**”.
3. Under System Configure, place a checkmark by “**PTZ Device Setup**”.



4. For IP PTZ Cameras:
 - a. In the drop-down list, select the IP PTZ Camera model. (Please note the camera model will only appear in the list only if the camera is in our supported IP Camera List as shown in 2.1.3)
5. For analog PTZ cameras connected via GV-Video Server or GV-Compact DVR:
 - a. In the drop-down list below, select the PTZ camera channel from GV-Video Server or GV-Compact DVR. (For example, if PTZ camera is on channel 1 of GV-Video Server, select VS01 in the list)
6. Click “**OK**”.
7. At this stage, a PTZ button should appear on the right side of Multicam. Click on the button to bring up PTZ control panel to control PTZ via Multicam.

2.2.5 PTZ Idle Protection

1. In Multicam, click on the “**Configure**” icon.
2. Select “**Accessories**” -> “**PTZ Device**” -> “**Camera Mapping PTZ Dome**”.

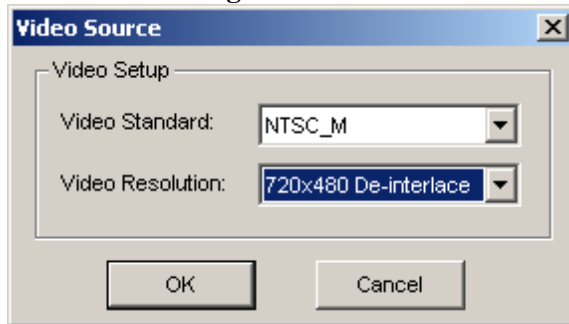


3. Select the Camera to apply idle protection.
 4. Check “**PTZ Inactivity**”.
 5. Select the time period before idle protection activates.
 6. Select the desired function when idle protection starts by checking “**Auto**”, “**Preset**”, “**Multi Position Tour**”, or “**Tour Schedule**”.
 - a. “**Auto**” allows the PTZ camera to Auto Scan, Frame Scan, or Random Scan.
 - b. “**Preset**” will move the PTZ camera to a preset position.
 - c. “**Multi Position Tour**” allows the PTZ camera to dwell over a series of presets with the ability to set dwell time for each location.
 - d. “**Tour Schedule**” allows the PTZ camera to perform functions from a, b, and c by an hourly schedule.
 7. Click “**OK**”.
 8. Click “**OK**” again to finish setup.
- ✓ For detailed instruction, refer to p.90 of v8.4 User Manual

2.3 Camera Configuration

2.3.1 Video Resolution

1. In Multicam, click on “**Configure**” icon.
2. Select “**A/V Setting**” -> “**Video Source**”.

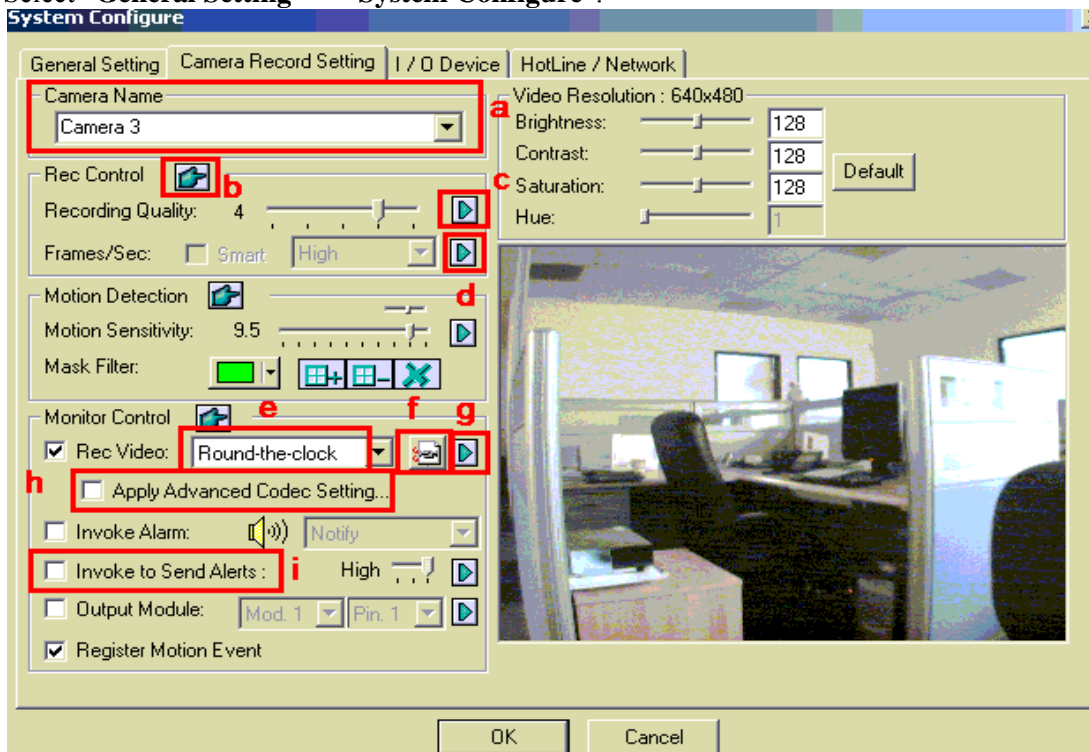


3. Select desired resolution from the drop-down list for analog camera input.

✓ The indicated video source above applies to analog camera inputs only. Such resolution does not apply on any IP device.

2.3.2 Camera Record Setting

1. In Multicam, click on “**Configure**” icon.
2. Select “**General Setting**” -> “**System Configure**”.



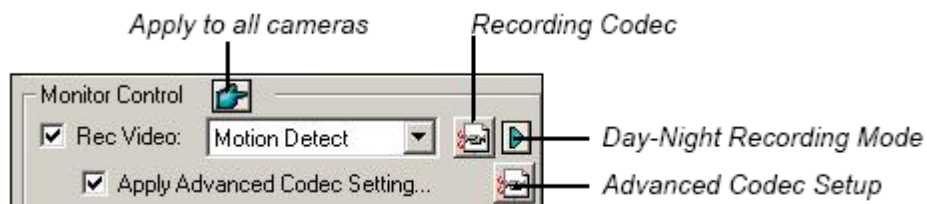
3. Click on the tab “**Camera Record Setting**”.
 - a. Rename camera or switch to a different camera

- b. Green hand allows same settings within the box to be applied across all cameras
- c. Adjust recording resolution
- d. Adjust customized frame rate, if applicable
- e. Recording method
 - i. Round-the-clock (24/7)
 - ii. Motion Detection
 - iii. Day-Night (combination of the previous two methods by an hourly schedule)
- f. Select video compression codec (refer to section 2.3.3 Compression Codec section)
- g. Advanced scheduled recording (only available if Day-Night option above is selected. Refer to section 2.4.2 Advanced Scheduled Recording)
- h. Check “**Apply Advanced Codec Setting**” to utilize multiple cores CPU.
- i. “**Invoke to Send Alerts**” is to send alert via e-mail/SMS when motion is triggered. (refer to section 2.8.1 E-mail Account Setup)

✓ For detailed instruction, refer to p.20 of v8.4 User Manual

2.3.3 Compression Codec

1. In Multicam, click on “**Configure**” icon.
2. Select “**General Setting**” -> “**System Configure**”.
3. Click on the tab “**Camera Record Setting**”.



4. Under “**Monitor Control**” section, click on “**Recording Codec**”
 - a. Geo Mpeg 4 – The codec with the largest file size but with the best quality.
 - b. Geo Mpeg 4 ASP – It is about 15% more compressed than Geo Mpeg4.
 - c. Geo H.264 – It is 30% more compressed than Geo Mpeg4.
 - d. Geo H.264 V2 – It is 40% more compressed than Geo Mpeg4.
- ✓ Please note that higher compression, such as H.264 V2 and H.264, should be applied only when system spec permits. Otherwise it may result in CPU overloading.

2.4 Scheduled Events

2.4.1 Schedule Recording

1. In Multicam, click on the “**Schedule**” icon.
2. Select “**Schedule Edit**”.

Setup Schedule - Add period time schedule

Time
Start : AM 08:00
End : PM 17:00

Monitor Invoke
☒ Rec
☒ Pager/E-Mail
☒ Output
Round-the-clock

Camera
☒ 1 ☒ 4
☒ 2 ☐ 5
☒ 3 ☐ 6

Week Days Enable Schedule
SUN MON TUE WED THU FRI SAT

Add Schedule

Time Period	Apply Day(s)	Operation(s)	Camer...
AM 08:00 - PM 17:00	Mon,Tue,Wed,Thu,Fri	REC,Pager/E-Mail,R...	1,2,3,4

Record **Pager/E-Mail** **Remote View** **I/O Monitor** **CenterV2**

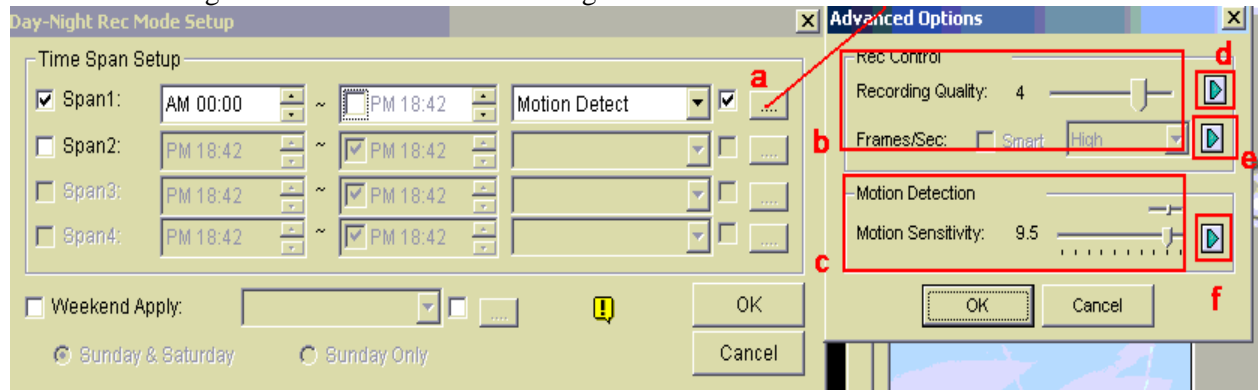
OK **Cancel**

3. Setup basic recording schedule as follows:
 - a. Select cameras which schedule is to be applied.
 - b. Select Round-the-clock or Motion detection.
 - c. Select “**Add Schedule**” to create a new set of schedule with current settings (after step d is finished).
 - d. Select the days which schedule will be applied.
 - e. Setup schedule for Holiday.
 - f. After “**Add Schedule**” is clicked, the schedule will be added here.
 - g. Display schedule through timeline.
4. To delete a schedule, select the schedule and press “**Delete**” key on the keyboard.
5. Click on “**OK**”.
6. Click on the “**Schedule**” icon in Multicam then select “**Schedule Start**” to start recording according to schedule.

✓ For detailed instruction, refer to p.65 of v8.4 User Manual

2.4.2 Advanced Schedule Recording

1. In Multicam, click on the “**Configure**” icon.
2. Select “**General Setting**” -> “**System Configure**”.
3. Click on “**Camera Record Setting**” tab.
4. Select the camera you would like to apply scheduled recording.
5. Under recording method, select “**Day-Night**”. (Refer to section 2.3.2)
6. Click on the green arrow next to the recording method.



7. The “**Day-Night Rec Mode Setup**” dialog box will appear:
 - a. Advanced Options
 - b. Customized recording quality for different time span.
 - c. Customized motion sensitivity level for different time span.
 - d. Customized video resolution for different time span.
 - e. Customized frame rate for different time span.
 - f. Apply noise tolerance for different time span.
8. Click “**OK**”.
9. Click “**OK**” again to finish setup.

✓ For detailed instruction, refer to p.24 of v8.4 User Manual

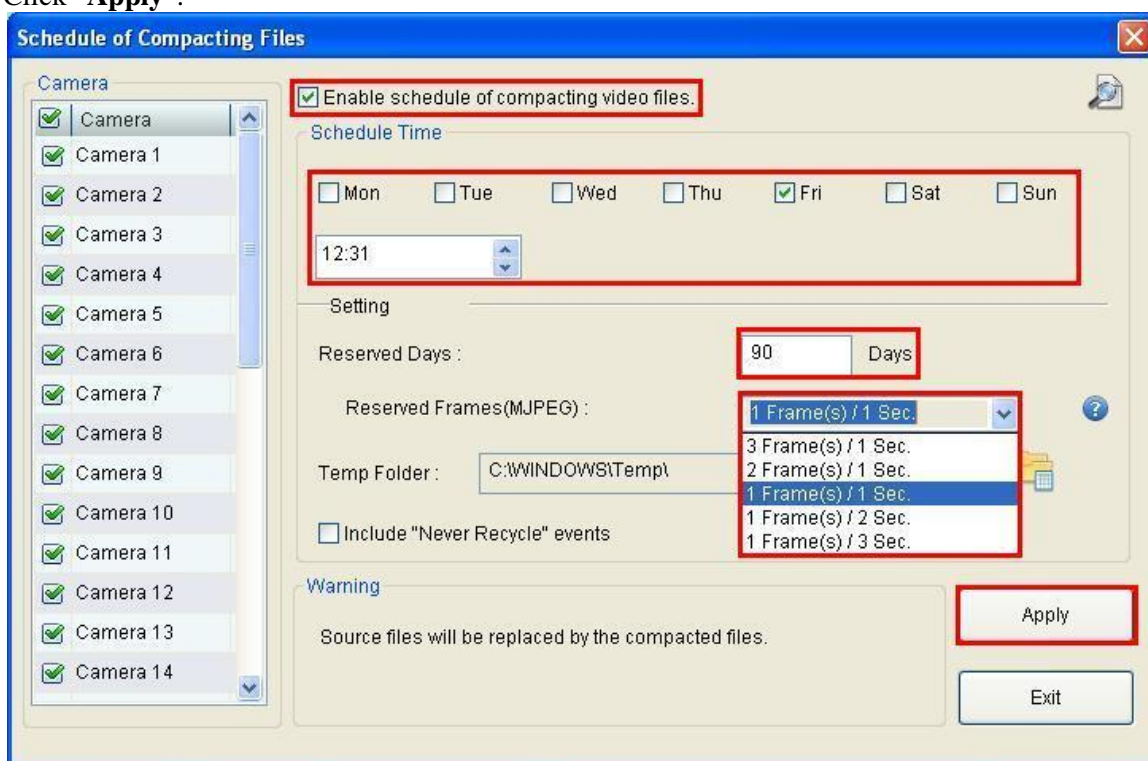
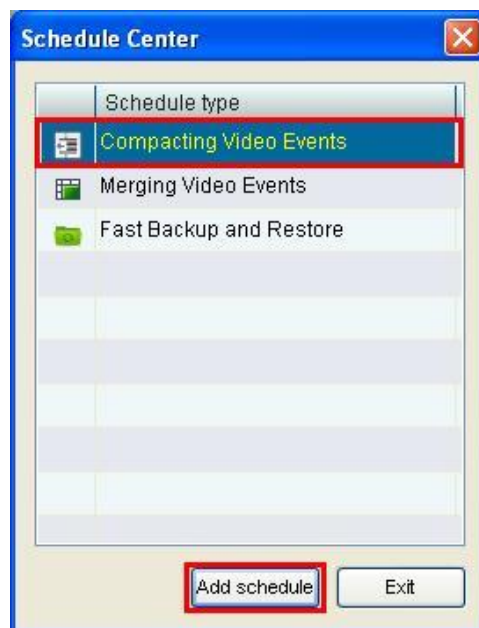
2.4.3 Compact Video

Compact Video allows DVR to compact archived video clips by reducing frame rate on a daily schedule. Utilizing Compact Video DVR will reduce the size of archived video files while increasing the storage days on the DVR.

1. In Multicam, click on the “**Schedule**” icon.
2. Select “**Schedule Center**”.
3. Select “**Compact Video Events**”.
4. Click “**Add schedule**”.
5. Select the cameras on the left to apply Compact Video.
6. Check “**Enable schedule of compact video files**”.
7. Under Schedule Time, select the day(s) of the week and time in which Compact Video will take place.
8. Select Reserved Days (default 90).

✓ *Reserved days indicate the time period in which original video will be kept before compacted.*

9. Select Reserved Frames (default 1 FPS).
10. Click “**Apply**”.

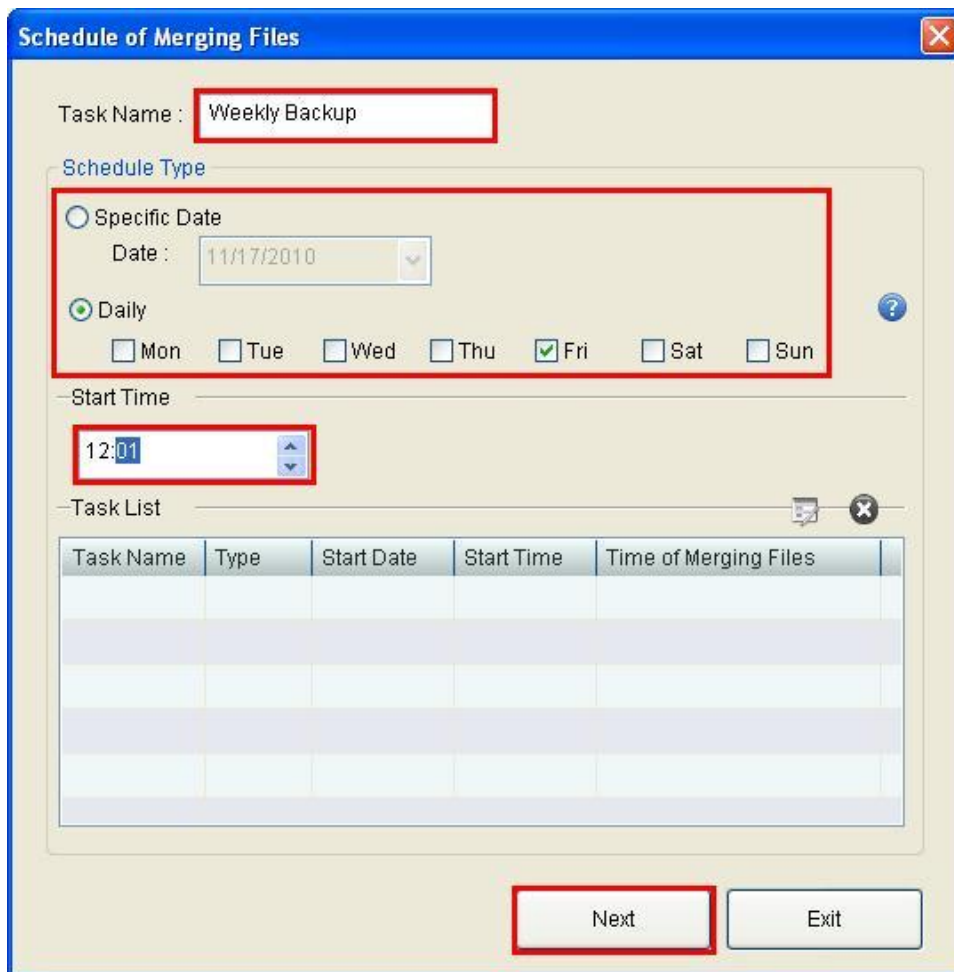
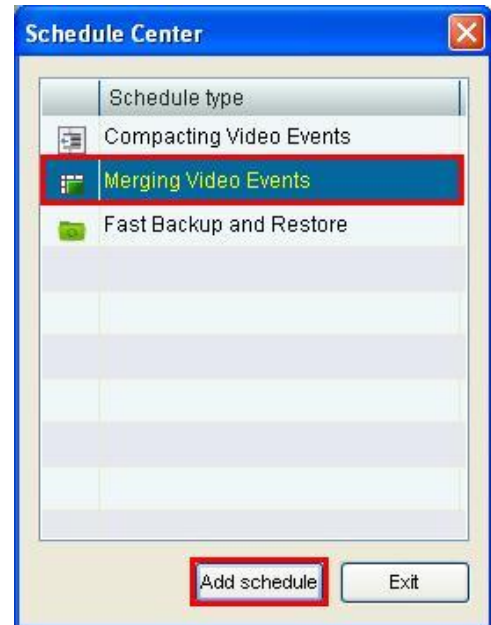


✓ For detailed instruction, refer to p.70 of v8.4 User Manual

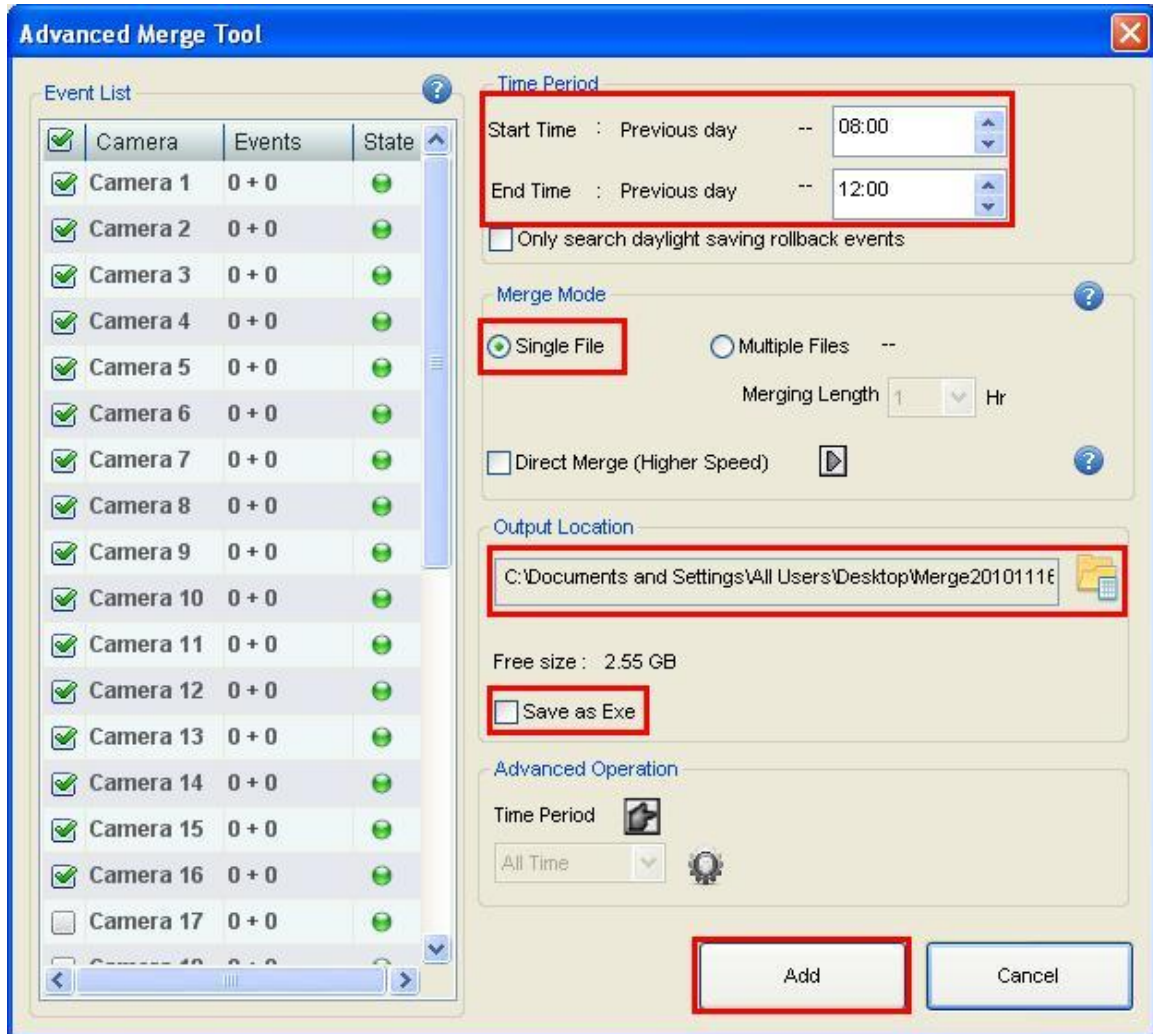
2.4.4 Merging Video

Merging Video allows DVR to automatically merge predefined video on a certain day or on a daily basis to a specific location on the hard drive. It can also be used for backup or review.

1. In Multicam, click on the “Schedule” icon.
2. Select “Schedule Center”.
3. Select “Merging Video Events”.
4. Click “Add schedule”.
5. Name the merging schedule.
6. Under Schedule Type, select a specific date or pick the days of the week to perform merging.
7. Enter Start Time in which merging file will begin.
8. Click “Next”.



9. Click “Next”.
10. Select the cameras on the left to apply Merging Video.
11. Designate the time period of the previous day in which files will be merged.
12. Select **Single File** or **Multiple Files** to create one or multiple clips from the time period selected.
13. Select the “**Output Location**” in which the merged file will be stored.
14. Select “**Save as Exe**” to save the merged file with GeoVision video codec.
15. Click “**Add**” to add the schedule.

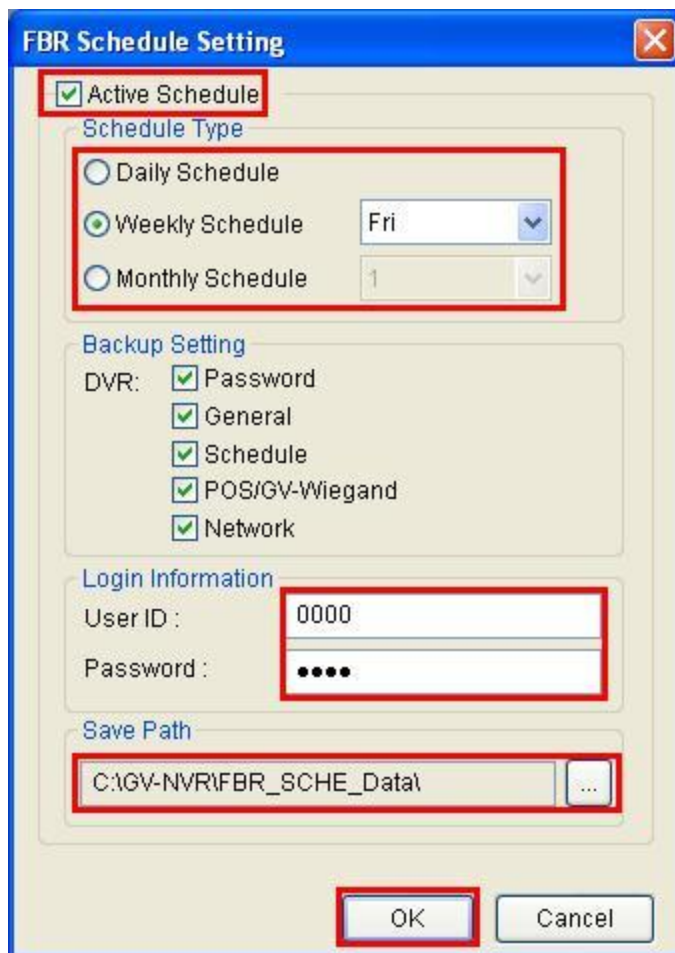
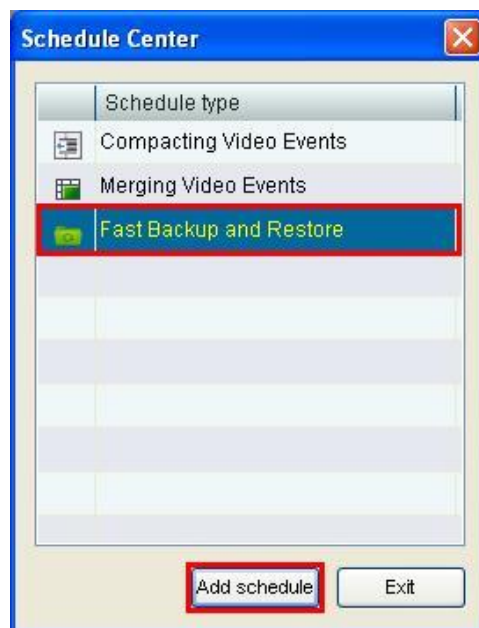


- ✓ For detailed instruction, refer to p.74 of v8.4 User Manual

2.4.5 Fast Backup and Restore

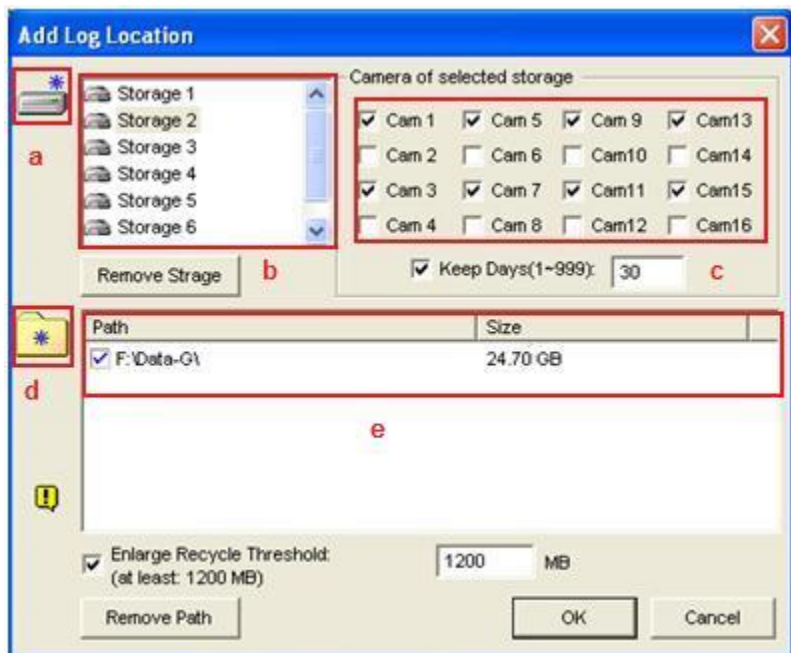
Fast Backup and Restore can be performed automatically by daily, weekly, or monthly schedule. Backing up system settings regularly via scheduled FBR creates restore points if software errors do occur in the future.

- ✓ Refer to Section 5.5 Fast Backup and Restore for features and manual setup
- 1. In Multicam, click on the “**Schedule**” icon.
- 2. Select “**Schedule Center**”.
- 3. Select “**Fast Backup and Restore**”.
- 4. Click “**Add schedule**”.
- 5. Check “**Active Schedule**”.
- 6. Select Daily, Weekly, or Monthly schedule to perform Fast Backup and Restore.
- 7. Enter DVR’s **ID** and **Password**.
- ✓ Update DVR’s ID and Password accordingly if they were to be changed
- 8. Under Save Path, select the storage patch in which FBR files will be saved into.
- 9. Click “**OK**”.
- ✓ For detailed instruction, refer to p.77 of v8.4 User Manual



2.5 Video Storage Location

1. In Multicam, click on the “**Configure**” icon.
2. Select “**General Setting**” -> “**System Configure**”.
3. Under General tab, click on “**Set Location**” button in the middle then select “**Storage Group Folder**”.



4. By default, Storage 1 is created with all the cameras saved. To add a new storage, follow the steps below:
 - a. Click on “**Add New Storage**” button.
 - b. A new storage location should appear.
 - c. Check on the cameras which will be stored into this new storage. (Please note that one camera can only be saved into one storage location)
 - d. Click on “**Add New Path**” button. In the Select Path window, select a folder located in the desired hard drive. (If this is a new hard drive, create a new folder first in this hard drive through My Computer prior to this step).
 - e. The new path should appear along with available disk size.
 - f. Repeat steps **a** to **f** to add more hard drives.
5. To remove extra storages, select the storage then click on “**Remove Storage**” button.
6. To remove extra paths, select the path then click on “**Remove Path**” button.
7. Click “**OK**”.
8. Click “**OK**” again to finish setup.

✓ For detailed instruction, refer to p.18 of v8.4 User Manual

✓ Please note that for IP camera recordings, it is necessary to distribute no more than 4 megapixel IP cameras per hard drive due to current hard drive recording speed limitation. For 640x480 and 720x480 recordings, no more than 8 cameras per hard drive. Recording more cameras than allowed will reduce hard drive's life span while creating error messages in the system.

2.6 Account and Password


2.6.1 Password Setup

1. In Multicam, click on the “**Configure**” icon.
2. Select “**General Setting**” -> “**Password Setup**” -> “**Local Account Edit**”.

The screenshot shows the 'Password Setup' dialog box. On the left, a tree view shows the hierarchy: Guest, User, PowerUser, and Supervisor. The 'User' category is expanded, showing a list of users with IDs 2 and 1. The main area contains fields for 'ID', 'Password', 'Hint', and 'Level'. Below these are checkboxes for account settings like 'Account is disabled', 'Expire in', 'User cannot change password', etc. There are also sections for 'Camera (Live)' and 'Audio (Live)' with checkboxes for various channels. At the bottom, there are buttons for 'New', 'Remove', and 'Search', and a checkbox for 'Allow removing password system'. The 'New' button and the 'Allow removing password system' checkbox are highlighted with red boxes and labeled 'a' and 'd' respectively. The 'User' category in the tree is labeled 'b', and the main settings area is labeled 'c'.

3. Default user name and password for GV-DVR System is 0000 and 0000. To create a new account, follow the steps below:
 - a. Click on “**New**” button, type in user name, password, password confirmation, then designate the level of privilege.
 - b. New account should appear under User, Power User, or Supervisor category.
 - c. Customize account privilege.
 - d. Check “**Allow removing password system**” to enable password removal utility.
- ✓ For detailed instruction, refer to p.47 of v8.4 User Manual
- ✓ Please note that “Allow removing password system” option is critical if system admin may forget or unable to retrieve any of the Supervisor account password in the future. With this option checked, user can run password removal utility to remove password database. If not, user may only remove password database through reinstalling Windows OS or performing system recovery on GV-DVR Systems.

2.6.2 Startup Auto Login

1. In Multicam, click on the “**Configure**” icon.
2. Select “**General Setting**” -> “**System Configure**”.
3. Under Startup box, check “**Startup Auto Login**” option to allow Multicam to automatically login with user-defined account when system starts up.
4. Click on  to the right.

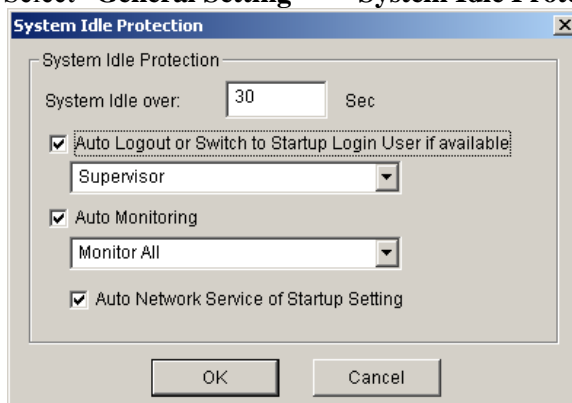


5. Input ID and Password for auto login.
6. Click “**OK**”

✓ For detailed instruction, refer to p.28 of v8.4 User Manual

2.7 System Idle Protection

1. In Multicam, click on the “**Configure**” icon.
2. Select “**General Setting**” -> “**System Idle Protection**”.



3. Adjust the time period before System Idle Protection activates.
4. Check “**Auto Monitoring**” to enable to auto monitoring feature.
5. Check “**Auto Network Services**” to enable auto network services restart when the system is idle.
6. Check on “**Auto Logout or Switch to Startup Login User**” so the system will switch the user when it’s idle. (Section 2.6.2 Startup Auto Login has to be setup prior to activate this feature)
7. Click “**OK**”.

✓ For detailed instruction, refer to p.54 of v8.4 User Manual

2.8 E-Mail Notification

2.8.1 E-mail Account Setup

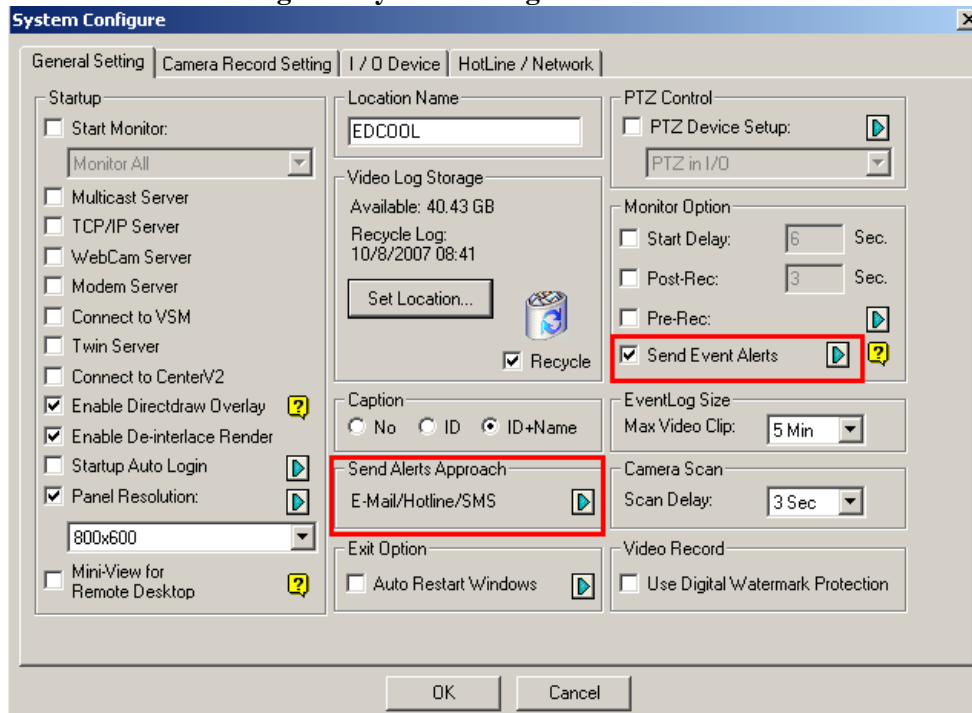
1. In Multicam, click on the “**Configure**” icon.
2. Select “**General Setting**” -> “**E-Mail Setup**”.




3. Enter SMTP Server address. “**SMTP Server**” has to be provided by Internet Service Provider. It usually has the format of *smtp.mail.com*.
 4. Enter e-mail address in which e-mail alerts will be sent from. “**E-Mail From**” will appear as the sender when the e-mail is received.
 5. Enter e-mail address of recipients in “**E-Mail To**”. (For multiple recipients, add a coma between each e-mail address)
 6. Enter subject of e-mail alert.
 7. Enter customized e-mail contents in “**Text Content**”.
 8. Click on “**Test Mail Account**” icon to send out a test e-mail to see whether setup is correct.
 9. “**Attached Image Setup**” will include up to 6 snapshots in the e-mail alert.
 10. “**E-Mail Alerts Interval**” will prevent repeated e-mail alerts to be sent in the defined time interval.
 11. Default SMTP port is **25**, which is common for most SMTP servers. However, webmail providers such as Yahoo and Hotmail generally use different SMTP port. Check with e-mail provider for SMTP port number.
 12. Click “**OK**”.
- ✓ For detailed instruction, refer to p.84 of v8.4 User Manual

2.8.2 Event Notification Setup

1. In Multicam, click on the “**Configure**” icon.
2. Select “**General Setting**” -> “**System Configure**”.



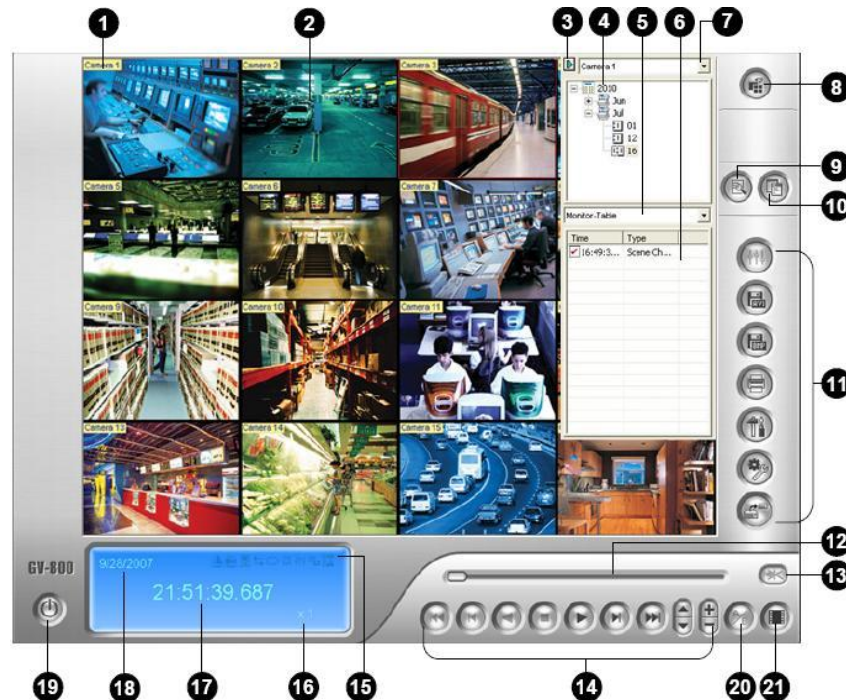
3. Under “**Send Alerts Approach**”, Select “**E-mail**”.
4. Click “**OK**”.
5. Under “**Monitor Option**” box on the right, check “**Send Event Alerts**”.
6. Click on  and check the events for which e-mail alerts will be sent.
7. Click “**OK**”.

✓ For detailed instruction, refer to p.86 of v8.4 User Manual

3. Video Playback

To view recorded video, follow the steps below:

1. In Multicam, click on the “**Viewlog**” icon.
2. Select “**Video/Audio Log**”.
3. Alternatively, in Multicam, click on “**F10**” on the keyboard.



The controls in the ViewLog window:

No.	Name	Description
1	Camera Name	Indicates the given camera name.
2	Camera View	Displays the playback video.
3	Arrow Switch	Switches between List Mode and Line Mode. Sets up MDB filter.
4	Date Tree	Displays date folders.
5	Display Option	Specifies the event type to display in List Mode or Line Mode.
6	Video Event List	Displays video events within a certain date folder.
7	Camera Select	Sets a desired camera for display.
8	View Mode	Sets screen divisions: Single View, Panorama View, Quad View or Multi View. Single View also includes these options: Standard, Thumbnail, Mega Pixel (PIP), Mega Pixel (PAP), Geo Fisheye and IMV1 Panomorph.
9	Advanced	Accesses basic search, advanced search and bookmark. Reloads video event list.
10	Normal	Displays or closes the Timeline or Video Event List..
11	Function Panel	Provides various settings for ViewLog.
12	Slider	Moves the slider to rewind or forward the video during playback.

13	Audio Playback	Enables audio playback.
14	Playback Panel	Contains typical playback control buttons.
15	Function Icons	A highlighted icon indicates an enabled function. From left to right are the defogging function, stabilizer function, reconnection to Remote ViewLog, A to B Mode, auto playing of next events, the contrast and brightness function, the light enhancement and equalization function, the sharpness and smoothness function and the grayscale function.
16	Playback Speed	Indicates the playback speed. x1 represents normal playback speed.
17	Time Display	Indicates the time of the playback video.
18	Date Display	Indicates the date of the playback video.
19	Exit	Closes or minimizes the ViewLog window.
20	A to B Mode	Plays repeatedly the set frames A to B.
	Frame by Frame /	
21	Real Time / Just Key Plays back video frame by frame, on real time or with just key frames.	
	Frame	

3.1 Frame by Frame/Real Time Playback

By Default, Viewlog plays back video with frame by frame mode for Panorama, Multi View, or Quad View. This mode allows each full frame to load completely before playing back the video with its maximum frames recorded. However, video playback in frame by frame mode does not allow audio to be played back at the same time. To listen to recorded audio, switch to real time mode (**button 20**) as shown above. Playback video with frame by frame mode may be more bandwidth and CPU consuming.

To playback video via real time mode, it will save video rendering time by dropping certain frames, if necessary, to provide real time playback appearance. Real time mode is default when playing back video with Single View.

3.2 Multiple Channels Playback

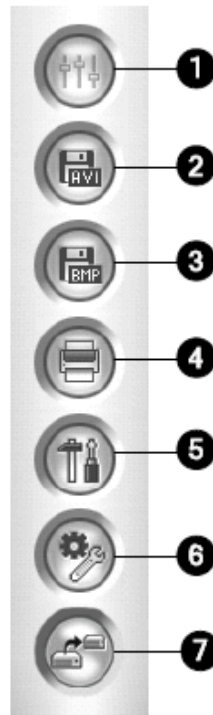
Instead of playing back one channel via Single View, Viewlog also gives you the option to playback 4 channels via Quad View, or u to 16 channels via Multi View. To switch from Single View to Quad View or Multi View, click on **button 6** as shown above.

By default Quad View 1 contains cameras 1 to 4, while Multi View 1 contains cameras 1 to 16. Viewlog provides up to 10 pages of Quad View and Multi View for channel customization.

1. To customize Quad View pages, click on “**Settings**” button, then select “**Quad View**” tab. Select desired Quad View page number then drag and drop cameras into the page from the camera list on the right.
2. To customize Multi View pages, click on “**Settings**” button, then select “**Multi View**” tab. Select desired Multi View page number then drag and drop cameras into the page from the camera list on the right.

✓ For detailed instruction, refer to p.215 of v8.4 User Manual

3.3 Backup Video Files



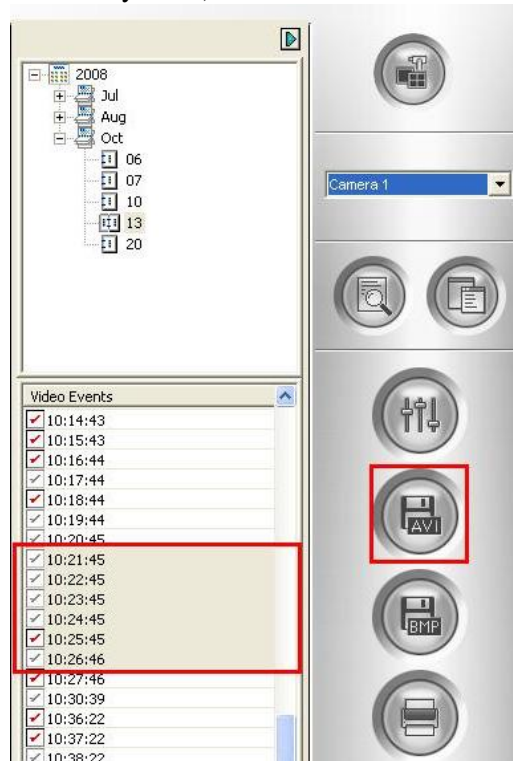
The controls in the Function Panel:

No.	Name	Description
1	Effects	Adds effects to the images. The effect options include: Contrast/Brightness, Light Enhancement, Equalization, Sharpen, Smooth, Grayscale, Undo to Prev. Action, Undo All Effects, Copy Image to Clipboard, Sample, and Advanced Video Analysis.
2	Save As AVI	Save a video file as avi or exe format. See <i>Merging and Exporting Video</i> later in this chapter.
3	Save As Image	Save a video image as bmp, jpg, gif, png, or tif format. See <i>Saving Images</i> later in this chapter.
4	Print	Specifies various settings for printing.
5	Setting	Accesses system settings of ViewLog. See <i>Advanced Settings</i> later in this chapter.
6	Tools	Brings up these options: Object Search, Advanced Log Browser, Delete, Remote ViewLog Service, Remote Storage System, Address Book, Display GIS Window, Select Map API, and Tool Kit. See <i>Object Search, Advanced Log Browser, Remote ViewLog Service</i> later in this chapter.
7	Backup	Backs up video files. See <i>Chapter 5 Backup, Deletion and Repair</i> .
Note: When an AVP dongle is used, you can enable the Stabilizer or Defog functions to up to 4 camera recorded images by selecting Effects and then Advanced Video Analysis .		

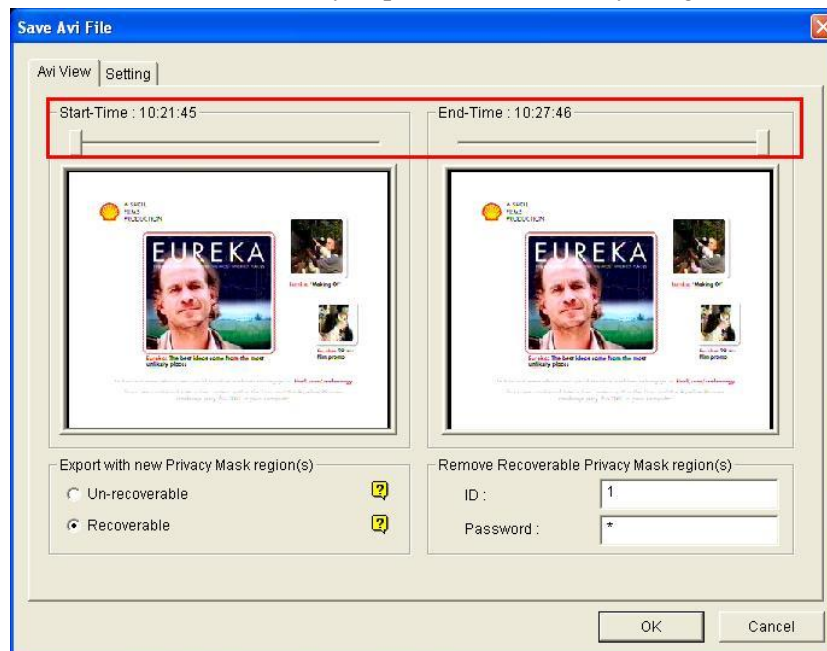
3.3.1 Save as AVI

To backup a video clip or a few video clips from a certain camera, **Save As AVI** is the fastest and easiest backup procedure.

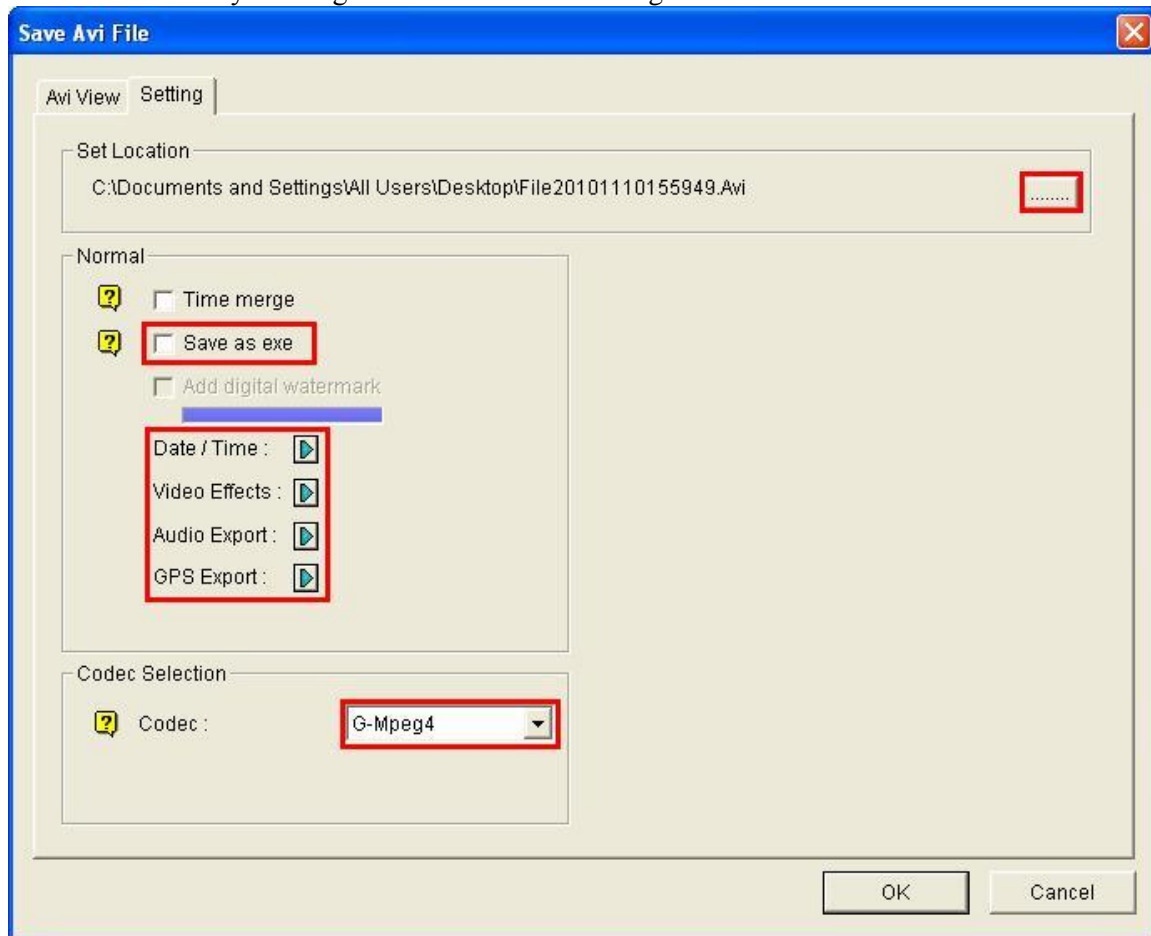
1. In Viewlog, highlight desired video event (or select multiple events by clicking on the events while holding down CTRL on the keyboard).



2. Click on the “**Save as AVI**” icon.
3. Select the desired **Start** and **End time** if you prefer to extract only a segment of the video file(s) selected.



4. Under “**Setting**” tab, select the location on your system where you would like the video file(s) to be saved into by clicking on “.....” button on the right.

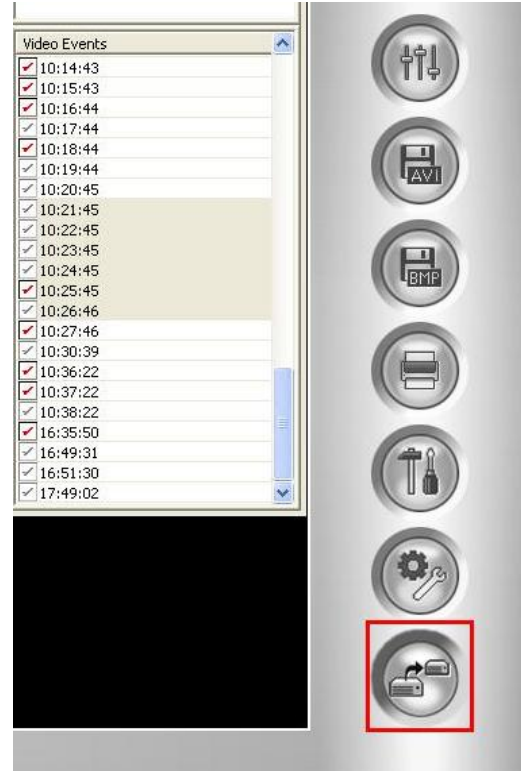


5. Select the parameters to be exported with the .avi file.
6. To save as executable file:
- Check on “**Save as exe**” option
 - Click “**OK**” to save the desired video file(s) into above destination.
- ✓ “Save as exe” option allows Viewlog to extract video file(s) with GeoVision codec attached.
7. To save as .avi file:
- Select “**G-Mpeg4**” as codec in the drop-down list to include GeoVision codec.
 - Select “**Mpeg4**” as codec in the drop-down list to use generic MPEG4 codec.
- ✓ .avi clips exported with GeoVision codec will display the original video quality while video quality in .avi clips exported with generic codec may be degraded
- ✓ .avi clips exported with GeoVision codec cannot be played back on a PC without GeoVision codec installed. GeoVision video codec can be installed separately from the GeoVision Main System DVD or it can be downloaded from www.usavisionsys.com/download
- ✓ For detailed instruction, refer to p.226 of v8.4 User Manual

3.3.3 Burn to CD/DVD

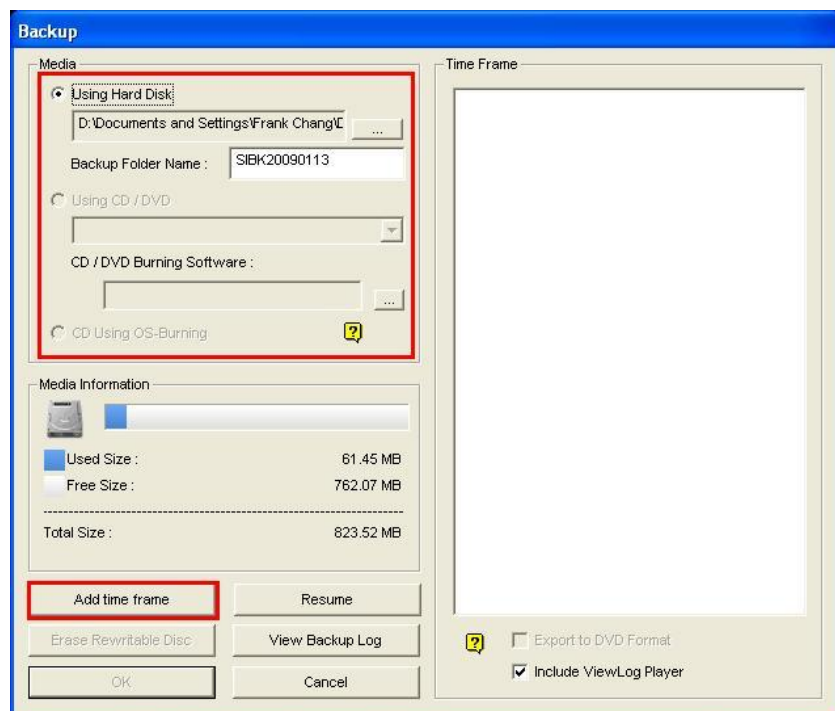
In order to backup multiple video files from multiple days and multiple cameras, **Backup** option allows user to backup a large quantity of video files to a hard drive, network drive, or burn on a CD/DVD. Users also have the option to make a copy of the Viewlog software while performing **Backup**.

1. In Viewlog, Click on the “**Backup**” icon.

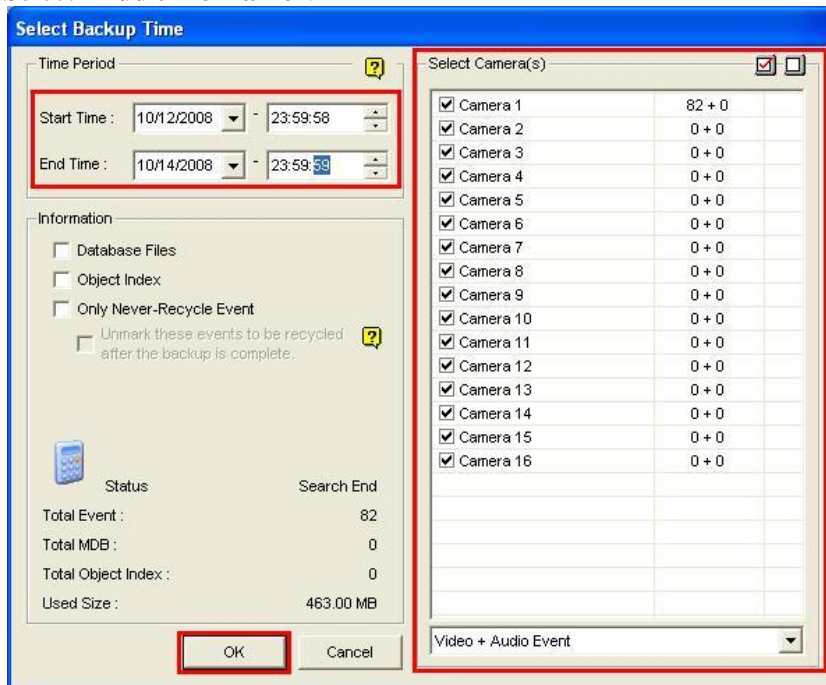


2. In the Backup window, select backup method through either “**Using Hard Disk**”, “**Using CD/DVD**”, or “**CD Using OS-Burning**”.
- ✓ “**Using Hard Disk**” allows video to be backed up to a certain hard drive or on a network drive.

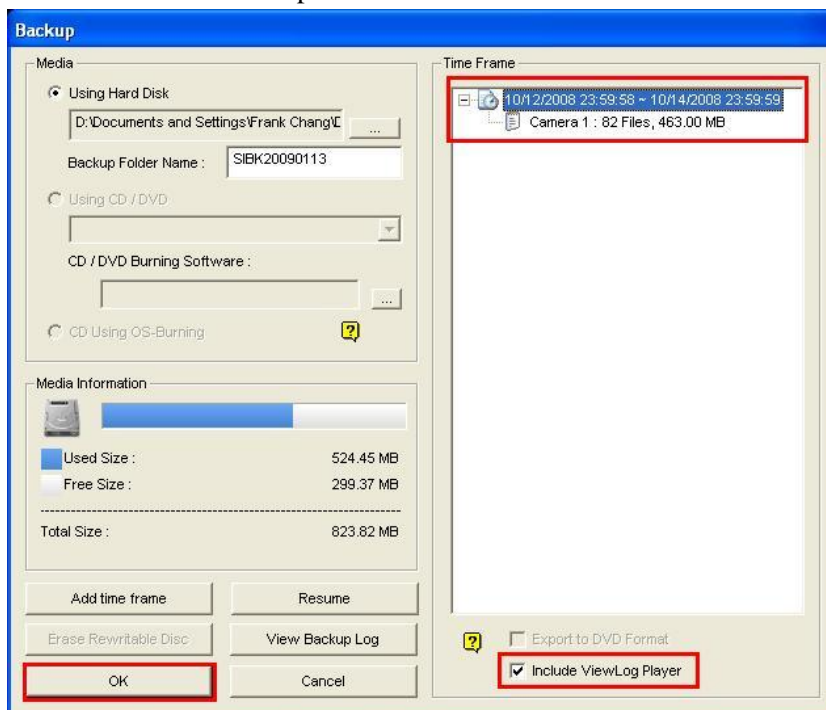
- ✓ “**Using CD/DVD**” allows video to be burned onto CD/DVD directly via third-party burning software. For GV-DVR Systems, Nero is preinstalled. Select Nero Quick Start as the path.



3. Select “Add time frame”.



4. Select desired time period by assigning **Start** and **End Time**. Once the time period has been selected, Viewlog will automatically search for video and audio files within that time period and display the total number of files in the box on the right.
5. Select cameras for backup then click”OK”.



6. Check “**Include ViewLog Player**” option then click “OK” to start backup process.

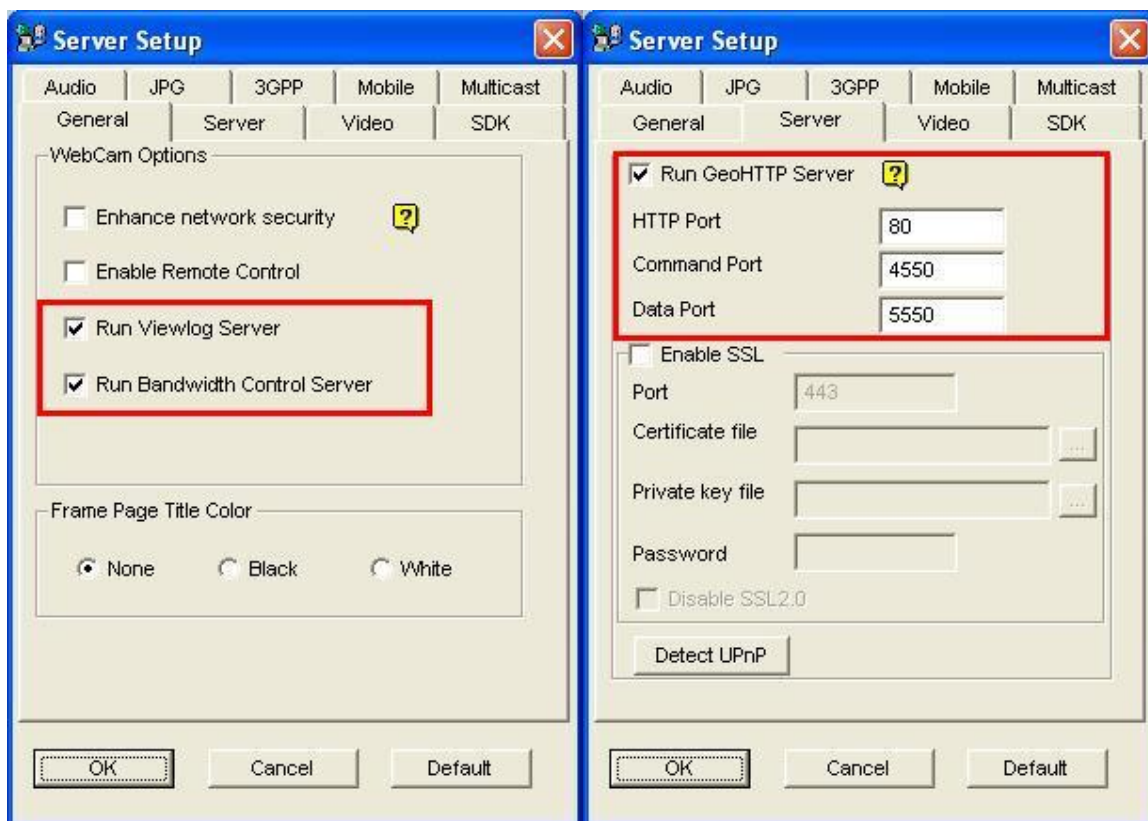
✓ For detailed instruction, refer to p.279 of v8.4 User Manual

4. Remote Viewing

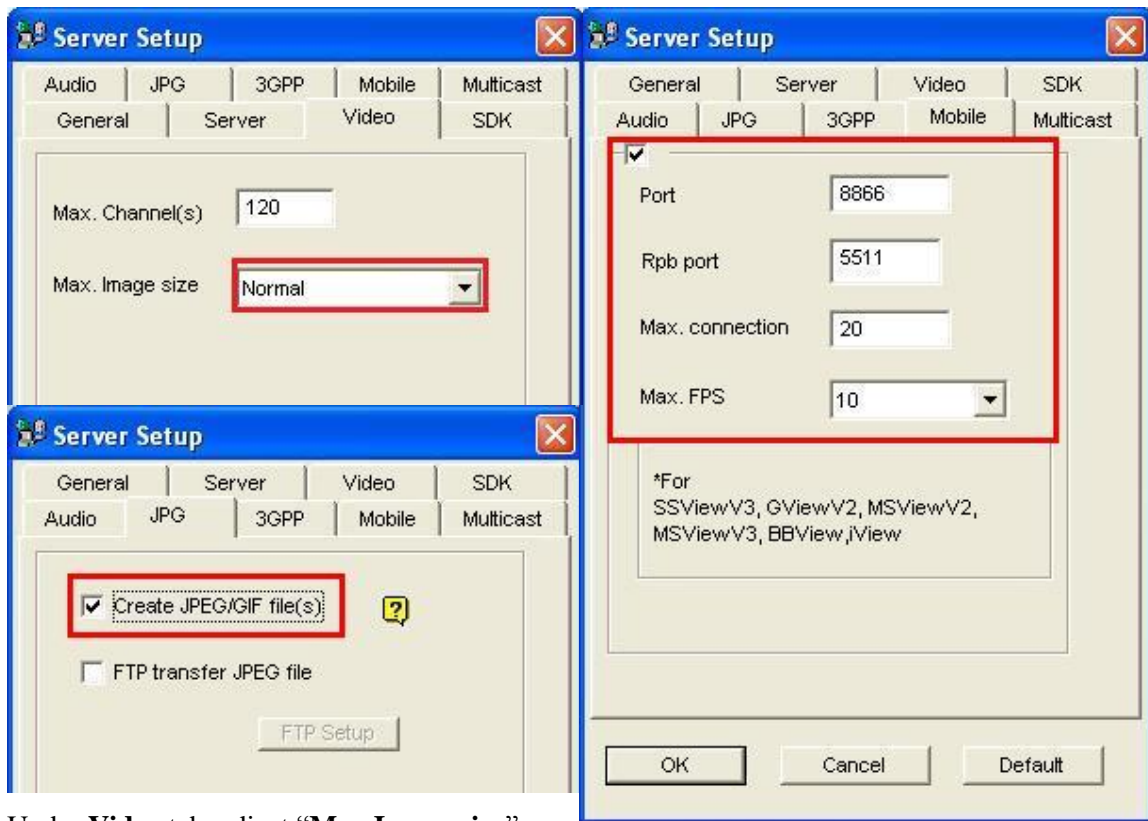
4.1 Webcam Server Setup

✓ Configure this section on GV-DVR System.

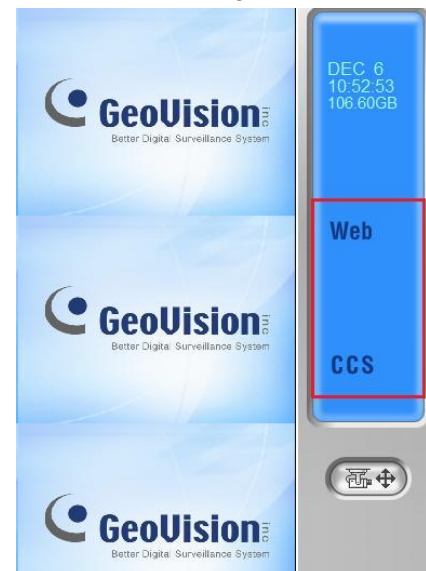
1. In Multicam, click on the “**Network**” icon.



2. Select “**Webcam Server**”.
3. Under **General** tab, check “**Enable Remote Control**” and “**Run Viewlog server**”.
 - ✓ “**Enable Remote Control**” option will allow remote users to start/stop system monitor
 - ✓ “**Run Viewlog server**” option will allow remote users to playback video files
4. Under **Server** tab, check “**Run GeoHTTP Server**” and note the port numbers used for HTTP, Command, and Data. (By default the ports are 80, 4550, and 5550 respectively)
 - ✓ The default connection ports indicated above may be changed according to user’s preference in case the port numbers listed were already used by other applications.
 - ✓ If multiple DVRs exist under the same network, it is also necessary to differentiate different DVRs by assigning different connection ports.



5. Under **Video** tab, adjust “**Max Image size**” from the drop-down list in which DVR broadcasts.
 - ✓ The default image size is set as “**Normal**” (320x240). Adjust to “**Middle**” (640x480), “**Large**” (720x480), or “**Actual Size**” (megapixel as determined by IP camera) according to user needs and bandwidth allowance.
6. Under **Mobile** tab, enable mobile phone connection to this DVR/NVR. (Default mobile ports are 8866 for live view and 5511 for playback)
7. Under **JPEG** tab, check “**Create JPEG/GIF file(s)**”.
 - ✓ “**Create JPEG/GIF file(s)**” option will allow remote users to view this system remotely via iPhone, Blackberry, and Mac
8. Click “**OK**” to exit Server Setup.
 - ✓ At this moment, it is possible to connect via LAN.
 - ✓ To connect on the same system (DVR connects to itself), access through <http://127.0.0.1> in Internet Explorer.
 - ✓ To connect from a different PC under the same LAN, access through LAN IP of the DVR in Internet Explorer. (Refer to the following section for instructions to locate LAN IP)
 - ✓ For detailed instruction, refer to p.358 of v8.4 User Manual

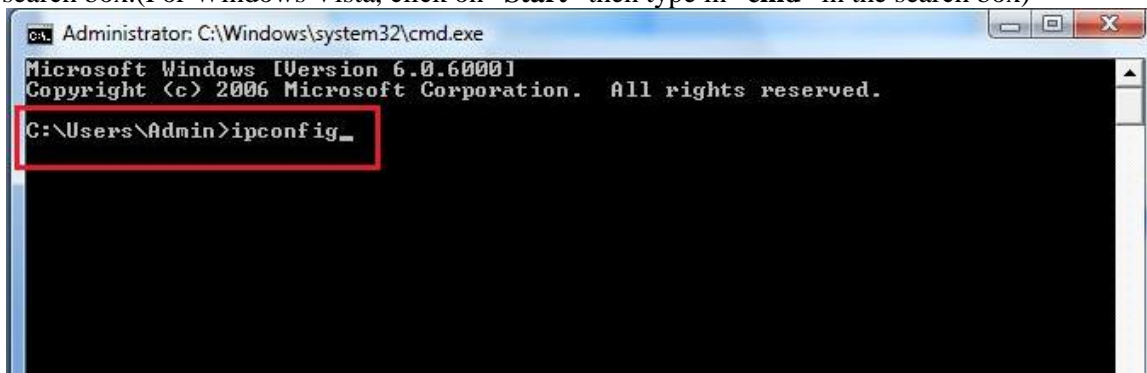


4.2 Network Port Configuration

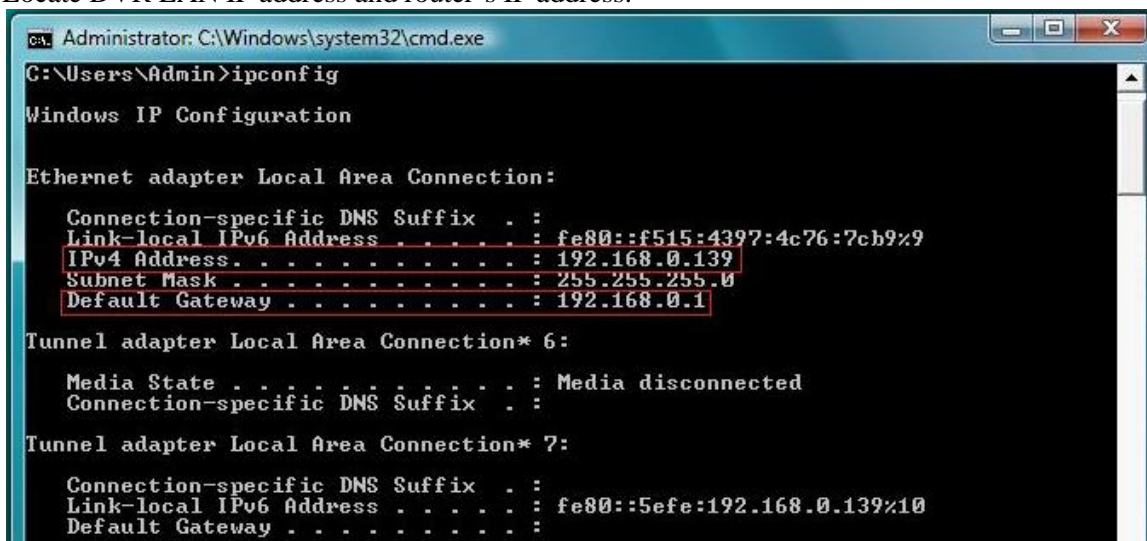
- ✓ Configure this section on GV-DVR System or any PC under the same network.

4.2.1 LAN IP Address

9. On GV-DVR System (Windows XP) desktop, click on “Start”, “Run”, then type in “cmd” in the search box.(For Windows Vista, click on “Start” then type in “cmd” in the search box)



10. In the command prompt window, type in “ipconfig”.
11. Locate DVR LAN IP address and router’s IP address.



- ✓ In the example, DVR LAN IP address is **192.168.0.139** and default gateway (router) address is **192.168.0.1**

4.2.2 WAN IP Address

12. There are several websites that will display WAN IP address of the DVR system. For example, in Internet Explorer, go to www.whatismyip.com.

- ✓ WAN IP address is necessary for remote connection from a different network

4.2.3 Port Forwarding

13. Enter default gateway (router)'s IP address in Internet Explorer. (As found in previous step)






14. When router log in page pops up, enter the **User name** and **Password** for the router.

- ✓ *Please note that user name and password of the router is not related to the ID and password used by GeoVision DVR system. Check with network administrator or refer to router's user manual for its user name and password.*

15. Follow router manufacturer's instruction on port forwarding for HTTP, Command, Data, Mobile, and RPB ports (section 4.1) to DVR's LAN IP address (step 9 from section 4.2.1).

- ✓ *Please note that port configuration for different router brands and models will vary. Refer to router manufacturer's website or manual for proper procedures. A list of common support websites and numbers can be found below:*

 http://www.actiontec.com/ support/index.php	 http://www.netgear.com/Support.aspx	 http://support.dlink.com/
 http://www.linksys.com/ support	 http://www.westell.com/ technical-support/technical- support.html	 http://support.2wire.com/
 877-722-3755	 888-321-2375	 800-567-6789

16. After finish port forwarding, it is necessary to verify port status. In Internet Explorer, go to www.canyouseeme.org.

Common Ports	
FTP	21
SSH	22
Telnet	23
SMTP	25
Web	80
Pop 3	110
IMAP	143
Other Applications	
Remote Desktop	3389
PC Anywhere	5631

17. Underneath the displayed WAN IP address, input one of the ports which has been opened in step 13, click on “**Check**”.

- ✓ If you see the message “**Error**: I could not see your service”, then this specific port has not been opened or configured correctly. Verify step 13 again. (Port 80 is being used in the example below)

Error: I could **not** see your service on **24.248.96.178** on port **(80)**
Reason: Connection timed out

- ✓ If you see the message “**Success**: I can see your server”, then this specific port has been opened and configured correctly. (Port 80 is being used in the example below)

Success: I can see your service on **24.248.96.178** on port **(80)**
Your ISP is not blocking port 80

18. Repeat Step 15 for each of the port opened to ensure all ports are properly opened and forwarded.

- ✓ At this moment, it is possible to connect via WAN.

4.3 Multiview Setup

- ✓ Configure this section on remote PC.

4.3.1 Install Multiview

Multiview can be obtained from one of the following locations:

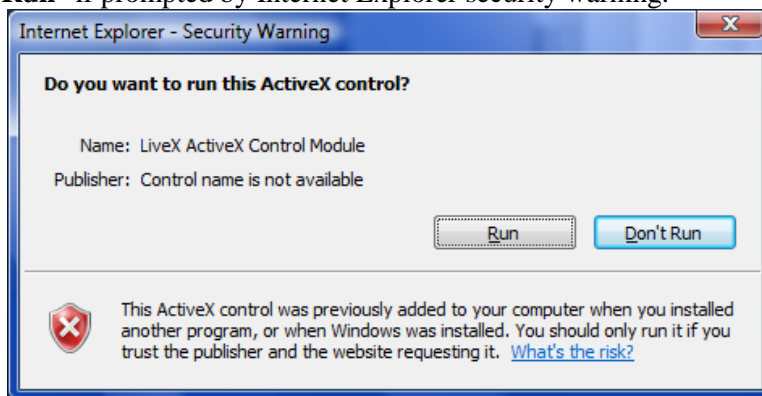
- ✓ Download from GV-DVR system remotely via Internet Explorer.
- ✓ Install from GeoVision installation disk.
- ✓ Download from <http://www.usavisionsys.com/download>.

Download from GV-DVR System

1. Under Internet Explorer, type in DVR's IP address as found in section 4.2.2. (If connecting within the same network, use LAN IP address as found in 4.2.1.)
2. Type in ID and Password of the DVR system
3. Click "**Login**".
4. Install all ActiveX Control as prompted. (ActiveX Control options will appear as an orange bar on top)
5. Click on orange bar as shown below, then select "**Install**" or "**Run Add-on**".



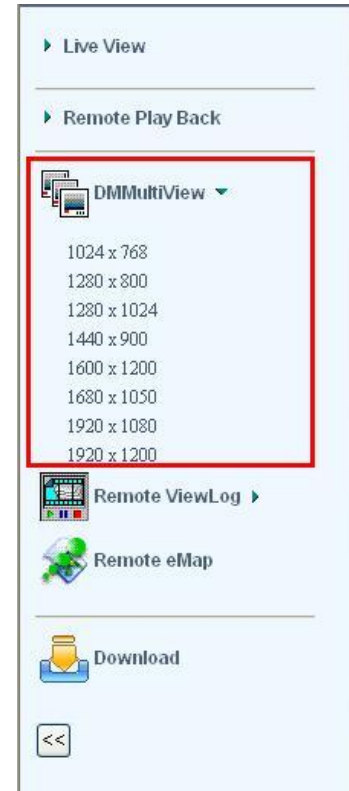
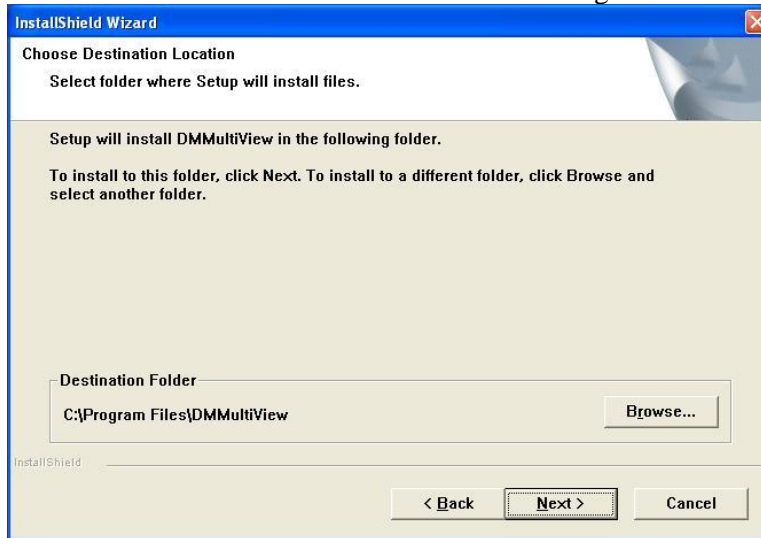
6. Refresh webpage. (Login may be required).
7. Select "**Run**" if prompted by Internet Explorer security warning.



8. When one channel view appears on the webpage, click on “**DMMultiView**” from the menu list on the left.
9. Select “**1024x768**” to download Multiview.

✓ *Select higher resolution Multiview only if your desktop supports such resolution*

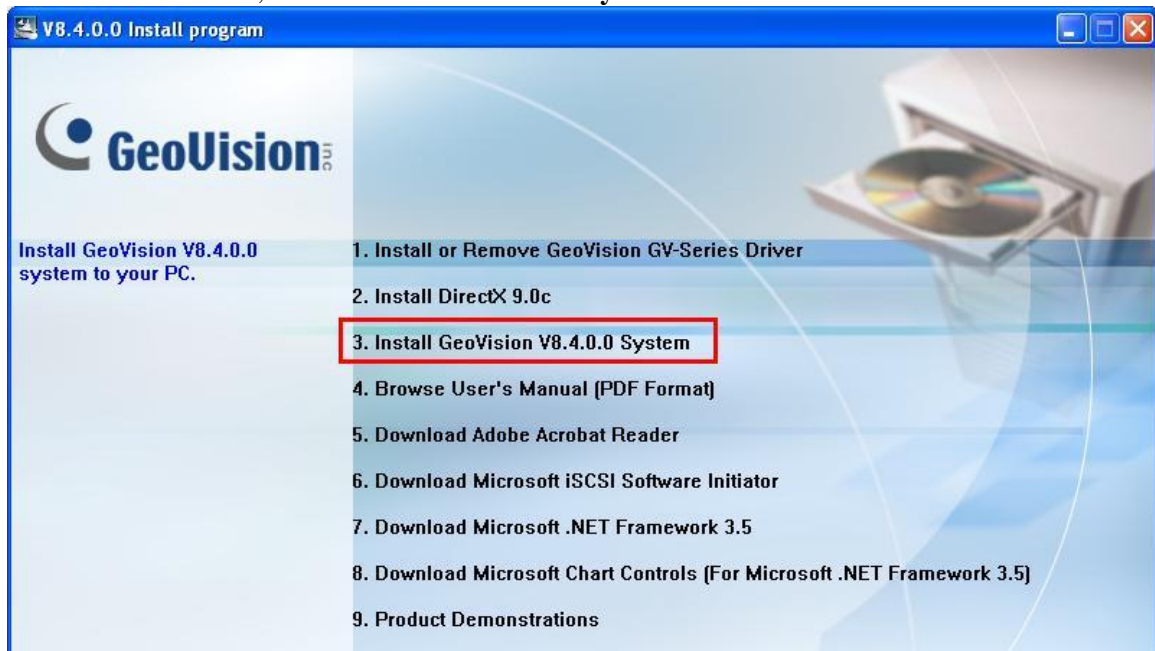
10. Follow on-screen instruction to finish installing Multiview.



11. Proceed to Section 4.3.2 Run Multiview.

Install from Disk

1. Insert GeoVision Main System Installation Disk in DVD Rom.
2. In the main menu, select “**Install GeoVision System**”.



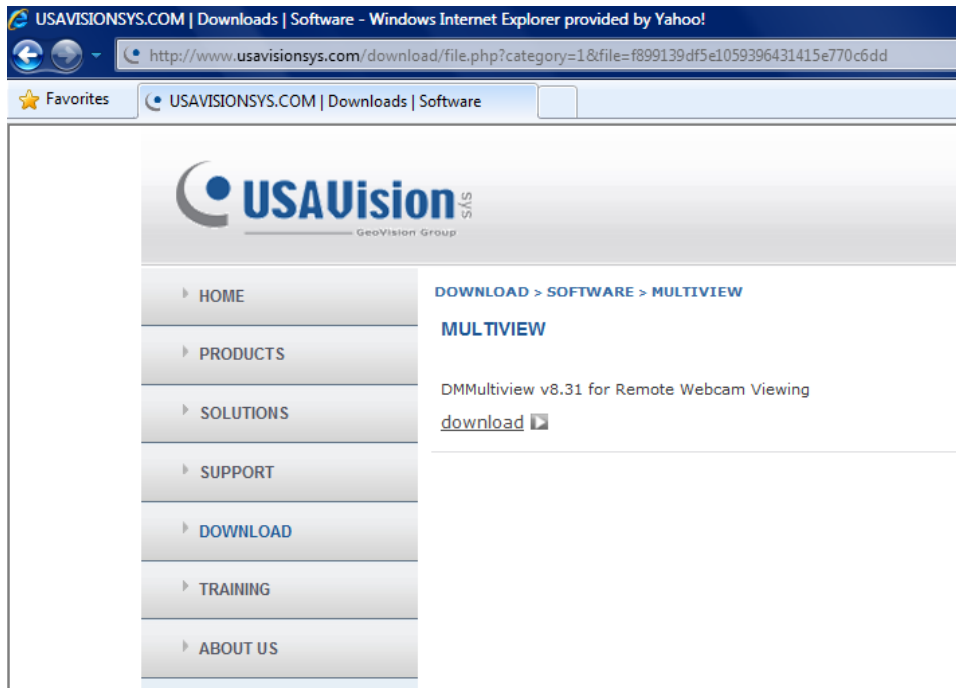
3. Select “GeoVision Multi View”.



4. Follow on-screen instruction to finish installing Multiview.
5. Proceed to Section 4.3.2 Run Multiview.

Download from Website

1. In Internet Explorer, go to <http://www.usavisionsys.com/download>.
2. Click on “**Software**”.
3. Click on “**Multiview**”.
4. Click on “**Download**”.



5. After download, extract the zip file then run **Setup.exe** to begin setup.
6. Follow on-screen instruction to finish installing Multiview.
7. Proceed to Section 4.3.2 Run Multiview.

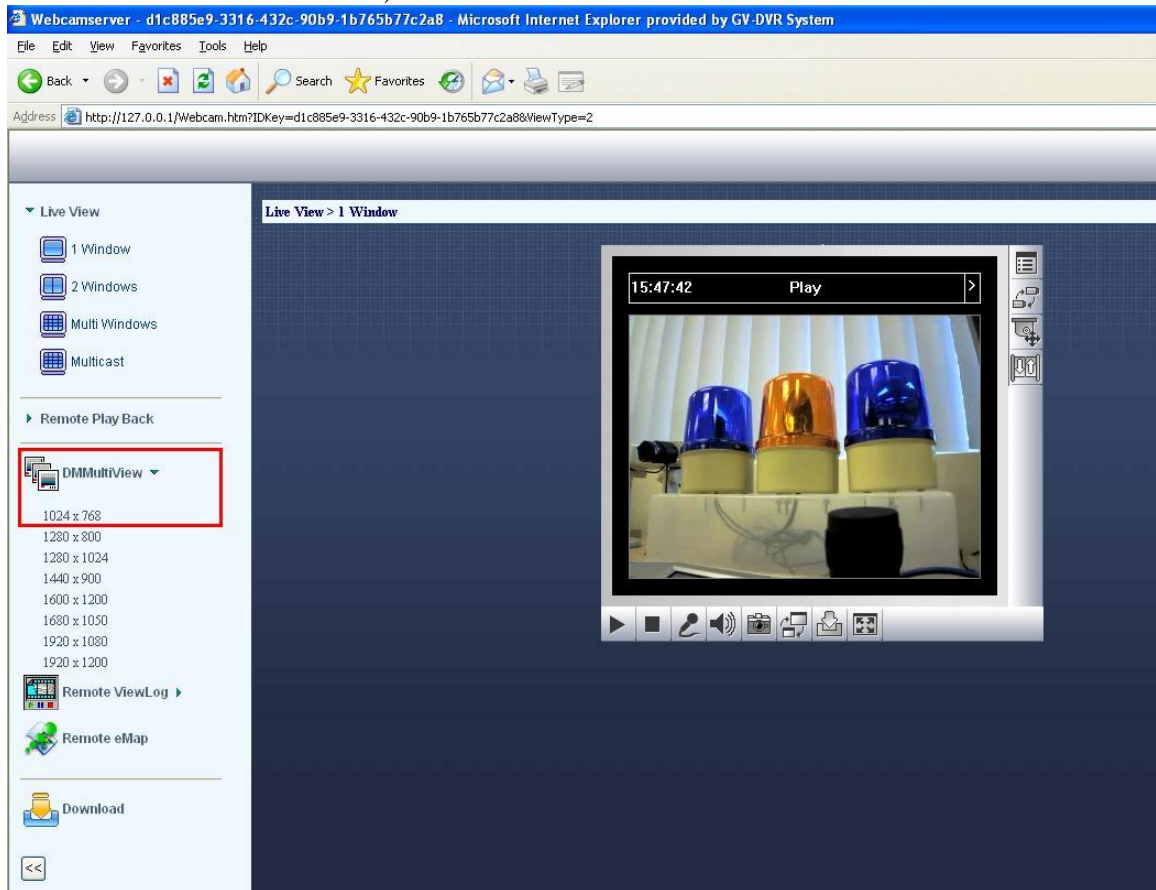
4.3.2 Run Multiview

Multiview can be executed from one of the following locations:

- Access via Internet Explorer.
- Access via Start, All Programs, DMMultiview.

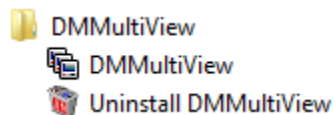
Access from Internet Explorer

- Under Live View window in Internet Explorer, select “**DMMultiview**”.
- Select “**1024x768**”. (If a different resolution has been selected in step 9 from section 4.3.1, select that resolution instead)



Access from Internet Explorer

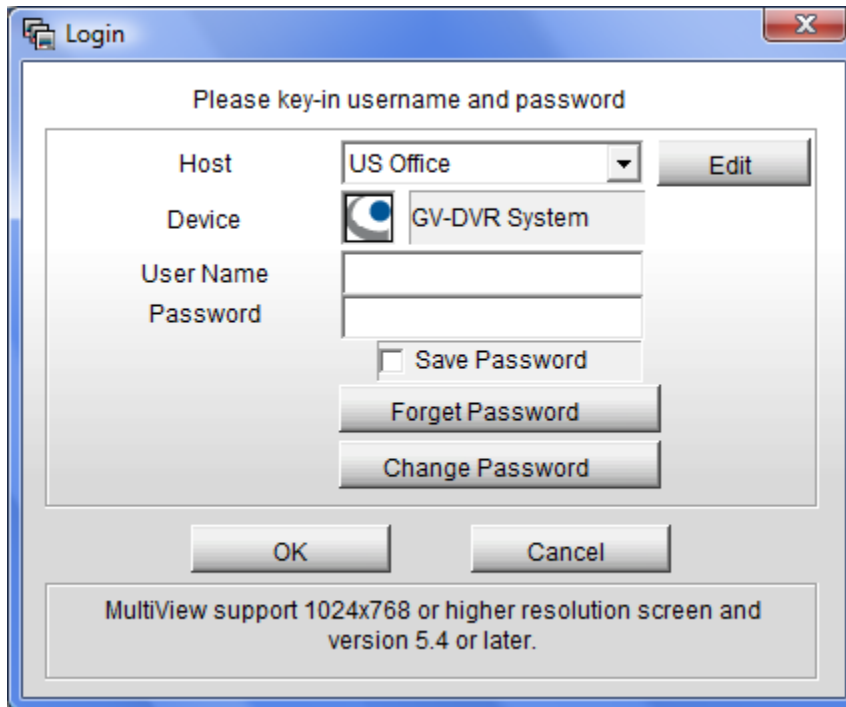
- On Windows desktop, click on “**Start**”.
- Click on “**All Programs**”, select “**DMMultiView**”.
- Click on “**DMMultiView**”.



4.4 Multiview

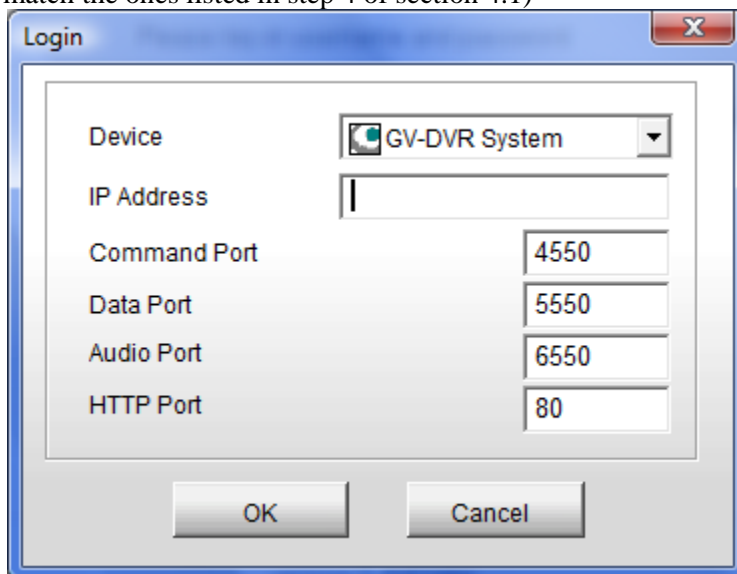
4.4.1 Connect to DVR

1. Enter **User Name** and **Password** to connect to Host DVR listed above.



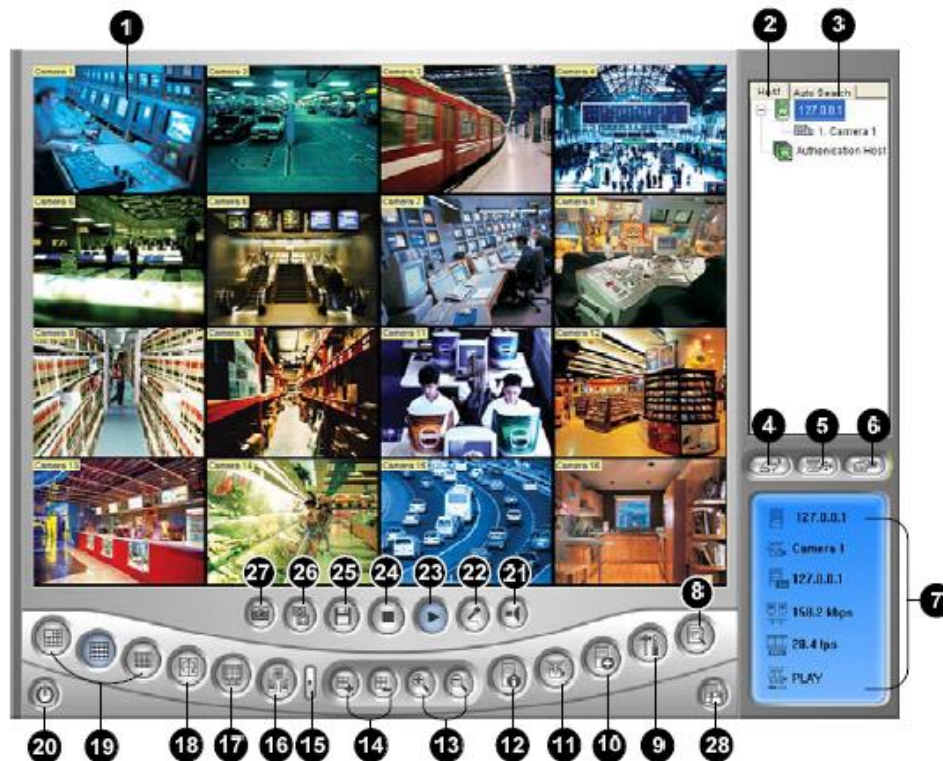
The Login dialog box has a title bar with a close button (X). The main area contains the text "Please key-in username and password". Below this, there are fields for "Host" (a dropdown menu showing "US Office" with an "Edit" button next to it), "Device" (a dropdown menu showing "GV-DVR System" with a camera icon), "User Name" (a text input field), and "Password" (a text input field). There are also checkboxes for "Save Password", buttons for "Forget Password" and "Change Password", and "OK" and "Cancel" buttons at the bottom. A footer note states: "MultiView support 1024x768 or higher resolution screen and version 5.4 or later."

2. To change Host IP address and port information, select "**Edit**".
3. Enter new Host IP address and port information, then click "**OK**". (Port information should match the ones listed in step 4 of section 4.1)



The Edit Host IP and Port dialog box has a title bar with a close button (X). It contains fields for "Device" (a dropdown menu showing "GV-DVR System" with a camera icon), "IP Address" (a text input field), "Command Port" (a text input field with "4550"), "Data Port" (a text input field with "5550"), "Audio Port" (a text input field with "6550"), and "HTTP Port" (a text input field with "80"). There are "OK" and "Cancel" buttons at the bottom.

4. Click "**OK**" in the Login window to bring up Multiview.



The controls in the Multi View:

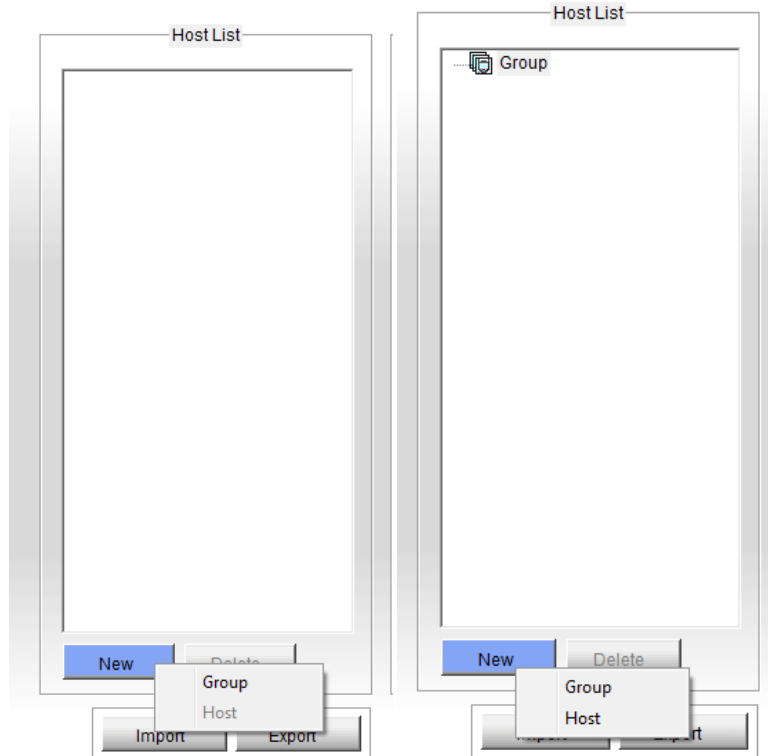
No.	Name	Description
1	Monitoring Window	Displays live video. Right-clicking on live video allows you to instantly access some useful functions. Selecting Resolution displays a resolution indicator at the bottom right corner of the video.
2	Host List	Displays the connected GV-Systems and their available cameras. See <i>Host List</i> topic later.
3	Auto Search	Displays all hosts on the same LAN. See <i>Host List</i> topic later.
4	Show Camera Menu	Select the desired camera for display. If a panorama view is created at the GV-System, it is also included in this menu.
5	PTZ Control	Displays the PTZ control panel. See <i>PTZ Control</i> , and <i>Visual PTZ Control Panel</i> topics later.
6	I/O Control	Displays the I/O control panel. See <i>I/O Control</i> topic later.
7	Channel Status	Indicates the general information of the selected channel. See <i>Channel Status Information</i> topic later.

8	ViewLog	Plays back recorded files of the remote GV-System by using the video player ViewLog. <i>See Remote ViewLog topic later.</i>
9	Configure	Accesses system settings of the Multi View. <i>See System Configuration topic later..</i>
10	Edit Host	Adds, deletes or modifies a host. <i>See Adding a Host topic later.</i>
11	Camera Status	Displays the camera status of the connected GV-System. <i>See Camera Status Display topic later.</i>
12	Host Information	Displays the general information of the connected GV-System. <i>See Host Information topic later.</i>
13	Zoom in and out	Zooms in or out the selected channel.
14	Add/Remove Channel	Adds or deletes the channels for video polling. Click the Add or Remove Channel button and then click the desired channel to add to or remove from the video polling.
15	Next	Goes to the next page of Screen Division buttons.
16	Multicast	Accesses the Multicast function.
17	Full Screen	Switches to a full screen view. The maximum video resolution set on the GV-System will be applied. <i>See [Video], WebCam Server Settings</i> earlier in this chapter.
18	Video Polling	Rotates through the selected channels. <i>See Video Polling topic later.</i>
19	Screen Division	Sets screen divisions to 4, 6, 8, 9, 10, 13, 16 or 32.
20	Exit/Minimize	Closes or minimizes the Multi View window.
21	Speaker	Enables live audio from a remote GV-System.
22	Microphone	Enables speaking to a remote GV-System.
23	Play	Establishes the connection to a GV-System.
24	Stop	Terminates the connection to a GV-System.
25	Save	Saves live video. <i>See Video Recording topic later.</i>
26	Quality	Adjusts video quality with two options: Geo H264 and Geo MPEG4 . For hardware-compressed and megapixel quality, see <i>Hardware-Compressed and Megapixel Stream</i> topic later.
27	Snapshot	Takes a snapshot of the selected channel.
28	Save Camera to Multiple Host	Saves the selected cameras and creates a Multiple Host. <i>See Combing Multiple Hosts into a Single Host</i> topic later.

4.4.2 Single Host

Through Single Host, Multiview provides the ability to save DVR's IP address, user name, and password in an address book to allow streaming video from multiple DVRs.

1. In Multiview, click on “**Edit Host**” button as shown above.
2. Click “**New**” button then select “**Group**” to create a new group.



3. After a group is created, click “**New**” button then select “**Host**” to create a new host.
4. Name the DVR in “**Host Name**” for identification.
5. Enter **IP Address**, **User Name**, **Password**, as well as **Ports** used for DVR.
6. Click on “**Save**”.
7. Repeat steps 1 to 6 to add multiple DVRs into host list.
8. Click on “**OK**”.

- ✓ For detailed instruction, refer to p.399 of v8.4 User Manual

The image shows a 'Host Informations' dialog box. At the top, there is a checkbox for 'Host Protection' which is unchecked. Below it is a text field for 'Host Name' containing 'New Host'. Underneath is a section for device configuration. It starts with a 'Device' dropdown menu set to 'GV-DVR System'. Below this are four text input fields: 'IP Address', 'User Name', 'Password', and 'Command Port'. To the right of the 'Command Port' field is a text box containing '4550'. Below 'Command Port' are three more text input fields: 'Data Port', 'Audio Port', and 'HTTP Port'. To the right of the 'Data Port' field is a text box containing '5550'. To the right of the 'Audio Port' field is a text box containing '6550'. To the right of the 'HTTP Port' field is a text box containing '80'. At the bottom of the dialog, there are two buttons: 'Change Password' and 'Save'.

4.4.3 Multi Host

Through Multi Host, user may customize each channel to pull up video from different DVRs directly.

1. Follow steps 1 to 3 in section 4.4.2.
2. Select “**Multiple Host**” instead of Single Host above.

The image shows two overlapping windows from a software interface. The 'Host Information' window is in the background, and the 'Camera Setting' window is in the foreground.

Host Information Window:

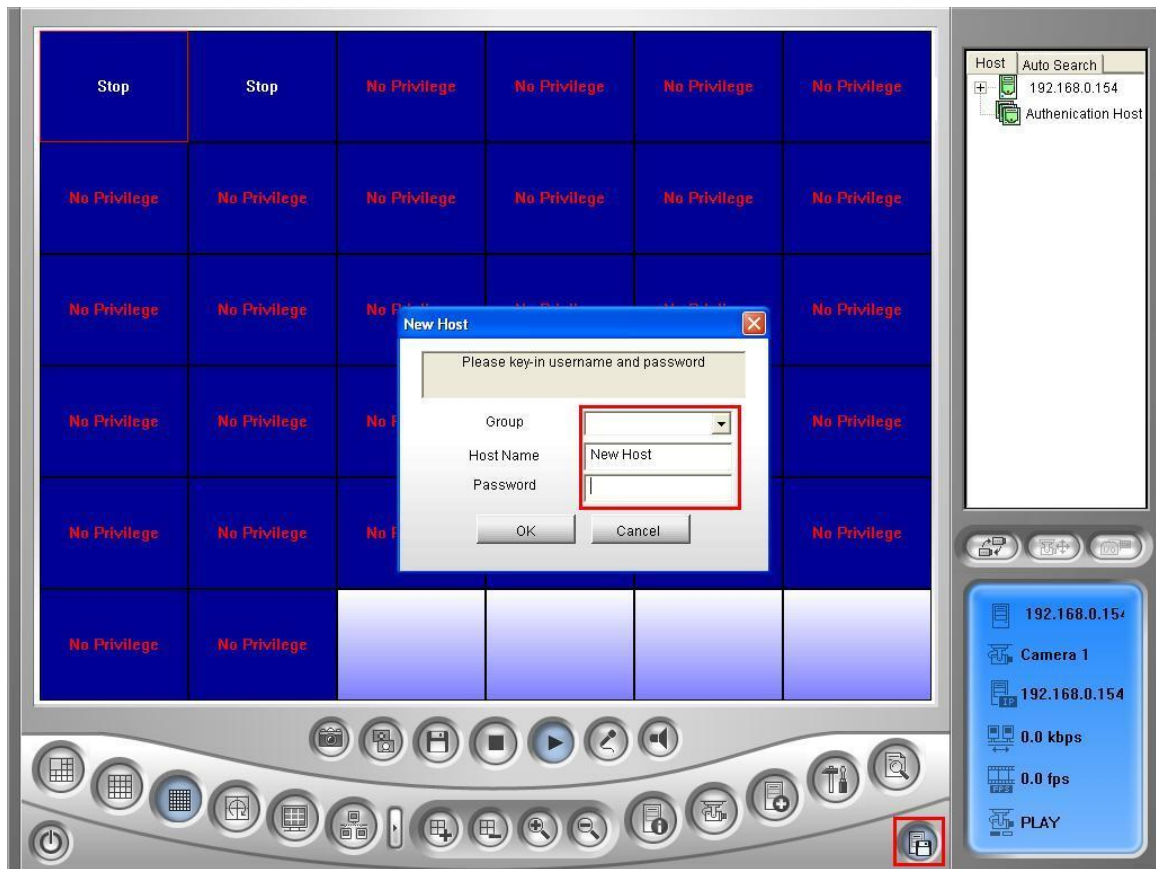
- Host Protection: ☐
- Single Host: ☐ Multiple Host: ☒ (highlighted with a red box)
- Host Name: New Host
- Password: [Empty field]
- A table with 16 rows and 2 columns. Each row has a number (1-16) and an 'Edit' button. Each 'Edit' button is preceded by a small icon with a red 'X' over it.
- Save button at the bottom right.

Camera Setting Window:

- Device: GV-DVR System (dropdown menu)
- IP Address: [Empty text field]
- User Name: [Empty text field]
- Password: [Empty text field]
- Camera No.: 1 (dropdown menu)
- Command Port: 4550
- Data Port: 5550
- Audio Port: 6550
- Buttons: OK, Delete, Cancel

3. For each camera, click on “**Edit**”.
 4. Enter **IP Address**, **User Name**, **Password**, as well as **Ports** used for DVR.
 5. Select **Camera No.** on the DVR to be played for this channel.
 6. Click “**OK**” to save camera information for this channel.
 7. Repeat steps 1 to 6 to define Camera information for each channel.
 8. Click on “**Save**”.
 9. Click on “**OK**”.
- ✓ For detailed instruction, refer to p.400 of v8.4 User Manual

Alternatively, Multiple Host can also be saved directly from Multiview if user wishes to save the current viewing channel combination.



1. Under Multiview, adjust live view channel layout by drag and drop video channels from multiple DVR sources from the host list on the right.
2. When the desired live view combination has been assembled, click on **Save Host** button at the lower right hand corner of Multiview.
3. Assign a **Group**, if any, then **Host Name** and **Password** for this MultiHost configuration.
4. Click **OK**.

4.5 Mobile Phone/ PDA Viewing

In v8.4, GeoVision provides a variety of mobile applications designed for remote viewing. In addition to existing MSView for Microsoft Smart Phone, GView for Microsoft PDA, and SSVIEW for Symbian Phone, GeoVision also offers BBView for Blackberry, iView for iPhone, and AView for Android phone.

- ✓ *In order to view v8.4 DVR Systems remotely, mobile applications must also be installed from GeoVision v8.4 Installation Disk.*

4.5.1 Applications

Application	GView V2
Phone OS	Windows Mobile 5.0 and 2003 Windows Mobile 6.0/ 6.1 Classic/Professional
Ports	Data: 8866 RPB: 5511
Multicam version	V8.30 and newer
Sync Application	Microsoft Active Sync/ Windows Mobile Device Center

Application	MSView V2
Phone OS	Windows Mobile 5.0 and 2003
Ports	Data: 8866 RPB: 5511
Multicam version	V8.30 and newer
Sync Application	Microsoft Active Sync/ Windows Mobile Device Center

Application	MSView V3
Phone OS	Windows Mobile 6.0/ 6.1 Classic/Professional
Ports	Data: 8866 RPB: 5511
Multicam version	V8.30 and newer
Sync Application	Microsoft Active Sync/ Windows Mobile Device Center

Application	SSView V3
Phone OS	Nokia S60 2 nd /3 rd Edition
Ports	Data: 8866 RPB: 5511
Multicam version	V8.30 and newer
Sync Application	Microsoft Active Sync/ Windows Mobile Device Center

Application	BBView
Phone OS	Blackberry OS v4.2.1 or newer
Ports	Data: 8866
Multicam version	V8.32 and newer
Sync Application	Blackberry Desktop Manager

Application	GV-iView
Phone OS	iPhone OS 2.2 or newer
Ports	Data: 8866 RPB: 5511 Http: 80 Command: 4550 Data: 5550
Multicam version	V8.32 and newer
Sync Application	iTunes

Application	GV-AView
Phone OS	Android OS 1.5 or newer
Ports	Data: 8866 Http: 80 VSS: 10000
Multicam version	V8.4 and newer
Sync Application	Android Market

- ✓ GView instructions can be found on p.427 of v8.4 User Manual
- ✓ MSView instructions can be found on p.435 of v8.4 User Manual
- ✓ SSView instructions can be found on p.439 of v8.4 User Manual
- ✓ BBView instructions can be found on p.442 of v8.4 User Manual
- ✓ iView instructions can be found on p.449 of v8.4 User Manual
- ✓ AView instructions can be found on p.455 of v8.4 User Manual

4.5.2 GV-iView Setup

GV-iView is designed to view GeoVision DVR/NVR systems on iPhone, iPod Touch, as well as iPad. GV-iView can be downloaded directly on the iPhone as shown below. Periodic upgrades are available through the App Store as well.

- ✓ Before connecting to a DVR, make sure that “**Create JPEG/GIF File(s)**” option is checked under Webcam Server Setup (Section 4.1)

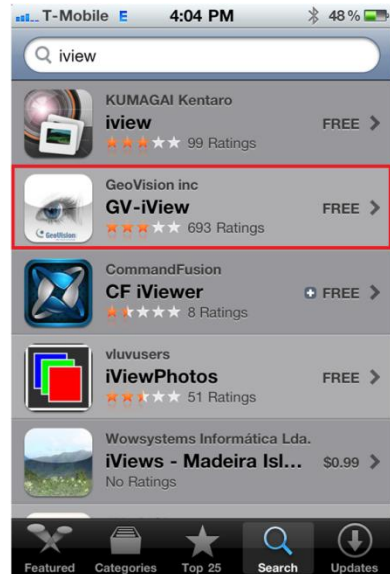
1. Click on App Store



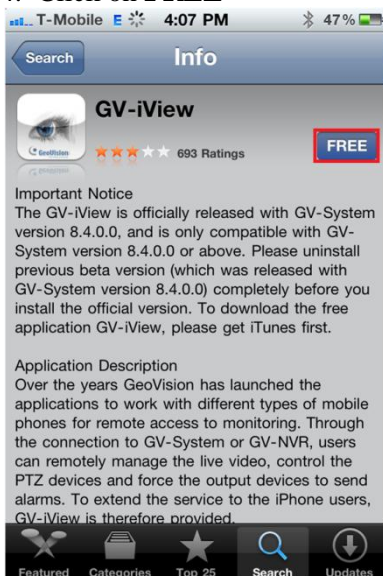
2. Type in “iView” in search box



3. Select GV-iView



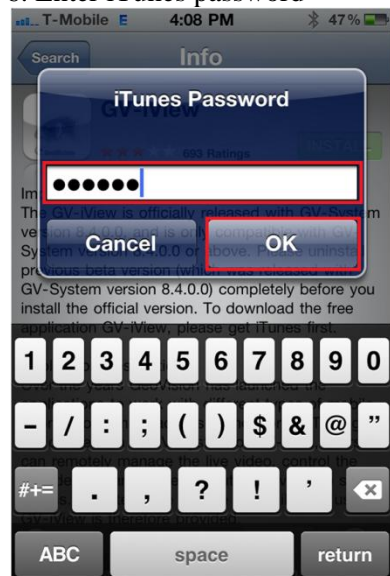
4. Click on FREE



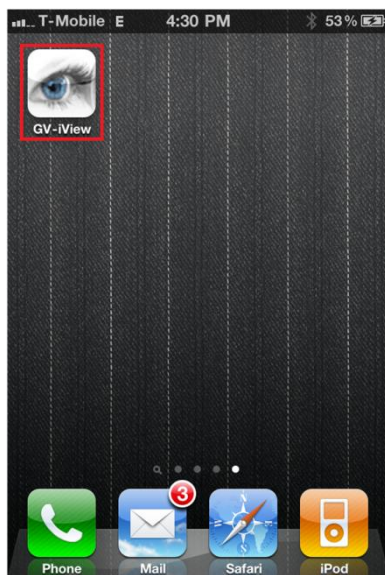
5. Click on INSTALL



6. Enter iTunes password



7. After download, locate and run **GV-iView**



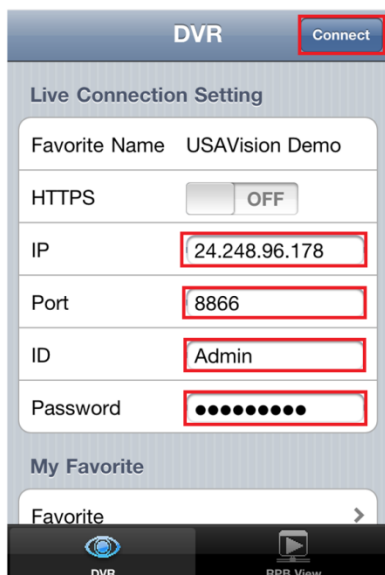
10. Click on **Arrows** button to trigger I/O

Click on left/right blue arrows to change module number

Scroll to right to change output number



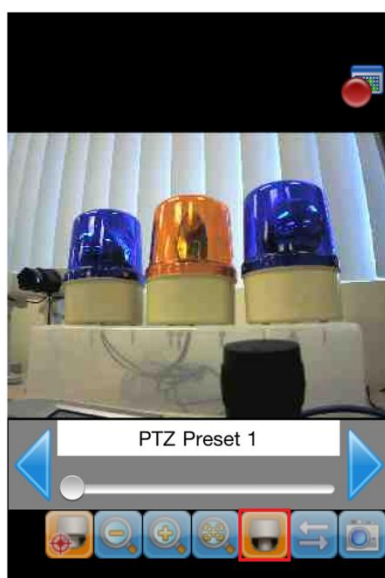
8. Enter **IP, Port number, ID,** and **Password** for the DVR



11. Click on **PTZ** button to control PTZ

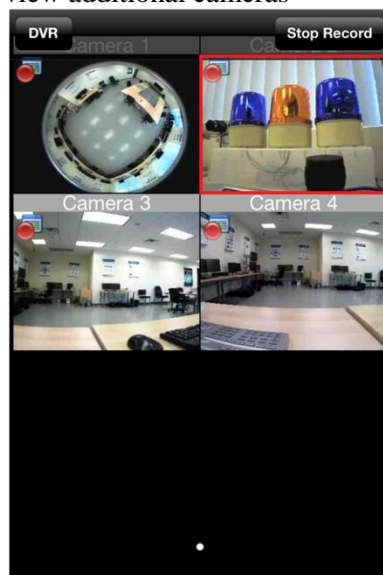
Drag the image to pan and tilt

Click on the Preset button to go to certain PTZ preset

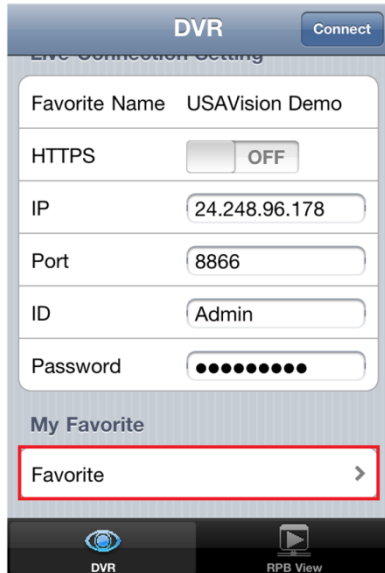


9. Double-tap on a camera to enter single view.

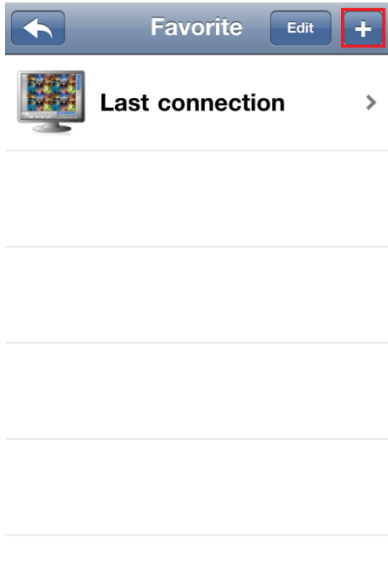
Scroll the cameras to the left to view additional cameras



1. To add a GeoVision DVR/NVR to the address book, click on **Favorite**



2. Click on +

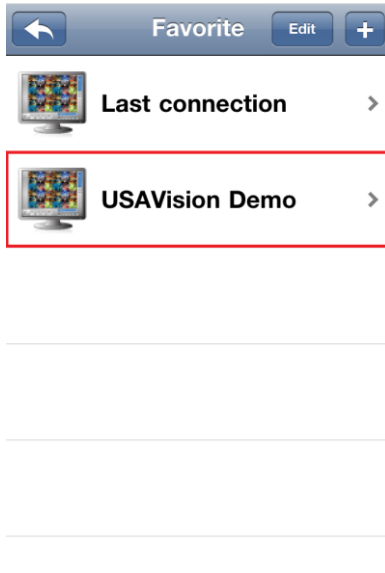


3. Enter DVR information to be saved in the address book

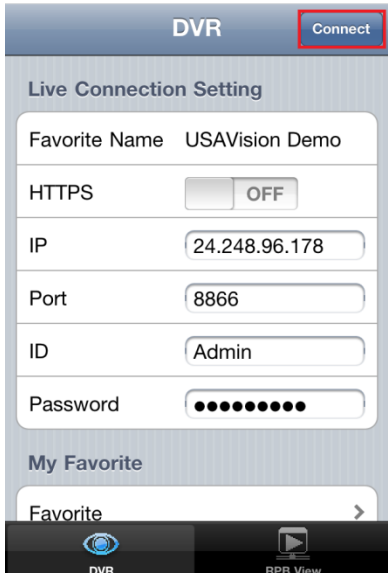
Click on **Save**



4. To connect to a DVR from the address book, select the DVR from Favorite list



5. Click **Connect**



5. Useful Utilities

The following utilities are useful supplementary applications.

5.1 Keylock Utility

Keylock Utility is default on GV-DVR Systems. The purpose of Keylock Utility is to increase DVR system security by restricting user access to only certain programs in Windows. DVR administrators may edit the list of programs accessible on the DVR or simply disable Keylock mode to return to regular Windows desktop.

5.1.1 Enter Keylock Utility

To enter Keylock mode from Windows desktop, follow the steps below:

1. On Windows desktop, click on “**Start**”.
2. Click on “**All Programs**”.
3. Click on “**GVCombo**” folder. (Alternatively, the name of the folder may vary according to the GeoVision card model you are using. I.E. GV1480)
4. Locate and run **Key Lock Utility**.



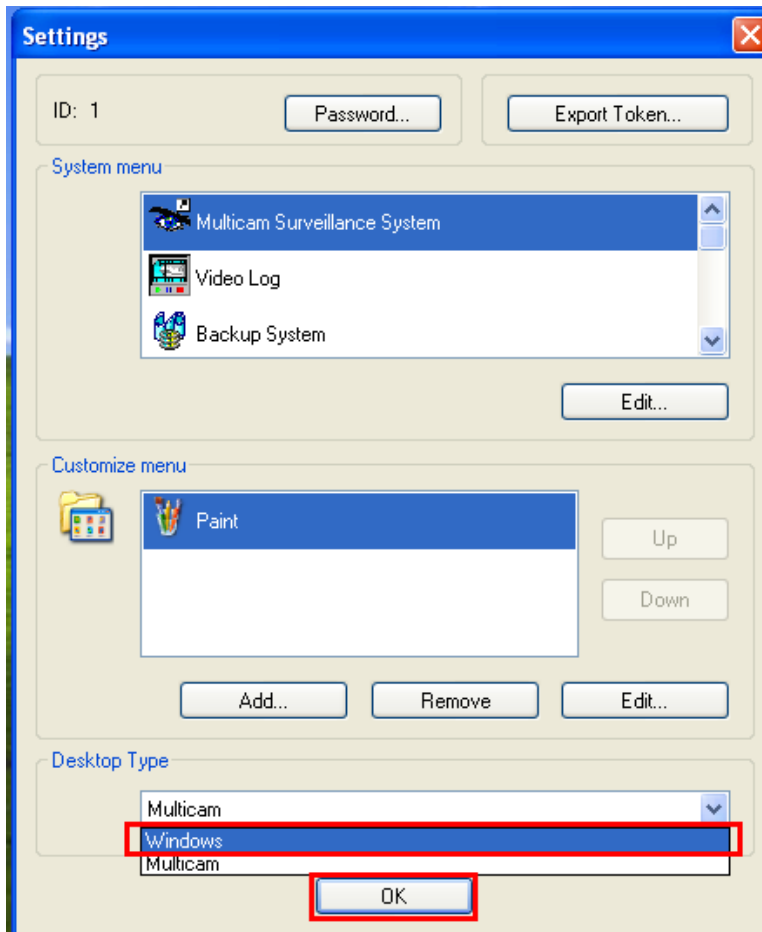
5.1.2 Exit Keylock Utility

To exit Keylock mode and return to Windows desktop, follow the steps below:

1. Under Keylock mode, click on “**Settings**” button.
2. Enter DVR system **ID** and **Password**.
3. Click “**OK**”.



4. In Settings window, under Desktop Type, switch from “Multicam” to “**Windows**” in the drop-down list.
5. Click “**OK**”.



6. Click on “**Log off**” button.
7. Enter DVR system **ID** and **Password**.
8. Click “**OK**”.



9. When DVR returns to Windows Welcome screen, click on **Administrator** account to log in.
10. Once logged in, regular Windows desktop should appear.

✓ For detailed instruction, refer to p.520 of v8.4 User Manual

5.2 IP Device Utility

IP Device Utility is used to configure and update GeoVision IP devices that include GV-IP Camera, GV-Video Server, GV-Compact DVR, and GV-LPR DSP. The utility can help you perform the following configurations on GV-IP devices:

1. Assign device name.
2. Change IP address and port information.
3. Update firmware.
4. Reset.

5.2.1 Install IP Device Utility

For GV-DVR Systems, IP Device Utility is preinstalled. To locate the application, follow the steps below:

1. On Windows desktop, click on “**Start**”.
2. Click on “**All Programs**”.
3. Locate and run **GV-IP Device Utility** under GV folder.

Install from Disk

In case GV-IP Device Utility is missing, follow the steps below:

1. Insert GeoVision IP Device Disk in DVD Rom. (IP Device DVD can be found with each GV-IP Device package)
2. In the main menu, select “**Install GV-IP Device Utility**”.

Download from Website

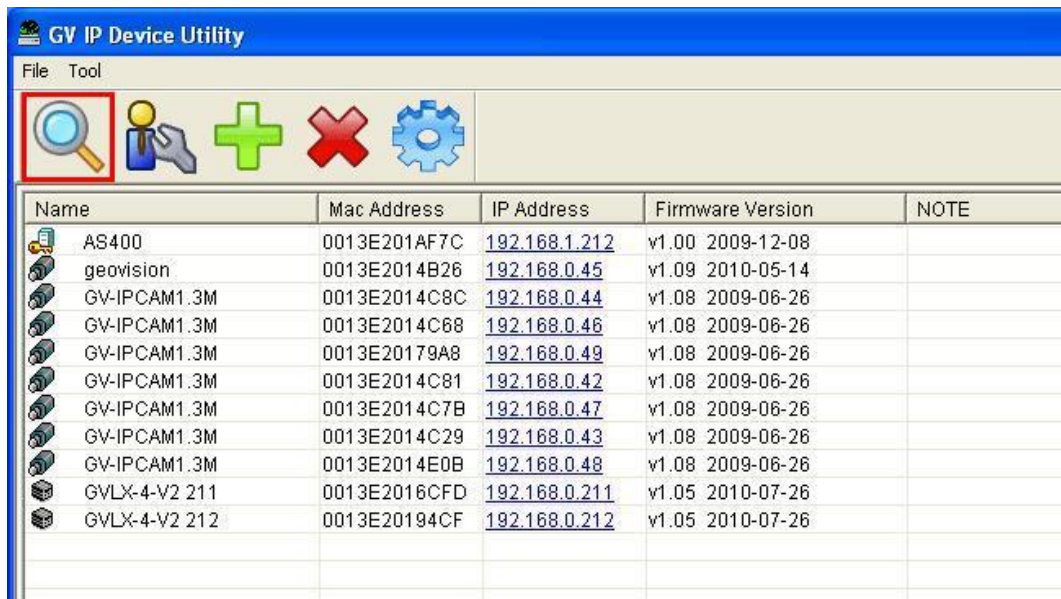
Alternatively, IP Device Utility can also be downloaded from USAVision website:

1. In Internet Explorer, go to <http://www.usavisionsys.com/download>.
2. Click on “**Utilities**”.
3. Download and install **IP Device Utility**.

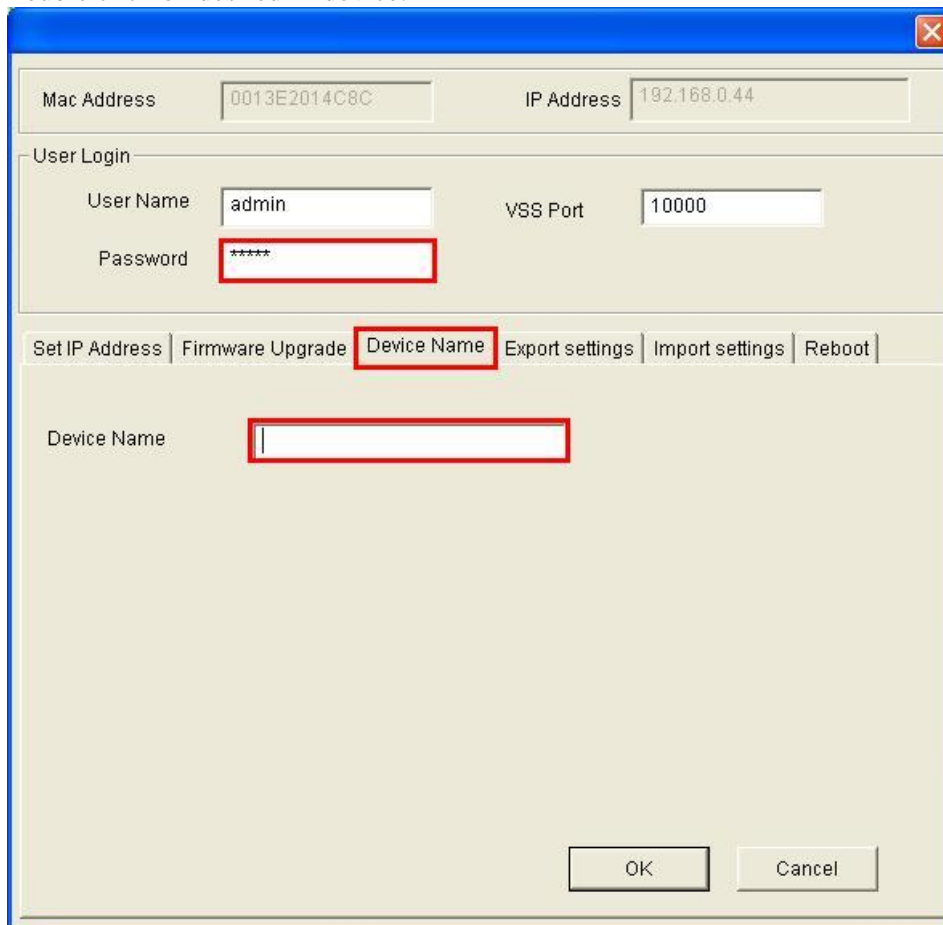


5.2.2 Assign Device Name

1. Run **GV-IP Device Utility**.
2. Click on “**Search**” to search for all GV-IP Devices under the same network.



3. Double click on desired IP device.



4. Enter **Password** for the IP Device. (By default, GV-IP Device password is admin)
5. Select **Device Name** tab, then enter **Device Name**.
6. Click “**OK**”.

5.2.3 Change IP Address and Port Information

7. Select **Set IP Address** tab, then input **IP Address**, **Subnet Mask**, **Default Gateway**, and **DNS Server** according to actual network settings. (Default network settings shown)

The screenshot shows a configuration window for an IP device. At the top, there are fields for 'Mac Address' (0013E2014C8C) and 'IP Address' (192.168.0.44). Below this is a 'User Login' section with 'User Name' (admin) and 'Password' (*****). The 'Set IP Address' tab is selected and highlighted with a red box. This tab contains several configuration fields: 'IP Address' (192.168.0.44), 'Subnet Mask' (255.255.255.0), 'Default Gateway' (192.168.0.1), 'DNS Server' (192.168.0.1), 'HTTP Port' (80), and 'VSS Port' (10000). A red box highlights the IP Address, Subnet Mask, Default Gateway, and DNS Server fields. At the bottom right are 'OK' and 'Cancel' buttons.

8. To use non-default ports, change the values in **HTTP Port** and **VSS Port**. (Default ports shown)
 9. Click “**OK**”.
- ✓ *If no IP device can be found or some devices are missing from IP Device Utility search, verify the IP properties of the PC (as shown in section 4.2.1) and make sure that they match the properties of the IP Devices. (Default IP properties for GV-IP Devices are shown above)*

5.2.4 Update Firmware

10. Prior to firmware update, download newest firmware from www.geovision.com.tw.
11. Click “**Download**”, select “**Firmware Download**”.
12. Download applicable firmware onto PC or thumb drive on the following page.



13. In IP Device Utility, select **Firmware Upgrade** tab.

A screenshot of the 'IP Device Utility' application window, specifically the 'Firmware Upgrade' tab. The window has a blue title bar and a close button in the top right corner. It contains several input fields and buttons. At the top, there are fields for 'Mac Address' (0013E2014C8C) and 'IP Address' (192.168.0.44). Below these is a 'User Login' section with 'User Name' (admin) and 'VSS Port' (10000). The 'Password' field is masked with asterisks and is highlighted with a red rectangle. Below the login section is a tabbed interface with five tabs: 'Set IP Address', 'Firmware Upgrade' (highlighted with a red rectangle), 'Device Name', 'Export settings', and 'Import settings'. Below the tabs is a 'Version' field with a dropdown menu showing '---' and a 'Browse...' button (highlighted with a red rectangle). Below the version field is a checkbox labeled 'Upgrade all devices' (highlighted with a red rectangle). At the bottom right are 'Upgrade' and 'Cancel' buttons.

14. Click “**Browse**” and locate the firmware as downloaded in step 12. (Firmware has .img file extension)
15. If the same firmware update applies to all GV-IP Devices found via search, check “**Upgrade to all video servers**” option to apply firmware update on all GV-IP Devices found.
16. Click “**Upgrade**”.

5.2.5 Export Settings

To preserve custom settings on GV-IP devices, settings can first be exported via GV-IP Device Utility. The exported settings can be applied on any GV-IP device of the same type with the same firmware.

17. In IP Device Utility, select **Export settings** tab.
18. Select “**Browse**” to designate the export file destination.
19. Select “**Export settings**” to begin export.

The screenshot shows the 'Export settings' tab of the GV-IP Device Utility. The window has a blue title bar with a close button. The main area is divided into several sections. At the top, there are two text boxes: 'Mac Address' with the value '0013E2014C8C' and 'IP Address' with the value '192.168.0.44'. Below these is a 'User Login' section with 'User Name' (admin) and 'VSS Port' (10000). The 'Password' field is masked with asterisks and is highlighted with a red rectangle. Below the login section is a tabbed interface with five tabs: 'Set IP Address', 'Firmware Upgrade', 'Device Name', 'Export settings' (which is selected and highlighted with a red rectangle), 'Import settings', and 'Reboot'. Below the tabs is a 'Save File Path' section with a text box containing 'C:\Documents and Settings\Desktop' and a 'Browse...' button highlighted with a red rectangle. At the bottom of the window, there are two buttons: 'Export settings' (highlighted with a red rectangle) and 'Cancel'.

5.2.6 Import Settings

To quickly apply custom settings on GV-IP devices, settings can be imported via GV-IP Device Utility. GV-IP device can only import settings saved from the same type of device with the same firmware.

20. In IP Device Utility, select **Import settings** tab.
21. Select “**Browse**” to locate the setting file destination. (Refer to step 18 in previous section)
22. Select “**Update settings**” to begin import.

Mac Address: 0013E2014C8C IP Address: 192.168.0.44

User Login

User Name: admin VSS Port: 10000

Password: *****

Set IP Address | Firmware Upgrade | Device Name | Export settings | **Import settings** | Reboot

Version: v1.08 2009-06-26 **Browse...**

☐ Upgrade all devices

☒ General settings
☒ Password settings
☒ Network settings

Update setting Cancel

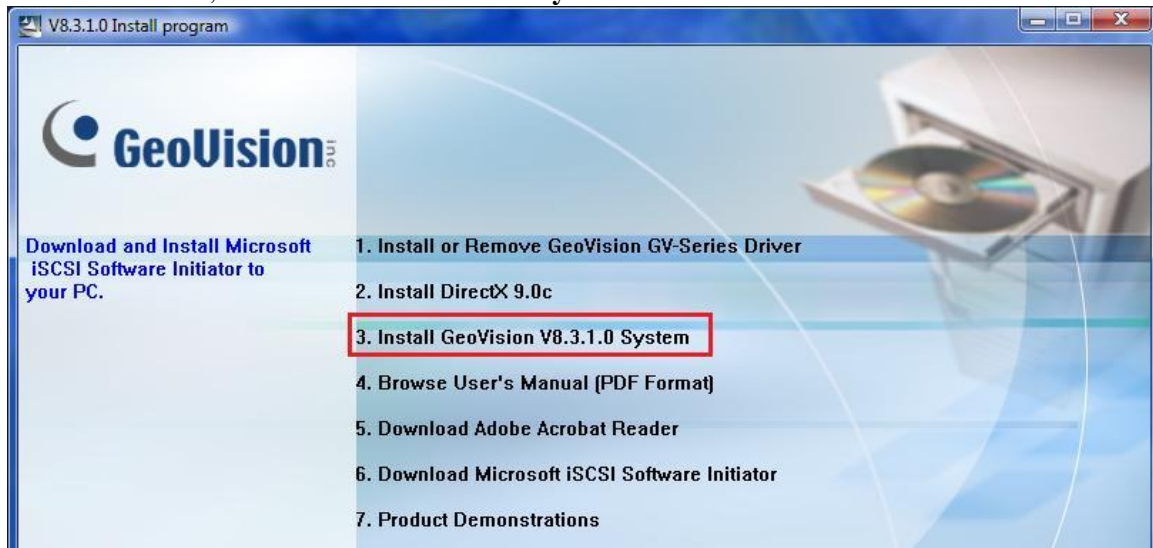
- ✓ For detailed instruction, refer to p.611 of v8.4 User Manual

5.3 Dynamic DNS

Dynamic DNS is an application that allows GeoVision users to register for a domain name that may be used as their IP address. Some users may find it useful as they do not need to memorize their constantly changing IP addresses.

5.3.1 Install Dynamic DNS

1. Insert GeoVision Main System Installation Disk in DVD Rom.
2. In the main menu, select “**Install GeoVision System**”.



3. Click **Next** button to go to next page.
4. Select “**GeoVision Dynamic DNS Service**”.



For GV-DVR Systems, Dynamic DNS is preinstalled. To locate the application, follow the steps below:

1. On Windows desktop, click on “**Start**”.
2. Click on “**All Programs**”.
3. Click on “**DDNS**” folder.
4. Run **Dynamic DNS Service**.

5.3.2 Register Dynamic DNS

1. Click on “**Register**” under DNS Client prompt.

DynamicDNS

Register

Username:

Password:

Re-type Password:

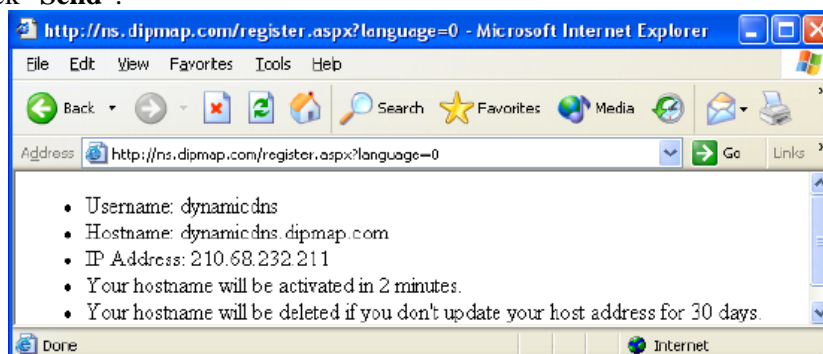
Username
Username is 16-character maximum; username may not start with spaces or minus signs ('-'). Username will be your hostname.

Password
The password is case-sensitive.

Enter the characters as they are shown in the box below. N4GN

Word Verification
This step helps us prevent automated registrations.

2. In the Dynamic DNS window, input desired **User name**, **password**, and **retype password**. (Enter only letters and numbers, password is case sensitive)
3. Enter security word verification as shown.
4. Click “**Send**”.



5. When the confirmation above appears, enter the registered User name and password in the DNS Client prompt above.
6. Check “**Run at startup**”.
7. Click “**Save**”.

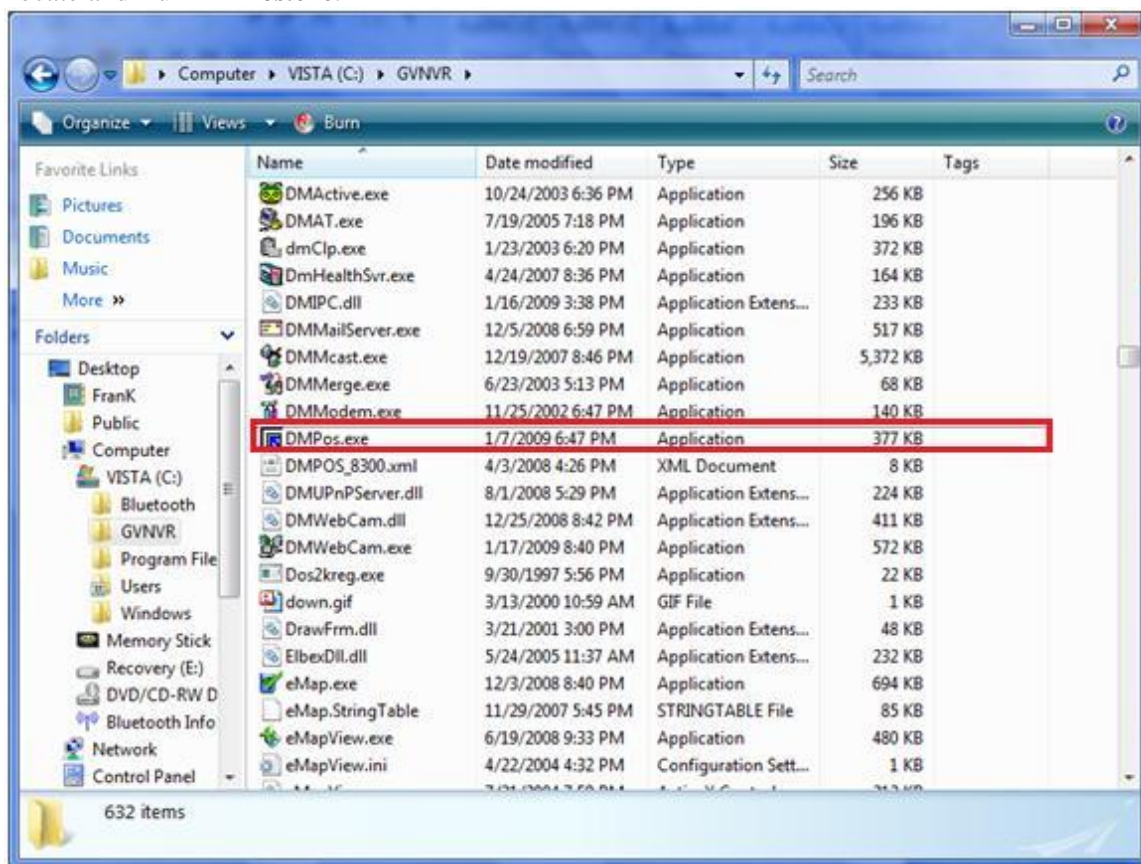
✓ For detailed instruction, refer to p.501 of v8.4 User Manual

5.4 DMPos

DMPos is an application that will move GeoVision software such as Multicam, Viewlog, RPB, EZViewlog, LPR, or Multiview onto a second monitor if the system is setup as a dual-monitor station.

For GV-DVR Systems, DMPos.exe is preinstalled. To locate the application, follow the steps below:

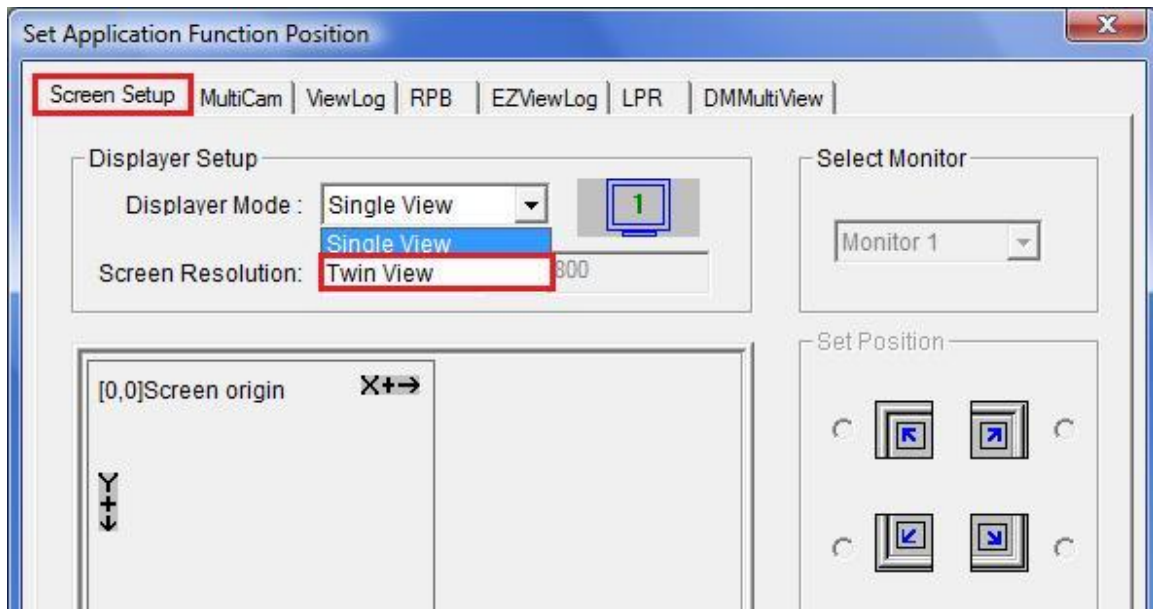
1. Close all GeoVision applications completely.
2. On Windows desktop, go to “**My Computer**”.
3. Go to the hard drive where GeoVision was previously installed. (The default location is **C: drive**)
4. Click on “**GVCombo**” folder. (Alternatively, the name of the folder may vary according to the GeoVision card model you are using. I.E. GV1480)
5. Locate and Run **DMPos.exe**.



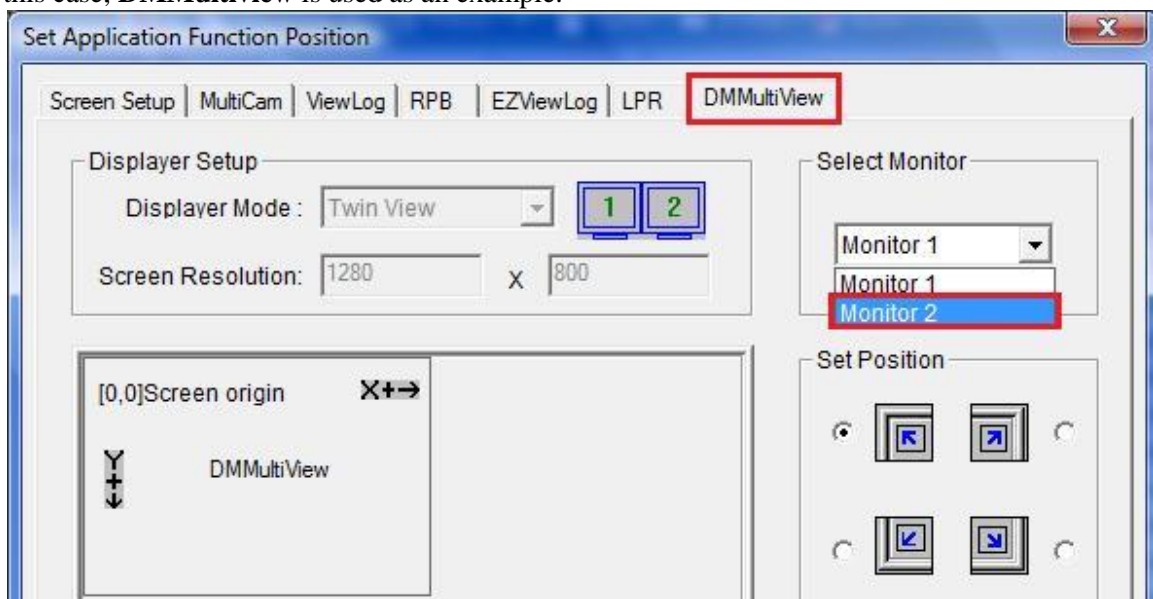
5.4.1. Run DMPos

In order to move GeoVision application onto a second monitor, follow the steps below:

1. Under **Screen Setup** tab, select “**Twin View**” in the drop-down list under Displayer Setup box.



2. Click on the desired GeoVision application tab (for which will be moved to second monitor). In this case, **DMMultiview** is used as an example.



3. Select "**Monitor 2**" from the Select Monitor drop-down box.
4. Click "**OK**".
5. Start the desired GeoVision application and it will appear on the second monitor. For this example, **DMMultiview** will appear on second monitor.

- ✓ Please note that currently *DMPos.exe* only supports up to 2 monitor displays.
- ✓ *DMPos.exe* can also be used on client PC. Copy *DMPos.exe* and *DMPOS_8300.xml* in an USB drive and apply it on remote PC.
- ✓ For detailed instruction, refer to p.518 of v8.4 User Manual

5.5 Fast Backup and Restore

Fast Backup and Restore, or FBR, is an utility that will allow users to quickly save DVR system settings such as Password, Schedule, POS, and Network into one executable file. Then, by using that file, users can then apply the same settings on Multiple DVRs without having to reconfigure each system individually. This utility is useful to retain system settings prior to an upgrade then reapply it afterwards as well.

- ✓ *Refer to Section 2.4.5 Fast Backup and Restore to create Fast Backup and Restore automatically by schedule*

5.5.1 Install FBR

For GV-DVR Systems, Fast Backup and Restore is preinstalled. To locate the application, follow the steps below:

1. On Windows desktop, click on “**Start**”.
2. Click on “**All Programs**”.
3. Click on “**GVCombo**” folder. (Alternatively, the name of the folder may vary according to the GeoVision card model you are using. I.E. GV1480)
4. Locate and run **Fast Backup and Restore Main System**.



Install from Disk

In case Fast Backup and Restore utility is missing, follow the steps below:

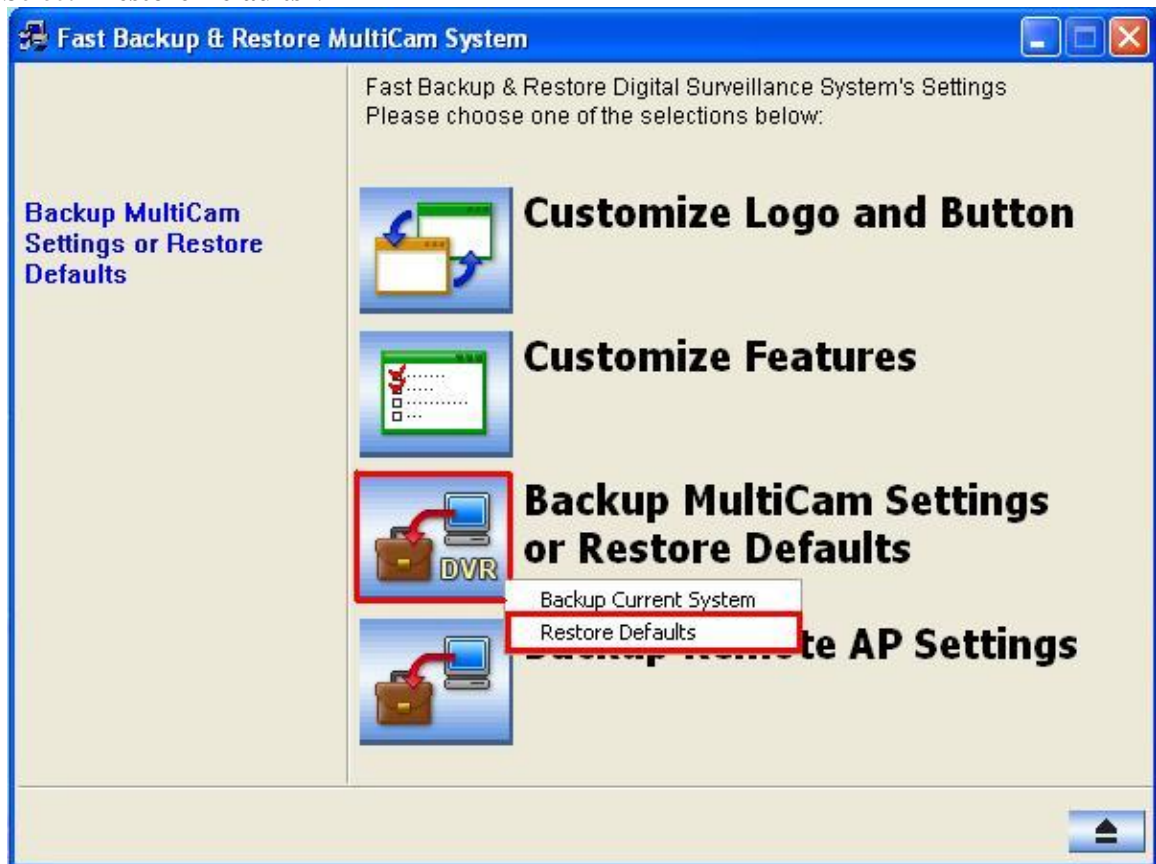
1. Insert GeoVision Main System Installation Disk in DVD Rom.
2. In the main menu, select “**GeoVision Main System**”.
3. Click “**Next Page**”.
4. Select “**GeoVision Fast Backup and Restore Multicam System**”.

5.5.2 Restore Default Settings

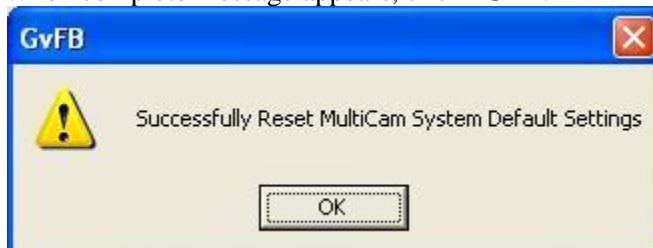
1. Enter **ID** and **Password** for DVR System.



2. Select "**Backup Multicam Settings or Restore Defaults**".
3. Select "**Restore Defaults**".



4. When complete message appears, click "OK".

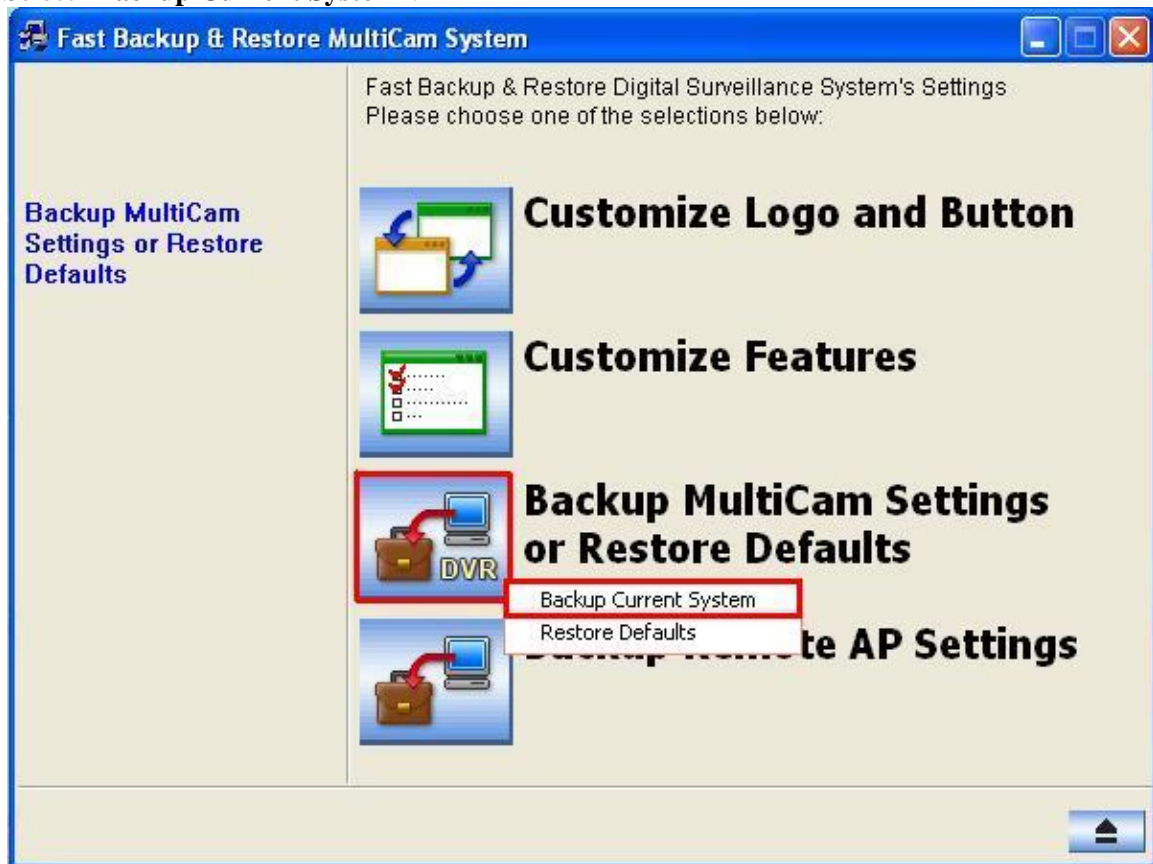


5.5.3 Backup Multicam Settings

1. Enter **ID** and **Password** for DVR System.



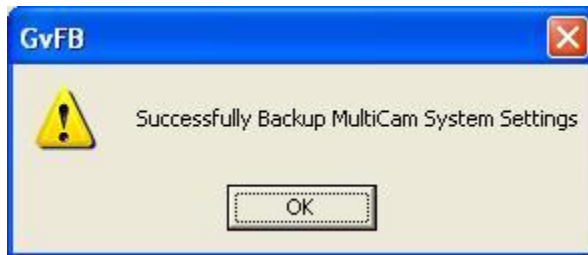
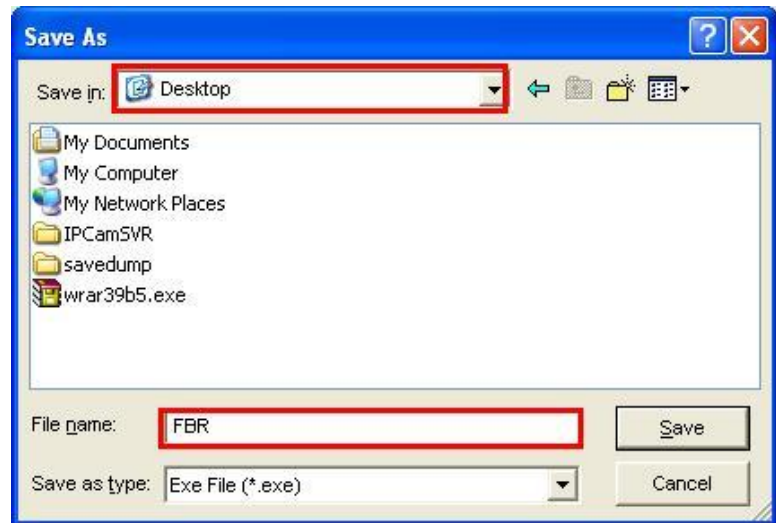
2. Select "**Backup Multicam Settings or Restore Defaults**".
3. Select "**Backup Current System**".



4. Check each section for settings to be saved, click "**Next**". (By default, all sections are checked)



5. Select destination for FBR file to be saved in. (If FBR will be applied on multiple DVRs, or if the DVR System will perform System Recovery, save the FBR file to an USB drive)
6. Name the FBR file.
7. Click “Save”.
8. When complete message appears, click “OK”.



5.5.4 Apply FBR

1. When the DVR system is ready to apply settings from previously saved FBR file, double-click to run the FBR file and it will apply the settings onto DVR automatically.



- ✓ For detailed instruction, refer to p.537 of v8.4 User Manual

5.6 Database Repair Utility

Database Repair Utility is used to repair misplaced or missing video/audio files that are not identified properly by Viewlog. As long as video/audio file still exists on the hard drive and detectable by Windows OS, Database Repair Utility will restore the video/audio files back to their default paths and allow them to appear under Viewlog.

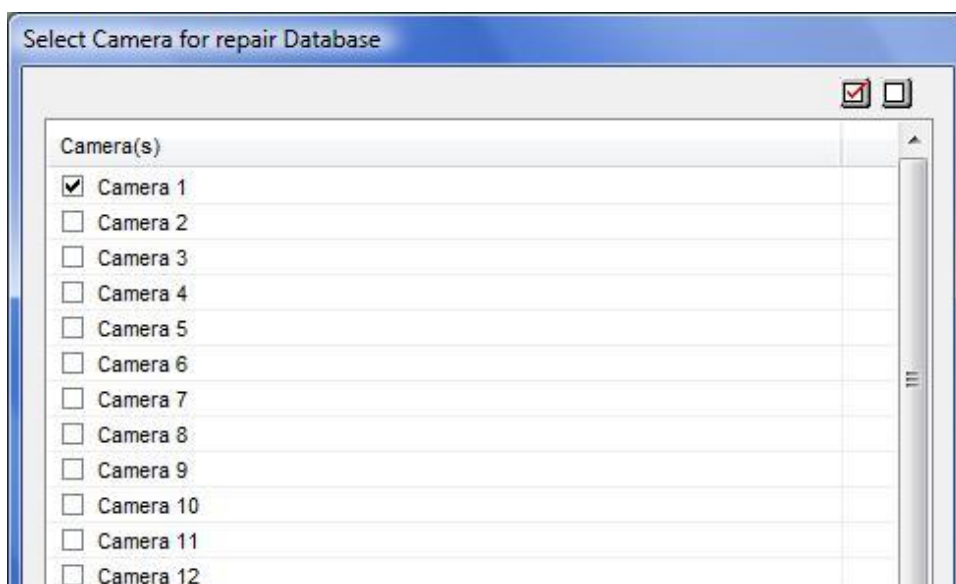
For GV-DVR Systems, Database Repair Utility is preinstalled. To locate the application, follow the steps below:

1. Close all GeoVision applications completely.
2. On Windows desktop, click on “**Start**”.
3. Click on “**All Programs**”.
4. Click on “**GVCombo**” folder. (Alternatively, the name of the folder may vary according to the GeoVision card model you are using. I.E. GV1480)
5. Run **GeoVision Repair DataBase Utility**.

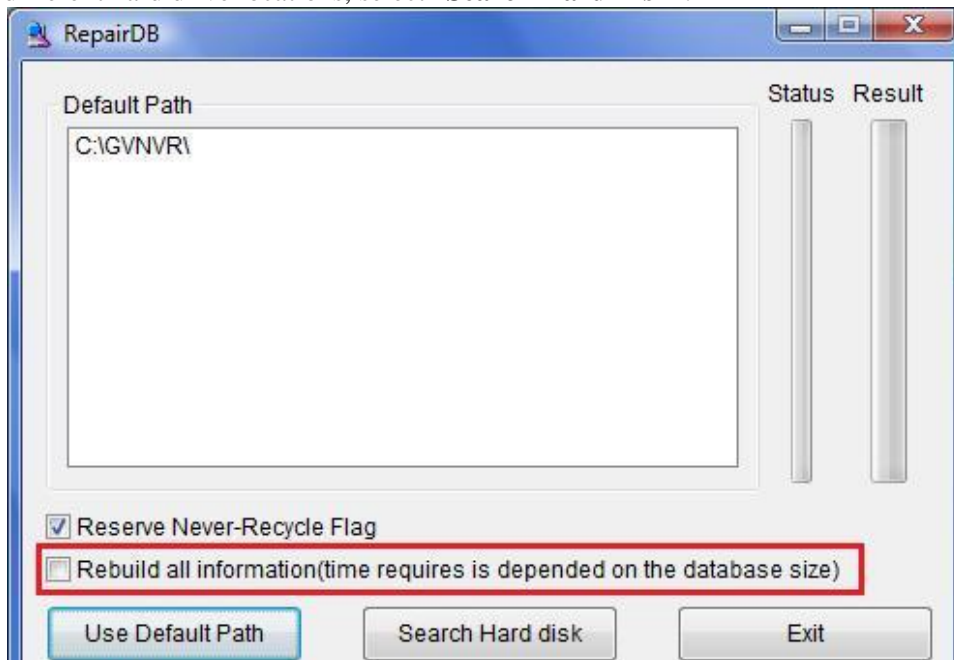


5.6.1 Run Database Repair Utility

1. Enter **ID** and **Password** for the DVR system.
2. Click “**OK**”.
3. Select cameras that require database repair. (By default, all cameras are checked)
4. Click “**OK**”.



5. Under Repair DB window, check on “**Rebuild all information**”.
6. If your video/audio files exist only in the predefined paths (refer to section 2.5), select” **Use Default Path**” option.
7. If you are not sure where video/audio files are on the hard drive, or if the files scatter across different hard drive locations, select “**Search Hard Disk**”.



- ✓ Select “Use Default Path” will rebuild video/audio files listed under predefined hard drive locations only. Therefore, time required for rebuilding will be less.
- ✓ Select “Search Hard Disk” will rebuild video/audio files from all hard drive locations connected to the system. Therefore, more time will be required for rebuilding the database.

8. When finish message comes up, click “OK”.



9. Go under Viewlog and review updated video/audio files in the event list.
- ✓ The time required to perform database repair generally depends on the number of files on the hard drives. Typically, it will take up to three hours repairing an 8 bay DVR system.
 - ✓ For detailed instruction, refer to p.287 of v8.4 User Manual

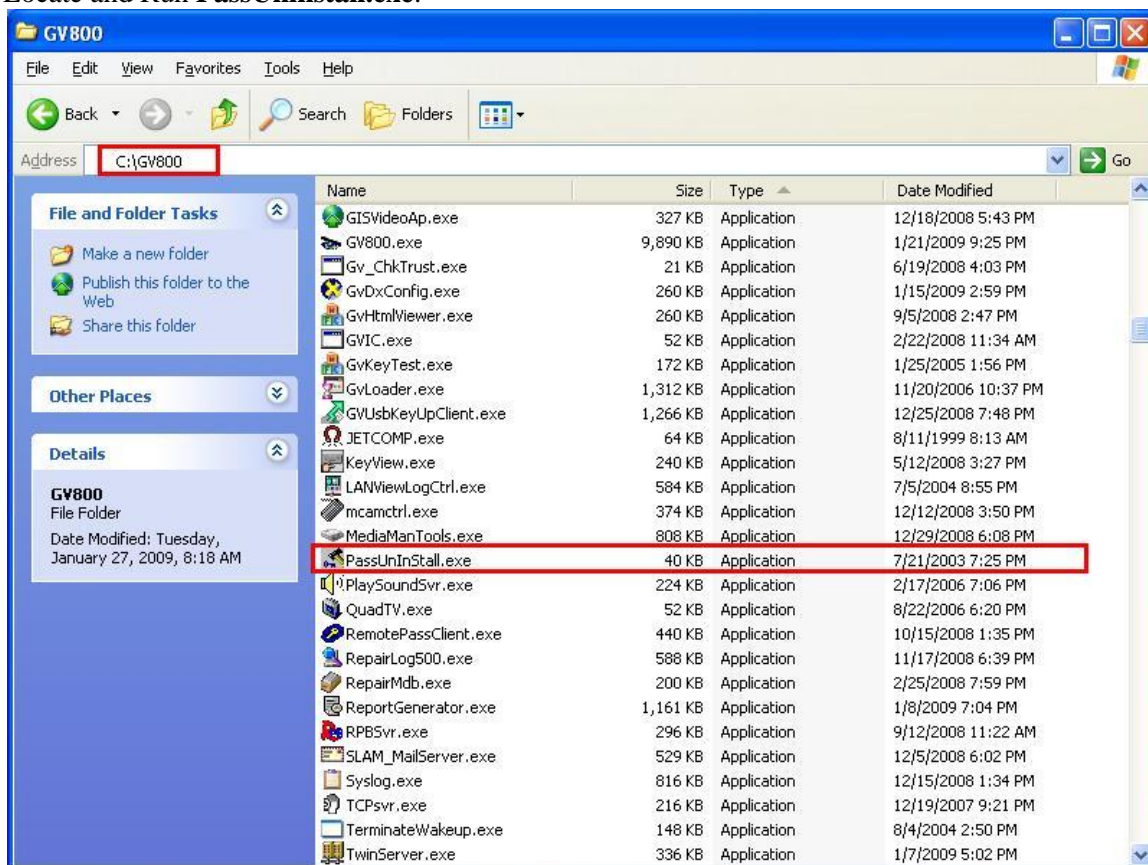
5.7 Password Removal Utility

- ✓ Please note that removing and reinstalling GeoVision Multicam software will NOT be able to reset the password database since it is stored under Windows registry. The only options to remove password database are either through Password Removal Utility as shown in this section or reformat system hard drive and reinstall Windows OS.

In case user forgets DVR system's Administrator ID and password, and if there is no way to retrieve any password, Password Removal Utility will help cleaning out password database from Windows registry. However, permission to allow users to run Password Removal Utility must be checked during system setup (refer to "Allow removing password system" option in section 2.6.1).

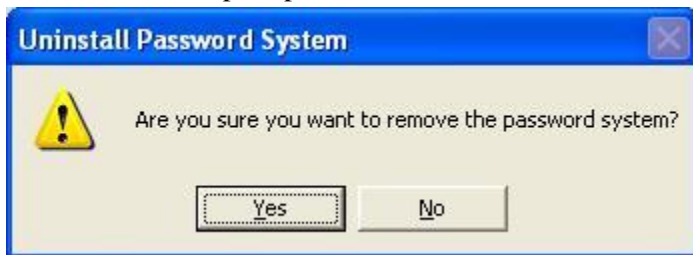
For GV-DVR Systems, Database Repair Utility is preinstalled. To locate the application, follow the steps below:

1. Close all GeoVision applications completely.
2. On Windows desktop, go to "My Computer".
3. Go to the hard drive where GeoVision was previously installed. (The default location is **C: drive**)
4. Click on "**GVCombo**" folder. (Alternatively, the name of the folder may vary according to the GeoVision card model you are using. I.E. GV1480)
5. Locate and Run **PassUninstall.exe**.



5.7.1 Run Password Removal Utility

1. Click “Yes” when prompted confirmation.



2. When finished, click “OK” on the password removed success window.



3. Run GeoVision Multicam software, and the prompt to create ID and password should appear.



4. Enter a new set of **ID**, **Password**, and **Password Confirmation**. It will be used as the default Administrator ID and password.
5. Check on “**Allow removing password system**” to allow Password Removal Utility to operate in case user forgets ID and password again in the future.
6. Click “**OK**”.

- ✓ For Step 1, if “**Please close all AP of Password System**” message comes up instead, that means there is still one or more GeoVision application running.



- Make sure the login page does not appear on screen and Control Center Server does not run in the task bar.
 - Alternatively, delete all items listed under Windows “**Start**”, “**All Programs**”, “**Startup**”, then restart DVR system and run PassUninstall.exe again.
- ✓ For Step 1, if “**Not enough prililege to remove the password system**” message comes up instead, that means the DVR system does not allow PassUninstall.exe to be executed.



- This message will appear when the option “Allow removing password system” was not checked during system setup (refer to section 2.6.1)
 - In this case, the only way to remove the password database will be to reformat system hard drive and reinstall Windows OS. For GeoVision DVR Systems, perform system recovery using the GeoVision Recovery DVD.

6. Upgrade and Recovery

In this section, procedures to perform software upgrade and system recovery are as described below. Follow the procedures carefully when performing software upgrade or system recovery in order to prevent software errors and damages to the DVR system.

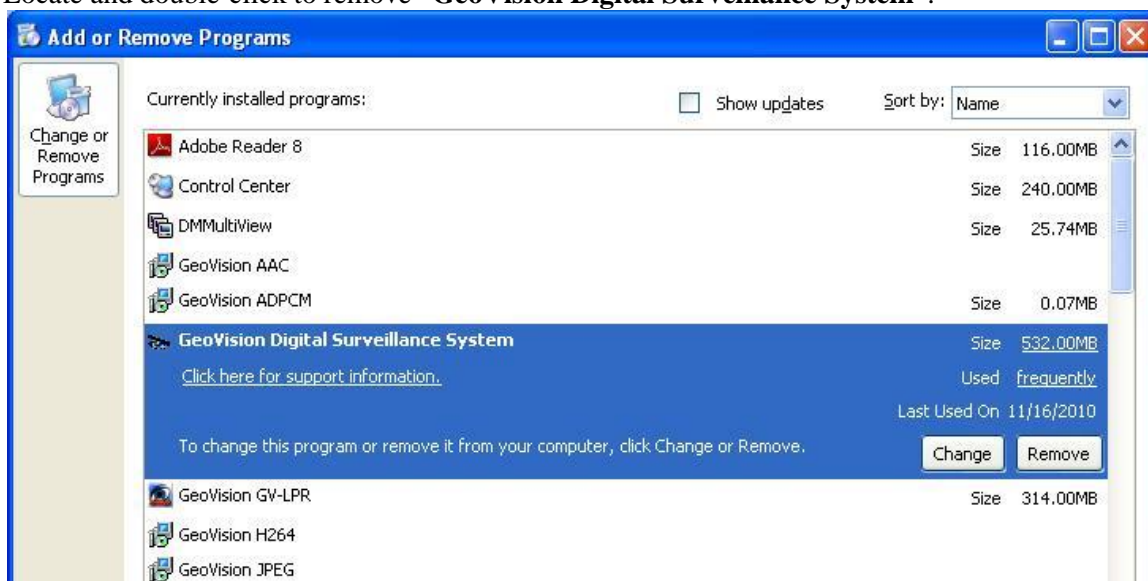
6.1 Software Upgrade

GeoVision provides free software upgrade. Keeping the GV-DVR System up-to-date will optimize system performance with maximum software capabilities. Refer to GeoVision/USAVision website or consult with GeoVision Technical Support for newest compatible software upgrade for your DVR system.

- ✓ *Prior to software upgrade, make sure complete software and driver files are on the GV-DVR System. The upgrade files may be obtained via a GeoVision Main System Installation DVD or downloaded from USAVision FTP site. To obtain software and driver download or to request a copy of installation DVD, contact GeoVision Sales/Technical Support with the GV-DVR System barcode ready.*

6.1.1 Remove Software

1. Close all GeoVision applications completely.
2. If there is any setting that requires backup, run **Fast Backup and Restore** (Section 5.5) to save current system settings.
3. On Windows desktop, click on “**Start**”.
4. Click on “**Control Panel**”.
5. Select “**Add/Remove Programs**”.
6. Locate and double-click to remove “**GeoVision Digital Surveillance System**”.



7. Click “**OK**” when process completes.
8. Delete “**GVCombo**” folder under C:/ (Alternatively, the name of the folder may vary according to the GeoVision card model you are using. I.E. GV1480)

6.1.2 Remove Driver

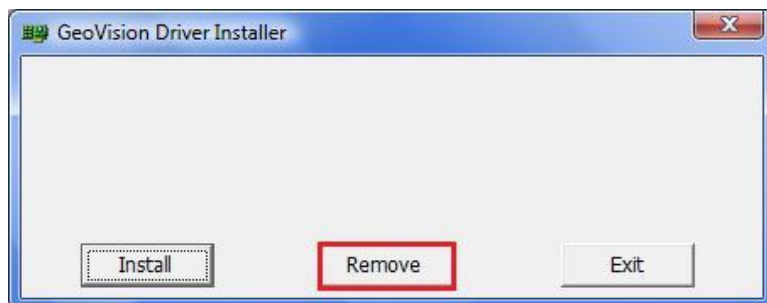
- ✓ *GV-NVR users may proceed to Section 6.1.4 Software Install directly*
- 9. Insert GeoVision Main System Installation DVD for new software and driver into DVD Rom.
 - a. If the driver file is downloaded, run **DrvInst.exe** then proceed to step 14.
- 10. In the main menu, select “**Install or Remove GeoVision GV-Series Driver**”.



- 11. Select “**Install or Remove GeoVision GV-Series Card Drivers**”.

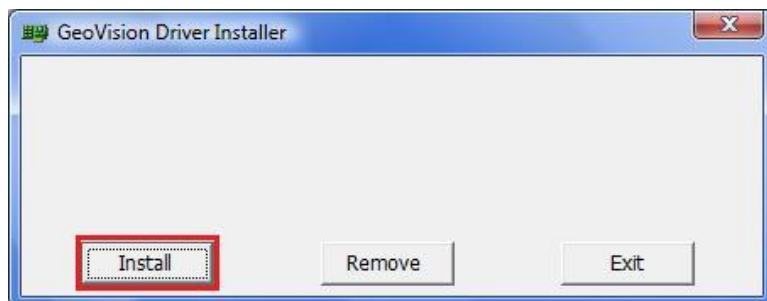


- 12. In the Installer window, click “**Remove**”.
- 13. In “Removed Successful” window, click “**OK**”.



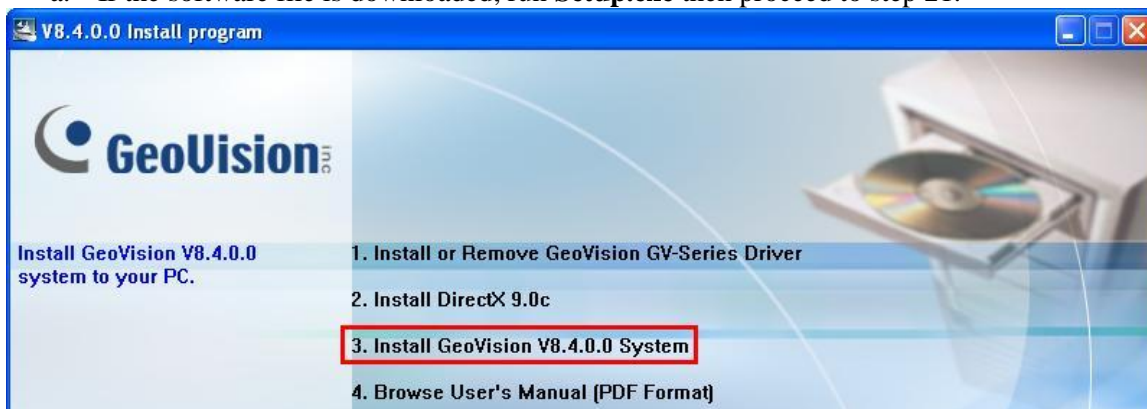
6.1.3 Install Driver

- 14. In the Installer window, click “**Install**”.
- 15. In “Installed Successful” window, click “**OK**”.
- 16. Click “**Exit**” to exit driver installer.



6.1.4 Install Software

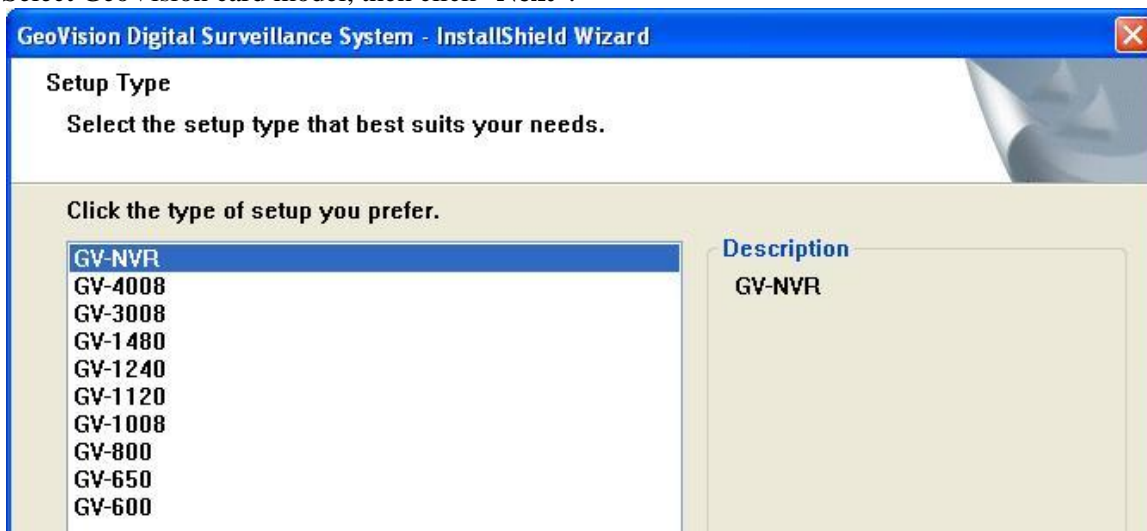
17. In the main menu, select “**Install GeoVision System**”.
 - a. If the software file is downloaded, run **Setup.exe** then proceed to step 21.



18. Select “**GeoVision Main System**”.



19. Select GeoVision card model, then click “**Next**”.



- ✓ If GeoVision card mode used in the system is unknown, contact GeoVision Sales/Technical Support with barcode ready.

20. Select **1280*1024** (default) as resolution, then click “**Next**”.



✓ Select higher resolution only if desktop resolution allows.

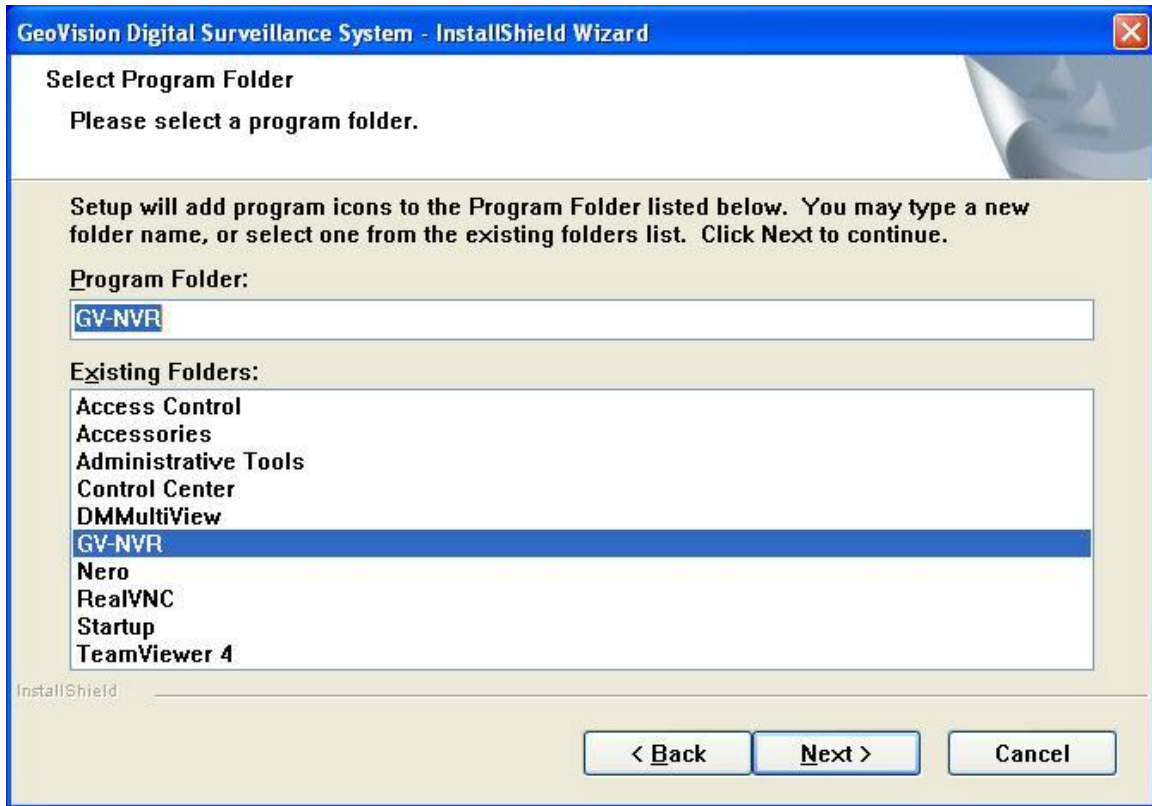
21. Check “**Add to the Startup**” to allow Multicam to run automatically when Windows starts.
22. Check “**Install the Remote Control**” if GV-Remote will be used on the system.
23. Click “**Next**”.



24. Click “**Next**” to install in default program folder.



25. Click “**Next**” to create default program folder under Program Menu.



26. When installation process is finished, select “**Yes, Restart My Computer Now**” to reboot the DVR system.
 27. After GV-DVR System restarts, run FBR file from generated from step 2 above to reapply the settings.
- ✓ *Perform Database Repair Utility (Section 5.6) to ensure all previous video recording is identified properly*
 - ✓ For detailed instruction, refer to v8.4 Installation Guide.

6.2 System Recovery

For GeoVision DVR Systems, System Recovery is an automatic process that is used to reformat system hard drive and reinstall Windows OS, motherboard drivers, and GeoVision applications. It is necessary when the DVR system encounters irreversible damages.

- ✓ *Perform System Recovery only if necessary or as suggested by GeoVision Technical Support personnel. Always consult GeoVision Technical Support prior to System Recovery.*

6.2.1 Run System Recovery

When it is necessary to perform System Recovery, follow the steps below:

1. If applicable, backup any video/audio files or program files in C: drive. Since System Recovery will only affect C: drive, it will not affect recording stored in other hard drives.
 2. If there is any setting that requires backup, run **Fast Backup and Restore** (Section 5.5) to save current system settings. Then save the FBR file onto a USB drive.
 3. Disable and turn off the power of each hard drive bay. The power button for each hard drive bay can be found on top of or next to each hard drive slot in the front panel of each DVR system. The button usually has green or orange light depending on the status of the hard drive.
 4. Insert “**GV-DVR System Recovery DVD**” in to DVD Rom.
 5. Press the red “**Reset**” button located in the front panel of the DVR system.
 6. After the DVR system reboots, it will try to boot from the Recovery DVD instead of loading Windows OS.
 7. A prompt window will appear to confirm recovery procedure, click “**OK**” or “**Yes**” to initiate System Recovery.
 8. After System Recovery, the DVR system will automatically reboot.
 9. Replace any backup files from step 1 above.
 10. Run FBR file from generated from step 2 above to reapply the settings.
 11. Enable and power on each hard drive bay from step 3 above.
 12. Verify the storage path (as shown in section 2.5) and make sure each hard drive is detected under **My Computer**.
 13. Run **Database Repair Utility**. (Refer to section 5.5)
- ✓ *System Recovery process generally takes approximately 45 minutes to complete.*

Introduction To GeoVision Digital Surveillance System

Technical Handbook Part II



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www.usavisionsys.com • www.geovision.com.tw

Contact Information

Type of Contact	Phone	Email	Note
Sales Support	949-583-1519	sales@usavisionsys.com	
Technical Support	949-583-1519	support@usavisionsys.com	Please have your GV-DVR System barcode ready
Online Chat Support		www.usavisionsys.com	Click on “Live Help” button on the webpage to initiate session
Online FAQ		www.usavisionsys.com/support	
RMA		rma@usavisionsys.com	

Service Contact Information

Distributor/ Vendor	Phone	Email	Note

Service Technician	Phone	Email	Note

Quick Links

Item	Link
ASController Installation Guide	http://www.usavisionsys.com/download/downloadFile.php?category=35
ASManager User Manual	
GVReader Installation Guide	
Fingerprint Reader Manual	
V8.4 User Manual	http://www.usavisionsys.com/download/downloadFile.php?category=39
V8.4 New Features Guide	http://www.usavisionsys.com/download/downloadFile.php?category=39
ASController Firmware	http://www.geovision.com.tw/english/5_3_as200.asp

Version History

Release No.	Date	Author	Revision Description
Rev. 2.0	8/25/09	Frank Chang	Training Document
Rev. 2.1	1/20/10	Frank Chang	Access Control added
Rev. 3.0	4/20/11	Frank Chang	ASManager v2.3 and v8.4 CMS release

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1. General Information

1.1 Purpose

The purpose of the training document is to provide introductory technical training for GeoVision V8.4 surveillance software as well as its integration with GeoVision add-on solutions.

1.2 Scope

The scope of the training document covers the integration and basic operations of Center V2, Control Center, Point of Sale, Access Control, and License Plate Recognition.

1.3 Naming and Definitions

CMS	Central Monitoring Solution for GV-DVR and IP Devices
CV2	Center V2
VSM	Vital Sign Monitor
CCS	Control Center Service
Matrix	Multi-channel display of up to 96 channels each monitor
POS	Point of Sale
POS Text Sender	Application for Windows-based POS systems
ASController	Access Control door controller (AS100, AS110, or AS400)
ASManager	Access Control main database software
ASLog	Access Control event history log
ASRemote	Access Control remote monitoring application
ASWeb	Access Control remote log application
TA Web	Time and Attendance application
VM Web	Visitor Management application
LPR	License Plate Recognition
LPR Center	Central Monitoring Solution for LPR

1.4 Acronyms and Abbreviations

DDNS	Dynamic Domain Name Service
DHCP	Dynamic Host Configuration Protocol
DVR	Digital Video Recorder
GV	GeoVision
IP	Internet Protocol
ISP	Internet Service Provider
LAN	Local Area Network
NVR	Network Video Recorder
WAN	Wide Area Network
NO	Normally Open
NC	Normally Close

2. Center V2

2.1 Introduction

Center V2 is part of the GeoVision Central Monitoring Solution that allows operators to monitor multiple GV-DVRs or IP devices from a central PC. It is an event-driven application that will receive live video from each DVR/NVR or IP devices as camera popup with the option to record the video clip at the Center V2 site as well. The events can be triggered by either camera motion or a panic button.

Basic Center V2 allows connections for up to 5 subscribers with no additional license required. In order to connect to more than 5 subscribers, an additional Center V2 license USB key will be required in order to use Center V2 Pro. Center V2 software can be installed from either **v8.4 GeoVision Main System Installation Disk** or **v8.4 GeoVision Central Monitoring Solution Installation Disk**.

2.2 Main Features

Application	Feature
Center V2	Live videos and text alerts; Display up to 42 screen divisions; Serve up to 500 subscribers and 800 channels (professional edition); Remote playback.

2.3 System Requirements

Standard Version

OS	32-bit	Windows XP / Vista / 7 / Server 2008
	64-bit	Windows 7 / Server 2008
CPU	Pentium 4, 3.0 GHz with Hyper-Threading	
Memory	2 x 512 MB Dual Channels	
Hard Disk	The hard disk space required to install Center V2 (Standard Version) must be at least 1 GB.	
VGA	NVIDIA GeForce 8600 GT / ATI Radeon X1650	
DirectX	9.0c	

Professional Version

OS	32-bit	Windows XP / Vista / 7 / Server 2008
	64-bit	Windows 7 / Server 2008
CPU	Core 2 Duo, 2.4 GHz	
Memory	2 x 1 GB Dual Channels	
Hard Disk	The hard disk space required to install Center V2 (Professional Version) must be at least 1 GB.	
VGA	NVIDIA GeForce 8600 GT / ATI Radeon X1650	
DirectX	9.0c	
Hardware	GV-USB Dongle	

2.4 Software Installation

2.4.1 Install from Main System Disk

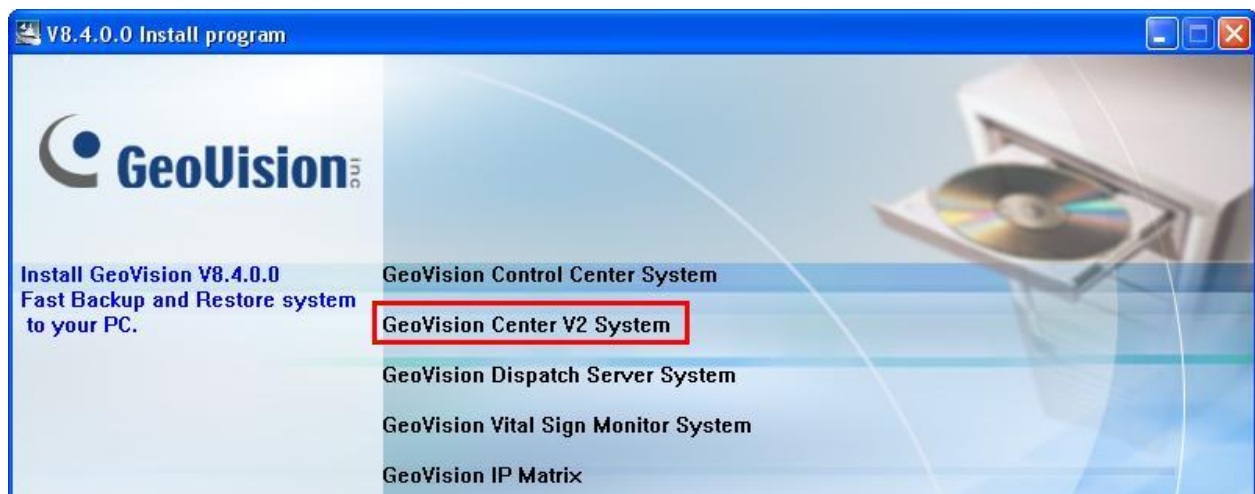
1. Insert “**v8.4 GeoVision Main System Installation Disk**” into DVD-ROM.
2. In the menu, select “**3. Install GeoVision v8.4.0.0 System**”.
3. Select “**GeoVision Center V2**”.



4. Follow on-screen instructions to complete setup.

2.4.2 Install from CMS Disk

1. Insert “**v8.4 GeoVision Central Monitoring Solution Installation Disk**” into DVD-ROM.
2. In the menu, select “**3. Install GeoVision v8.4.0.0 Central Monitoring System**”.
3. Select “**GeoVision Center V2 System**”.



- Follow on-screen instructions to complete setup.

2.5 Setup



The controls on the 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.
4	Subscriber List	Displays subscribers' ID names and online status. Blue Icon: Indicates the subscriber is online. Gray Icon: Indicates the subscriber is off-line. 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, 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.
11	Refresh Channel	Refreshes the connection status.
12	Split Mode	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>In the 1920 x 1080 resolution, select 6, 15, or 28 screen divisions for a single monitor; 6, 20, or 35 screen divisions for dual monitors.</p> <p>In the 1280 x 800 resolution, select 6, 12, 24 screen divisions for a single monitor; 9, 16, 30 screen divisions for dual monitors.</p>

13	Exit	Closes or minimizes the Center V2 window.
14	Flag	Flags an event for later reference.
15	Clipboard	Displays the Alarm Report dialog box.
16	Clip	Indicates an event coming with an attachment. Double-click the event to open the attached video file.
17	ID	Indicates a subscriber's ID.
18	Event Type	Indicates the event type: Alarm, Attachment, Connection, Login/Logout, Motion, System, and Trigger.
19	Message	Indicates associated information for each event type.
20	Message Time	Indicates when Center V2 receives an event.
21	Start Time	Indicates when an event happens at the subscriber's site.

2.5.1 Setup Subscriber Account

1. In Center V2, click on “**Accounts**” button (item 7 in the picture above).
2. Under Address Book window, click on “**Add a Subscriber**” button.



✓ A subscriber can be a DVR/NVR, GV-Video Server, GV-Compact DVR, or a GV-IP Camera

3. Create a set of “**Login ID**” and “**Password**” for the subscriber.

✓ The ID and password created here will be used by the DVR when connecting to Center V2

4. Input detail information for this subscriber if necessary.
5. Click “**OK**”.

Subscriber Address Book

Login ID: OK

Password: < > Cancel

Name:

Address:

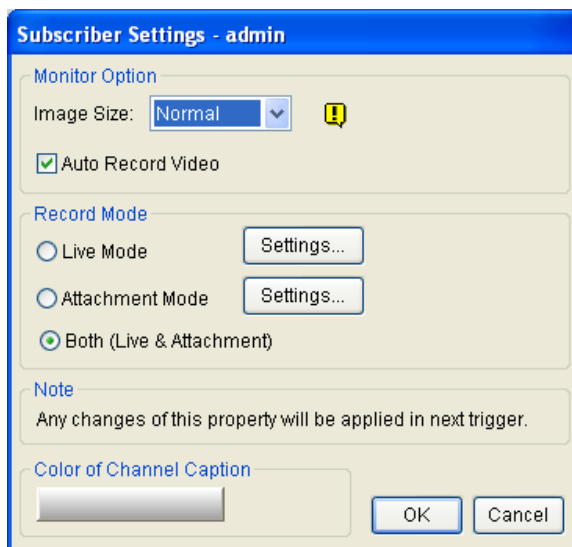
E-Mail:

Country Calling Code:

(H) (O)

Pager:

6. Select desired “**Image Size**” to be received from the subscriber.
 - a. *Higher resolution will also consume more bandwidth.*
7. Check on “**Auto Record Video**” to save a copy of video clip on Center V2 PC when live video stream is received from the subscriber.
8. Select “**Live Mode**”, “**Attachment Mode**”, or “**Both**”.
 - a. **Live Mode** transmits live video continuously to Center V2 for recording, but it also consumes most bandwidth.
 - b. **Attachment Mode** initiates video recordings only when monitored events are triggered.
 - c. **Color of Channel Caption** allows Center V2 operators to easily distinguish live video feeds from different subscribers by color.



9. Click “**OK**” to finish and save Subscriber Settings on Center V2.
 - a. *At this stage, Center V2 is ready to be connected by DVR/NVR*
- ✓ For detail instruction, refer to p.8 of v8.4 CMS User Manual

2.5.2 Open Connection Port

1. By default, Center V2 uses port **5547** in order to allow GV-DVR connection from another network (not within LAN). Port **5551** is required for GV-IP Device connection.
- ✓ Refer to p.44 “Network Port Configuration” in GeoVision Technical Handbook Part I for port forwarding instructions

2.5.3 Connect to Center V2

- ✓ *In order to connect GV-DVR/NVR to Center V2, the connection must be initiated from the DVR. Thus, the following procedure is performed on GV-DVR system.*

1. In GeoVision Multicam, click on the “**Network**” icon.
2. Select “**Connect to Center V2**”.

Login Information

Center IP:

User ID:

Password:

Port:

☐ Save Password

Connect to CenterV2

Mode:

☐ Login after seconds

☒ Monitor all type events

CenterV2 IP	Status
127.0.0.1	-
192.168.0.115	-

3. Enter Center V2 IP address in “**Center IP**”.
4. Enter **User ID** and **Password** as created in Step 3 in Section 2.4.1 above.
5. Click “**OK**”.
6. In Connect to Center V2 window, to add a Center V2 connection, click on
7. To edit a Center V2 connection, click on
8. To remove a Center V2 connection, click on
9. Click on “**Configure**”, select “**General Settings**”.

General Settings

Connection Broken

Maximum Retries:

Retry Interval: Sec.

☒ Retry until connected

☐ Retry in the background

Codec

☐ Geo Mpeg4

☒ Geo Mpeg4 (ASP)

☐ Geo H264

Connective Port

Command Port:

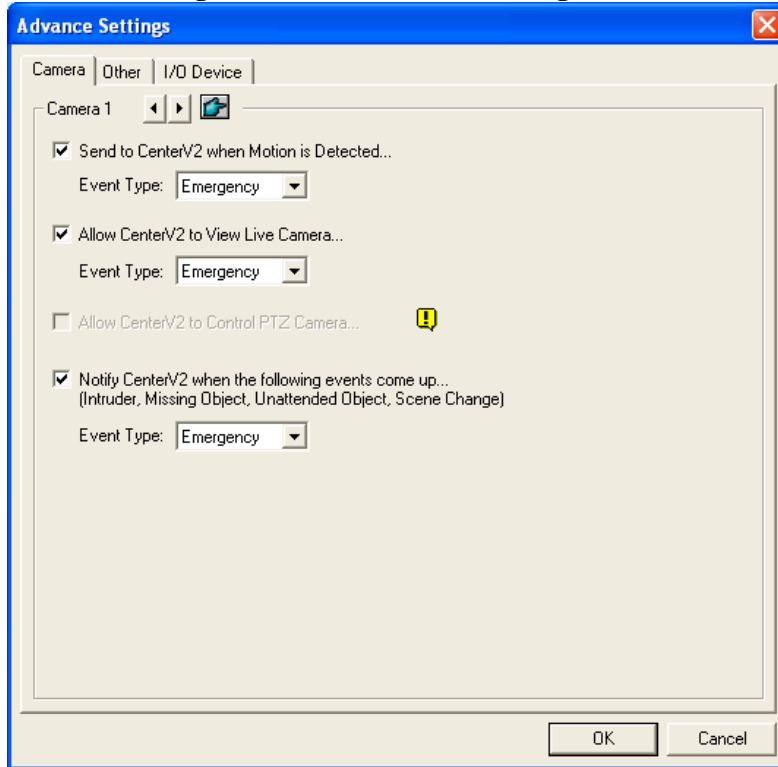
Data Port:

Connection Port:

Temp Folder

Path:

10. Select video compression codec for video streaming to Center V2.
11. Note the connection ports. By default, Command Port is **5548**, Data Port is **5549**, and Connection Port is **5545**. A second set of connection ports may be available when connecting to two Center V2 stations.
12. Click “**OK**”.
13. Click on “**Configure**”, select “**Advance Settings**”.



14. For each camera, define the scenario in which video will be sent to Center V2.
 - a. To send video to Center V2 by motion detection, select **Emergency**.
 - b. To send video to Center V2 only when an input device is triggered, select **Normal**.
 15. Click “**OK**”.
 16. Click “**Connect...**” to initiate connection to Center V2.
- ✓ For detail instruction, refer to p.16 of v8.4 CMS User Manual

2.5.4 Open DVR Connection Port

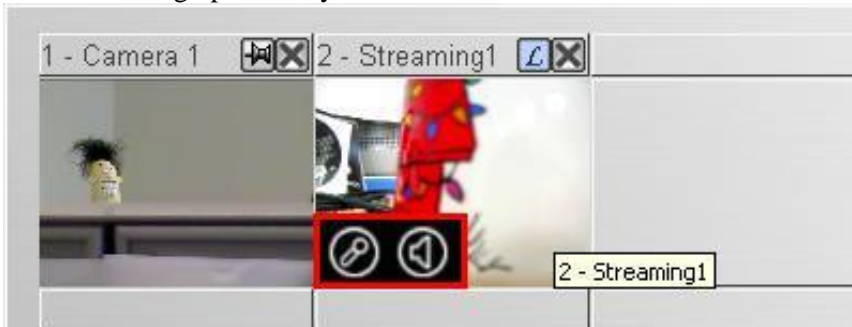
1. By default, GV-DVR uses ports **5545**, **5548**, and **5549** when connecting to Center V2 (as shown in Step 11). Therefore, in order to allow GV-DVR to connect to Center V2 in another network (not within LAN), it is necessary to open ports **5545**, **5548**, and **5549**.
- ✓ Refer to p.44 “Network Port Configuration” in GeoVision Technical Handbook Part I for port forwarding instructions

2.6 Additional Features

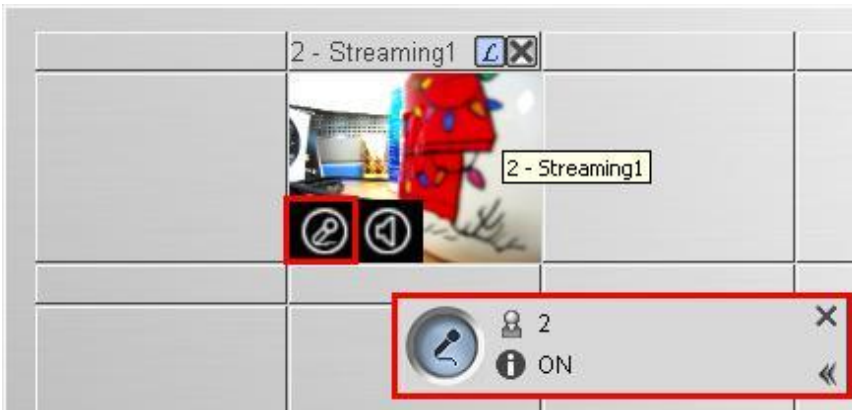
✓ The following settings can be configured in Center V2 as optional add-on features

2.6.1 Two-way Audio

1. To initiate two-way audio between subscriber and Center V2, float mouse cursor over the desired channel to bring up two-way audio menu.



2. Click on “Mic” button to broadcast audio to the desired subscriber.



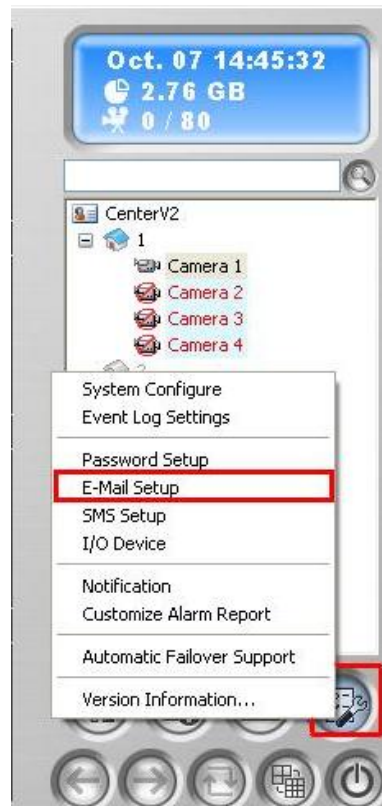
3. Click on “Speaker” button to hear audio from the camera.



✓ For detail instruction, refer to p.36 of v8.4 CMS User Manual

2.6.2 E-mail Setup

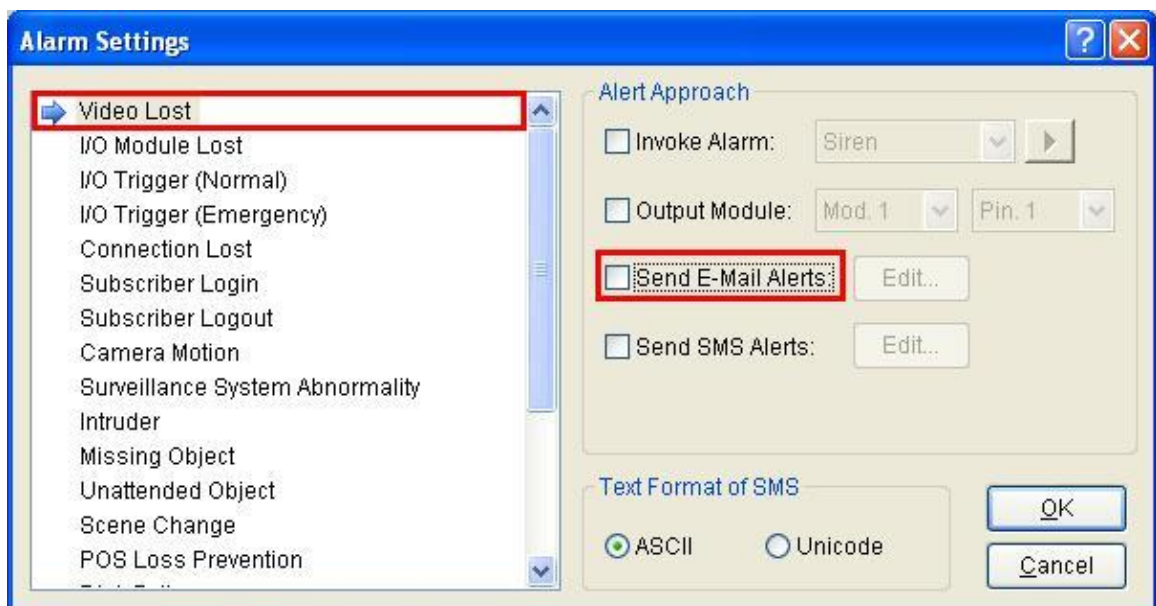
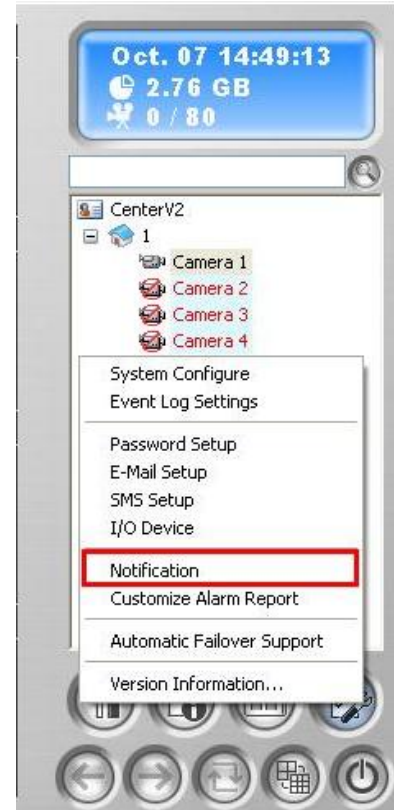
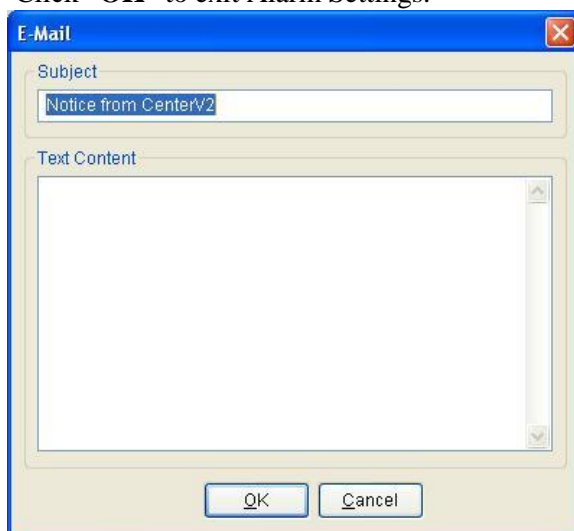
1. To setup an E-mail account for Center V2 alerts, click **“Preference Settings”**, then **“E-mail Setup”**.
2. Enter e-mail address that will be sending out alerts under **“E-Mail From:”**
3. Enter SMTP server address under **“SMTP Server”**.
4. Verify SMTP server is using default port 25.
 - ✓ *Webmail such as Yahoo and Hotmail generally uses non-default ports. Check with mail provider for exact port number*
5. Enter e-mail address that will be receiving alerts under **“E-Mail To:”**
 - ✓ *Multiple e-mail addresses can be separated by commas*
6. Enter e-mail subject under **“Subject”**.
7. Enter additional information under **“Mail Content”** if necessary.
8. Set E-Mail Alert Interval to prevent redundant e-mail.
 - ✓ *Default interval is set to 0 min, in which e-mail will be sent continuously until the event has been cleared.*

A screenshot of the 'Mail Setup' dialog box. It has a blue title bar and a close button. The dialog is divided into two main sections: 'Setup' and 'Test'.
In the 'Setup' section:
- 'Charset' is set to 'Western European (Windows)'.
- 'E-Mail From:' has an empty text field.
- 'SMTP Server:' has an empty text field.
- 'SMTP Port:' is set to '25' with a 'Default' button next to it.
- There is a checkbox for 'SMTP Server requires authentication' which is unchecked, with a yellow warning icon to its right.
- Below are fields for 'Account ID' and 'Password'.
In the 'Alert Setup' section at the bottom:
- 'E-Mail Alert Interval:' is set to '0' with a 'Min.' label.
In the 'Test' section:
- 'E-Mail To:' has an empty text field.
- 'Subject:' has an empty text field.
- 'Mail Content:' has a large text area and a 'Test Mail' button.
At the bottom right are 'OK' and 'Cancel' buttons.

9. Click **“Test Mail”** to see if a sample e-mail can be sent and received properly. If not, check for errors from steps 1 to 8.
 10. Click **“OK”**.
- ✓ For detail instruction, refer to p.72 of v8.4 CMS User Manual

2.6.3 Notification Setup

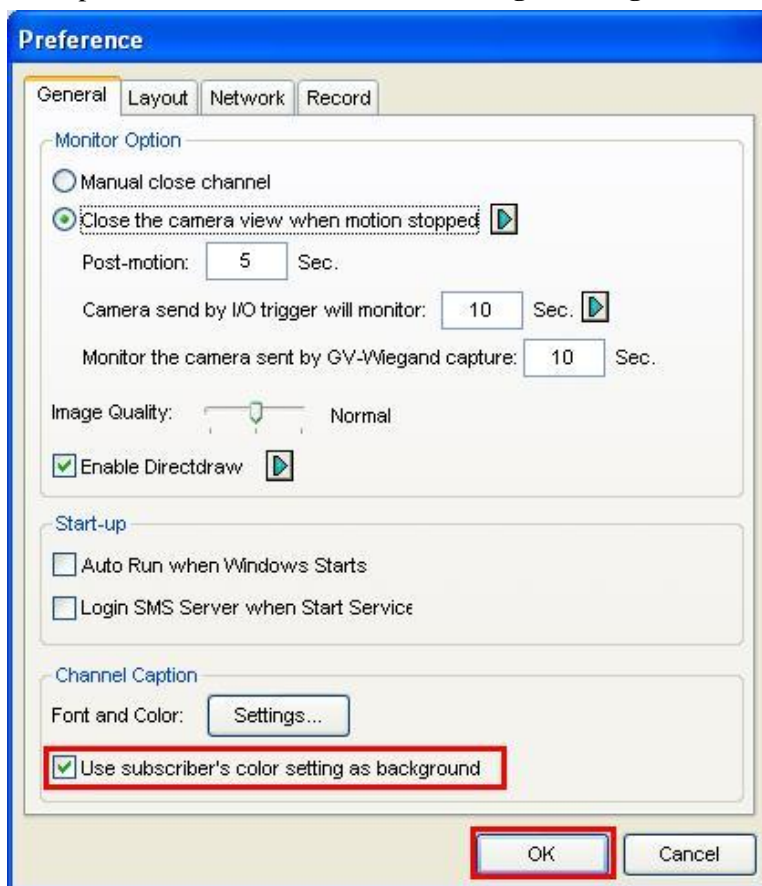
1. To setup notification for specific Center V2 events, click **“Preference Settings”**, then **“Notification”**.
2. Select the Center V2 event in which notification will be sent.
 - ✓ *Multiple alert methods can be applied on different Center V2 events.*
3. Select **“Send E-Mail Alerts”** to send e-mail alert when selected Center V2 event is received.
4. Edit e-mail subject and content as necessary for this event.
5. Click **“OK”** to exit E-Mail Setup.
6. Click **“OK”** to exit Alarm Settings.



- ✓ For detail instruction, refer to p.66 of v8.4 CMS User Manual

2.6.4 Change Subscriber Color

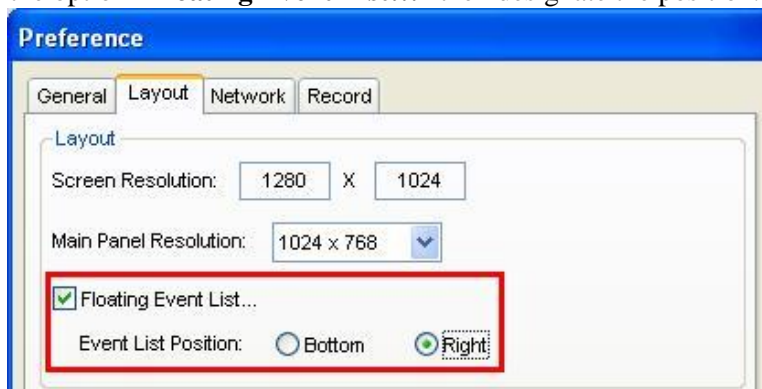
1. To apply color background for each subscriber in Center V2, select a specific color for each subscriber (section 2.5.1 step 8c).
2. In Center V2, click “**Preference Settings**”, then “**System Configure**”.
3. Select **General** tab, and check on the option “**Use subscriber’s color setting as background**” under Channel Caption.
4. Click “**OK**” to apply setting.



2.6.5 Dual Monitor

- ✓ *In order to display up to 42 channels on one monitor, Center V2 requires dual-display setup. Event list will be displayed on 2nd monitor in this mode.*

1. In Center V2, click “**Preference Settings**”, then “**System Configure**”.
2. Select **Layout** tab, and check on the option “**Floating Event List...**” then designate the position.
3. Click “**OK**” to apply setting.
4. Restart Center V2 software to apply the layout change.



3. Control Center

3.1 Introduction

Control Center is part of GeoVision Central Monitoring Solution that allows system administrators to fully control multiple GV-DVRs from a central PC. Via Control Center, system administrators may use the following features:

1. **Remote DVR** to remotely configure GeoVision Multicam software.
2. **Remote Desktop** to configure Windows settings or perform remote training.
3. **Remote Viewlog** to review video recordings from multiple GV-DVRs.
4. **Matrix** to assemble a live view station consisting up to 96 channels per monitor. Up to 8 independent matrices can be opened in one Control Center to allow maximum of 768 video channels to be viewed live at once.
5. **Central I/O Panel** to monitor or chain inputs and outputs from multiple GV-DVRs.
6. **Central E-Map** to monitor E-Maps from multiple GV-DVRs.

Control Center license USB key is required in order to use Control Center software. Control Center software can be installed from **v8.4 GeoVision Central Monitoring Solution Installation Disk**.

3.2 Main Features

Application	Feature
Control Center	Access subscribers' systems and desktops remotely; Display up to 96 screen divisions x 8 monitors; Remote playback; I/O Central Panel.

3.3 System Requirements

OS	32-bit	Windows XP / Vista / Server 2008 / 7
	64-bit	Windows Server 2008 / 7
CPU		Pentium 4, 3.0 GHz with Hyper-Threading
RAM		2 x 512 MB Dual Channels
Hard Disk		The hard disk space required to install Control Center (Standard Version) must be at least 1 GB.
VGA		NVIDIA GeForce 8600 GT / ATI Radeon X1650
DirectX		9.0c
Hardware		GV-USB Dongle

Control Center runs with 4 Matrix views OR connects more than 150 channels.

OS	32-bit	Windows XP / Vista / Server 2008 / 7
	64-bit	Windows Server 2008 / 7
CPU	Core2 Duo, 2.4 GHz	
RAM	2 x 1 GB Dual Channels	
Hard Disk	The hard disk space required to install Control Center (Advanced Version) must be at least 1 GB.	
VGA	NVIDIA GeForce 8600 GT x 2 / ATI Radeon X1650 x 2	
DirectX	9.0c	
Hardware	GV-USB Dongle	

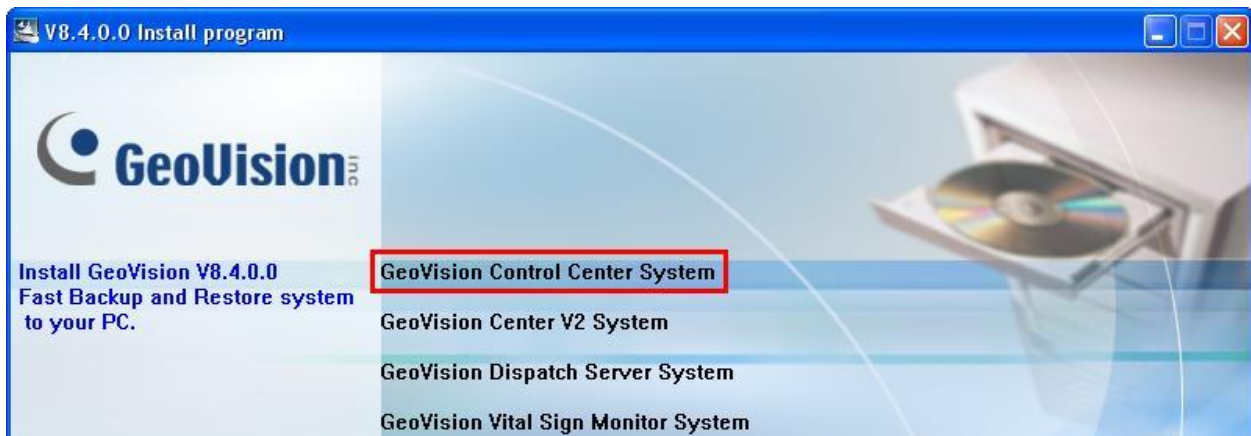
Control Center runs with 6 Matrix views AND connects more than 250 channels.

OS	32-bit	Windows XP / Vista / Server 2008 / 7
	64-bit	Windows Server 2008 / 7
CPU	Core i7, 2.8 GHz	
RAM	2 x 2 GB Dual Channels	
Hard Disk	The hard disk space required to install Control Center (Professional Version) must be at least 1 GB.	
VGA	NVIDIA GeForce 8600 GT x 3 / ATI Radeon X1650 x 3	
DirectX	9.0c	
Hardware	GV-USB Dongle	

3.4 Software Installation

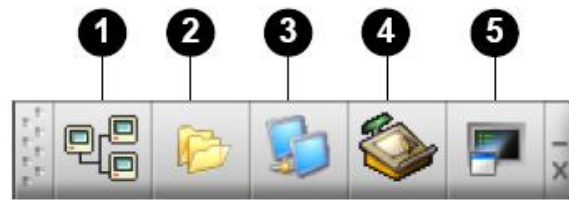
3.4.1 Install from CMS Disk

1. Insert “v8.4 GeoVision Central Monitoring Solution Installation Disk” into DVD-ROM.
2. In the menu, select “3. Install GeoVision v8.4.0.0 Central Monitoring System”.
3. Select “GeoVision Control Center System”.



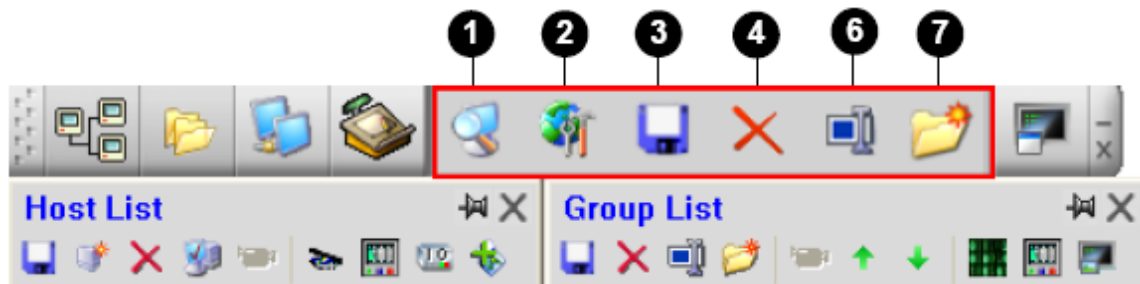
4. Follow on-screen instructions to complete setup.

3.5 Setup



The buttons on the Control Center Toolbar:

No.	Name	Description
1	Host List	Opens the Host List to create and edit hosts.
2	Group List	Opens the Group List to group cameras from different hosts.
3	IP Matrix List	See 4.11 IP Matrix.
4	Edit	Opens the Edit toolbar to display other buttons: Search Host, Configure, Save and Delete. The Add Host button only appears after the Host List is opened.
5	Service	See the section of Service Toolbar.



The buttons on the Edit toolbar:

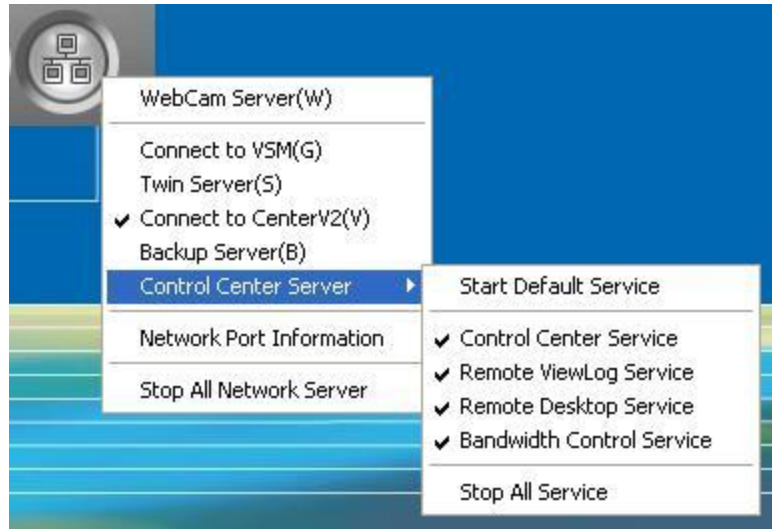
No.	Name	Description
1	Search Host	Opens the Search Host window, by which you can detect any devices on the same LAN and add them to the Host List.
2	Configure	Displays these options: System Configure, E-Map Editor, DirectDraw Configuration, IP Matrix Service, Import Data, Export Data, Change Password and Version Information.
3	Save	Saves the changes made on the Host List and Group List.
4	Delete	Deletes the highlighted Host or Group.
5	Add Host	Adds a Host.
6	Rename	Renames the highlighted Group.
7	Add Group	Adds a Group.

3.5.1 Enable Control Center Server

- ✓ Before Control Center can connect, DVR/NVR must first grant permission to allow such connection.

1. In GeoVision Multicam, click on the “**Network**” icon.
2. Select “**Control Center Server**”, then “**Start All Service**”.

3. Minimize GeoVision Multicam by clicking on the “**Exit**” button then select “**Minimize**”.
4. On Windows desktop, locate **Control Center Server** icon in the task bar.



5. Double-click on **Control Center Server** icon to bring up Control Center Server window.



6. In Control Center Server, click “**Configure**”, then select “**Set Default Service**”.



7. Check on all services to set them as default.



8. Click “**Configure**”, check “**Auto start default service when Windows starts**”.



9. Click “**Configure**”, select “**Prompt to Accept...**”

10. Uncheck **Remote DVR** and/or **Remote Desktop** to always grant permission to Control Center connections to this DVR.



- ✓ If Remote DVR and/or Remote Desktop options are checked, when Control Center tries to access the DVR/NVR, a permission window will pop up on the DVR/NVR for local user to decide whether permission will be granted.

11. Minimize **Control Center Server** to keep it running in the Windows task bar.

b. At this stage, GV-DVR is ready to be connected by Control Center.

- ✓ For detail instruction, refer to p.154 of v8.4 CMS User Manual

3.5.2 Open Connection Port

1. By default, GV-DVR uses Command port **3388**, Data port **5611**, and Log port **5552** in order to allow Control Center connection from a different network.
- ✓ Refer to p.44 “Network Port Configuration” in GeoVision Technical Handbook Part I for port forwarding instructions

3.5.3 Add Host

- ✓ In order to connect Control Center to GV-DVR, the connection must be initiated from Control Center. Thus, the following procedure is performed on Control Center.

1. Click on “**Host List**” button.
 2. Click on “**Add Host**” button in the Host List window, select “**Add Host DVR**”.
- ✓ If Control Center is used to connect to GV-IP Devices such as IP cameras, video servers, or Compact DVRs, select the host accordingly.



3. Enter **Host name** (DVR name for identifying purpose), **IP address**, **ID**, and **Password** required to access GV-DVR.
 4. Click “**Update Information**” to test network connection.
- ✓ If connection failed, check host’s IP address, ID, password, as well as ports listed above to make sure they are entered correctly
5. Click “**OK**”.
- ✓ Repeat steps 1 through 5 to add more hosts in Control Center.

- ✓ For detail instruction, refer to p.152 of v8.4 CMS User Manual

3.5.4 Remote DVR

1. Under Control Center Host List, right-click on the host to perform Remote DVR.
2. Select “**Remote DVR**”.



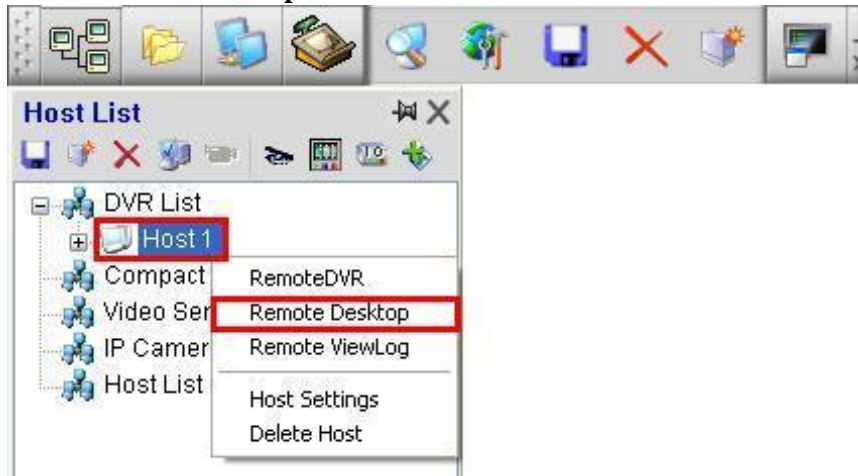
3. When Multicam interface appears, configure Multicam settings as you would on the GV-DVR/NVR.



- ✓ When Remote DVR is activated, local DVR's Multicam will be disabled until Remote DVR connection is closed.
- ✓ For detail instruction, refer to p.164 of v8.4 CMS User Manual

3.5.5 Remote Desktop

1. Under Control Center Host List, right-click on the host to perform Remote Desktop.
2. Select “**Remote Desktop**”.



3. When GV-DVR's desktop appears, configure Windows settings as you would on the GV-DVR.



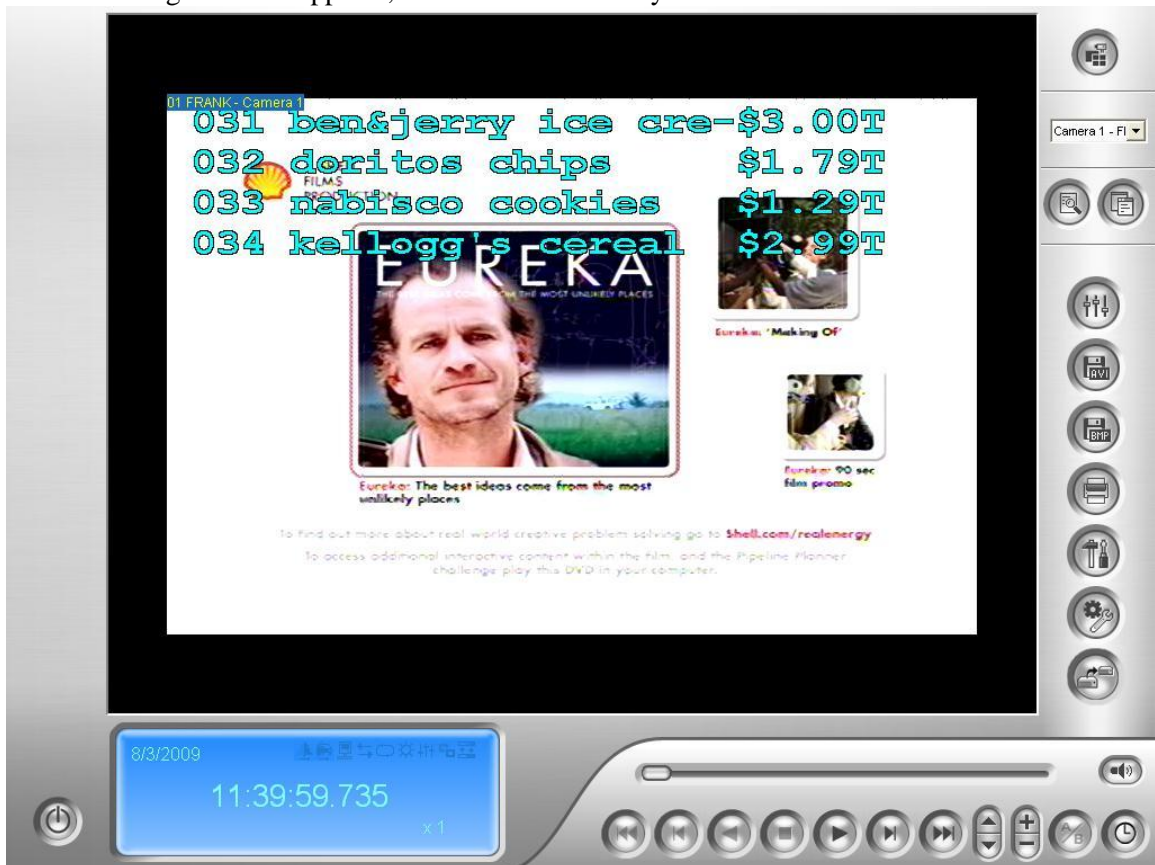
- ✓ *File transfer between Control Center and host DVR/NVR is also possible through Remote Desktop.*
- ✓ For detail instruction, refer to p.166 of v8.4 CMS User Manual

3.5.6 Remote Viewlog

1. Under Control Center Host List, right-click on the host to perform Remote Viewlog.
2. Select “**Remote Viewlog**”.



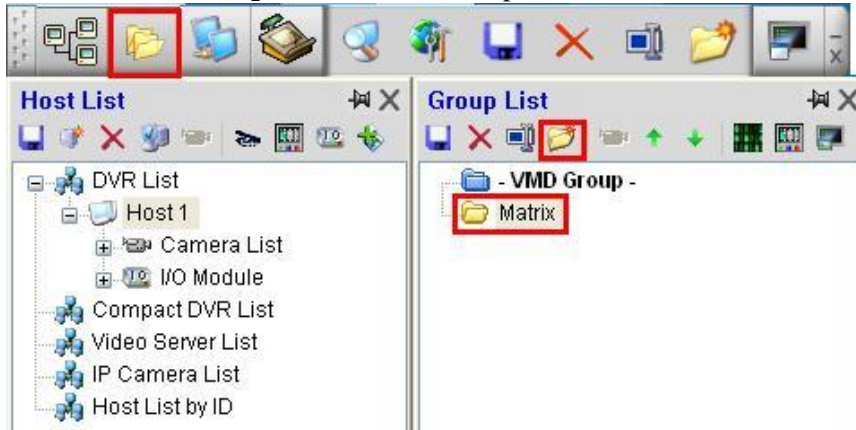
3. When Viewlog interface appears, review video files as you would on the GV-DVR.



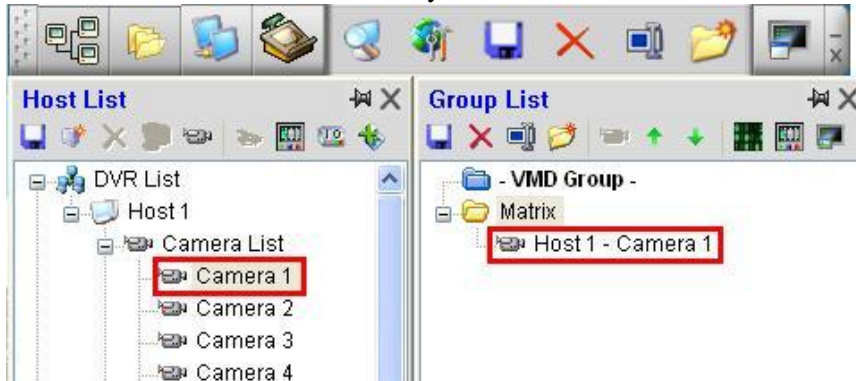
- ✓ “Save as AVI” and “Backup” are also available through Remote Viewlog. Refer to p.44 in *GeoVision Technical Handbook Part I* for video backup instructions
- ✓ For detail instruction, refer to p.168 of v8.4 CMS User Manual

3.5.7 Matrix

1. Click on “**Group List**” button.
2. Click on “**Add Group**” button in the Group List window, name the folder.



3. Under Control Center Host List, expand Camera List for the host then drag and drop desired camera into the folder under Group List as created in the previous step. To display all cameras from a certain DVR/NVR in a Matrix, drag and drop “**Camera List**”, instead of individual camera, to the folder to automatically include all cameras from the host.



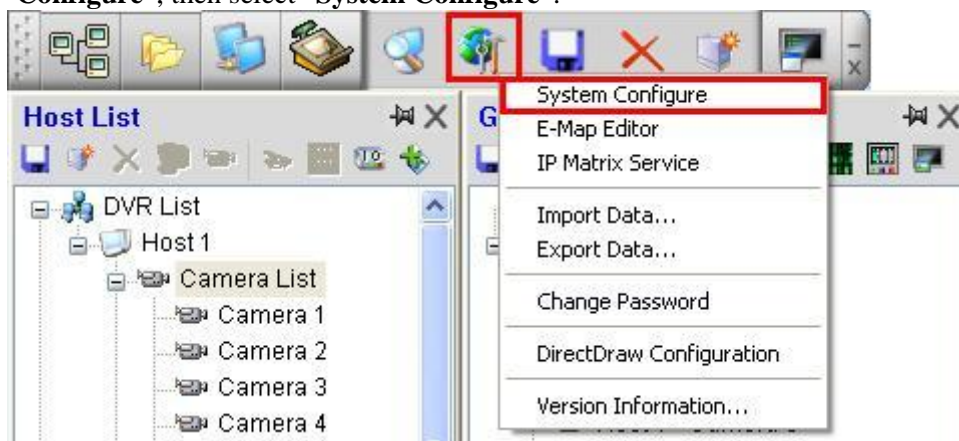
4. Repeat step 3 to add more cameras from multiple hosts into the same Matrix, if needed.
5. Repeat steps 2 and 3 to create multiple Matrices.
6. To start a Matrix, right-click on the folder created in step 2.
7. Select “**Matrix**”.



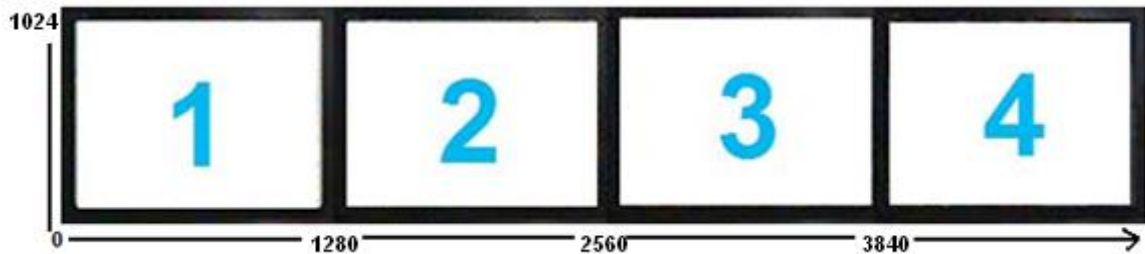
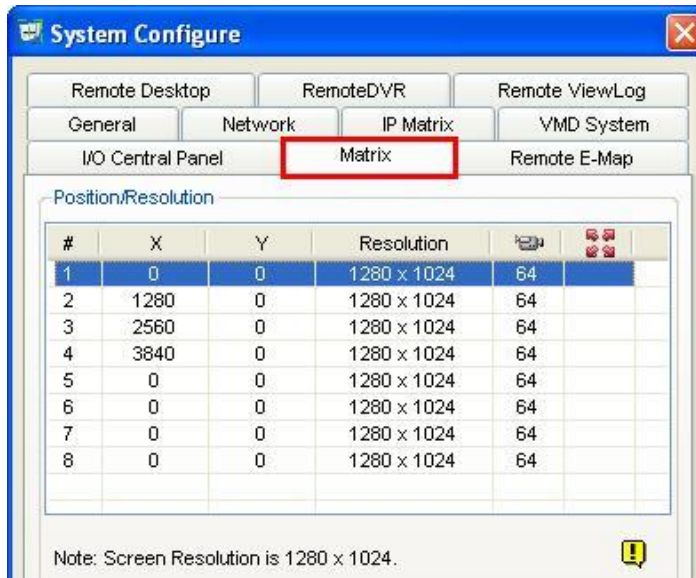
8. The Matrix should pop up displaying the video channels contained in the folder. Select different channel layout below to display up to 96 channels in the Matrix.



9. To start multiple Matrices, repeat steps 6 to 8.
10. By default, all Matrices will appear on primary monitor. To utilize multiple monitors, click on “Configure”, then select “System Configure”.



11. Select “Matrix” tab, adjust X (horizontal) and Y (vertical) display positions for Matrices 2 to 8, if applicable.
- ✓ Verify each of your monitor screen resolution prior to changing X and Y coordinates through Windows display properties. Note that monitors may have different resolutions.
 - ✓ The bottom-left hand corner of the first monitor is the origin with coordinates X = 0 and Y = 0.



- ✓ For example, for a four monitor station (each with 1280x1024) setup horizontally starting with monitor 1 on the left, the setting is shown above.
 - Matrix 1 will be opened up at (0, 0), which will be on monitor 1.
 - Matrix 2 will be opened up at (1280, 0), which will be on monitor 2.
 - Matrix 3 will be opened up at (2560, 0), which will be on monitor 3.
 - Matrix 4 will be opened up at (3840, 0), which will be on monitor 4.
- ✓ *If monitors are setup vertically, then Y coordinate will increase according to each monitor's vertical resolution.*

12. Click “OK”. Restart Control Center and Matrices to verify result.

- ✓ For detail instruction, refer to p.169 of v8.4 CMS User Manual

3.5.8 Open DVR Connection Port

1. By default, Control Center does not require any network port in order to connect to a GV-DVR. However, ports **5201** and **5202** are optional ports that will allow Control Center to scan for GV-DVR and GV-IP Devices within the network if user decides to run auto scan.
- ✓ Refer to p.44 “Network Port Configuration” in GeoVision Technical Handbook Part I for port forwarding instructions

3.6 Additional Features

- ✓ The following settings can be configured in Control Center as optional add-on features.

3.6.1 Two-way Audio

1. To initiate two-way audio between host and Control Center, right-click on the desired channel to bring up menu list under Matrix view.
2. Select “**Wave Out Toggle**” to hear audio from the camera.



3. Select “**Talk Back Toggle**” to broadcast audio to the desired host.

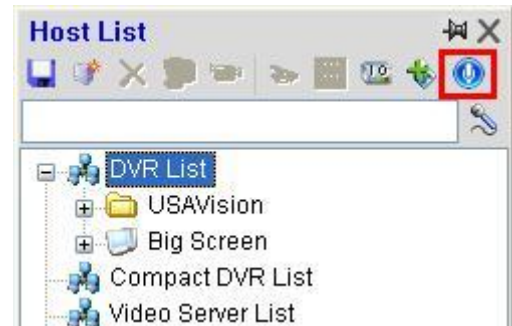


- ✓ For detail instruction, refer to p.173 of v8.4 CMS User Manual

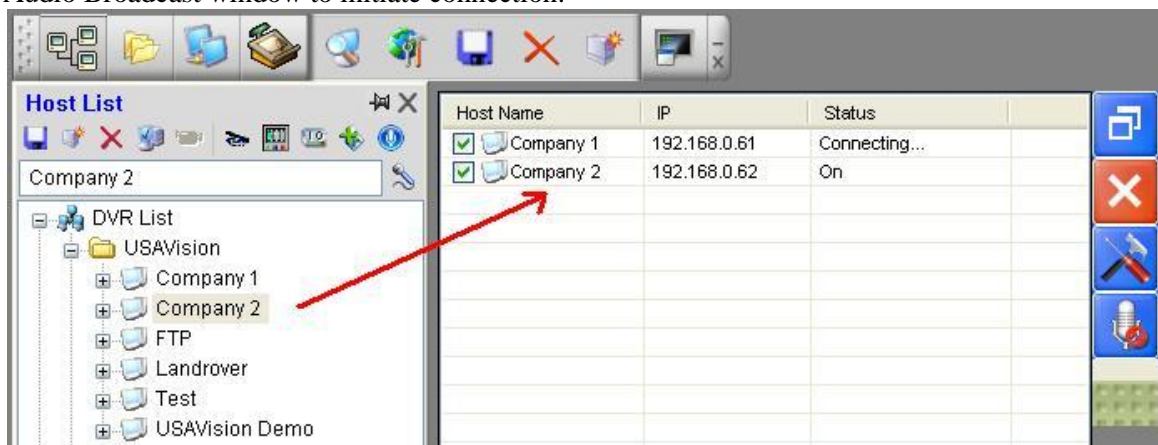
3.6.2 Audio Broadcast

- ✓ Audio Broadcast will allow Control Center to broadcast audio to multiple hosts at the same time.

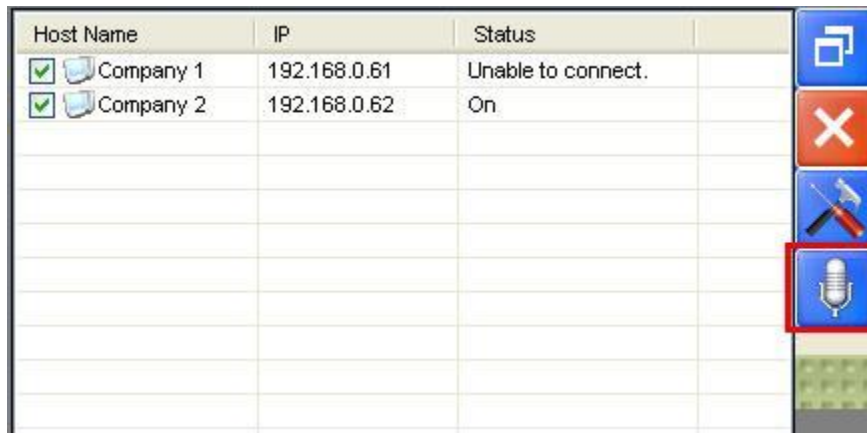
1. To initiate Audio Broadcast, click on **Audio Broadcast** icon under Host List to bring up the service.



2. Drag and drop each host from Host List into the Audio Broadcast window to initiate connection.



3. Click on the “**Mic**” button to stream audio to all connected hosts in the list.



- ✓ For detail instruction, refer to p.162 of v8.4 CMS User Manual

4. Point of Sale

4.1 Introduction

Point-of-sale (POS) integration with GeoVision DVR/NVR can effectively utilize video as digital receipts with live transaction data overlay live on screen. The data recorded will be stored in its own database and associated with video playback. For loss prevention, the data can also be associated with E-mail/ audio alerts or physical outputs. GeoVision offers two different POS integrations through Data Capture Box V3E and POS Text Sender.

4.2 Main Features

- ✓ Keywords Highlight, I/O Triggering
- ✓ Abnormal Transaction Alert
- ✓ POS Live View through Webcam
- ✓ POS Field Filter
- ✓ Quick search and Advanced search

4.3 System Requirements

4.3.1 Data Capture Box V3E

For traditional POS cash registers such as Samsung ER650 and RUBY Super System, which text receipts are sent out through DB9 or DB25 ports, POS integration can be done via Data Capture Box V3E.

1. POS cash register must send out **text** via DB9 or DB25 serial or parallel port.
- ✓ To verify POS cash register's output file, it is necessary to utilize **Windows HyperTerminal** to determine POS cash register's compatibility with GV-DVR. Refer to section 4.4 below.

4.3.2 POS Text Sender

For Windows-based POS system such as Micros, which POS is an application installed on a PC, POS integration can be done via POS Text Sender application.

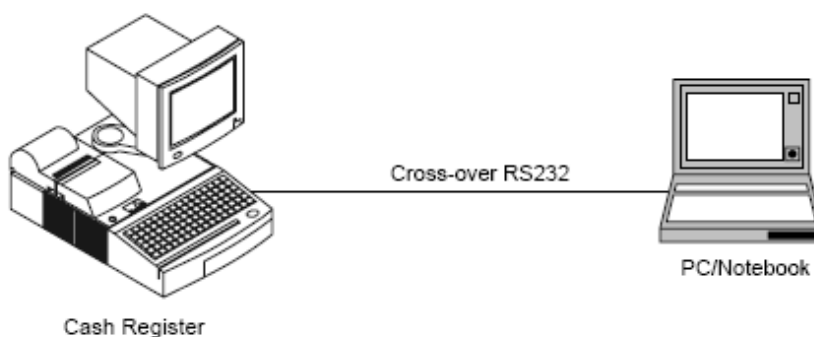
1. Windows-based POS cash registers only.
 2. POS application must store its database in either **.jnl**, **.ini**, or **.txt** format.
- ✓ Refer to POS application's user manual to verify supported database file types and location.

4.4 HyperTerminal Test

- ✓ 1 x **Crossover DB9 serial cable** is required to perform HyperTerminal test (not included in the package).
- ✓ 1 x PC or laptop with at least one available serial COM port is required (no GeoVision software necessary).

4.4.1 Connection

1. Connect one end of **Crossover DB9 cable** on the POS cash register's DB9 output.
2. Connect the other end of **Crossover DB9 cable** on a COM port of PC or a laptop that is running Windows HyperTerminal.

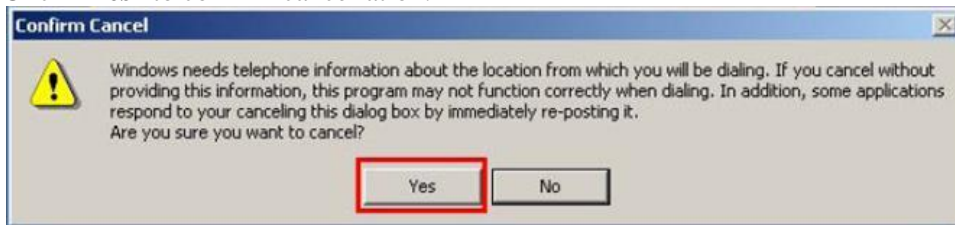


4.4.2 Setup

1. On Windows desktop, click on “**Start**”, “**All Programs**”, “**Accessories**”, “**Communications**”, then “**HyperTerminal**”.
- ✓ *HyperTerminal may not be available by default in Windows Vista. Download alternative software such as <http://www.hilgraeve.com/hyperterminal.html>.*
2. Click “**Cancel**” when prompted location information.



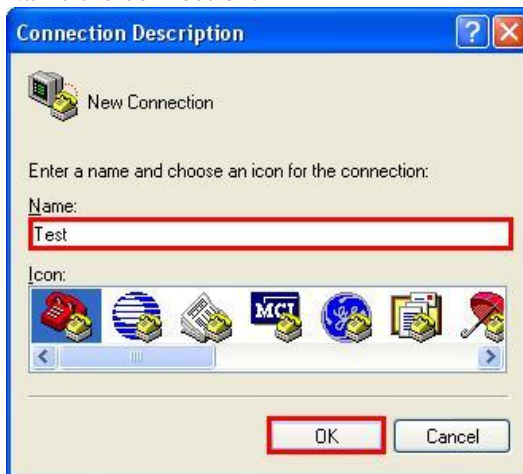
3. Click “Yes” to confirm cancellation.



4. Click “OK” to bypass location information.



5. Name the connection.



6. Select COM port that is used for communication on the PC (step 2, section 4.4.1).



- ✓ If there is only one COM port on the PC, by default it is COM 1. However, if there are multiple COM ports or the connection is done through USB, verify the correct COM port number under **Device Manager**, then “**Ports**”.

7. Select **Bits per second** (Baud Rate) according to your POS setting.

✓ ***Bits per second** (Baud Rate) is POS specific. Therefore, refer to POS cash register user manual or online resource to determine the correct baud rate.*

8. Adjust **Data bits**, **Parity**, and **Stop bits**, only if the POS cash register is not using default values as shown. Otherwise, proceed to next step.

9. Select “**None**” for Flow control.

10. Click “**OK**”.

11. Input transactions on cash register and the transactions should appear in the HyperTerminal screen.

12. Compare HyperTerminal transactions with actual printed receipts.

a. **100% the same.**

i. Proceed to Data Capture Box V3E Setup.

b. **90% the same** with some consistent garbage text in each transaction line.

i. A modified file can be created base on the **HyperTerminal result snapshot** and **scanned image of the actual receipt** reflecting the same transaction.

c. **100% garbage text.**

i. Verify POS output file type with POS manufacturer, if output file is graphic instead of text, a **Graphic Mode USB Key** is required to overlay images on GV-DVR.

ii. Check or try different baud rates (step 7) and verify the result.

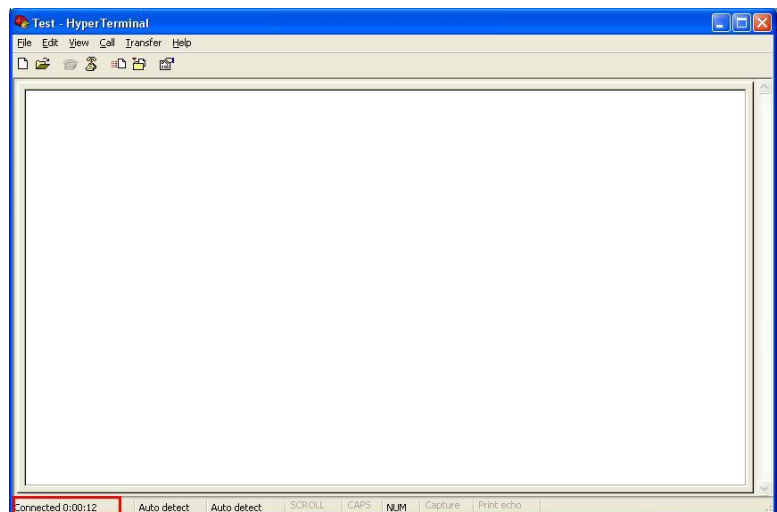
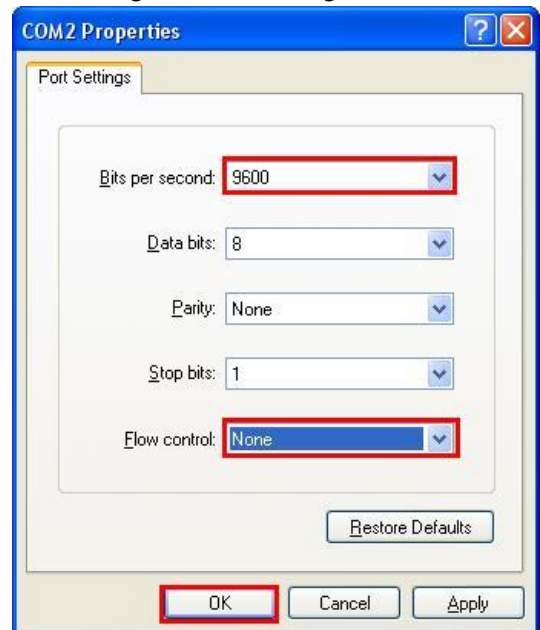
d. **Nothing appears on screen.**

i. Wrong COM port selected in step 6.

ii. Baud rate selected in step 7 does not match that of POS cash register.

iii. POS cash register does not send out any text output through its RS232 port.

Check POS output settings on the cash register.

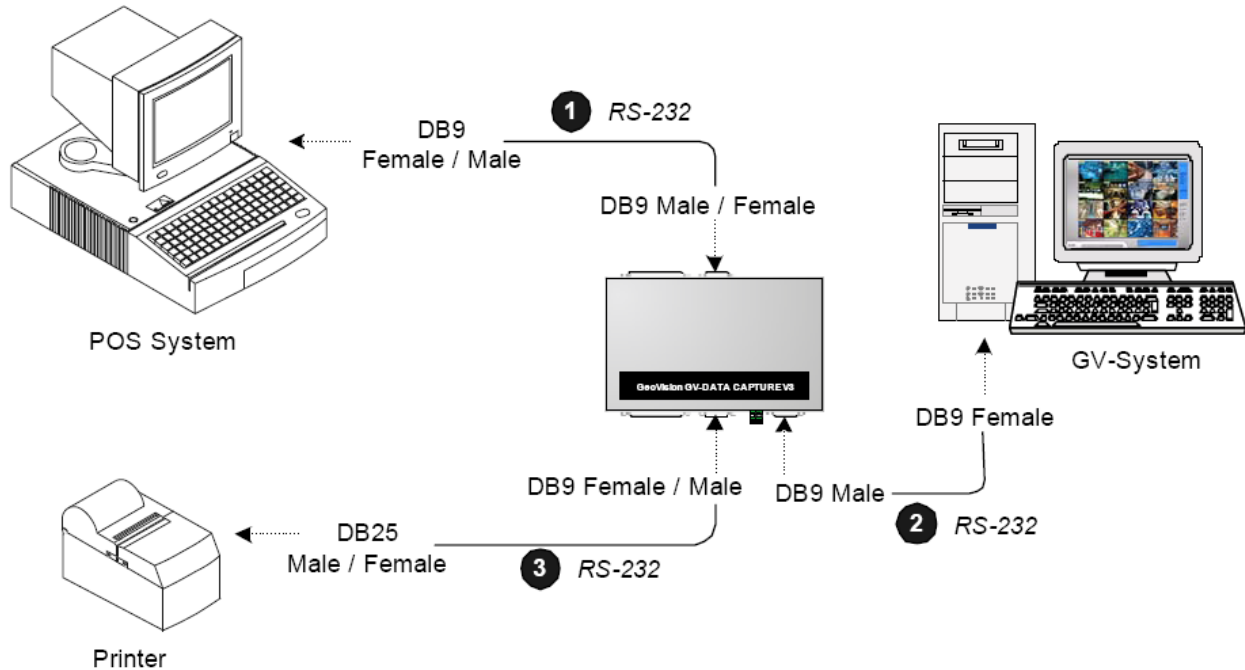


4.5 Data Capture Box V3/V3E

- ✓ **HyperTerminal test** (section 4.4) must be verified prior to connecting a Data Capture Box to ensure text overlay compatibility.

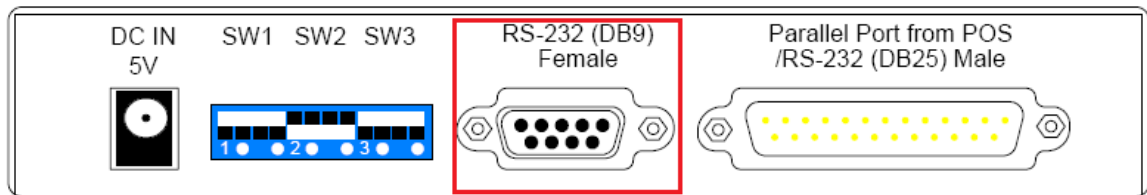
4.5.1 DB9 Connection

- ✓ Applicable device: Data Capture Box V3 and/or Data Capture Box V3E



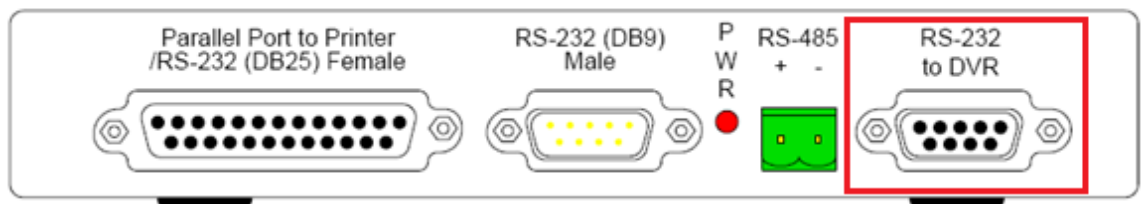
1. Connect DB9 cable from POS cash register output into back side of Data Capture Box V3/V3E using straight through DB9 cable (included in the package).

Rear Panel



2. Connect DB9 straight through cable from front side of Data Capture Box to GV-DVR (included in the package).

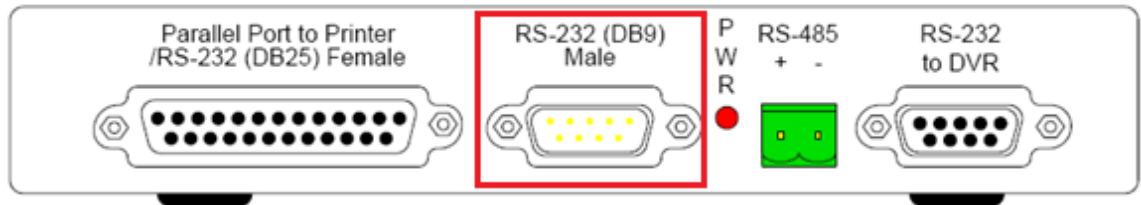
Front Panel



- ✓ Alternatively, if the distance between the DVR and Data Capture Box is greater than 32 ft, RS485 connection can be used instead of RS232.

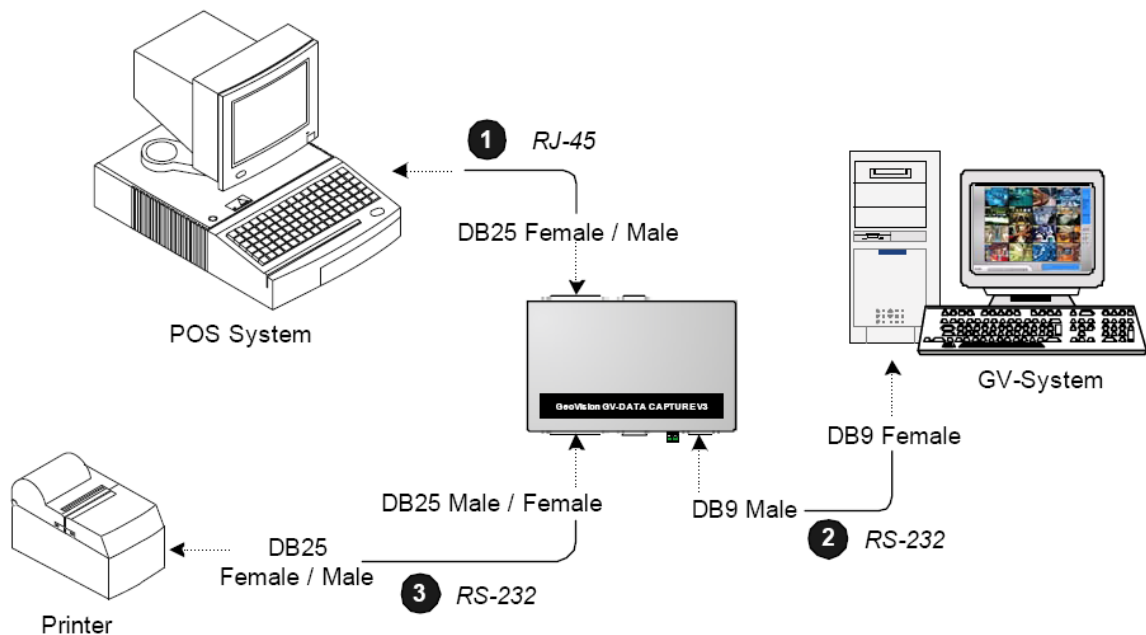
3. Connect DB9 straight through cable from front side of Data Capture Box to the receipt printer the same way as the printer would be connected normally.

Front Panel



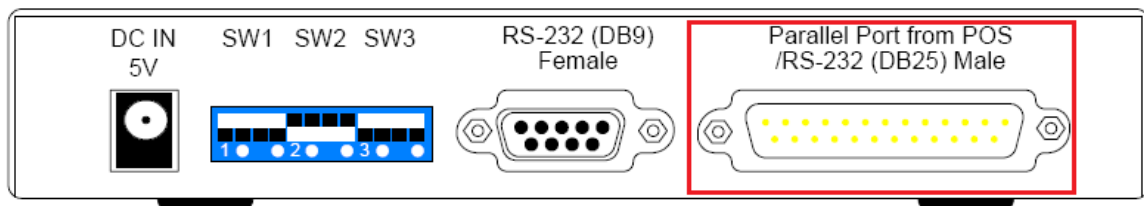
4.5.2 DB25 Serial Connection

- ✓ Applicable device: Data Capture Box V3 and/or Data Capture Box V3E



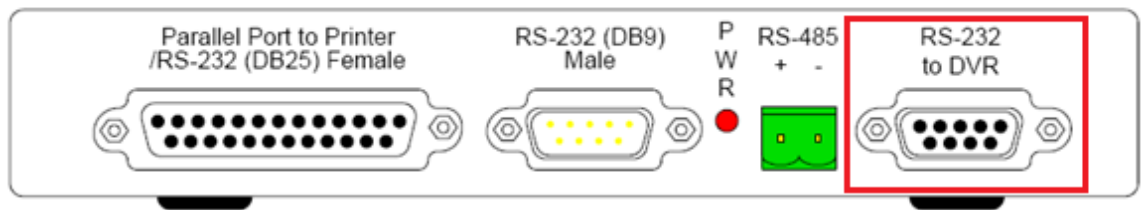
1. Connect DB25 cable from POS cash register output into back side of Data Capture Box V3/V3E using straight through RJ-45 to DB25 converter cable (supplied by POS cash register).

Rear Panel



2. Connect DB9 straight through cable from front side of Data Capture Box to GV-DVR (included in the package).

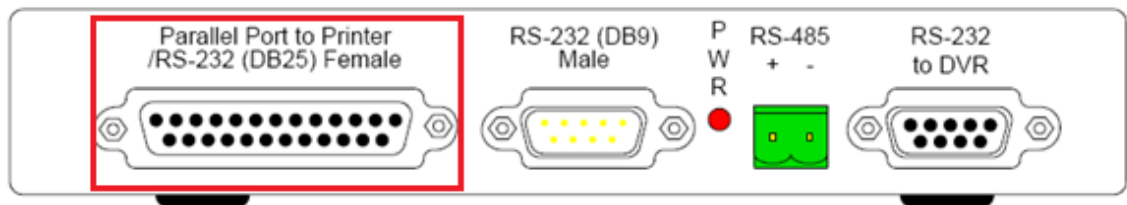
Front Panel



- ✓ Alternatively, if the distance between the DVR and Data Capture Box is greater than 32 ft, RS485 connection can be used instead of RS232.

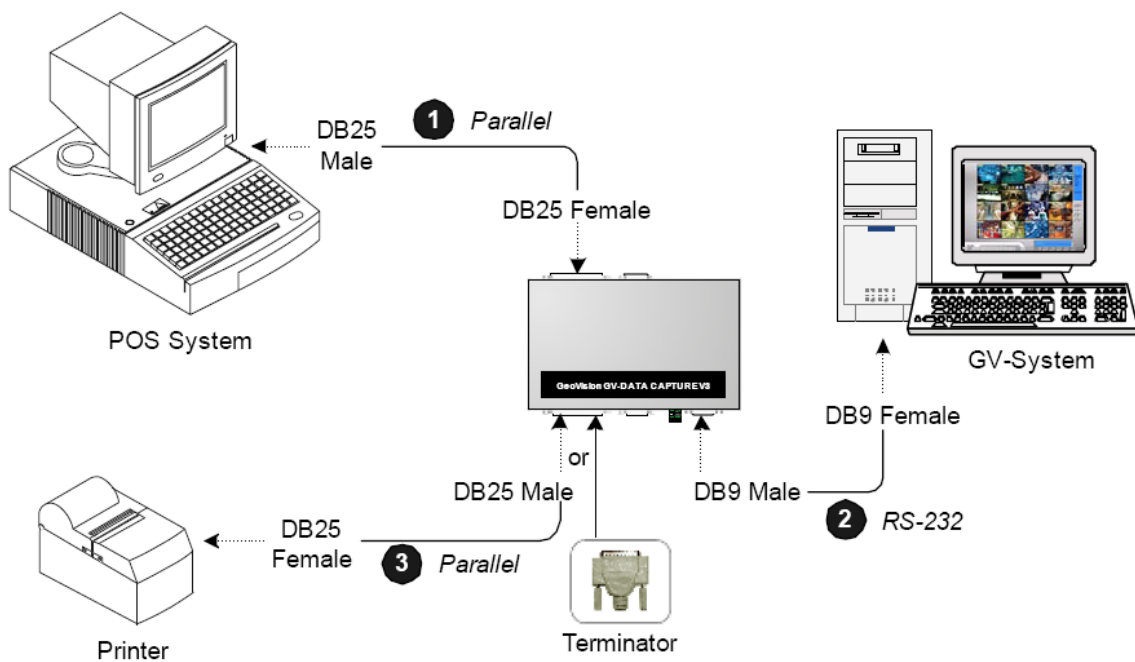
3. Connect DB25 straight through cable from front side of Data Capture Box to the receipt printer the same way as the printer would be connected normally.

Front Panel



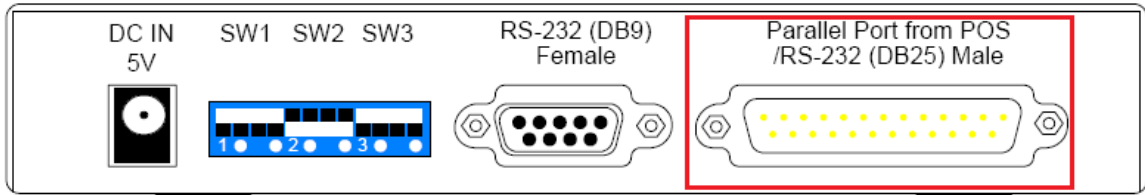
4.5.3 DB25 Parallel Connection

- ✓ Applicable device: Data Capture Box V3 and/or Data Capture Box V3E



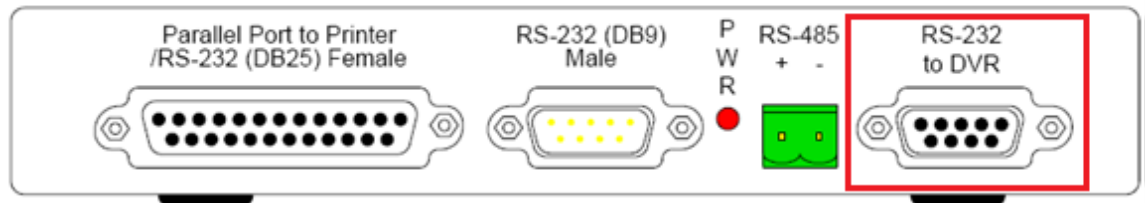
1. Connect DB25 cable from POS cash register output into back side of Data Capture Box V3/V3E using straight through DB25 cable (supplied by POS cash register).

Rear Panel



2. Connect DB9 straight through cable from front side of Data Capture Box to GV-DVR (included in the package).

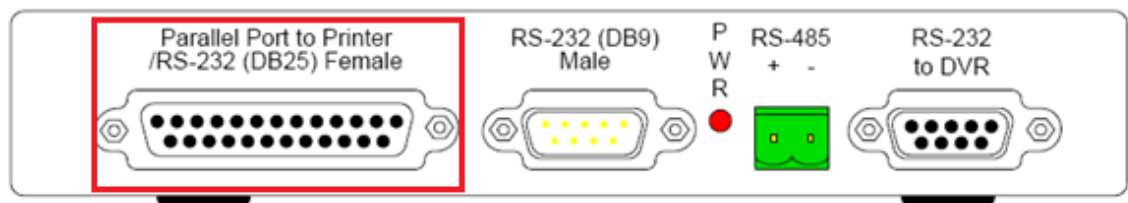
Front Panel



- ✓ *Alternatively, if the distance between the DVR and Data Capture Box is greater than 32 ft, RS485 connection can be used instead of RS232.*

3. Connect DB25 straight through cable from front side of Data Capture Box to the receipt printer the same way as the printer would be connected normally.

Front Panel

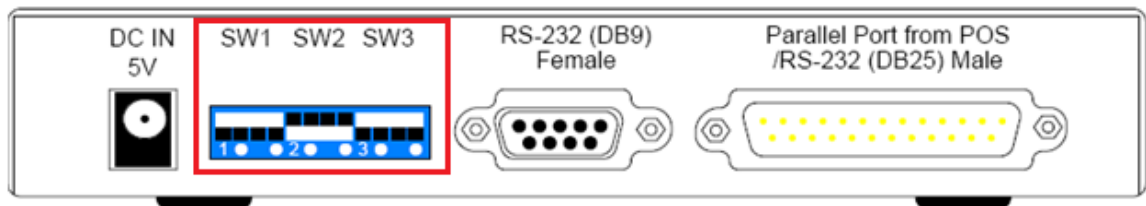








4.5.4 DIP Switch and Baud Rate

- ✓ Applicable device: Data Capture Box V3 and/or Data Capture Box V3E

1. Adjust DIP switches located on the back side of Data Capture Box V3/V3E as follows:

Rear Panel



SW1	Up: Serial (Default) Down: Parallel	 Up	 Down
SW2	Up: DB25 Mode Down: DB9 Mode (Default)	 Up	 Down
SW3	Up: Non-crossover (Default) Down: Crossover	 Up	 Down

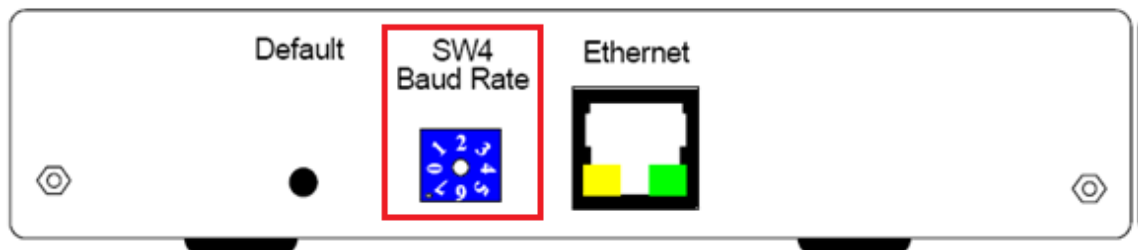
✓ Example DIP Switch settings for previous sections are as follows:

Connection Type	4.5.1 DB9 Serial	4.5.2 DB25 Serial	4.5.3 DB25 Parallel
SW1	Up	Up	Down
SW2	Down	Up	Up
SW3	Up	Up	Up

2. Adjust Baud Rate (SW4) so that it matches that of POS cash register.

✓ Refer to POS cash register's user manual or setup instruction for baud rate information.

Side Panel

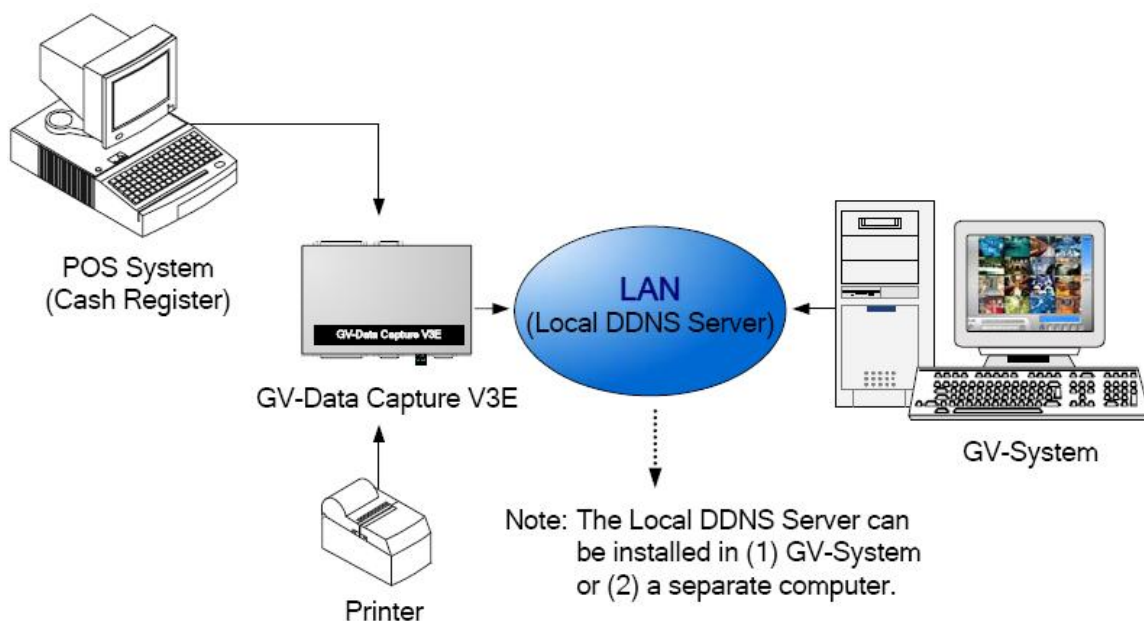


Switch Number	Baud Rate
0	115200 (default value)
1	57600
2	38400
3	19200
4	9600
5	4800
6	2400
7	1200

✓ Selecting incorrect baud rate will result in garbage text on screen

4.5.5 Ethernet Connection

- ✓ Applicable device: Data Capture Box V3E
 - ✓ *Data Capture Box V3E has default network properties of **IP address** 192.168.0.100, **Subnet Mask** 255.255.255.0, and **Default Gateway** 192.168.0.1.*
 - ✓ *Data Capture Box V3E has ID **admin** and password **1234**.*
 - ✓ *Prior to connecting to a network, it is necessary to confirm that the network properties of the Data Capture Box V3E match that of the actual network in which the Data Capture Box V3E will be used. See section 4.5.6 for network configuration.*



1. Connect POS cash register to Data Capture Box V3E by following step 1 of section 4.5.1 (DB9 connection), section 4.5.2 (DB25 serial connection), or section 4.5.3 (DB25 parallel connection).
2. Connect Data Capture Box V3E onto local network via Ethernet port on the side.

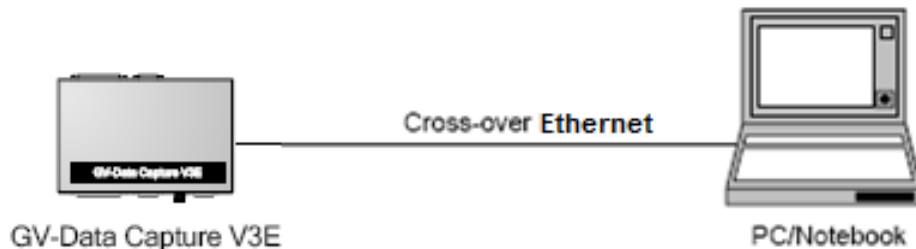
Side Panel



3. Connect Data Capture Box V3E to receipt printer by following step 3 of section 4.5.1 (DB9 connection), section 4.5.2 (DB25 serial connection), or section 4.5.3 (DB25 parallel connection).

4.5.6 Network Configuration

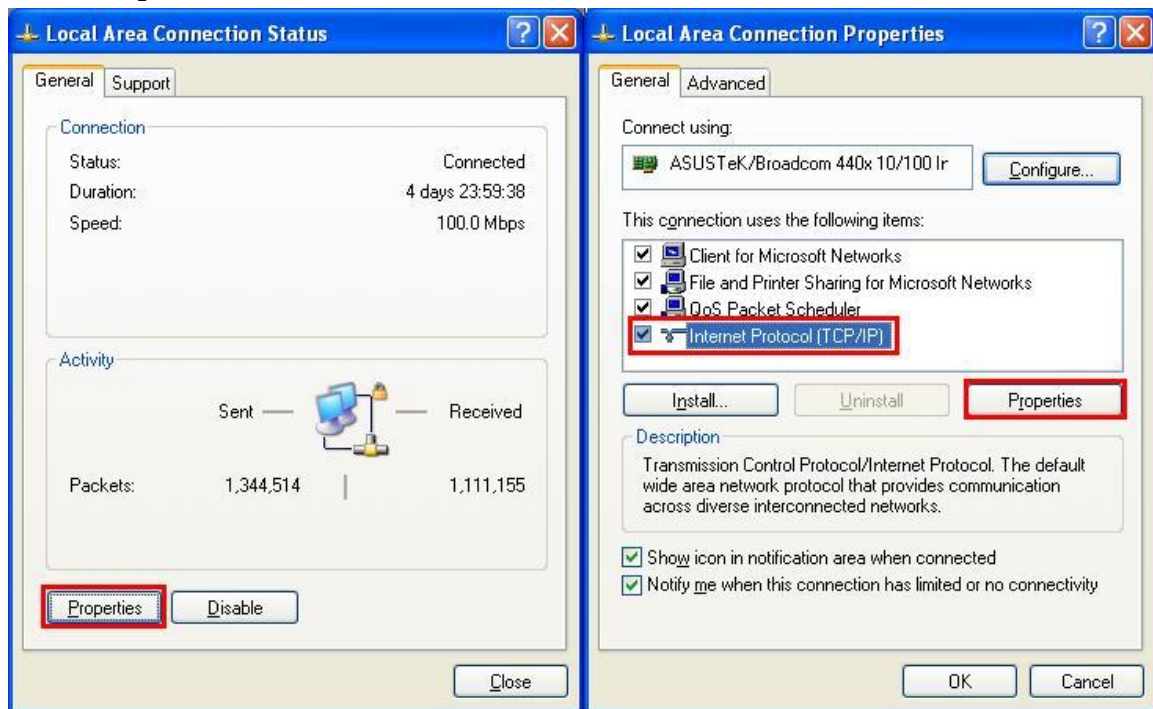
- ✓ Applicable device: Data Capture Box V3E
- ✓ 1 x **Ethernet cable** is required for direct Data Capture Box V3E to PC/laptop connection.



1. Connect Data Capture Box V3E with a PC/laptop via an **Ethernet cable**.
2. On the PC/laptop, click on “Start”, “Control Panel”, then “Network Connections”.



3. Double-click on “**Local Area Connection**”.
4. Click “**Properties**”.

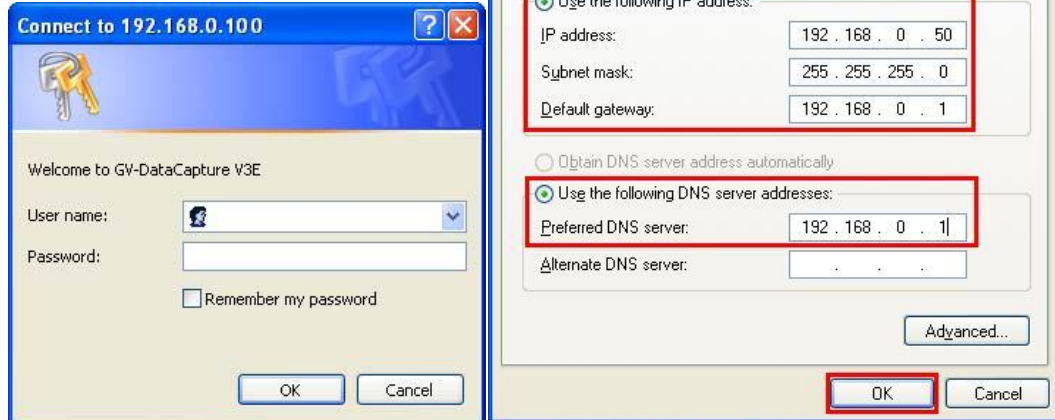


5. Highlight “**Internet Protocol (TCP/IP)**”, select “**Properties**”.
6. Select “**Use the following IP Address**”, then set PC/laptop’s network properties as follows:
 - a. IP Address: 192.168.0.50
 - b. Subnet Mask: 255.255.255.0
 - c. Default Gateway: 192.168.0.1
 - d. Preferred DNS Server: 192.168.0.1

7. Click “OK”.
8. Open Internet Explorer, go to <http://192.168.0.100>.

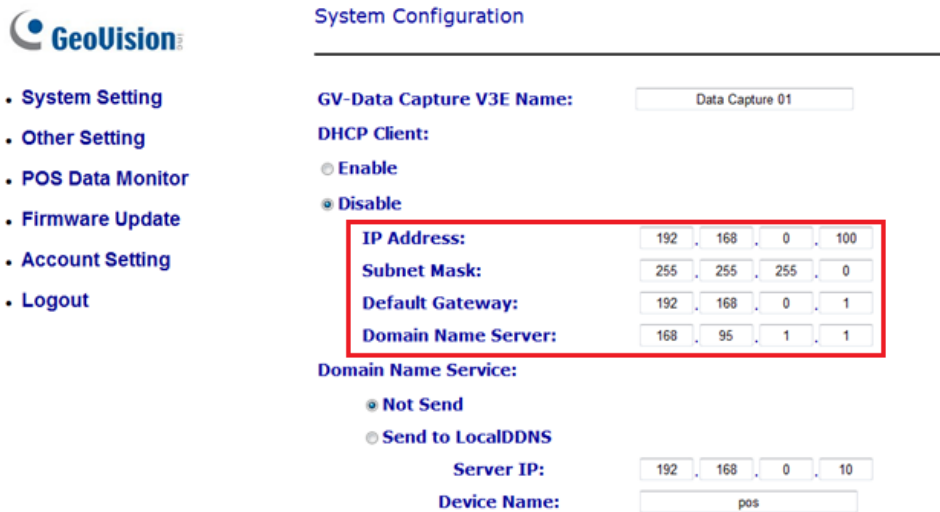
✓ *If page cannot be opened, verify Ethernet connection and make sure that Data Capture Box V3E is powered ON.*

9. Enter default User name “admin” and password “1234”, click “OK”.



10. Change **IP Address**, **Subnet Mask**, **Default Gateway**, and **Domain Name Server** so they match the network properties of the desired network.

✓ *In order to prevent IP conflict, it is necessary to configure the Data Capture Box V3E with an IP address that is not yet taken in the network*



11. Double check the new network properties of the Data Capture Box V3E, click “**Submit**”.
12. Connect Data Capture Box V3E back in original desired network.

✓ *Ping Data Capture Box V3E with its new IP address. If there is no response, load default on Data Capture Box V3E then restart from step 1.*

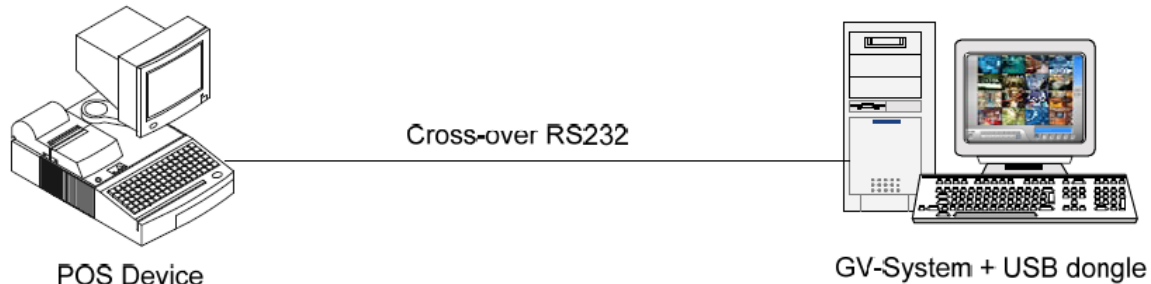
- ✓ For detail instruction, refer to p.12 of Data Capture Box V3E User Manual

4.6 POS Text Sender

- ✓ *Windows-based POS software must support either .txt, .ini, or .jnl file extension database in order to ensure text overlay compatibility.*

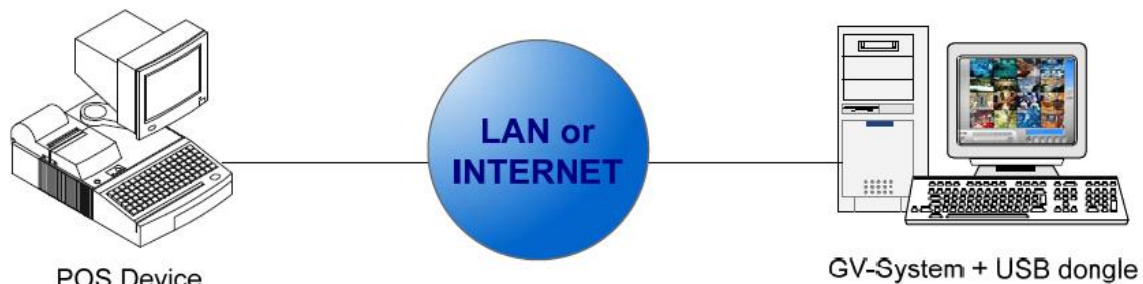
4.6.1 DB9 Connection

- ✓ 1 x **Crossover DB9** cable is required.



1. Connect one end of **Crossover DB9** cable on the POS cash register's DB9 output.
2. Connect the other end of **Crossover DB9** cable on a GV-DVR COM port.

4.6.2 Ethernet Connection

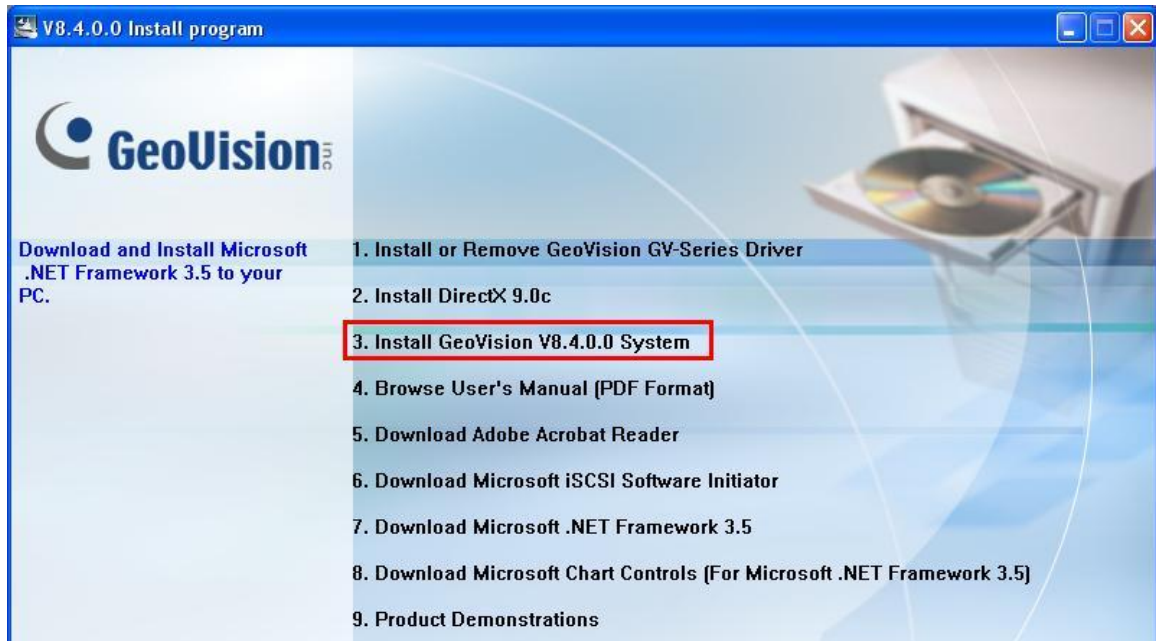


1. Connect Windows-based POS system onto the same network as GV-DVR.

- ✓ *Ping GV-DVR from POS system or vice versa to ensure communication.*

4.6.3 Installation

- ✓ *The following procedure is performed on Windows-based POS system.*
1. Insert “**v8.4 GeoVision Main System Installation Disk**” into DVD-ROM.
 2. In the menu, select “**3. Install GeoVision v8.4.0.0 System**”.



3. Click “Next” to go to next page.
4. Select “GeoVision POS Text Sender”.

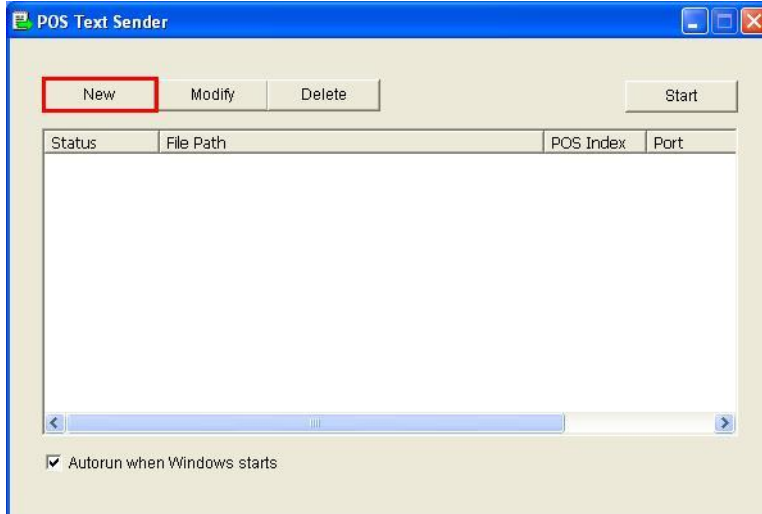


5. Follow on-screen instructions to complete installation.

4.6.4 Setup

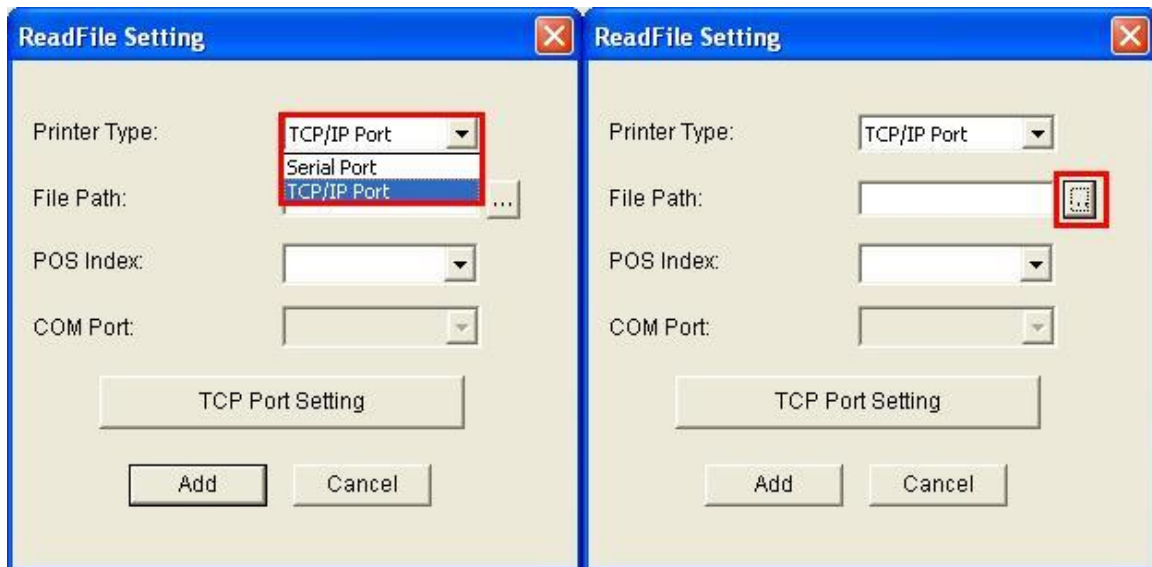
✓ The following procedure is performed on Windows-based POS system.

1. On Windows desktop, click “**Start**”, “**Programs**”, “**POS Text Sender**”, then run “**POS Text Sender**”.
2. Click “**New**”.



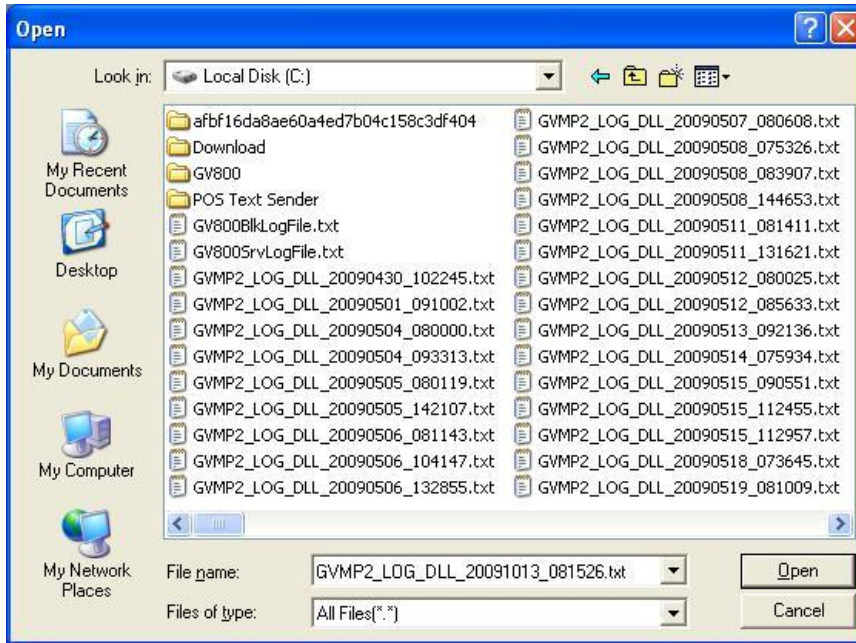
3. Select communication type “**Serial**” (section 4.6.1) or “**TCP/IP**” (section 4.6.2).

✓ If “**Serial**” is selected, proceed to step 11.



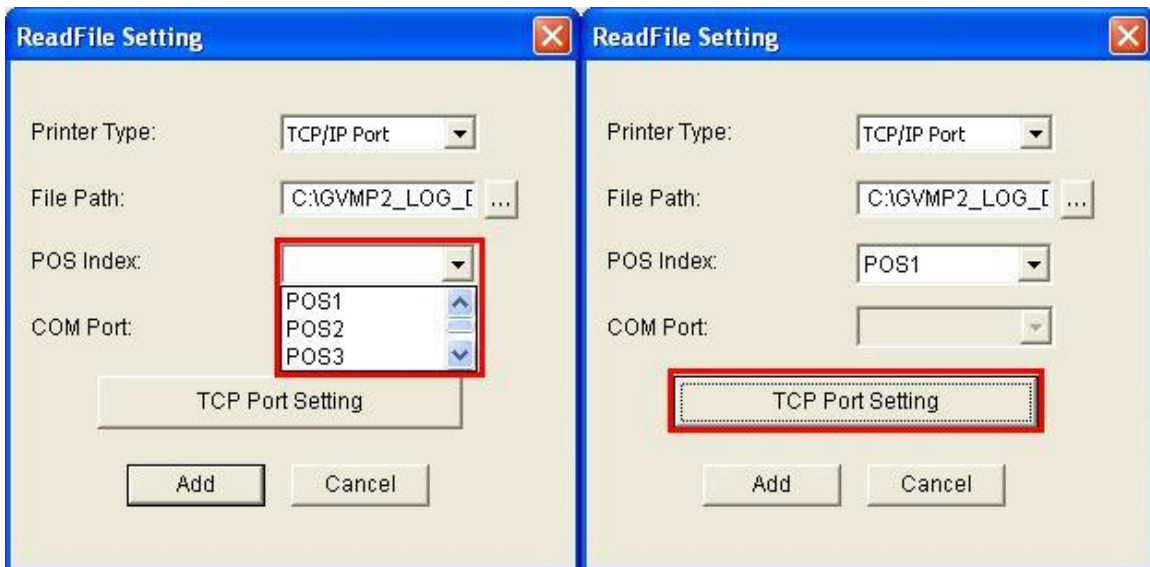
4. Click “...” to browse for file path.
5. Locate and select POS system’s database (.ini, .jnl, or .txt).

✓ Refer to POS system user manual to locate database type and location.



6. Click **“Open”**.
7. Select **POS Index**; use **POS1** for single POS connection.

✓ *The index will help GV-DVR to differentiate among multiple POS Text Senders, if available.*



8. Click **“TCP Port Setting”**.
9. Enter **Password**, for example “1234”.

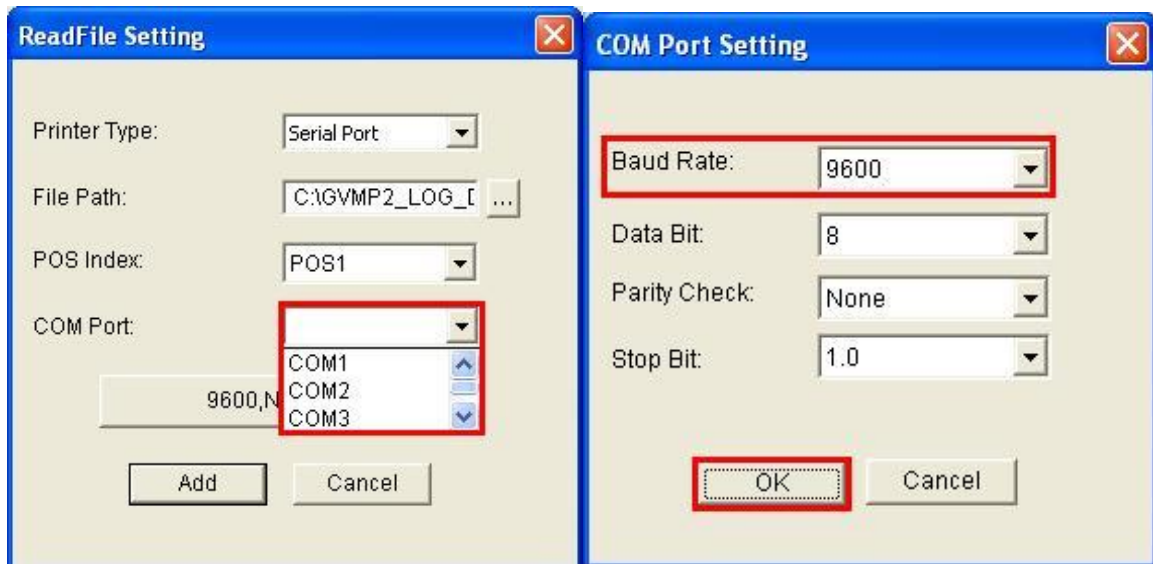
✓ *This password will be prompted when adding the POS Text Sender on GV-DVR.*

10. Click **“OK”**.



11. Alternatively, if **Serial Port** is selected in step 3, select **COM Port** in which the POS device is sending out its database files.

- ✓ *If there is only one COM port on the PC, by default it is COM 1. However, if there are multiple COM ports or the connection is done through USB, verify the correct COM port number under **Device Manager**, then “Ports”.*

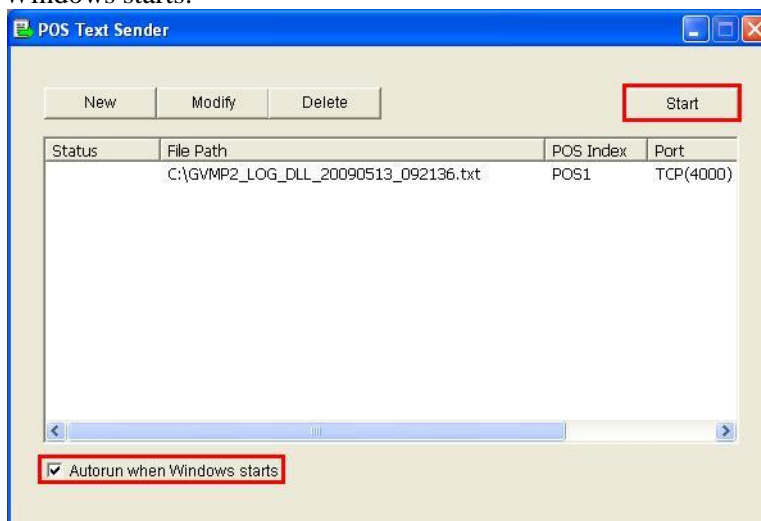


12. Select **Baud Rate**.

- ✓ ***Bits per second** (Baud Rate) is POS specific. Therefore, refer to POS cash register user manual or online resource to determine the correct baud rate.*

13. Click “**OK**”.

14. Check “**Autorun when Windows starts**” to allow POS Text Sender to start automatically when Windows starts.



15. Click “**Start**”.

- ✓ For detail instruction, refer to p.329 of v8.4 User Manual

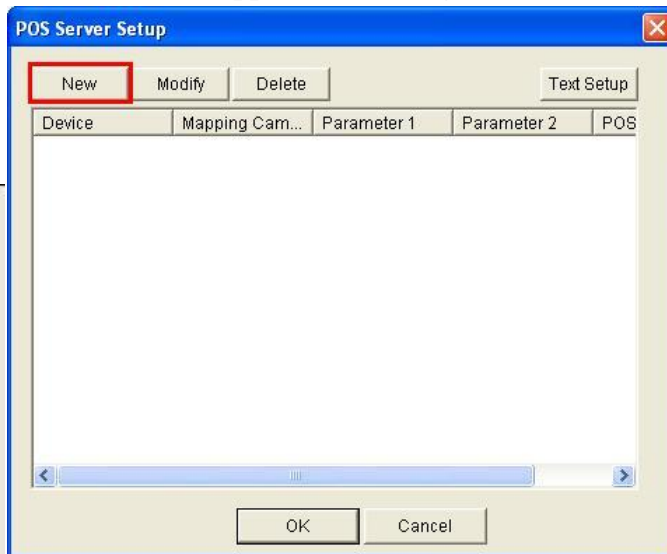
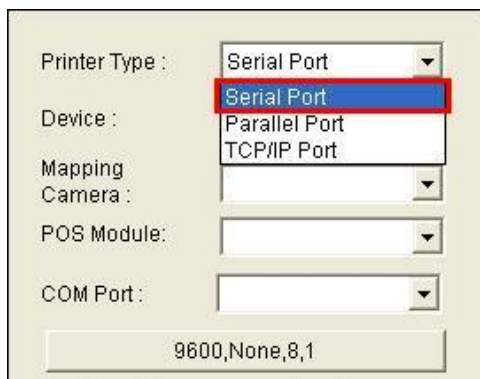
4.7 Multicam Setup

- ✓ The following procedure is performed on GV-DVR/NVR

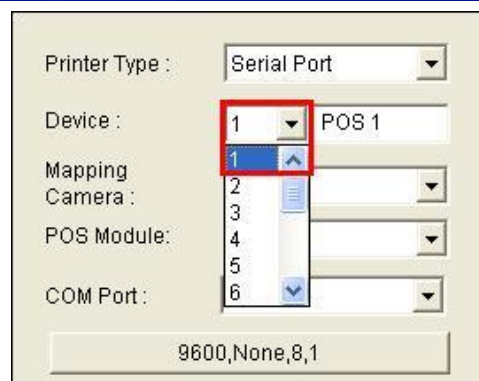
4.7.1 DB9 Setup

- ✓ The following procedure applies to both Data Capture Box V3/V3E (section 4.5.1 to 4.5.3) and POS Text Sender DB9 connection (section 4.6.1)

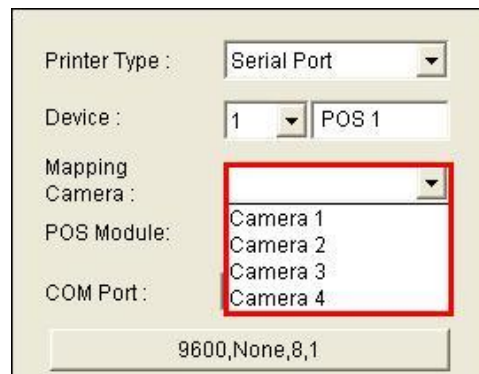
1. In Multicam, click on “Configure”, “Accessories”, “POS Application Setting”, “POS Device Setup”.
2. Click “New”.
3. Select “Serial Port” as Printer Type.



4. Select POS Device number, use “1” for first POS connection.
 - ✓ If multiple POS devices are connecting to the DVR, assign an index to each additional POS device in increasing order.
 - ✓ When using POS Text Sender, the device number selected has to match the **POS Index** as shown in step 7 in section 4.6.4.



5. Select “Mapping Camera” to map the POS overlay onto a camera.
 - ✓ One POS device can only overlay on one selected channel.
 - ✓ Once the channel has been mapped to a POS device, it cannot be mapped for another POS device.



6. Select “**POS Module**” to indicate POS type.
 - ✓ Select **General** if POS device does not specify a printer type
 - ✓ **Graphic Mode** can be used if the printer is sending out graphics instead of text. In order to use Graphic Mode, an extra Graphic Mode USB key is required.
 7. Select “**COM Port**” on DVR in which is used for POS data transmission.
 - ✓ If there is only one COM port on the PC, by default it is COM 1. However, if there are multiple COM ports or the connection is done through USB, verify the correct COM port number under **Device Manager**, then “**Ports**”.
 8. Click “**9600, None, 8, 1**”.
 9. Adjust **Baud Rate**, **Data Bits**, **Parity**, and **Stop bits** to match POS output properties.
 - ✓ **Bits per second (Baud Rate)** is POS specific. Therefore, refer to POS cash register user manual or online resource to determine the correct baud rate.
 10. Click “**OK**”.
 11. Click “**Add**” to add the POS device.
- ✓ Repeat steps 1 to 11 to add more POS devices.

Printer Type : Serial Port

Device : 1 POS 1

Mapping Camera : Camera 2

POS Module : General

COM Port : 9600,None,8,1

Printer Type : Serial Port

Device : 1 POS 1

Mapping Camera : Camera 2

POS Module : General

COM Port : COM 3

9600

Cash Drawer

Printer Type : Serial Port

Device : 1 POS 1

Mapping Camera : Camera 2

POS Module : General

COM Port : COM 3

9600,None,8,1

Cash Drawer open signal

Baud Rate : 9600

Data Bits : 8

Parity: None

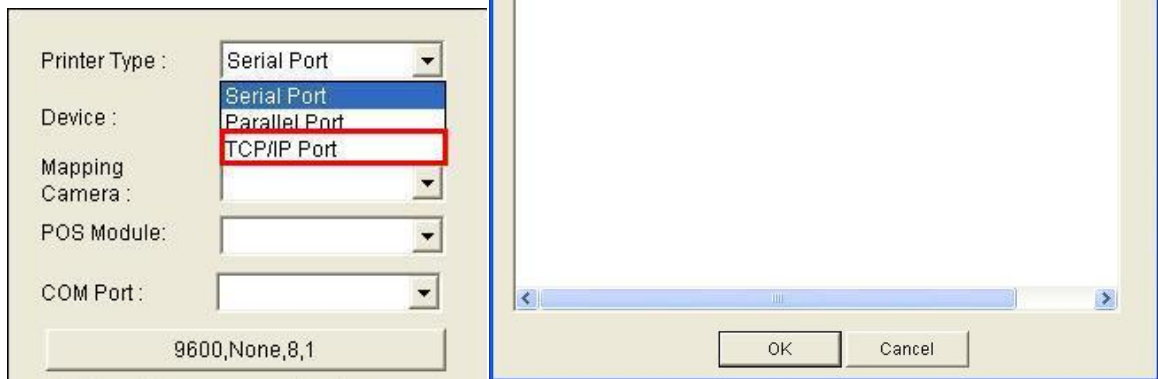
Stop bits : 1

OK Cancel

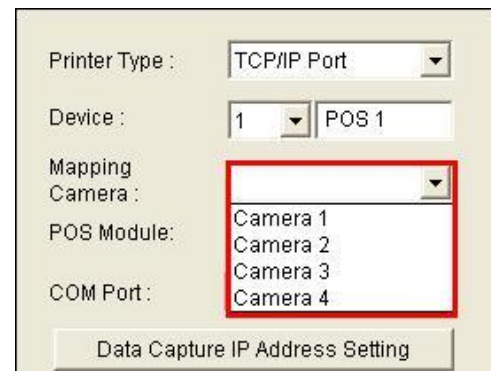
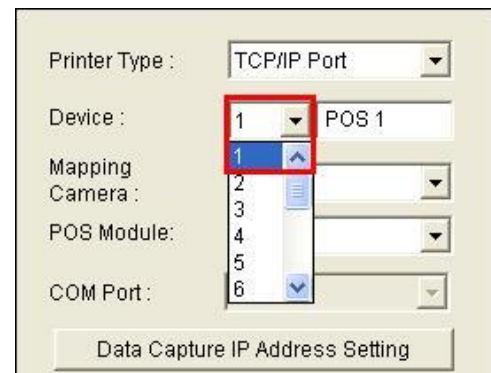
4.7.2 Ethernet Setup

- ✓ The following procedure applies to both Data Capture Box V3E (section 4.5.5) and POS Text Sender Ethernet connection (section 4.6.2).

1. In Multicam, click on “Configure”, “Accessories”, “POS Application Setting”, “POS Device Setup”.
2. Click “New”.
3. Select “TCP/IP Port” as Printer Type.



4. Select POS Device number, use “1” for first POS connection.
 - ✓ If multiple POS devices are connecting to the DVR, assign an index to each additional POS device in increasing order.
 - ✓ When using POS Text Sender, the device number selected has to match the **POS Index** as shown in step 7 in section 4.6.4.
5. Select “Mapping Camera” to map the POS overlay onto a camera.
 - ✓ One POS device can only overlay on one selected channel.
 - ✓ Once the channel has been mapped to a POS device, it cannot be mapped for another POS device.



6. Select **“POS Module”** to indicate POS type.
 - ✓ Select **General** if POS device does not specify a printer type
 - ✓ Select **POSTextSender** for POS Text Sender
7. Click **“Data Capture IP Address Setting”**.
8. Enter **Device IP** of Data Capture Box V3E (step 10 in section 4.5.6) or POS Text Sender (Windows-based POS system).
9. Enter **Password** of Data Capture Box V3E (section 4.5.5) or POS Text Sender (step 9 in section 4.6.4).
10. Click **“OK”**.

Data Capture Box IP Setting

☒ Fixed IP

Device IP : 192 . 168 . 0 . 100

☐ IP Info. in DDNS Server (***.dipmap.com)

Domain Name :

☐ IP Info. in (GV-Data Capture) Local DDNS Server

Device Name :

☒ In Host ☐ In another PC

Local DDNS Server IP : 127 . 0 . 0 . 1

Browse Device Setting

Device Port : 4000

Login ID: admin

Password :

OK Cancel

Printer Type : TCP/IP Port

Device : 1 POS 1

Mapping Camera : Camera 2

POS Module: General

COM Port :

Data Capture IP Address Setting

Printer Type : TCP/IP Port

Device : 1 POS 1

Mapping Camera : Camera 2

POS Module: POSTextSender

COM Port :

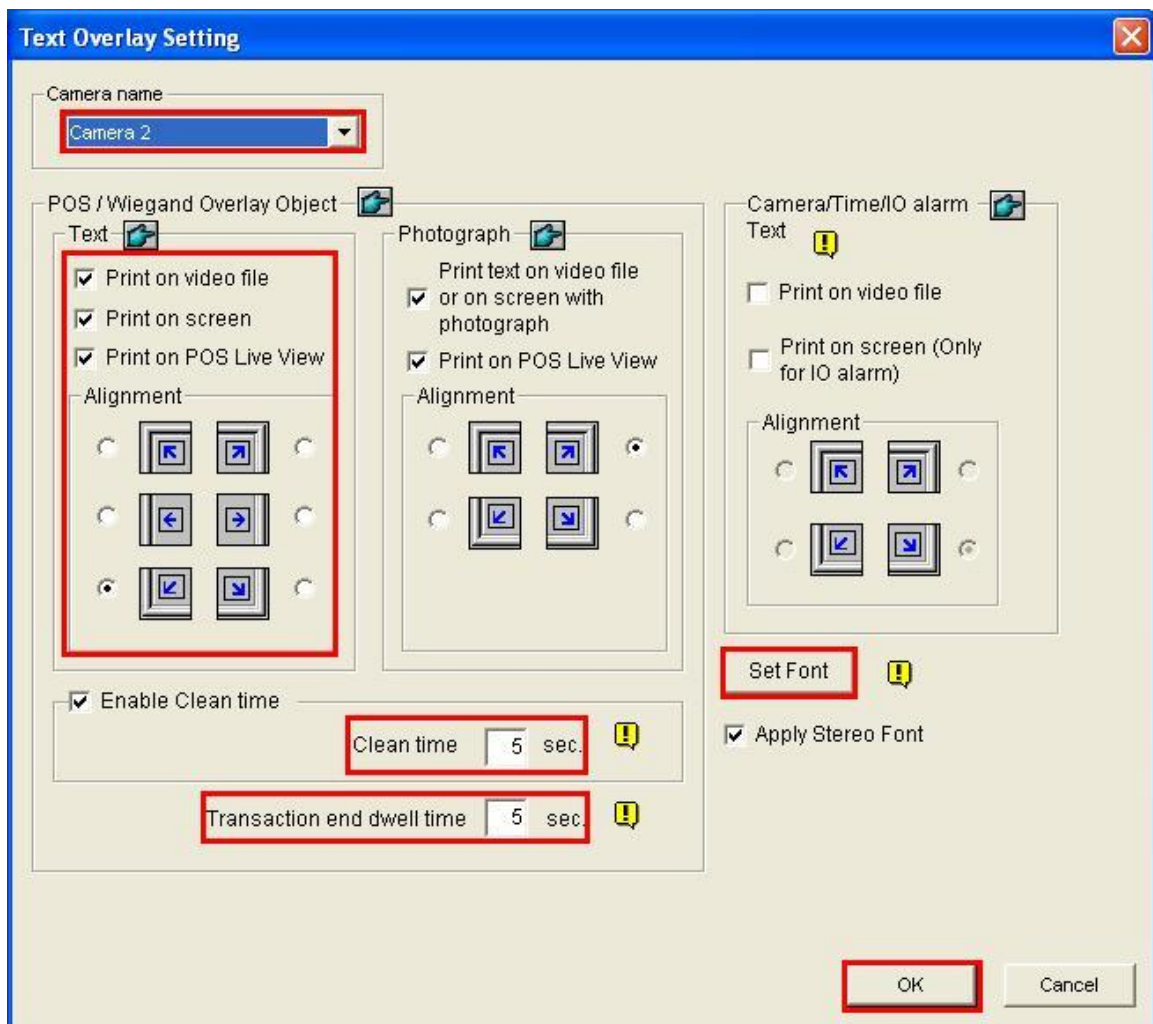
Data Capture IP Address Setting

☐ Cash Drawer open signal

11. Click **“Add”** to add the POS device.
 - ✓ Repeat steps 1 to 11 to add more POS devices.

4.7.3 Text Overlay Setting

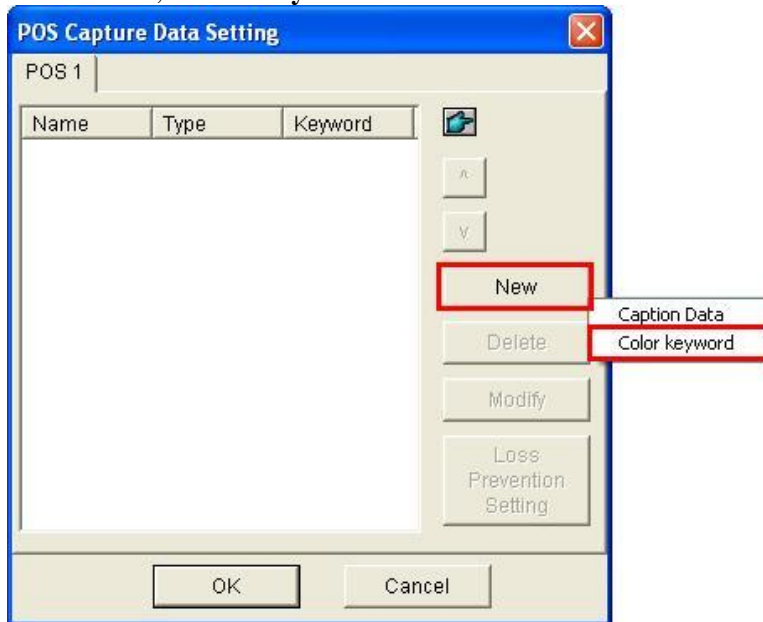
1. In Multicam, click on “**Configure**”, “**General Setting**”, “**Text Overlay Setting**”.
2. Select camera with POS text overlay.
3. Check or uncheck the options to have POS text overlaid on video file (recorded video), screen (live view), and/or POS Live View window.
4. Adjust “**Clean time**”.
 - ✓ *Clean Time is defined as the time period in which POS text overlay will remain on screen after last transaction is received.*
5. Adjust “**Transaction end dwell time**”.
 - ✓ *Transaction end dwell time is defined as the time period in which POS text overlay will remain on screen after receiving transaction stop event.*



6. Click “**Set Font**” to adjust text overlay font, size, and color.
 7. Click “**OK**”.
- ✓ For detail instruction, refer to p.338 of v8.4 User Manual

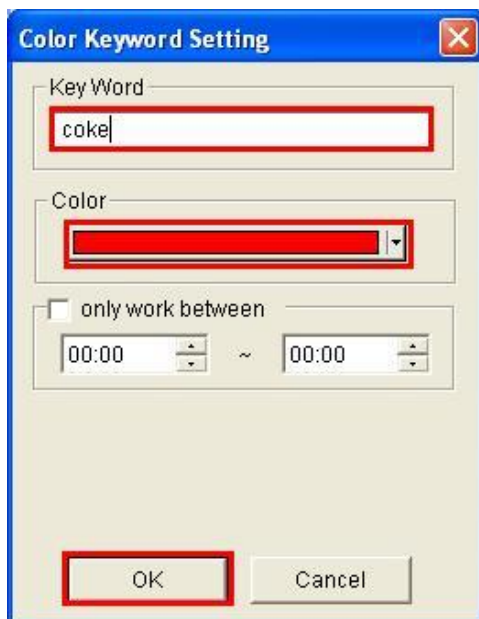
4.7.4 Keywords Highlight

1. In Multicam, click on “Configure”, “Accessories”, “POS Application Setting”, “POS Field Filter Setup”.
2. Click “New”, “Color keyword”.



3. Enter the keyword to be highlighted, and select the desired highlight color.

✓ *The keyword is case sensitive*

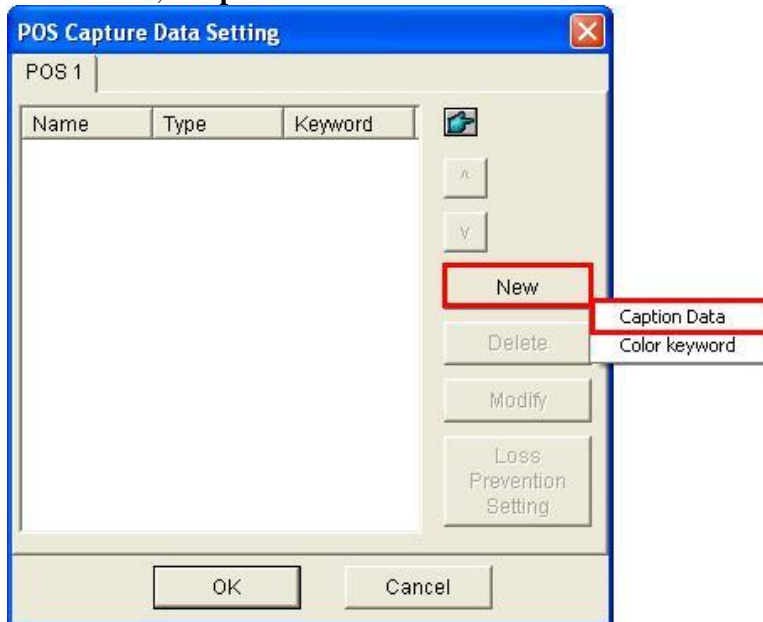


4. Click “OK”.
5. Click “OK” to apply keyword highlight on POS transactions.

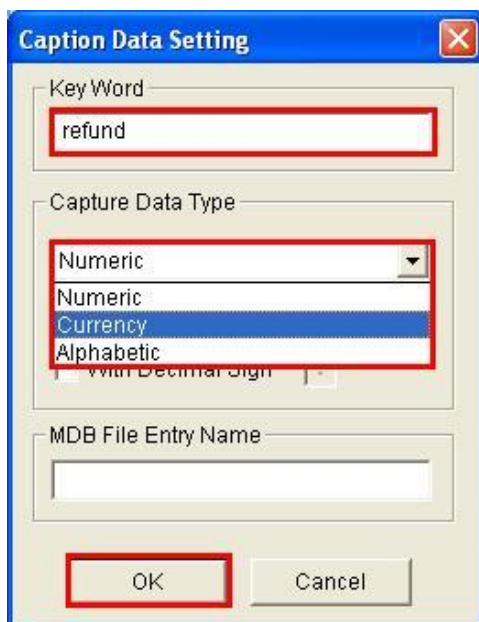
✓ For detail instruction, refer to p.349 of v8.4 User Manual

4.7.5 Abnormal Transaction Alert

1. In Multicam, click on “Configure”, “Accessories”, “POS Application Setting”, “POS Field Filter Setup”.
2. Click “New”, “Caption Data”.

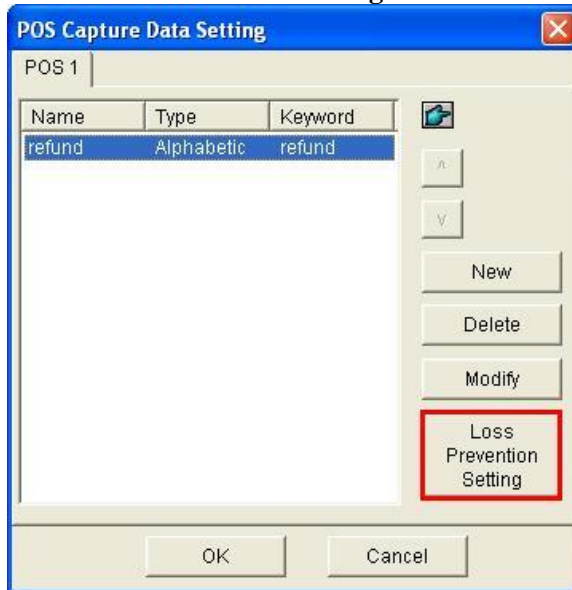


3. Enter the keyword to be monitored for loss prevention, and define the data type.
 4. Click “OK”.
- ✓ *Numeric or Currency data will have the option to include Comma and/or Decimal sign (i.e. 3,000, 2.678)*
 - ✓ *Alphabetic data will have the option to include space (i.e. New York).*

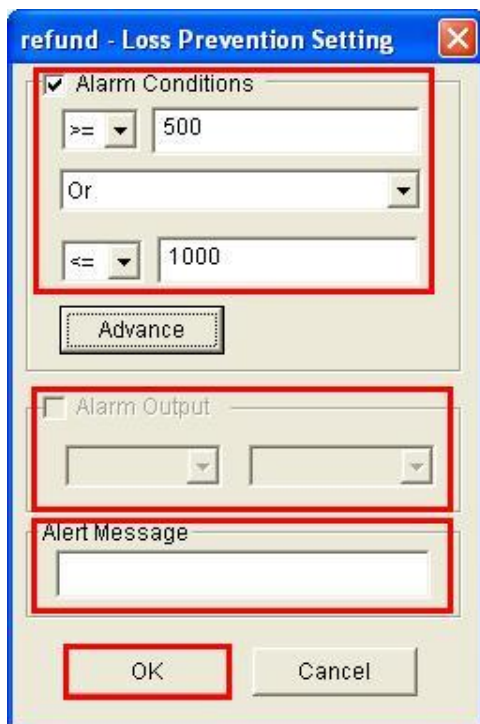


5. Click “OK”.

6. Click “**Loss Prevention Setting**”.



7. Check “**Alarm Conditions**” to setup optional boundaries associated with the alarm keyword.
 8. Check “**Alarm Output**” to trigger an output device when alarm condition is met.
 9. Type in “**Alert Message**” to be included in E-mail or SMS alerts when alarm condition is met.
- ✓ For detail instruction regarding e-mail alerts, refer to p.32 “E-mail Notification” in GeoVision Technical Handbook Part I.



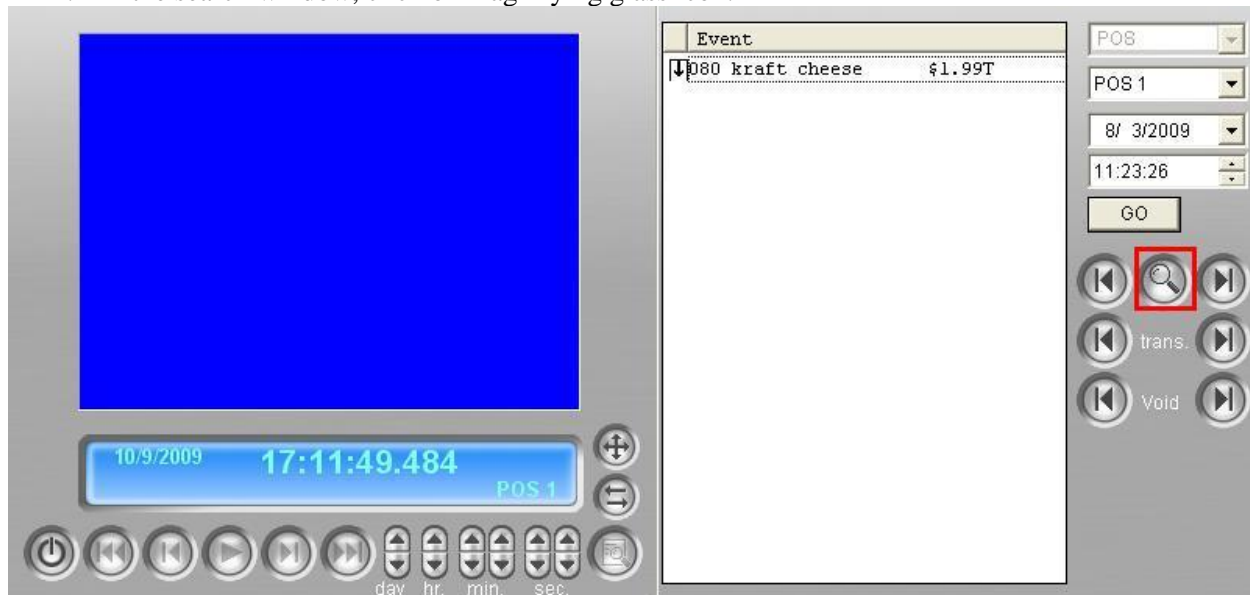
6. Click “**OK**”.
 7. Click “**OK**” to apply loss prevention settings on POS transactions.
- ✓ For detail instruction, refer to p.342 of v8.4 User Manual

4.8 POS Data Search

4.8.1 Local Search

- ✓ Local Search will search for the last transaction with a particular keyword

1. In Multicam, click on “Viewlog”, “Search POS Data”.
2. In the search window, click on magnifying glass icon.

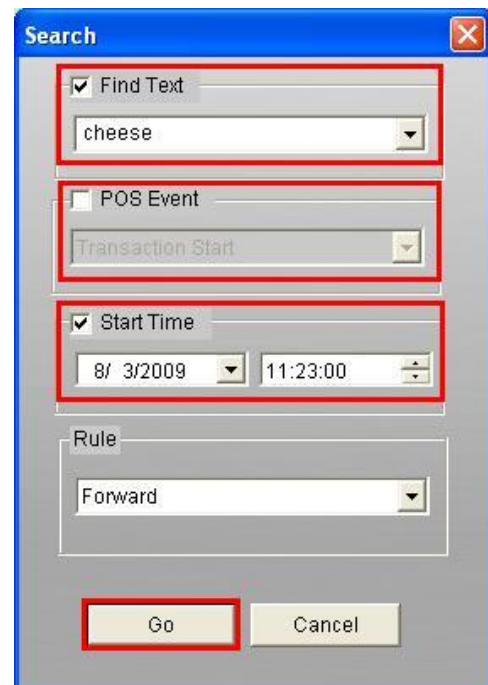


3. To search for particular item or text, check “**Find text**” then enter the keyword.

- ✓ *The keyword entered is case sensitive*

4. To search for POS Event, check “**POS Event**” then select desired event.
5. Check “**Start Time**” and set starting search time.
6. Click “**Go**” to start searching.

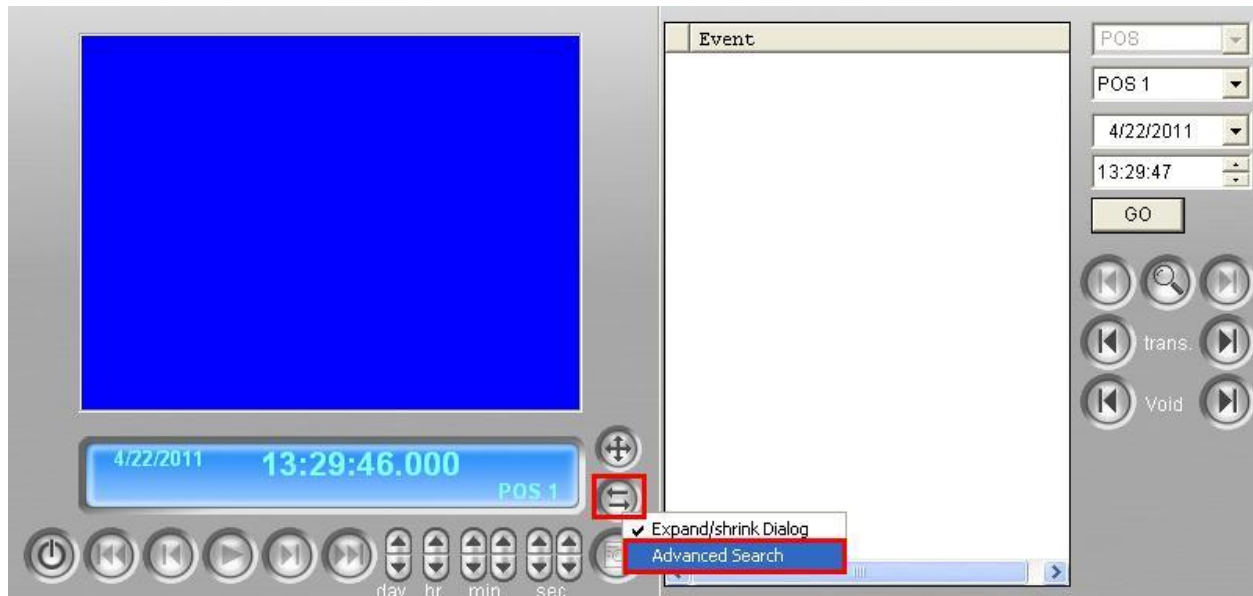
- ✓ *Recorded video will be displayed in the search window corresponding to POS event if available.*



4.8.2 Local Query

- ✓ Local Query will filter out transactions with a particular keyword in a defined time period

1. In Multicam, click on “**Viewlog**”, “**Search POS Data**”.
2. In the search window, click on “**Expand/Shrink Dialog**” icon.
3. Select “**Advanced Search**”.



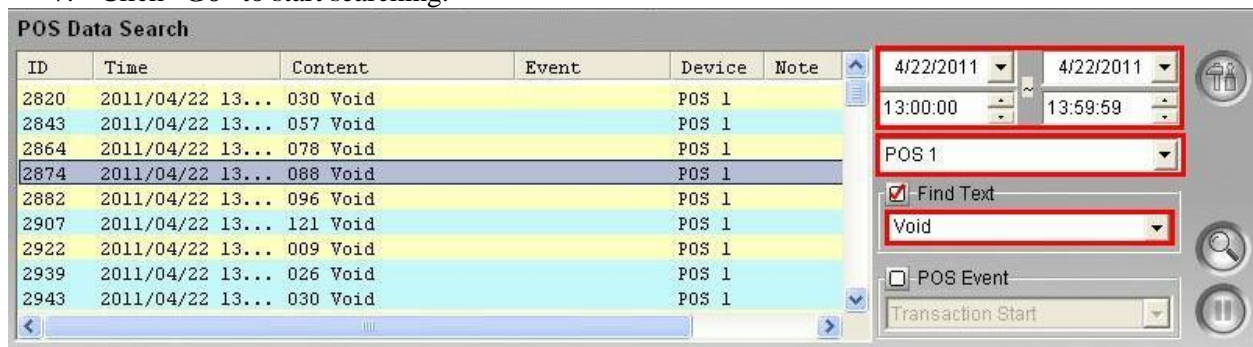
4. In the expanded window, enter the start and end time for the search.
5. Select which POS device(s) to apply the search.

- ✓ *Multiple POS can be selected to perform a search across different devices*

6. To search for a particular item or text, check “**Find text**” then enter the keyword.

- ✓ *The keyword entered is case sensitive*

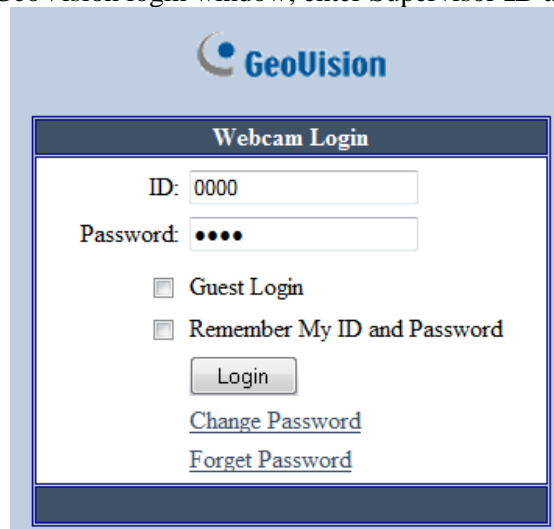
7. Click “**Go**” to start searching.



- ✓ For detail instruction, refer to p.346 of v8.4 User Manual

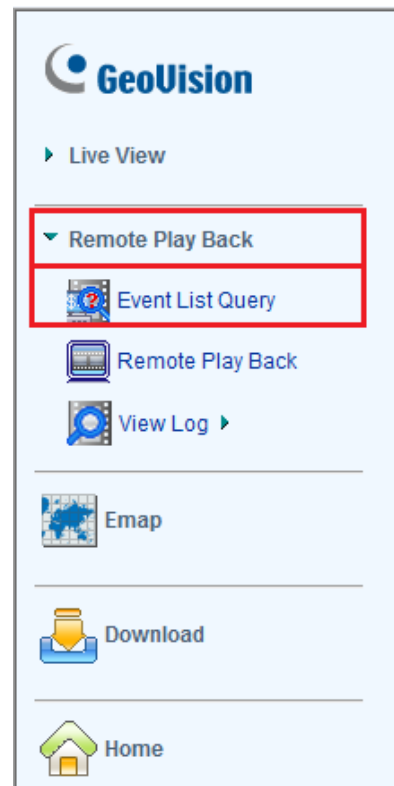
4.8.3 Remote Query

- ✓ The following procedure is performed on a remote PC/laptop.
 - ✓ Prior to connection, Webcam Server must be enabled and setup properly on GV-DVR. (refer to Section 4 “Remote Viewing” in GeoVision Technical Handbook Part I)
1. Open Internet Explorer, connect to the DVR’s IP address.
 2. In the GeoVision login window, enter Supervisor **ID** and **password** then click “**Login**”.

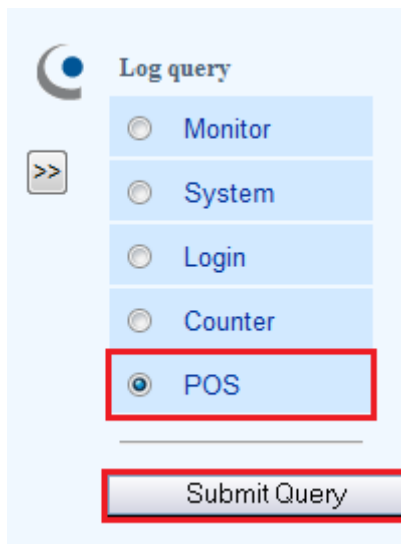


The image shows the 'Webcam Login' window of the GeoVision interface. It features a title bar with the GeoVision logo. Below the title bar, there are two input fields: 'ID' with the value '0000' and 'Password' with four dots. Below these fields are two checkboxes: 'Guest Login' and 'Remember My ID and Password'. A 'Login' button is positioned below the checkboxes. At the bottom of the window, there are two links: 'Change Password' and 'Forget Password'.

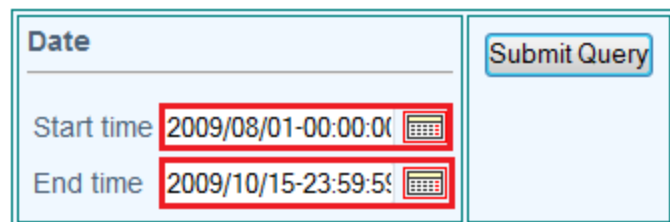
3. In the menu list, select “**Remote Playback**”, then “**Event List Query**”.
4. Select “**POS**” under Log query, then click “**Submit Query**”.



The image shows the main menu of the GeoVision interface. It features a title bar with the GeoVision logo. Below the title bar, there is a 'Live View' button. A red box highlights the 'Remote Play Back' button. Below this, there are three buttons: 'Event List Query', 'Remote Play Back', and 'View Log'. Below these, there are three more buttons: 'Emap', 'Download', and 'Home'.



The image shows the 'Log query' menu. It features a title bar with the GeoVision logo. Below the title bar, there is a '>>' button. Below this, there are five radio buttons: 'Monitor', 'System', 'Login', 'Counter', and 'POS'. The 'POS' button is selected and highlighted with a red box. Below the radio buttons, there is a 'Submit Query' button, also highlighted with a red box.



The image shows the 'Event List Query' form. It features a title bar with the text 'Date'. Below the title bar, there are two input fields: 'Start time' and 'End time'. The 'Start time' field contains the value '2009/08/01-00:00:00' and the 'End time' field contains the value '2009/10/15-23:59:59'. Both fields are highlighted with red boxes. To the right of the input fields, there is a 'Submit Query' button.

5. Enter a **Start time** and **End time** for the POS event query.
6. Click “**Submit Query**”.

7. To search for a particular event, select an “**Event Type**”.
8. Select POS device index to designate POS channel.
9. To search for particular transaction content or keywords, select “**Content**” then input keyword.
10. Click “**Submit Query**”.

POS

Event Type

Device

POS 1
POS 2
POS 3
POS 4
POS 5
POS 6
POS 7
POS 8
POS 9
POS 10
POS 11
POS 12
POS 13
POS 14
POS 15
POS 16

Content

Content

<

Date

☐ DST Rollback
2009/08/01-00:00:00
2009/10/15-23:59:59

Submit Query

Chart

Txt

Export

ID	Event Type	Device	Content	Note	Back	Time	Video
<div>Video</div> <div></div> <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>							

11. The result will be displayed with video associated with each event, if available.

POS

Event Type

Stop Transaction

Device

POS 1

Multi-Select

Content

Content

<

Date

☐ DST Rollback
2009/08/01-00:00:00
2009/10/15-23:59:59

Submit Query

Chart

Txt

Export

1 2 3 4 5 6 Page: 1/6, Total record(s): 175

ID	Event Type	Device	Content	Note	DST Rollback	Time	Video
24	Stop Transaction	POS 1	d103 2005.09.14 17:55 Shop:01			10/9/2009 5:12:09 PM	
49	Stop Transaction	POS 1	d001 2005.09.14 17:54 Shop:01			10/9/2009 5:12:44 PM	
66	Stop Transaction	POS 1	d018 2005.09.14 17:55 Shop:01			10/9/2009 5:13:09 PM	
93	Stop Transaction	POS 1	d045 2005.09.14 17:55 Shop:01			10/9/2009 5:13:47 PM	
118	Stop Transaction	POS 1	d070 2005.09.14 17:55 Shop:01			10/9/2009 5:14:25 PM	
151	Stop Transaction	POS 1	d103 2005.09.14 17:55 Shop:01			10/9/2009 5:15:11 PM	
176	Stop Transaction	POS 1	d001 2005.09.14 17:54 Shop:01			10/9/2009 5:15:46 PM	
193	Stop Transaction	POS 1	d018 2005.09.14 17:55 Shop:01			10/9/2009 5:16:11 PM	
220	Stop Transaction	POS 1	d045 2005.09.14 17:55 Shop:01			10/9/2009 5:16:49 PM	

Video

- ✓ For detail instruction, refer to p.422 of v8.4 User Manual

5. Access Control

5.1 Introduction

GeoVision Access Control is an add-on solution that can be directly integrated with GV-DVR/NVR and GV-IP devices such as GV-IP Camera, GV-Video Server, and GV-Compact DVR. With the video integration, the card holder access information can also overlay onto GV-DVR/NVR for access monitoring.

Refer to hardware and software definition in the sections below.

Basic ASManager can connect to one access controller without additional license. The ASManager USB key must be upgraded in order to accommodate more controllers (up to 255 controllers). ASManager software can be installed from **AS-Manager Installation Disk**.

5.2 Specs & Requirements

5.2.1 Distance & Wiring

Wiegand interface: 30 meters (98.43 feet)

RS-485 interface: 600 meters (1968.50 feet)

Recommended cable: standard 485 cable (a twisted pair of 24 AWG wires)

5.2.2 Connection Limit

- Through the network, up to 255 GV-AS100/GV-AS110/GV-AS400 Controllers can connect to GV-ASManager.
- Through RS-485 connection, up to 16 GV-AS100/GV-AS110 Controllers can connect to the same COM port on a computer running GV-ASManager.

5.2.3 GV-AS100 Specifications

CPU	8-bit RISC microprocessor	
Number of User Cards	1,000 / 40,000 cards (standalone / networked or RS-485 mode)	
Event Buffer	65,536 events and log data	
Power	100 ~ 240V AC, 50 ~ 60Hz	
Wiegand Interface	1 Wiegand interface, 26 ~ 64 bit format	
	12V DC Power Supply, 200mA	
Communication Protocol	RS-485	
Digital I/O	Input	3 inputs, dry contact, NO / NC
	Output	2 outputs
Operating Temperature	0 ~ 65°C / 32 ~ 149°F	
Operating Humidity	10% ~ 90% RH (non-condensing)	
Dimensions of GV-AS100 Board (W X H X D)	96 x 137 x 27 mm / 13.78 x 5.39 x 1.06 in	
Weight	250 g / 0.55 lb	
Certification	IP54, CE, FCC, RoHS	

5.2.4 GV-AS110 Specifications

CPU	32-bit RISC microprocessor	
Number of User Cards	1,000 / 40,000 cards (standalone / networked or RS-485 mode)	
Event Buffer	65,536 events and log data	
Power	100 ~ 240V AC, 50 ~ 60Hz	
Wiegand Interface	1 Wiegand interface, 26 ~ 64 bit format	
	12V DC Power Supply, 200mA	
Communication Protocol	RS-485	
Digital I/O	Input	3 inputs, dry contact, NO / NC
	Output	2 outputs
Operating Temperature	-20 ~ 60°C / -4 ~ 140°F	
Operating Humidity	10% ~ 90% RH (non-condensing)	
Dimensions (W X H X D)	95 x 108 x 23mm / 3.74 x 4.25 x 0.91 in	
Weight	200 g / 0.44 lb	
Certification	IP54, CE, FCC, RoHS	

5.2.5 GV-AS400 Specifications

CPU	8-bit RISC microprocessor
Number of User Cards	40,000 cards
Event Buffer	65,536 events and log data
Power	100~250V AC, 50~60Hz
RS-485 Interface	1 RS-485 interface only for GV-Readers and GV-GF Fingerprint Readers (max. 8 readers)
Wiegand Interface	8 Wiegand interfaces, 26 ~ 64 bit format
	12V DC power supply, 200mA
Communication	TCP/IP
Input	16 inputs, dry contact, NO / NC
Output	8 relay outputs
	8 photo relay outputs
Operating Temperature	0 ~ 65°C / 32 ~ 149°F
Operating Humidity	10% ~ 90% RH (non-condensing)
Dimensions of GV-AS400 Board (W X H X D)	210 x 170 x 30 mm / 8.27 x 6.69 x 1.18 in
Weight	400 g / 14.11 lb
Certification	CE, FCC, RoHS

5.2.6 GV-Reader Specifications

CPU		8 bit microprocessor
Wiegand Interface		26 ~ 40 bit Wiegand format, distance 30 m
Power		7.5 ~ 12 V DC
LED		Red, Green LED
Beeper		Buzzer
Frequency	GV-Reader 1251 (V1)	125 KHz
	GV-Reader 1352 (V1)	13.56 MHz
	GV-Reader 1352 (V2)	13.56 MHz
RS-485		9600 bps
Color		Black
Operation Temperature	GV-Reader 1251 (V1)	-20 ~ 65°C / -4 ~ 149°F
	GV-Reader 1352 (V1)	0 ~ 65°C / 32 ~ 149°F
	GV-Reader 1352 (V2)	-20 ~ 65°C / -4 ~ 149°F
Operating Humidity		10 ~ 90% RH (non-condensing)
Card / Tag Working Distance	GV-Reader 1251 (V1)	Card: 4 cm, Tag: 3 cm
	GV-Reader 1352 (V1)	Card: 4 cm, Tag: Not support
	GV-Reader 1352 (V2)	Card: 4 cm, Tag: 3 cm
Dimensions		75 (W) x 115 (H) x 15 (D) mm
Weight		150 g
Certification		CE, FCC




Product Models

GV-Reader 1251 (V1)	Supports 125KHz Proximity Card
GV-Reader 1352 (V1)	Supports 13.56MHz Smart Card (ISO 14443A) (Not support Smart Card in Tag form)
GV-Reader 1352 (V2)	Supports 13.56MHz Smart Card (ISO 14443A)

The number of GV-Readers supported by GV-AS Controllers

GV-AS Controller Model	GV-Reader Interface	
	Wiegand	RS-485
GV-AS100	1	Not support
GV-AS100 with G-AS Box	2	Not support
GV-AS200	4	8
GV-AS400	8	4

5.2.7 GV-Fingerprint Reader Specifications

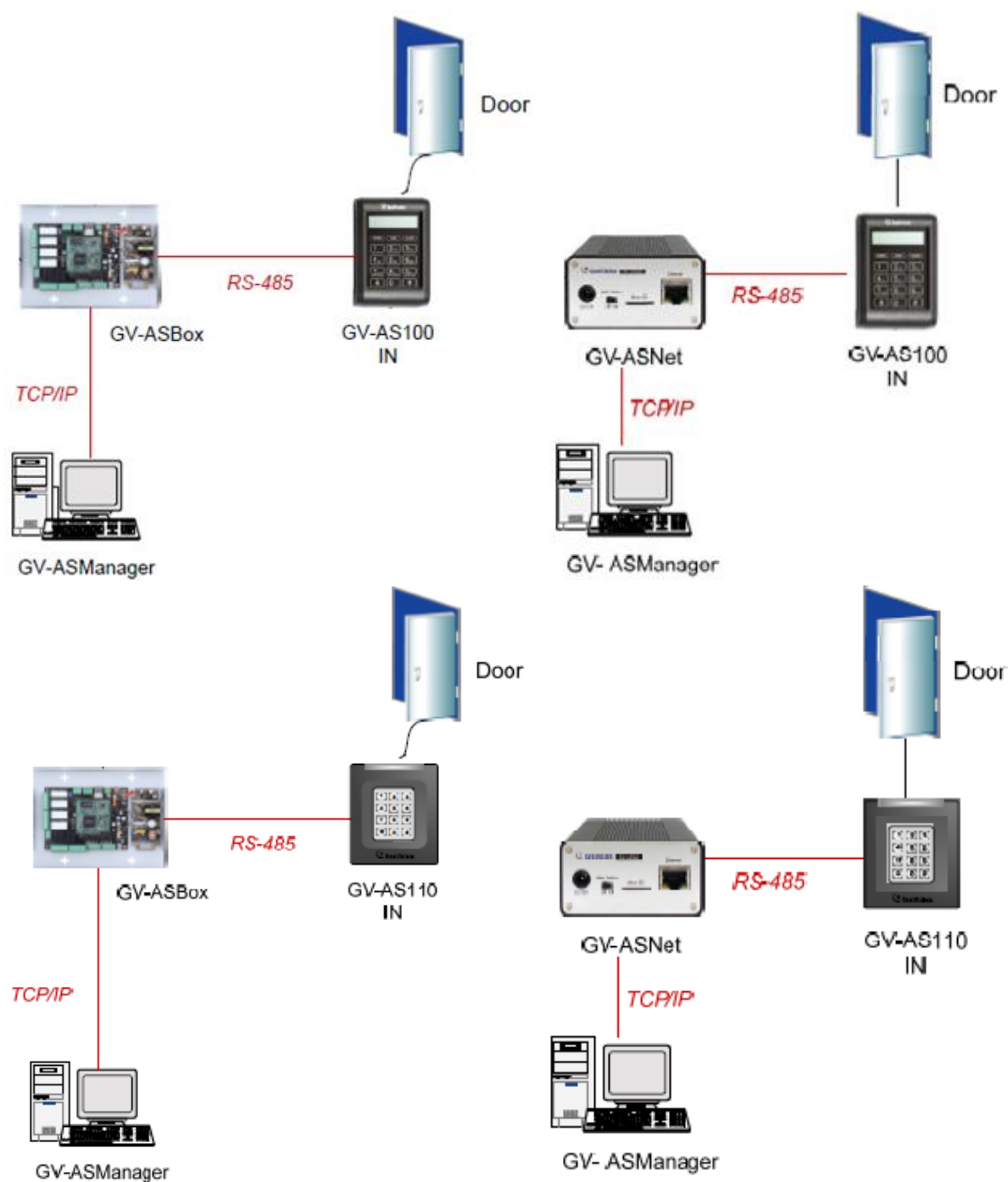
	GV-GF1900	GV-GF1901	GV-GF1902
Model			
Application	Indoor use only		
Communication Interface	Wiegand 26	Wiegand 26, RS-485	Wiegand 26, RS-485
Sensor	Capacitive	Capacitive	Optical
Sensing Area (H x W)	16 x 12 mm 0.63 x 0.47 (in)	18 x 13 mm 0.71 x 0.51 (in)	20 x 17 mm 0.79 x 0.67 (in)
Output	None	1 Port (240V, 2.5A)	1 Port (240V, 2.5A)
Operation Mode	Fingerprint + Card	Fingerprint Only Fingerprint + Card	Fingerprint Only Fingerprint + Card
Number of Fingerprints	1,900		
Card Type	ISO14443A, MIFARE Class		
RF Frequency	13.56 MHz		
RF Distance	50 mm		
DC Power	DC 7.5V~12V, Max 250mA		
Operating Temperature	0 ~ 65°C / 32 ~ 149°F		
Humidity	10%~90%		
Dimension (H x W x D)	130 x 54 x 43 (mm) 5.12 x 2.13 x 1.69 (in)		130 x 54 x 38 (mm) 5.12 x 2.13 x 1.50 (in)

5.3 Optional Devices

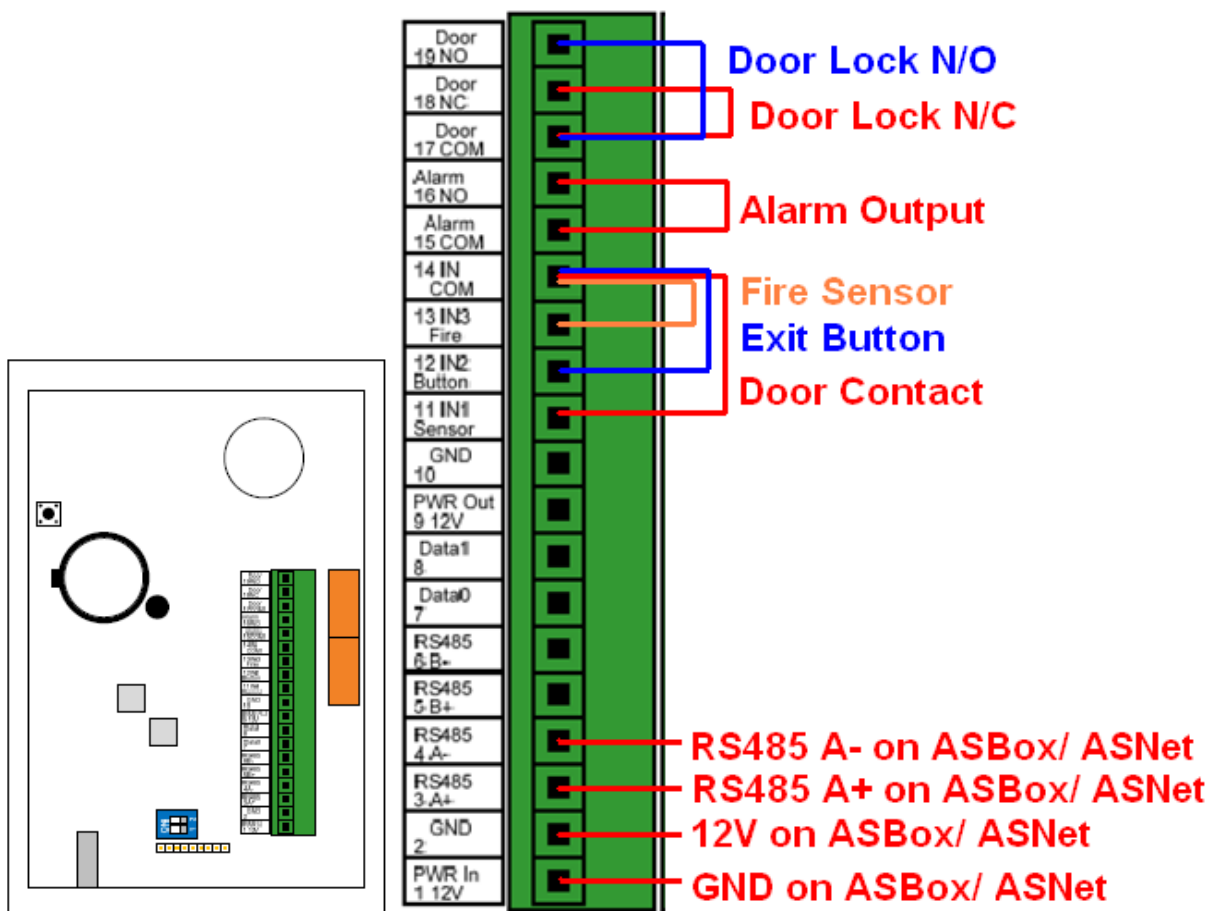
GV-ASKeypad	GV-ASKeypad with LCD display is a hot-swapping device, giving you convenience to configure GV-AS400.
GV-Battery	The battery is an uninterruptible power supply (UPS) device, designed to continuously supply GV-AS Controllers' power during power failure.
GV-Reader	The reader has both Wiegand and RS-485 outputs that can be connected to any standard access control panel. 125kHz and 13.56MHz GV-Readers are available.
GV-GF Fingerprint Reader	The reader supports three operation modes: Fingerprint Only, Fingerprint + Card and Card Only. In Fingerprint Only mode, the fingerprints are enrolled through GV-ASManager software. In Fingerprint + Card mode, the fingerprint templates are stored on the user card. In Card Only mode, the users only need to swipe the card to be granted access. Readers with optical and capacitance sensors are available.
GV-ASBox	Only works with GV-AS100 and GV-AS110 . The device can add Network function, 1 Wiegand interface, 8 additional inputs and outputs to GV-AS100 and GV-AS110.
GV-ASNet	Only works with GV-AS100 and GV-AS110 . This device can add Network function to GV-AS100 and GV-AS110.
GV-IO Box	Only works with GV-AS400 . Includes the options of 4, 8 and 16 ports. Can expand GV-AS400's capability to up to 64 inputs and 64 outputs.
Cabinet	With the cabinet, GV-AS Controllers can be mounted directly to a wall or recessed into the wall. Two types of cabinet dimensions are available: 383.5 (W) x 443.5 (H) x 112.2 (D) mm (15.1 x 17.5 x 4.4 in) and 300 (W) x 420 (H) x 86 (D) mm (11.8 x 16.5 x 3.4 in).
Push Button Switch	The push button switch can be integrated with access control system, allowing door exit by momentarily activating or deactivating the electric locking device. Both American standard and European standard push buttons are available.
Electric Lock	Three types of electric locks are available: electromagnetic lock, electric bolt and electric strike.
GV-AS ID Card & GV-AS ID Tag	GV-AS ID Cards and GV-AS ID Tags are ideal for business and residential environment, where access control is important for security reasons. 125kHz and 13.56MHz cards and tags are available.

5.4 AS100/AS110

5.4.1 Connection Diagram



5.4.2 AS100 Connection



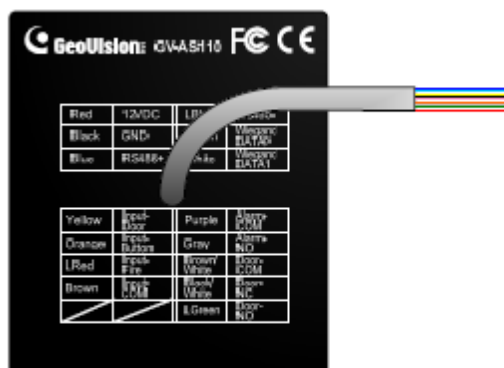
Pin	Function	Pin	Function	Pin	Function
1	12V Power	9	12V Power Supply	17	Door COM
2	GND	10	GND	18	Door NC
3	RS-485 A+ for ASBox / ASNet or PC connection	11	Sensor IN1	19	Door NO
4	RS-485 A-for ASBox / ASNet or PC connection	12	Button IN2		
5	RS-485 B+ for GV-Reader connection	13	Fire IN3		
6	RS-485 B- for GV-Reader connection	14	IN COM		
7	Wiegand Data 0	15	Alarm COM		
8	Wiegand Data 1	16	Alarm NO		

✓ For detail instruction, refer to p.5 of ASController Installation Guide

5.4.3 AS110 Connection

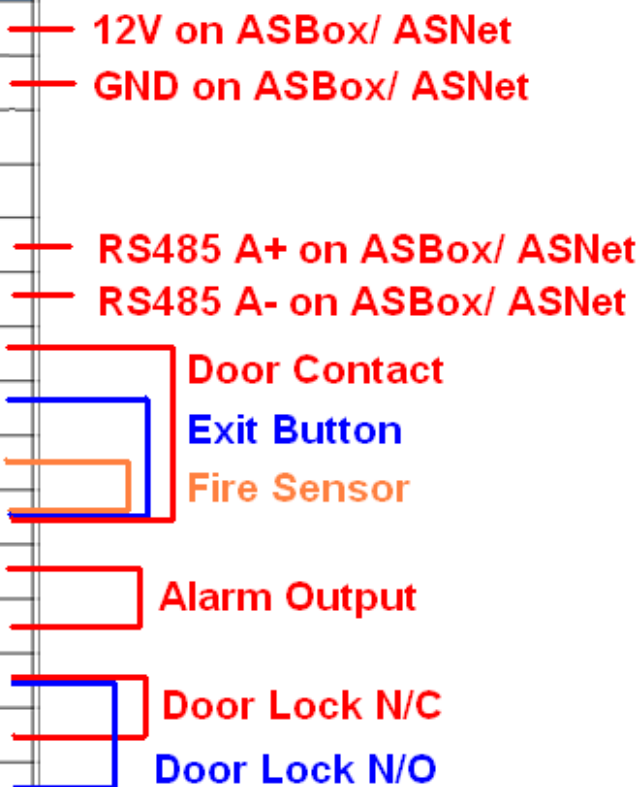


Front View



Rear View

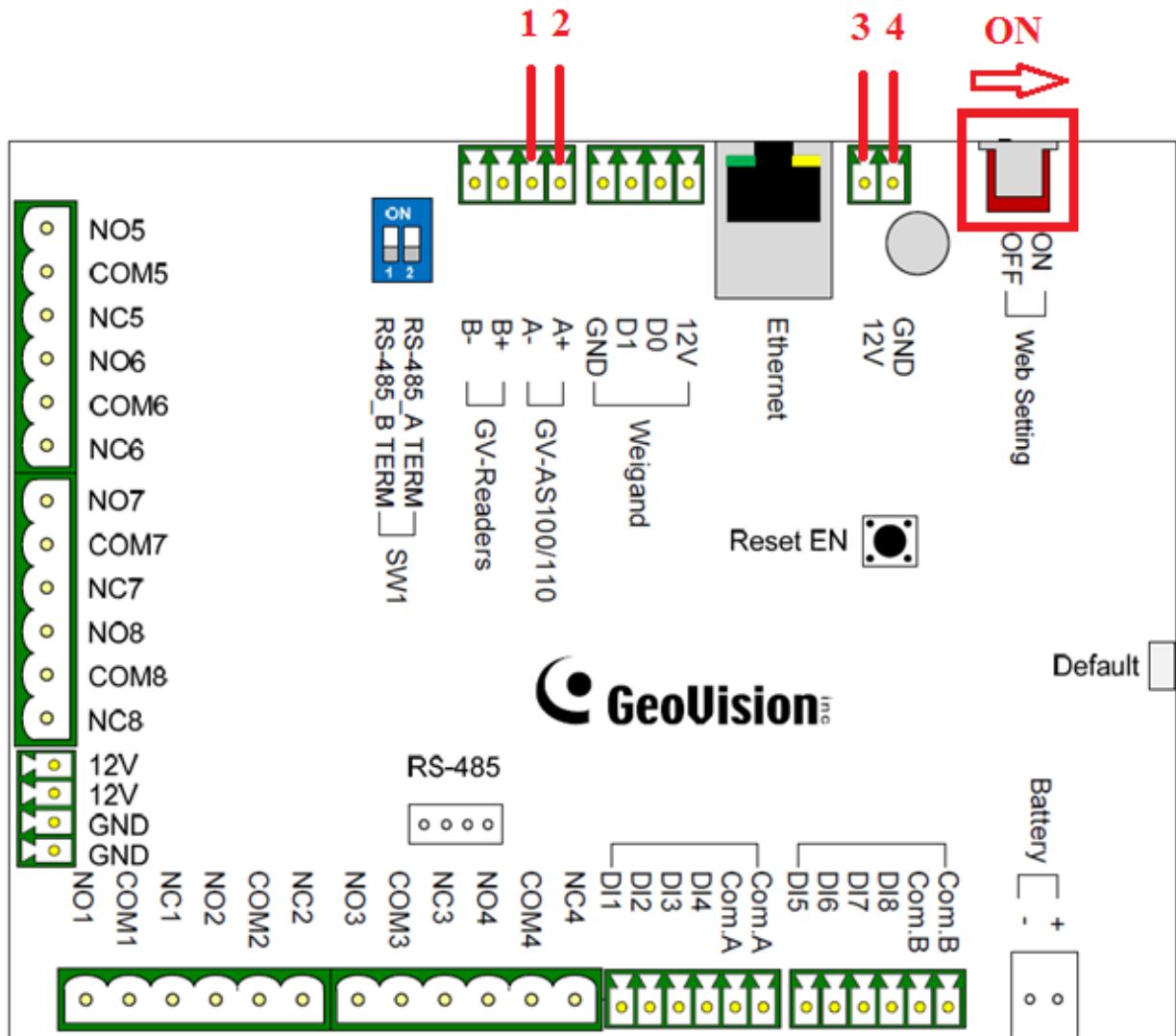
Wire color	Definition
Red	12V
Black	GND
Green	Wiegand Data 0
White	Wiegand Date 1
Blue	RS485+
Light Blue	RS485-
Yellow	Door Sensor IN1
Orange	Button IN2
Pink	Fire Sensor IN3
Brown	IN COM (GND)
Purple	Alarm COM
Gray	Alarm NO
Brown White	Door COM
Black White	Door NC
Light Green	Door NO



✓ For detail instruction, refer to p.25 of ASController Installation Guide

5.4.4 ASBox Connection

ASBox	1 (A-)	2 (A+)	3 (12V)	4 (GND)
AS100	Pin4	Pin3	Pin2	Pin1
AS110	Light blue	Blue	Red	Black



✓ For detail instruction, refer to p.85 of ASController Installation Guide

5.4.5 Create Master Card

AS100

To create a Master Card:

1. Power on the unit. The LCD displays **Enter Master Card**.
2. Present a card to be the Master Card. The LCD displays **Master PIN Code: 1234**.
3. Keep the default PIN code as 1234, and press #. The LCD displays **Succeed**.
Alternatively, you can press any four digits on the keypad to change the default value.
The double confirmation of the new PIN code is required. After this, the LCD should display the message of success.

After the Master Card is created, GV-AS100 will run a self test and display the message "Master Memory Test". After it is finished, you can see the message of GV-AS100 online or offline followed by a date and time. Then you can start programming GV-AS100.

AS110

After powering on GV-AS110, you must create two Master Cards first, an Enroll Card and a Delete Card. The Enroll Card is used for adding new cards and the Delete Card is used for deleting cards. Either Master Card will allow you to program the various configurations on GV-AS110.

Note: The card complying with ISO 14443A standard for smart card technology can be formatted as an Enroll Card or Delete Card.

To create the Master Cards:

1. Power on the unit. The LED flashes blue.
2. Present a card to be the Enroll Card.
3. Present a card to be the Delete Card.
4. The GV-AS110 will automatically load default, and the LED will flash blue and yellow.
After 1 to 2 minutes, the LED should be a constant blue light to indicate READY.

5.4.6 Web Configuration

- ✓ For standalone AS100/AS110 configuration, refer to page 11 of ASController Installation Guide.
- 1. Open Internet Explorer, type in default IP address for ASBox/ASNet <http://192.168.0.100>.
- 2. Enter default User Name: **admin** Password: **admin** then click “OK”.
- 3. Change the **IP address**, **Subnet Mask**, **Default Gateway**, and **Domain Name Server** as necessary to match actual network properties.

GeoVision Inc.

Basic Setting

- Network Setting
- Other Setting
- Firmware Update
- Account Setting

Advance Setting

- Function Setting
- Parameter Setting
- Time Setting
- Input Setting
- Output Setting
- Wiegand Setting

Network Configuration

Machine Name

Machine Name AS

DHCP Client:

☐ Enable

☒ **Disable**

IP Address: 192 168 0 21

Subnet Mask: 255 255 252 0

Default Gateway: 192 168 0 1

Domain Name Server: 192 168 0 1

Domain Name Service:

- 4. Click “**Submit**”.
- 5. Select “**Function Setting**” under Advance Setting.
- 6. Enter “**1**” in the ID box

✓ For multiple controllers, increase ID number accordingly

GeoVision Inc.

Basic Setting

- Network Setting
- Other Setting
- Firmware Update
- Account Setting

Advance Setting

- **Function Setting**
- Parameter Setting
- Status Monitor
- Card Information
- Time Setting

AS100/AS110 Function Configuration

ID

ID

ASBox Wiegand

ASBox Wiegand Door/Gate B

Door/Gate A

Function Door Entry Control

Authentication Mode Authentication Schedule Mode

Door/Gate B

Function Door Entry Control

Authentication Mode Authentication Schedule Mode

- 7. Click “**Submit**”.

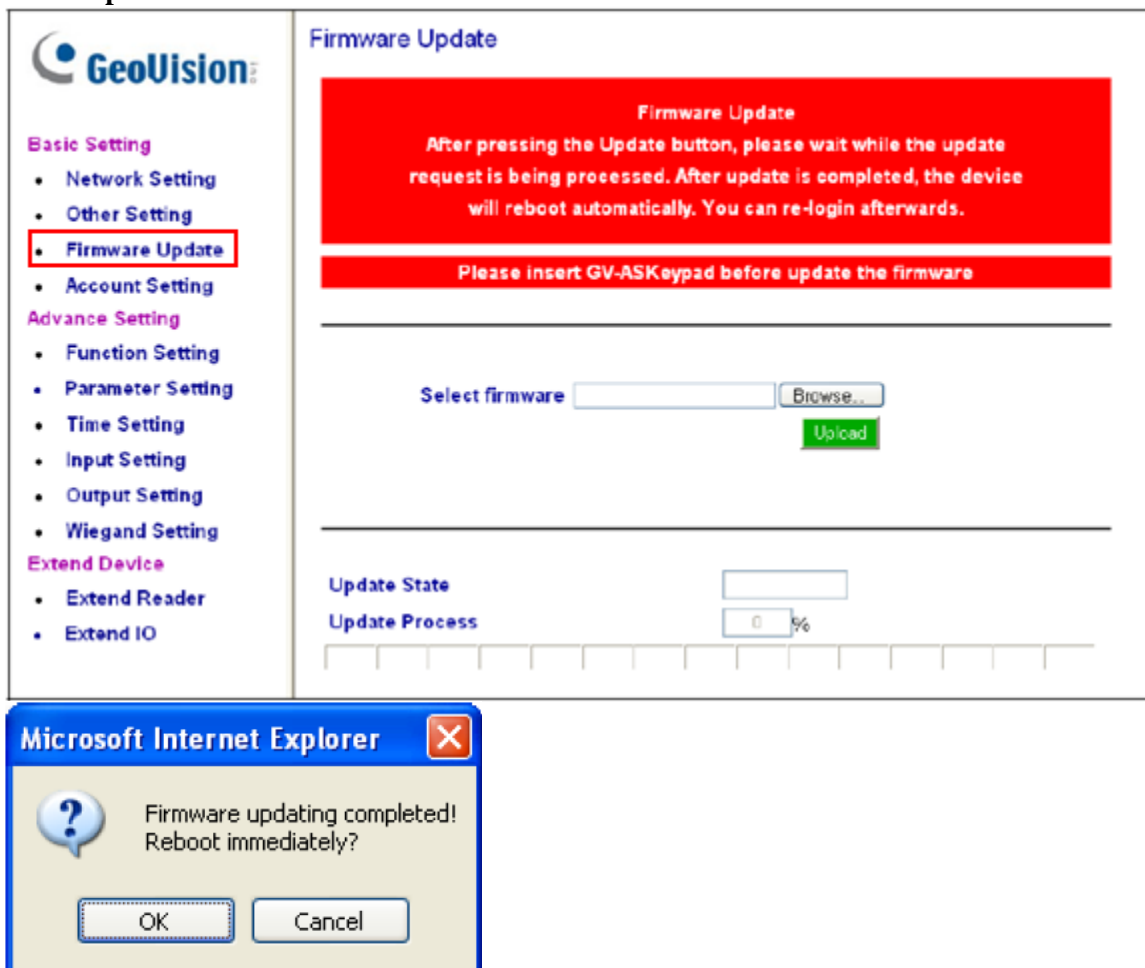
- ✓ For customize door functions and authentication modes, refer to p.105 of ASController Installation Guide
- 8. Select “**In/Out Function**” under Advance Setting.
- 9. Configure **Input Function** and **Output Function** accordingly if necessary.
- ✓ For Input/Output Function definition, refer to p.114 of ASController Installation Guide

- 10. Select “**Status Monitor**” under Advance Setting.
- 11. Verify input and output statuses of door contact, button, lock, as well as any connected I/O device to make sure NO/NC settings are correct.

- ✓ For detail instruction, refer to p.99 of ASController Installation Guide

5.4.7 Firmware Upgrade

1. Select “**Firmware Update**” under Basic Setting.
2. Click “**Browse**” then locate the new ASBox or AS100/AS110 firmware.
3. Click “**Upload**”.



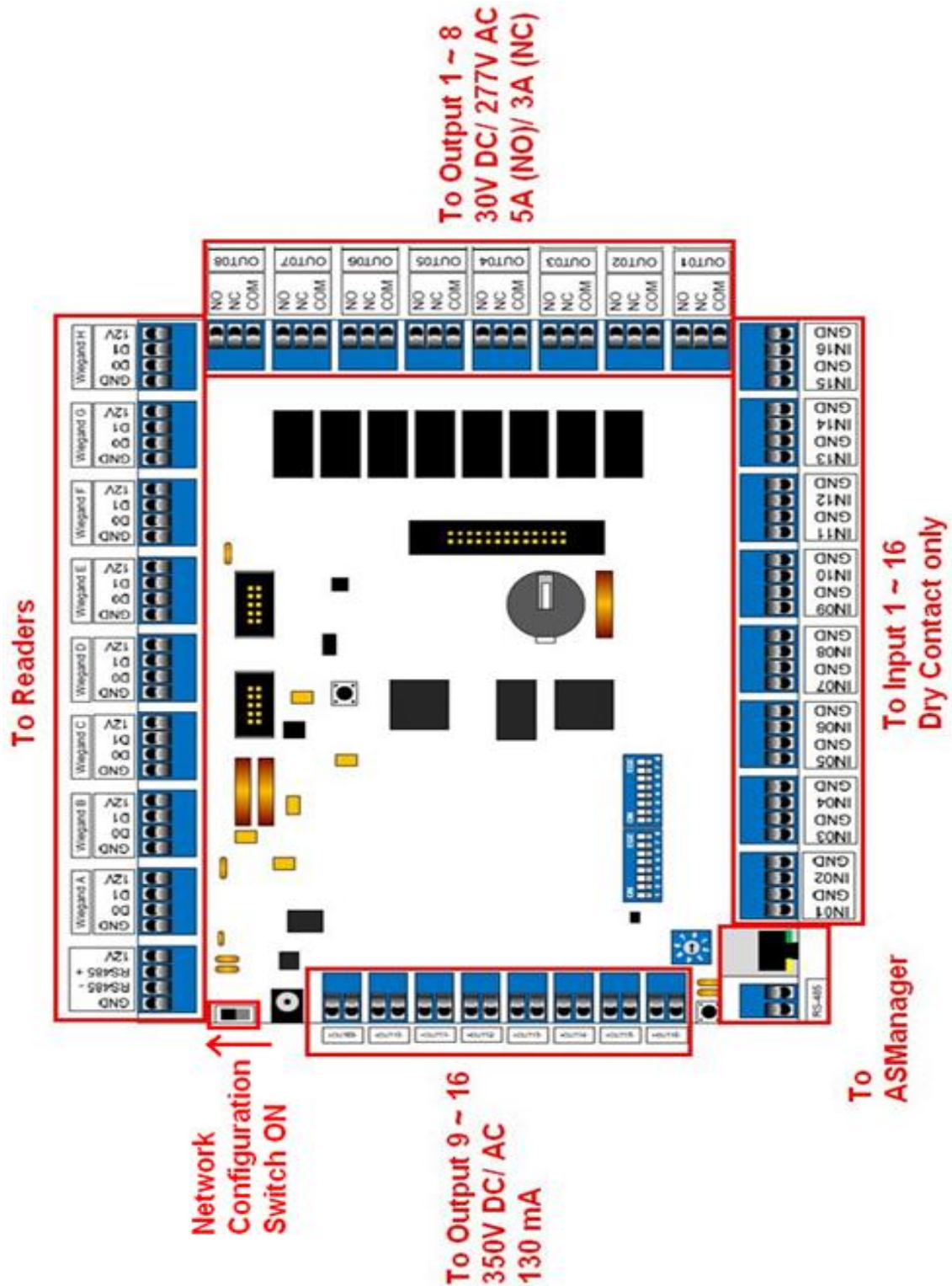
4. After firmware update, click “**OK**” to reboot AS100/110.
- ✓ For detail instruction, refer to p.101 of ASController Installation Guide

5.4.8 Restore Default Settings

1. Press the code *737 (*RES).
2. Present the Master Card and enter PIN Code.
The LCD displays **Default Setting 1. Yes? 2. No?**.
3. Press 1. The LCD displays **Default Setting Memory Test...**
4. When the unit returns to factory defaults, the LCD displays **Enter Master Card**.

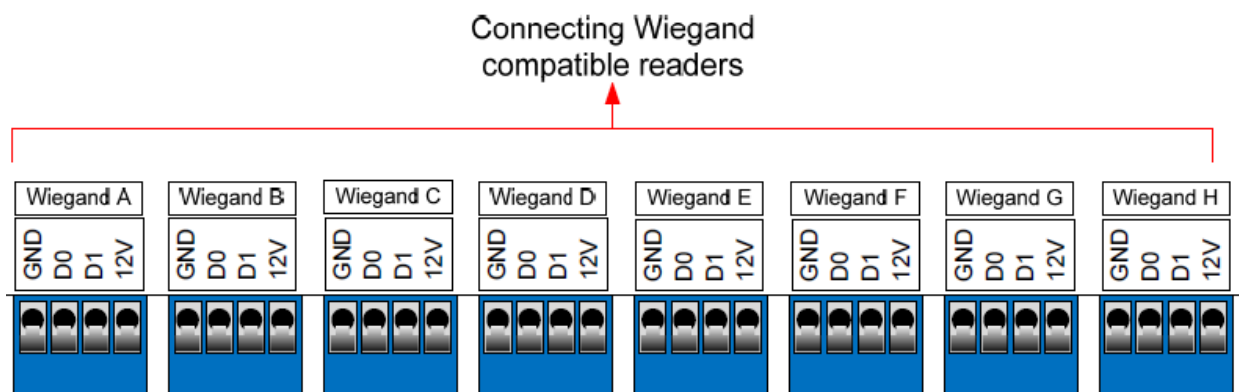
5.5 AS400

5.5.1 Layout



5.5.2 Wiegand Reader Connection

- ✓ AS400 supports up to eight Wiegand 26 ~ 64bit readers
- ✓ Wiegand connection has a distance limitation of 30m (~ 100ft)



Pin	Function
GND	GND of the Power Supply
D0	Wiegand Data 0
D1	Wiegand Data 1
12V	12V Power Supply

1. Refer to reader's installation guide for wiring information.

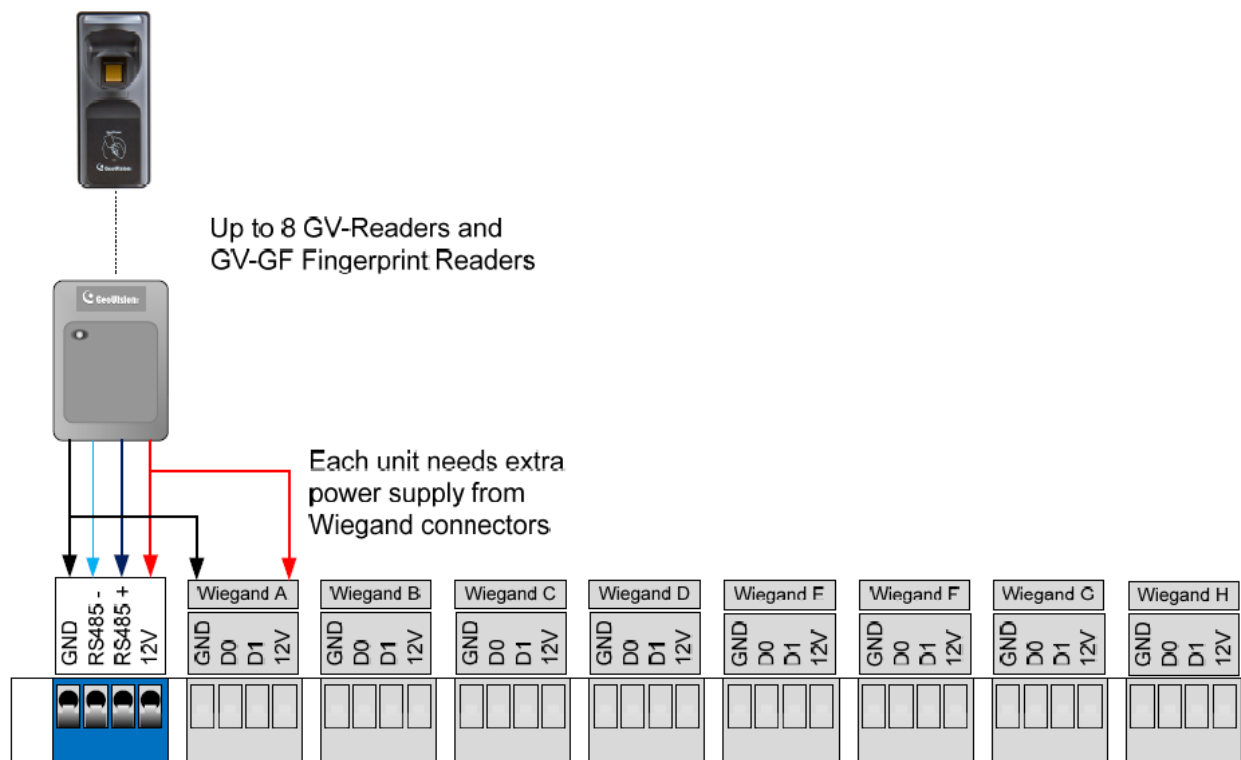
GV-Reader/ GV-Fingerprint Reader

Wire	Red	Black	White	Green
Function	12V	GND	Data-1	Data-0

2. Connect reader(s) to the Wiegand ports in order from A to H.
- ✓ For detail instruction, refer to p.43 of ASController Installation Guide

5.5.3 RS485 Reader Connection

- ✓ GV-Fingerprint reader has to be connected via RS485 in order to sync with ASManager



1. Refer to reader's installation guide for wiring information.

GV-Reader/ GV-Fingerprint Reader

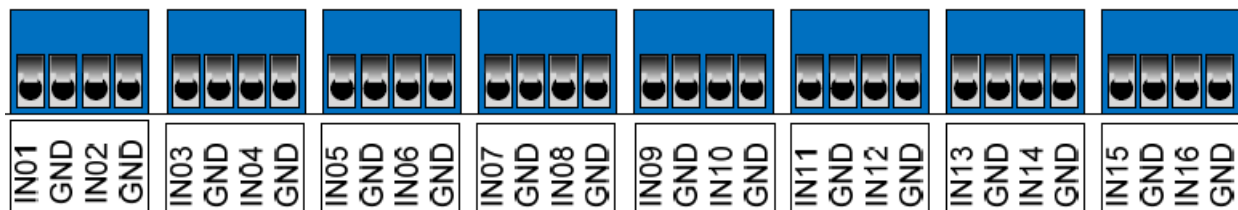
Electric Wires on GV-Reader	RS-485 on GV-AS400
Red	12V
Blue	RS-485 +
Light Blue	RS-485 -
Black	GND

2. Connect reader(s) to the RS485 ports.
3. For multiple RS485 reader connections, combine all RS485+ and RS485- wires from each reader, but connect 12V and GND separately into each Wiegand port as shown above.

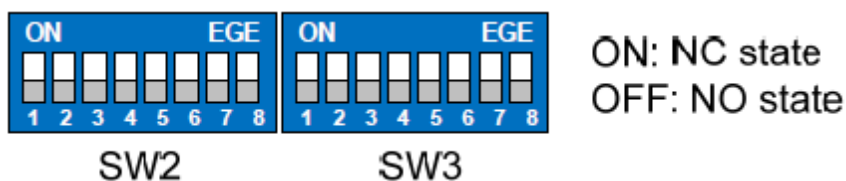
- ✓ For detail instruction, refer to p.44 of ASController Installation Guide

5.5.4 Input Connection

- ✓ AS400 supports dry contact inputs only

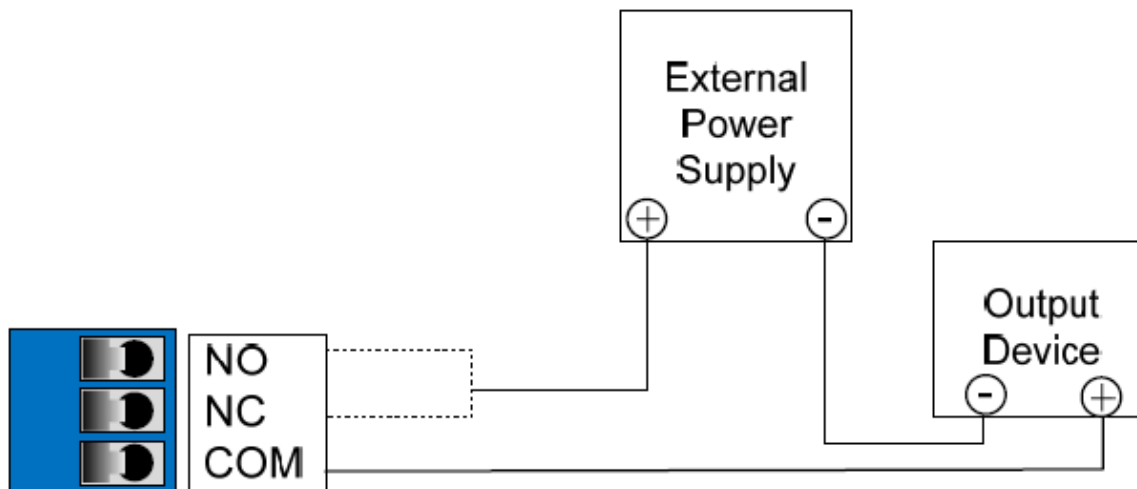


1. Connect each input accordingly, such as door exit button, motion sensor, door contacts..etc.
2. Label each input for verifications.
3. Verify LED indicator on board for each input to verify activation.
4. Adjust the NO/NC switch accordingly for each input.



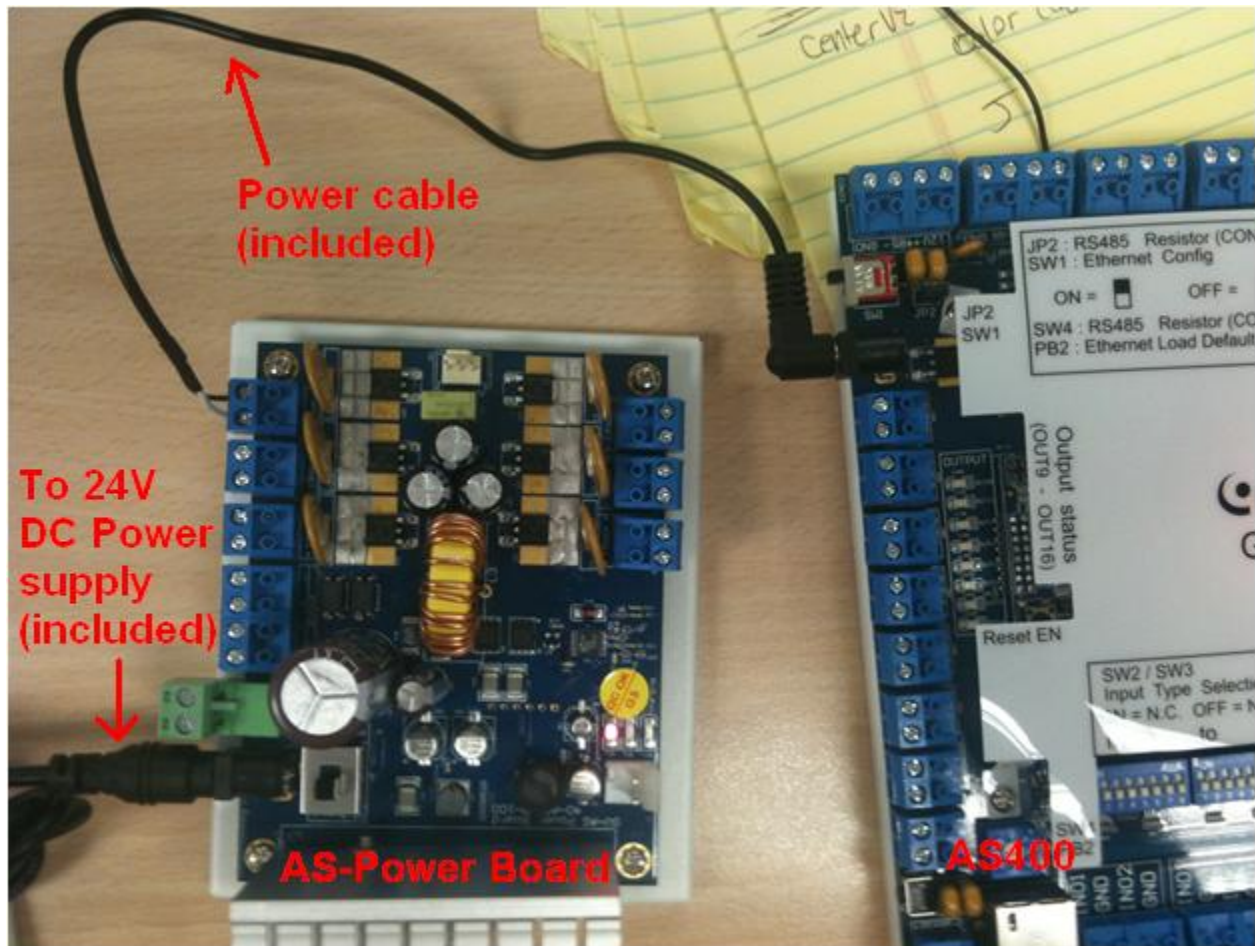
- ✓ For detail instruction, refer to p.45 of ASController Installation Guide

5.5.5 Output Connection



1. Connect output devices that require external power supply to Output 1 ~ 8.
 2. Connect output devices that can be triggered by AS400's internal 12V DC to output 9 ~ 16.
- ✓ Refer to section 5.5.1 for output maximum current and voltage restrictions
 - ✓ For detail instruction, refer to p.46 of ASController Installation Guide

5.5.6 Power Connection



1. Connect 12V output on AS-Power Board to AS400 power input with 2 wire power cable (+/-) (included).
2. Connect AS-Power Board to any 110V AC wall outlet via 24V DC Power Supply block (included).

✓ *Alternatively, AS400 can also be powered by a 12V DC Power supply*

✓ For detail instruction, refer to p.49 of ASController Installation Guide

5.5.7 Web Configuration

1. Open Internet Explorer, type in default IP address for AS400 <http://192.168.0.100>.
2. Enter default User Name: **admin** Password: **admin** then click “OK”.
3. Change the **IP address**, **Subnet Mask**, **Default Gateway**, and **Domain Name Server** as necessary to match actual network properties.

GeoVision

Basic Setting

- Network Setting
- Other Setting
- Firmware Update
- Account Setting

Advance Setting

- Function Setting
- Parameter Setting
- Time Setting
- Input Setting
- Output Setting
- Wiegand Setting

Network Configuration

Machine Name

Machine Name AS

DHCP Client:

☐ Enable

☒ **Disable**

IP Address: 192 . 168 . 0 . 21

Subnet Mask: 255 . 255 . 252 . 0

Default Gateway: 192 . 168 . 0 . 1

Domain Name Server: 192 . 168 . 0 . 1

Domain Name Service:

4. Click “Submit”.
5. Select “**Function Setting**” under Advance Setting.

GeoVision

Basic Setting

- Network Setting
- Other Setting
- Firmware Update
- Account Setting

Advance Setting

- **Function Setting**
- Parameter Setting
- Time Setting
- Input Setting

AS400 Function Configuration

ID

ID 1

Door/Gate A

Function Door Control

Authentication Mode Local Unlock Mode

Door/Gate B

Function Parking Control

Authentication Mode Local Lock Mode

Door/Gate C

6. Enter “1” in the ID box
- ✓ For multiple controllers, increase ID number accordingly
7. Click “Submit”.
8. Select “**Input Setting**” under Advance Setting.

AS400 Input Configuration		
Input Function		
Input 01	Normal Input	Latch Disable
Input 02	Door A	Tamper Zone
Input 03	Gate B	Exit Button
Input 04	Relay C	Tamper Zone
Input 05	Door D	Door Contact
Input 06	Normal Input	Latch Disable
Input 07	Normal Input	Latch Disable
Input 08	Normal Input	Latch Disable
Input 09	Normal Input	Latch Disable
Input 10	Normal Input	Latch Disable
Input 11	Normal Input	Latch Disable
Input 12	Normal Input	Latch Disable
Input 13	Normal Input	Latch Disable
Input 14	Normal Input	Latch Disable

9. Configure each **Input Type/Function** and designate its corresponding door or relay output accordingly.
10. Click “**Submit**”.

✓ Refer to section 5.5.4 for input connection

11. Select “**Output Setting**” under Advance Setting.

AS400 Output Configuration		
Output Function		
01	Door A	Electric Lock
02	Pulse	Relay C
03	Gate B	Electric Lock
04	Gate B	Event Alarm
05	Relay C	Electric Lock
06	Relay C	Event Alarm
07	Door D	Electric Lock
08	Door D	Event Alarm
09	Door A	Beeper

12. Configure each **Output Type/Function** and designate its corresponding door or relay output accordingly.
13. Click “**Submit**”.

✓ Refer to section 5.5.5 for output connection

14. Select “**Wiegand Setting**” under Advance Setting.

Wiegand Function	
Wiegand A	Door/Gate A Entry
Wiegand B	Door/Gate A Exit
Wiegand C	Door/Gate B Entry
Wiegand D	Door/Gate B Exit
Wiegand E	Door/Gate C Entry
Wiegand F	Door/Gate C Exit
Wiegand G	Door/Gate D Entry
Wiegand H	Door/Gate D Exit

15. Map the Wiegand inputs with their corresponding doors and directions.
 16. Click “**Submit**”.
 17. When card or fingerprint readers are connected via RS485, select “**Extend Reader**” under Extend Device.

GV-Reader Function			
	Reader	Function	Setting Status
<input type="checkbox"/>	GV-Reader ID 0	No Function	
<input type="checkbox"/>	GV-Reader ID 1	No Function	
<input type="checkbox"/>	GV-Reader ID 2	No Function	
<input type="checkbox"/>	GV-Reader ID 3	No Function	
<input type="checkbox"/>	GV-Reader ID 4	No Function	
<input type="checkbox"/>	GV-Reader ID 5	No Function	
<input type="checkbox"/>	GV-Reader ID 6	No Function	
<input type="checkbox"/>	GV-Reader ID 7	No Function	

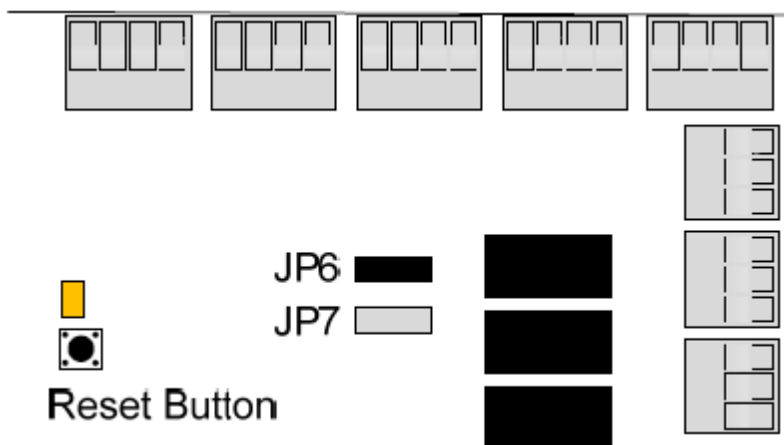
GeoFinger Function			
	Serial Number	Function	Setting Status
<input checked="" type="checkbox"/>	2480000002	Door/Gate A Entry	
<input type="checkbox"/>		No Function	
<input type="checkbox"/>		No Function	
<input type="checkbox"/>		No Function	

18. Enable and define each GV-Reader with its respective ID number.
 19. Enable and define each fingerprint reader by typing in the **Serial Number** of each reader.
 20. Click “**Submit**” to detect the readers, a green mark should appear next to each added reader.

✓ For detail instruction, refer to p.56 of ASController Installation Guide

5.5.8 Firmware Upgrade

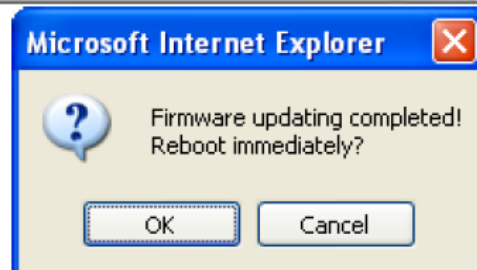
1. Ensure a Jumper is connected on JP7 as shown below. In case a Jumper is not available, it is necessary to plug in AS-Keypad in order to perform firmware upgrade.



2. Download the newest firmware for AS400 from http://www.geovision.com.tw/english/5_3_as200.asp and save it onto the desktop.
3. On AS400 web interface, select “**Firmware Update**” under Basic Setting.



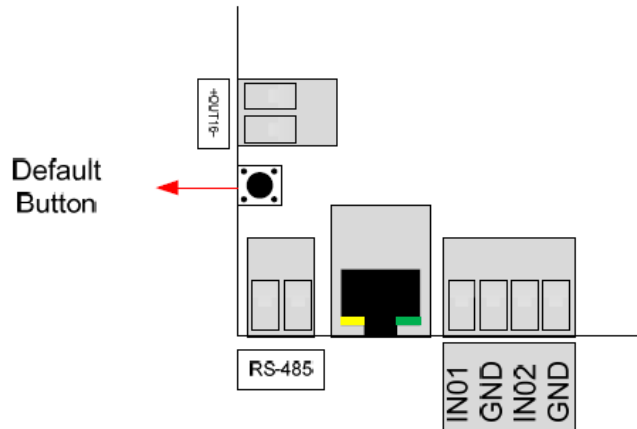
4. Click “**Browse**” and locate the new firmware from desktop.
 5. Click “**Upload**” to begin the update.
 6. Click “**OK**” to reboot AS400 after the update.
- ✓ For detail instruction, refer to p.54 of ASController Installation Guide



5.5.9 Restore Default Settings

To restore Basic Settings to factory defaults:

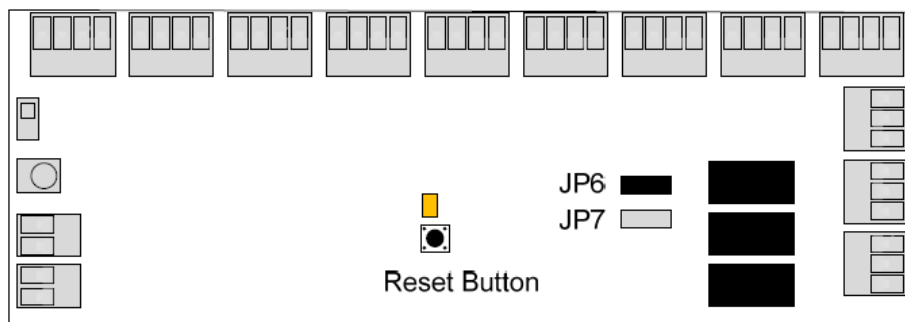
Press the **Default** button, between the output 16 and RS-485 connectors, for 3 seconds. After this it may take up to 3 minutes to restore Basic Settings of GV-AS400 to default factory values.



To restore All Settings to factory defaults:

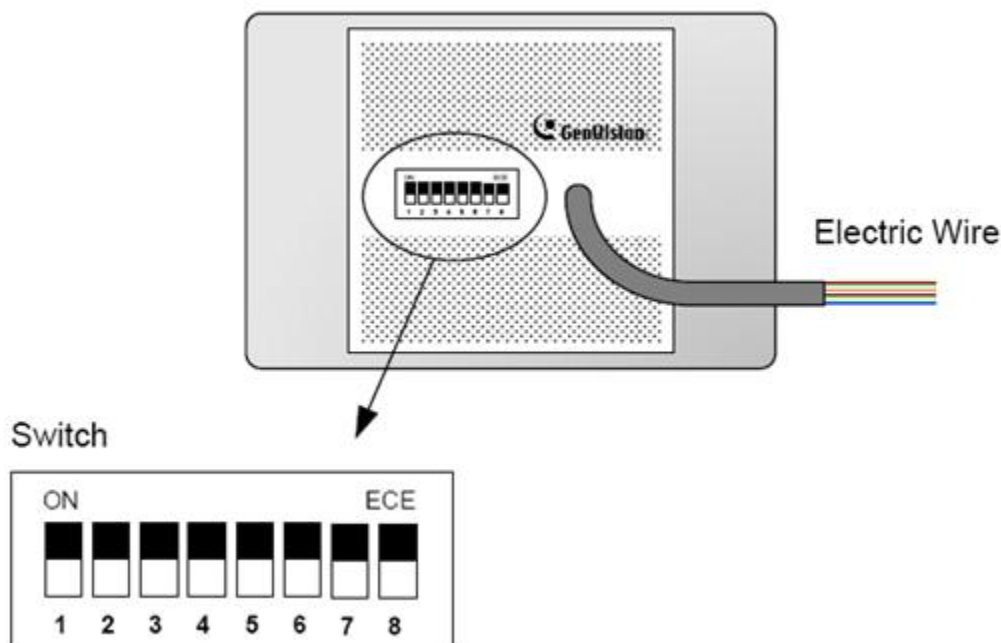
1. Remove the jumper cap from **JP6** to **JP7**.
2. Press the **Reset** button in the upper center of GV-AS400 circuit board. All input LEDs should light on.
3. Remove the jumper cap from **JP7** back to **JP6**.

After above steps, it may take up to 3 minutes to restore all settings to factory default values. If GV-ASKeypad is connected, the message “Memory Test on Keypad” will appear indicating the default loading is in progress.



5.6 GV-Reader

5.6.1 Dipswitch Settings

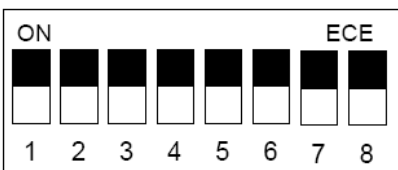
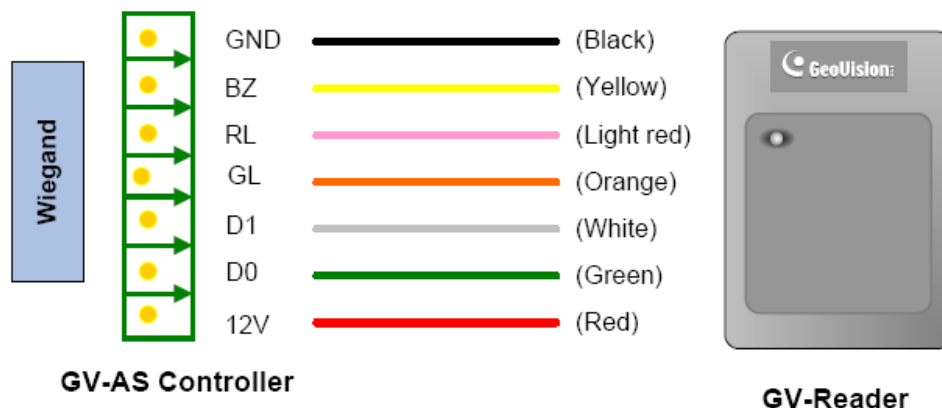


✓ Default status for all dipswitches is ON.

Dipswitch	Status	Description									
1 (Beeper)	ON	When a card is swiped on the reader, the beeper will sound.									
	OFF	Beeper is triggered by an external device that connects to yellow wire.									
2 (Green LED)	ON	When the reader grants access to a card, the LED will turn green.									
	OFF	Green LED is triggered by an external device that connects to orange wire.									
3 (Red LED)	ON	LED will turn red when no card is swiped or when access is denied.									
	OFF	Red LED is triggered by an external device that connects to pink wire.									
4 (Master/Slave)	ON	Reader connects to controller via Wiegand									
	OFF	Reader connects to controller via RS485									
5, 6, 7 (ID)		ID	0	1	2	3	4	5	6	7	
		SW5	OFF	OFF	OFF	OFF	ON	ON	ON	ON	
		SW6	OFF	OFF	ON	ON	OFF	OFF	ON	ON	
		SW7	OFF	ON	OFF	ON	OFF	ON	OFF	ON	
8 (RS485 Terminal Resistor)	ON	120 Ohm resistor is connected between RS485+ and RS485-. This connection is necessary on the last GV-Reader for multiple GV-Readers connecting via RS485.									
	OFF	Reader connects to controller via Wiegand or for all readers that connect via RS485 beside the last one (which has to be ON).									

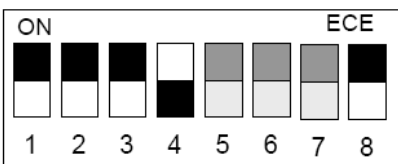
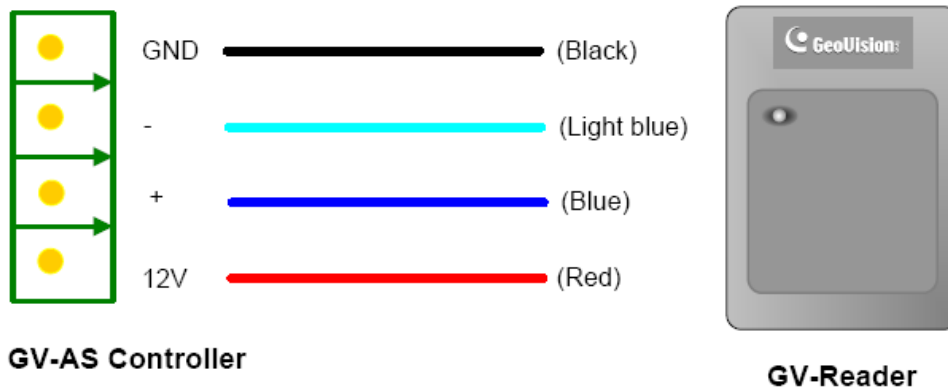
✓ Once a dipswitch is changed, power off then power on the reader to apply new settings

5.6.2 Wiegand Connection



SW4 must be turned ON.

5.6.3 RS485 Connection

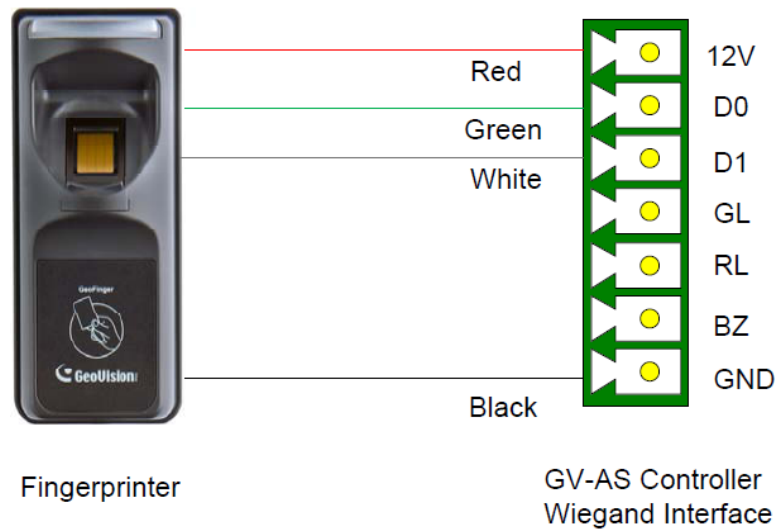


SW4 must be turned OFF.

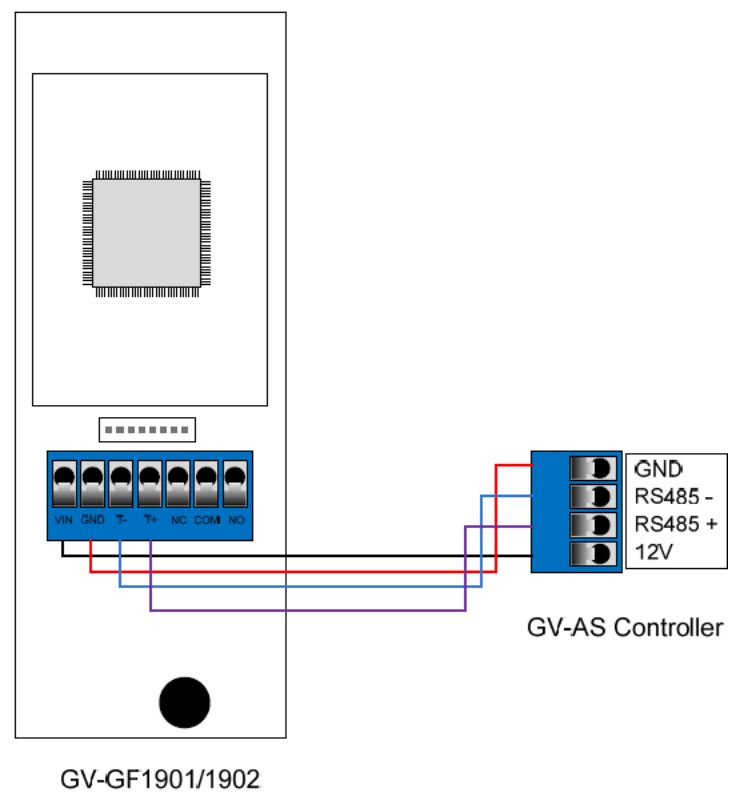
- ✓ For multiple GV-Reader connections via RS485, all GV-Readers should have dipswitch 8 OFF beside the GV-Reader with last address, which will be ON.
 - For example, with 4 GV-Readers connecting through RS485, first 3 readers will have dipswitch 8 to be OFF while the last one (address 4) will be ON with a terminal resistor connecting between RS485+ and RS485-.

5.7 GV-Fingerprint Reader

5.7.1 Wiegand Connection



5.7.2 RS485 Connection



5.8 ASManager

5.8.1 Introduction

ASManager is the main access control software that stores the card and card holder database. The software also receives the status and events from each ASController (AS100/AS110, AS200, and AS400) for up to 255 controller connections. From ASManager, user may configure each door on each panel to operate according to certain schedule and input status.

- ASRemote is a remote application that connects to ASManager for remote control and viewing.
- ASWeb is a remote application that connects to ASManager for remote event log browsing.
- TA Web is a remote application that manages time and attendance of each employee.
- VM Web is a remote application that provides visitor management capability.

Basic ASManager can connect to one access controller without additional license. The ASManager USB key must be upgraded in order to accommodate more controllers (up to 255 controllers max). ASManager software can be installed from **Access Control Installation Disk**.

5.8.2 System Requirements

OS	32-bit	Windows 2000 / XP / Server 2003 / Vista / 7 / Server 2008
	64-bit	Windows Vista / 7 / Server 2008
CPU	Pentium 4, 3.0 GHz with Hyper-Threading	
Memory	2 x 256 MB Dual Channels	
Hard Disk	2.0 GB	
VGA	NVIDIA GeForce 7300 GT 128MB (PCI slot), or ATI Radeon 9550 / 9600 / X1050 Series 256MB (AGP slot) No support for onboard VGA	
DirectX	End-User Runtimes (November 2008)	
Software	.NET Framework 3.5 SQL Server 2005 Express (optional)	
Browser	Internet Explorer 7.0 or later	
Note: The software programs End-User Runtimes (November 2008) and .NET Framework 3.0 are necessary to run the GV-ASManager. The software programs can be found in the accompanying software CD.		

5.8.3 Main Features

- Control up to 255 GV-AS Controllers
- Up to 256 time zones and weekly schedules
- Up to 40,000 cards
- Up to 1,000 system users
- Holiday planning for 14 months
- Multiple cards per user
- Four (4) access mode options: Card only mode (default), Card and PIN Code mode, Card or Common mode, Release mode
- Enroll cards in batch mode
- Door alarms: door held open, door forced entry, tamper, access denied
- Duress operation
- Anti-Passback capabilities
- Man trap in double door configuration
- Import/export of card and cardholder data in Access or Excel file format
- User-defined matrix of 16-channel multi-views
- User-defined screen layout and dual monitor display support
- SMS or E-Mail notification with user-defined content, video snapshot and cardholder photo
- Video integration with GeoVision IP devices (GV-System, GV-NVR, GV-Video Server, GV-Compact DVR, GV-IP Camera) and third-party IP cameras
- Support Microsoft Access or SQL database

5.8.4 Software Installation

1. Insert “Access Control Installation Disk” into DVD-ROM.
2. In the menu, select “**1. Install or Remove GeoVision GV-Series Driver**”, then select “**Install GeoVision USB Devices Driver**”.



3. Click and install “**2. Install DirectX 9.0c**” then follow on-screen instructions.
4. Click and install “**3. Install Microsoft DirectX End-User runtimes (November 2008)**” then follow on-screen instructions.
5. Click and install “**4. Install Microsoft .NET Framework 3.5 (Not compatible with Windows 2000)**” then follow on-screen instructions.
6. Select “**6. Install GeoVision Access Control System**”.

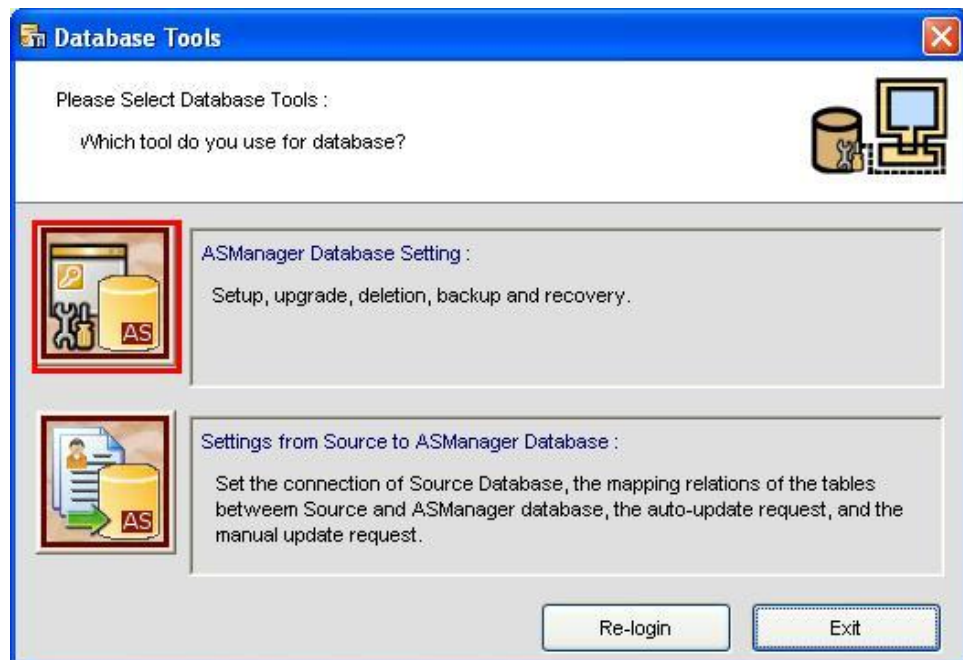
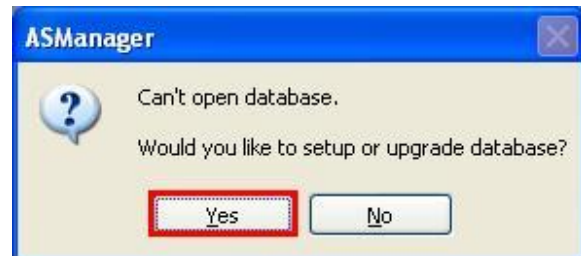


7. Select “**GeoVision Access Control System**” then follow on-screen instructions to **disable UAC** and install **ASManager** software.

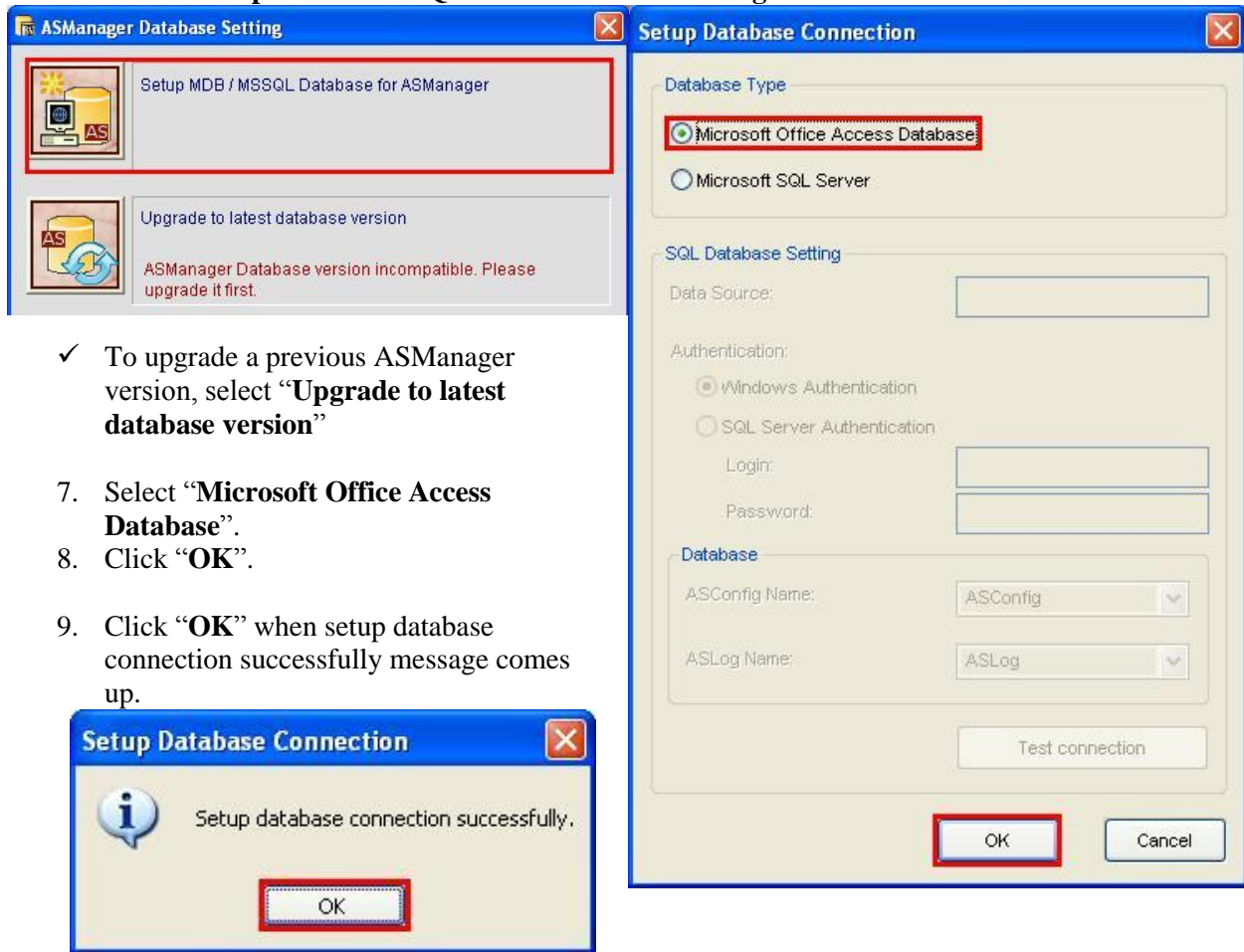


5.8.5 Initialize Database

1. On Windows desktop, click on “Start”, “All Programs”, “Access Control”, “ASManager”.
2. If ASManager is installed for the first time, create a default set of **ID**, **Password**, **Password Confirmation**, and **Hint**.
 - ✓ Check “**Auto Login**” to allow ASManager to automatically login using the default set of ID and password whenever ASManager starts.
 - ✓ Check “**Allowing removing password system**” to enable PassUninstall.exe in case user may lose the supervisor ID and password to the system.
 - ✓ *If the option was not checked and user cannot retrieve his/her supervisor ID and password, the only option to remove password database would be to reformat system hard drive and reinstall Windows operating system.*
3. Click “**OK**” to proceed.
4. Click “**Yes**” to setup or upgrade database.
5. Select “**ASManager Database Setting**” icon.

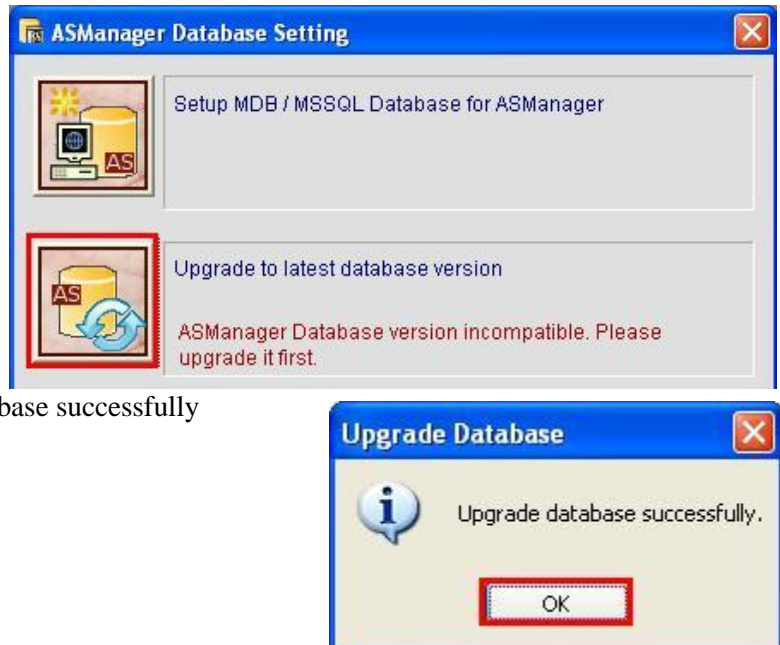


6. Select “**Setup MDB / MSSQL Database for ASManager**”.

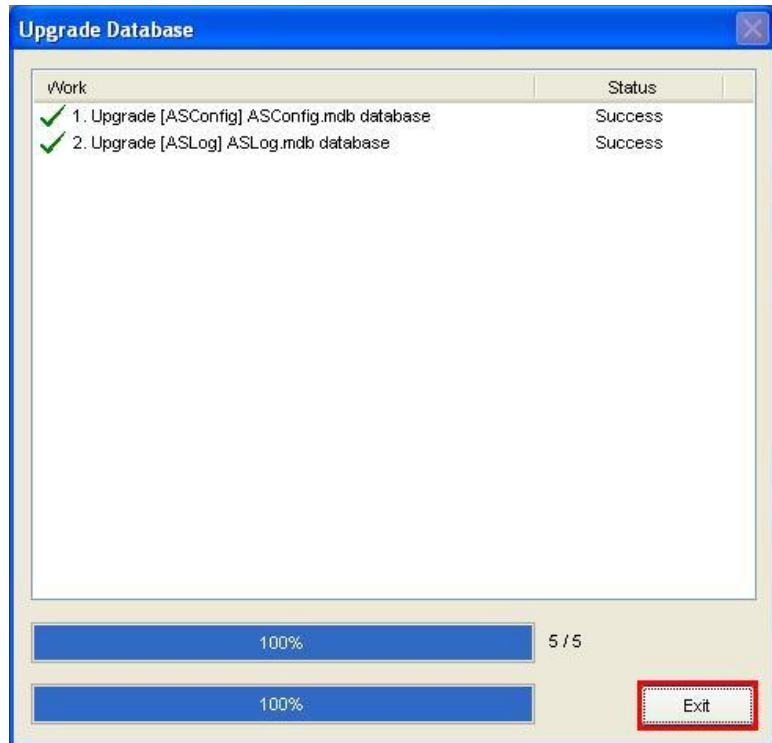


- ✓ To upgrade a previous ASManager version, select “**Upgrade to latest database version**”
- 7. Select “**Microsoft Office Access Database**”.
- 8. Click “**OK**”.
- 9. Click “**OK**” when setup database connection successfully message comes up.

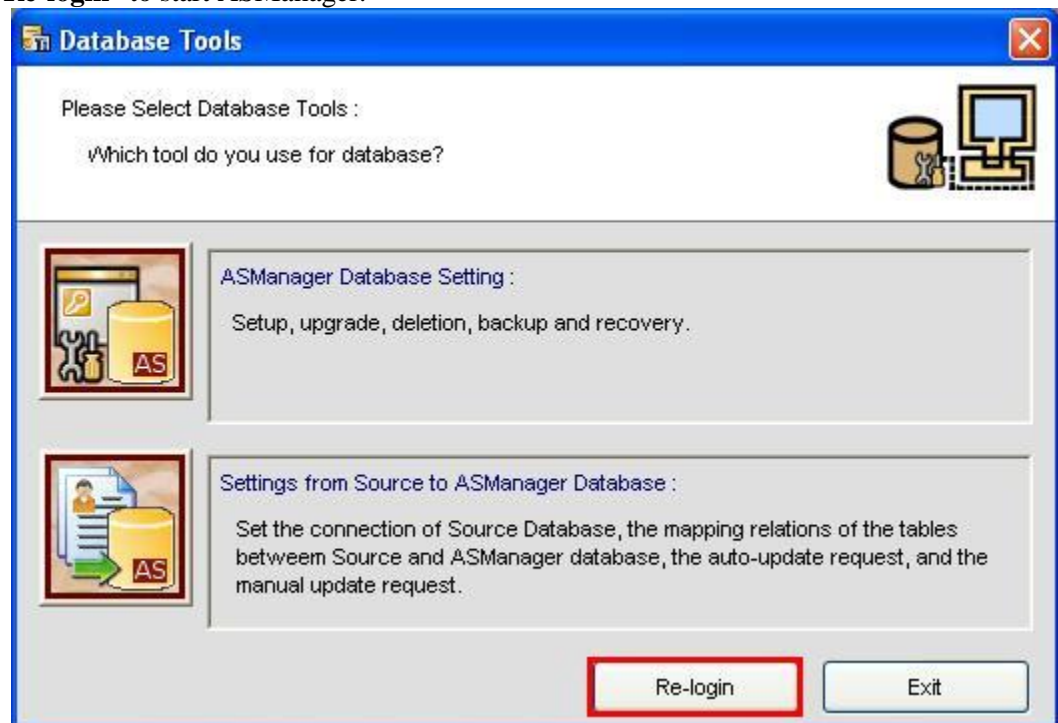
10. Select “**Upgrade to latest database version**”.



- 11. Click “**OK**” when upgrade database successfully message comes up.
- 12. Click “**Exit**”.



13. Select “**Re-login**” to start ASManager.



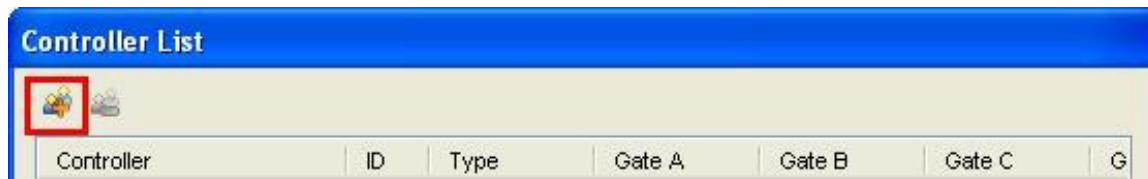
- ✓ Alternatively, ASManager can be started by going “**Start**”, “**All Programs**”, “**Access Control**”, “**ASManager**”.
- ✓ For detail instruction, refer to p.IV of ASManager User Manual

5.8.6 Controller Setup

1. Under ASManager, select “**Devices**”.



2. Click “**Add**” under Controller List.



3. Enter Controller **ID**.

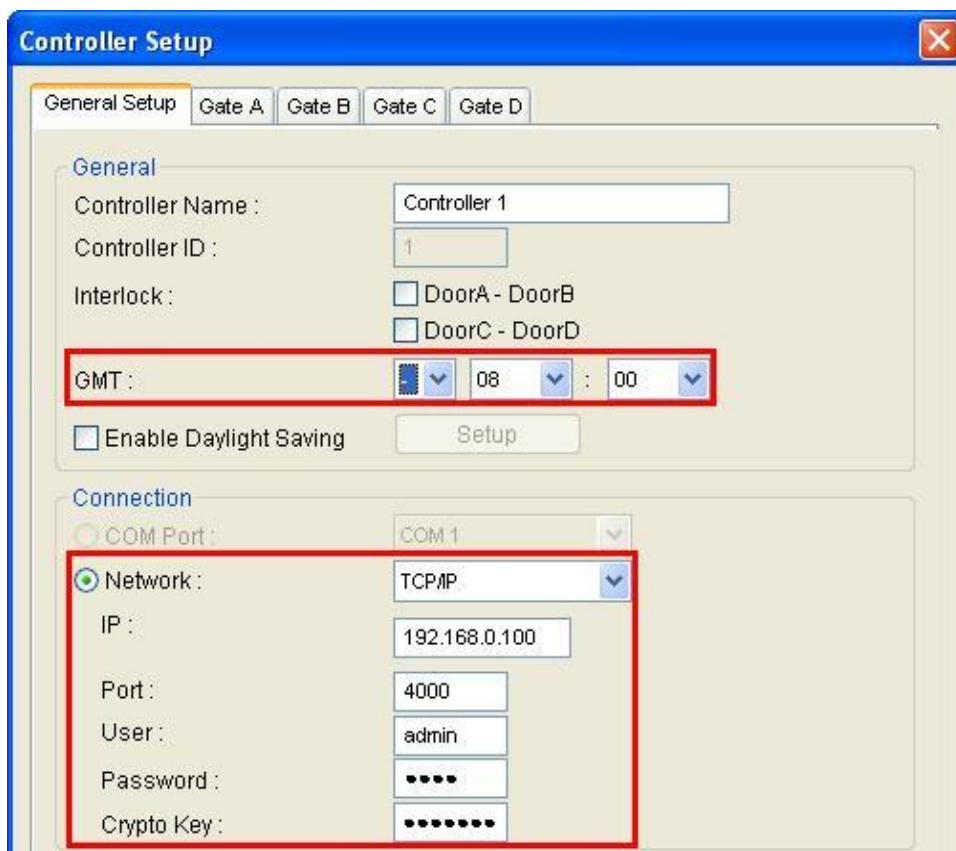
- ✓ For AS100/110 ID, refer to section 5.4.6
- ✓ For AS400 ID, refer to section 5.5.7

- ✓ By default, ASController has ID of 1.

4. **Name** the controller, if necessary; then select controller **Model**.

5. Click “**OK**”.

6. Under **General Setup** tab, define time zone.



7. Select “**COM Port**” if ASController is connected via RS485. Otherwise, select “**Network**” for Ethernet connection.
8. Enter the **IP address**, **Port**, **User ID**, **Password**, and **Crypto Key** of ASController.
 - ✓ By default, ASController has IP of **192.168.0.100**.
 - ✓ By default, ASController has Port of **4000**.
 - ✓ By default, ASController has **User ID** and **Password** of **admin** and **admin**.
 - ✓ By default, ASController has Crypto Key of **12345678**.
9. Under **Gate A** tab, name the door if necessary; then define a password for the door.
 - ✓ *Door password is valid under “Card or Common Mode” only*

Controller Setup

General Setup | **Gate A** | Gate B | Gate C | Gate D

General

☒ Set Door Info

Name: Gate A

Password: 4~8 digits(0~9)

Lock Reset Time: 5 Sec(1~255)

Held Open Time: 5 (Handicap Card)

10 Sec(5~9999)

10 (Handicap Card)

Fire Action: Unchange

☐ Local Anti-Passback

☐ Globe Anti-Passback

☐ GeoFinger

☐ Time Clock

Authentication Schedule

Alarm Event

☐ Held Open

☐ Forced Open

☐ Tamper

☐ Fire Alarm

☐ Access Denied

Alarm Continuous Time: 5 Sec(1~10)

Camera Mapping

☒ Set Camera Mapping

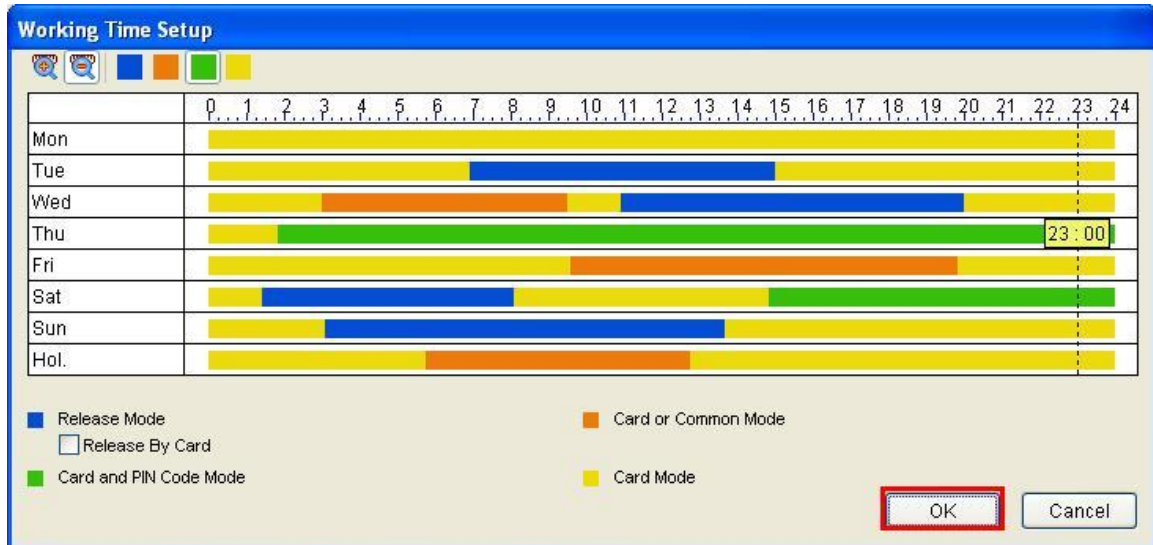
First Camera:

Second Camera:

10. Set **Lock Reset Time** to designate door unlock period.
11. Set **Held Open Time** to designate grace time period before Held open alarm is triggered.

12. If GV-Fingerprint Reader is installed to open this door, check “**GeoFinger**” option.
13. Select **Authentication Schedule** and designate the door operation schedule by selecting the corresponding color and drag over desired time period.

✓ Check “**Release By Card**” to activate Release Mode by a card. Otherwise door will unlock at the designated time schedule automatically



14. Click “**OK**” to return to Controller Setup.
15. If a physical alarm is installed as an output, check the conditions to trigger the alarm under **Alarm Event** and designate **Alarm Continuous Time**.
16. Check “**Set Camera Mapping**” to map cameras to this door, and click the **green arrow** next to First Camera.
17. Under DVR List window, click “**Search**” then select “**Search DVR and NVR**” to scan for GV-NVR/DVR within the network.

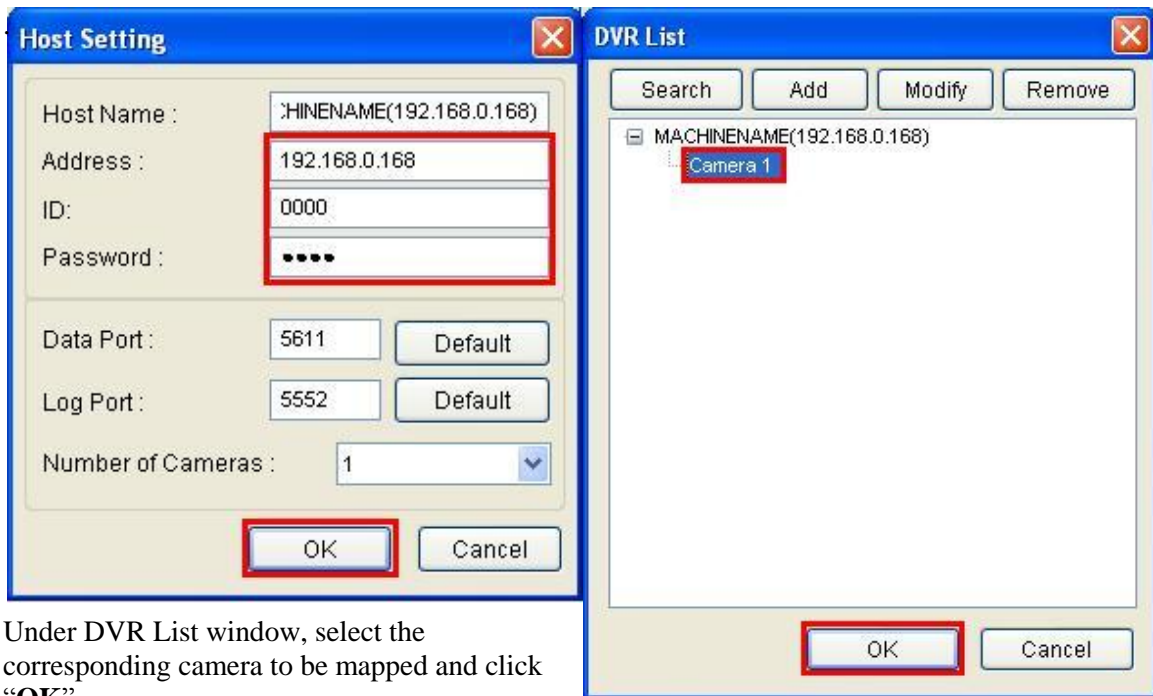


✓ Alternatively, select “**Search IP Device**” to scan for GV-IP Devices

18. Click “**Search**” to start scanning.
19. Check the desired DVR/NVR system and click “**Add**”.
20. Highlight the DVR/NVR then select “**Modify**”.



21. Enter the **IP address**, **ID**, and **Password** for the DVR/NVR to ensure access to the camera.
22. Click “**OK**”.

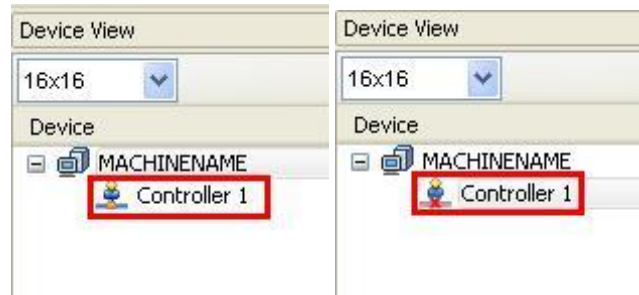


23. Under DVR List window, select the corresponding camera to be mapped and click “OK”.

24. Repeat steps 9 to 23 to enable multiple doors, if available.

25. Under Controller Setup window, click “OK” to add the controller under ASManager.

- ✓ Under Device View, if connection icon shows a yellow dot, then the connection is successful.
- ✓ Under Device View, if connection icon shows a red x, then the connection is NOT successful. Repeat steps 1 through 8 and make sure the parameters are correct.



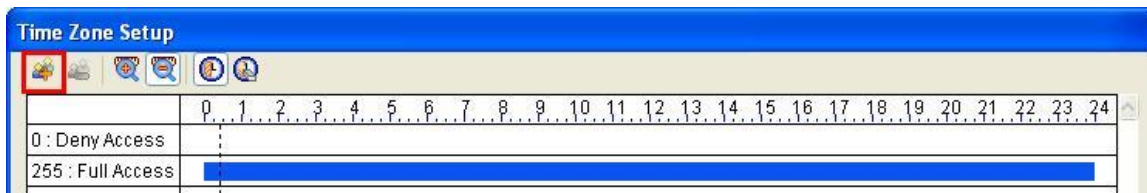
- ✓ For detail instruction, refer to p.21 of ASManager User Manual

5.8.7 Time Zone Setup

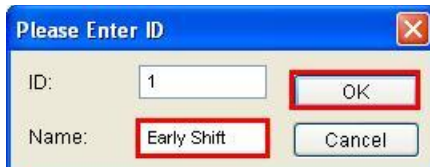
1. Under ASManager, select “Time Zones”.



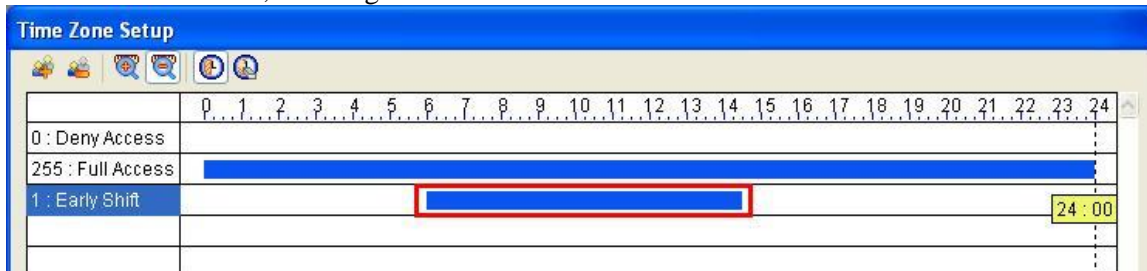
2. Click “Add”.



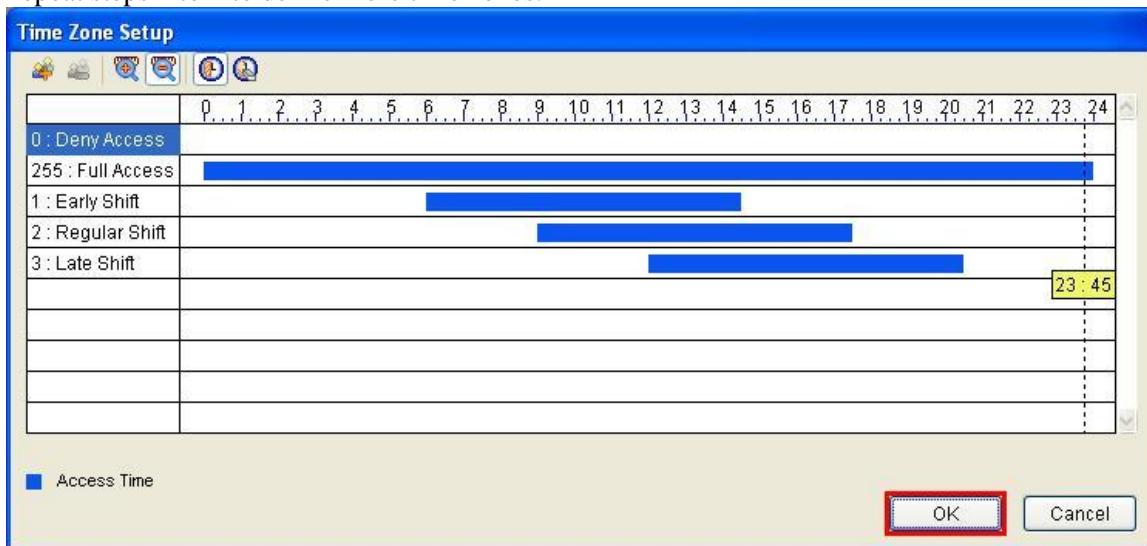
3. Name the time zone then click “OK”.



4. Click on the start time, and drag until end time to define the duration.



5. Repeat steps 2 to 4 to define more time zones.



6. Click “OK” when finished.

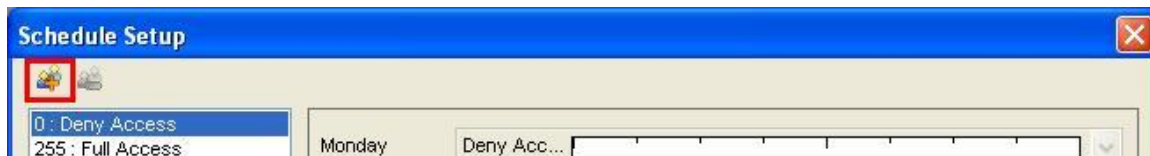
✓ For detail instruction, refer to p.31 of ASManager User Manual

5.8.8 Weekly Schedule Setup

1. Under ASManager, select “**Weekly Schedule**”.



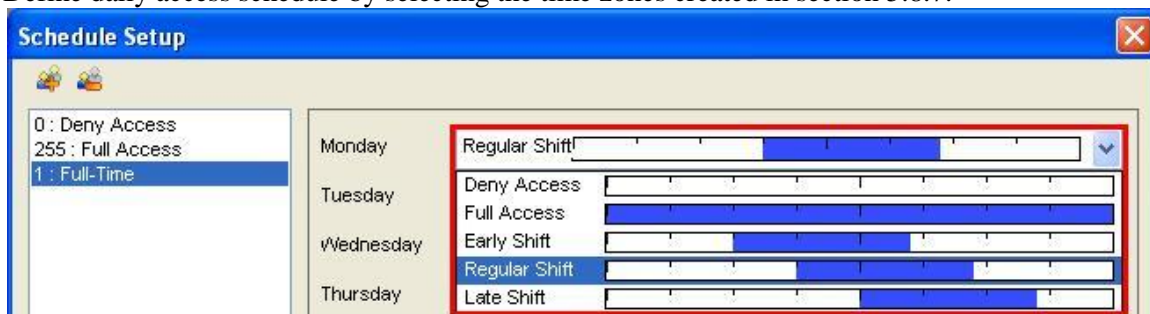
2. Click “**Add**”.



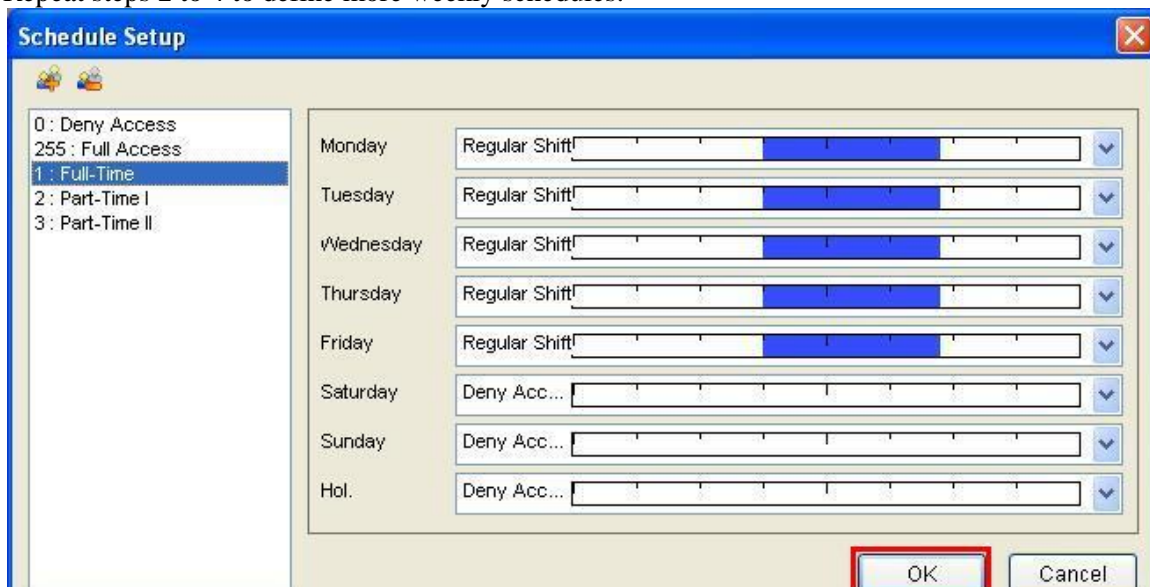
3. Name the schedule then click “**OK**”.



4. Define daily access schedule by selecting the time zones created in section 5.8.7.



5. Repeat steps 2 to 4 to define more weekly schedules.



6. Click “**OK**” when finished.

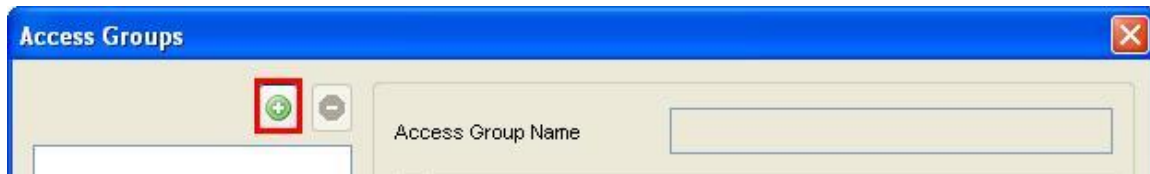
✓ For detail instruction, refer to p.33 of ASManager User Manual

5.8.9 Access Group Setup

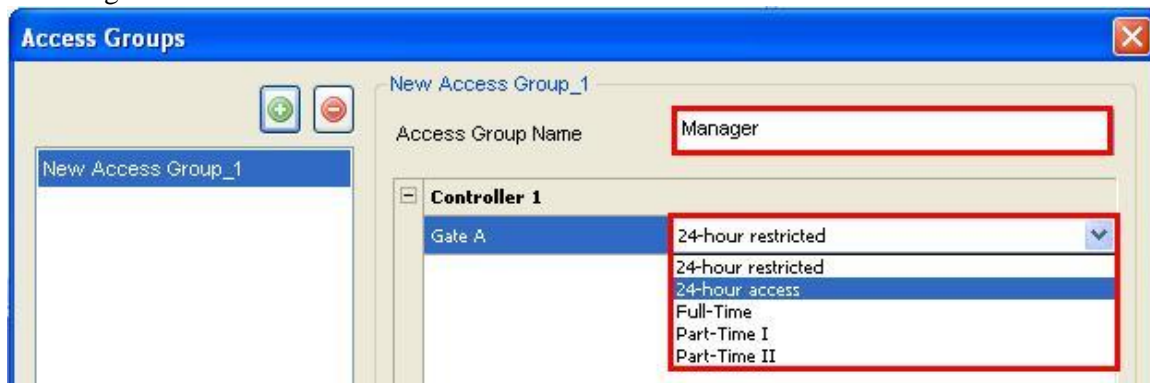
1. Under ASManager, select “Access Groups”.



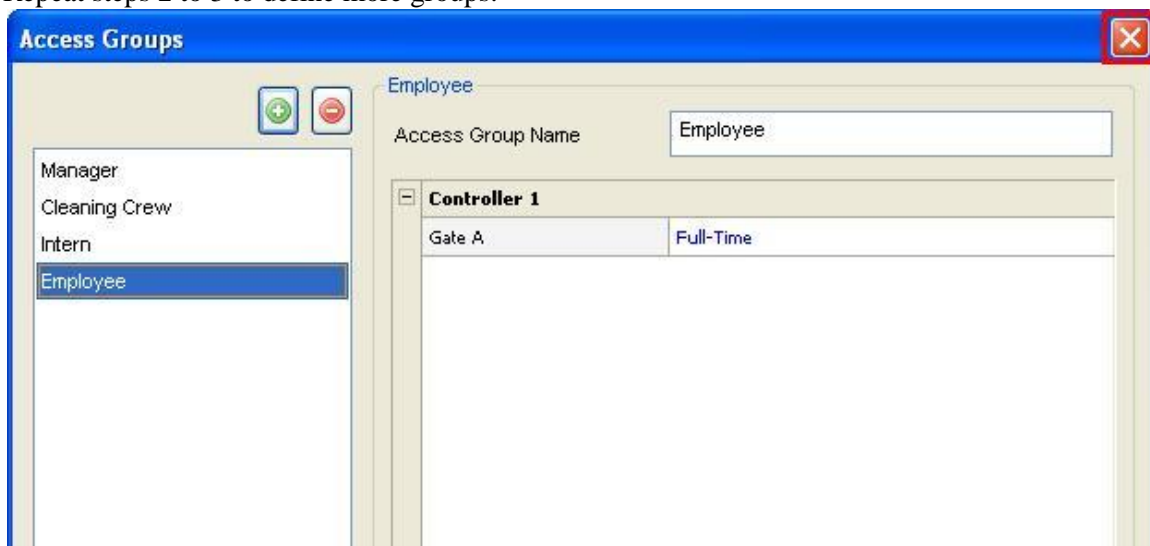
2. Click “New”.



3. Name the access group and select the weekly schedule to be applied on each door for this group according to schedules created in section 5.8.8.



4. Repeat steps 2 to 3 to define more groups.



5. Exit the window when finished.

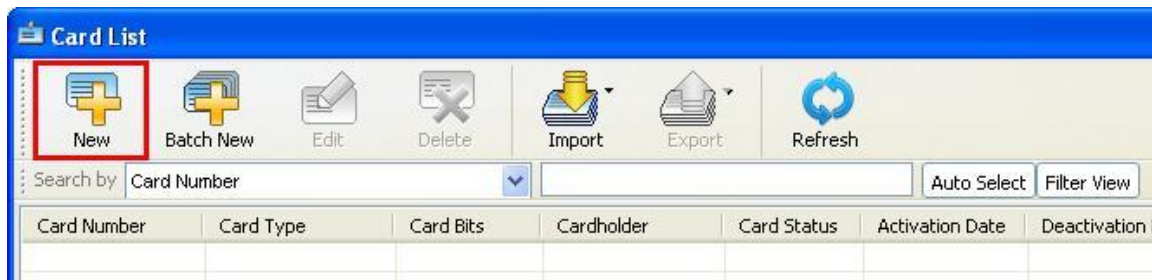
- ✓ For detail instruction, refer to p.36 of ASManager User Manual

5.8.10 Cards Setup

1. Under ASManager, select “Cards”.



2. Click “New”.



3. Select **Code Type** then enter **Card Number** (numbers only).

- a. **Wiegand 26** allows 8-digit card number (default)
- b. **HID 37** allows 11-digit card number

✓ *ASManager supports Wiegand 26 ~ 64 frequency. However, only Wiegand 26 and 37 are defined by default. If a third-party reader with non-default frequency is used, it is necessary to first define the Wiegand parameters so that ASManager can read the card numbers properly. Such configuration can be done under **Personnel**, “**Code Format Settings**”*

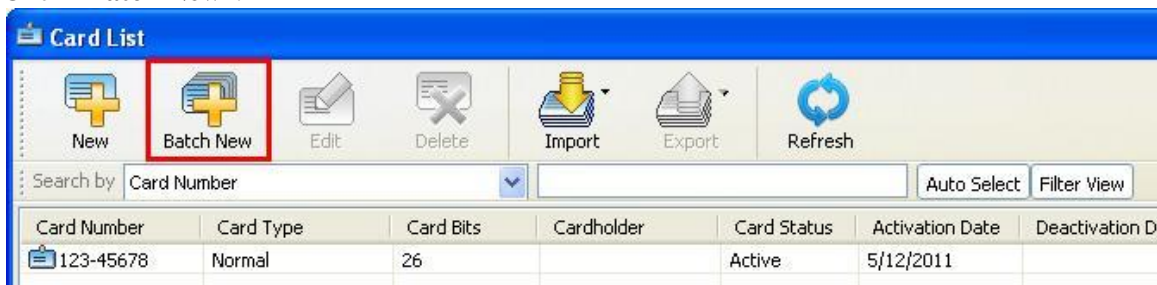
4. Enter the **Privilege** level for this card and assign it to an **Access Group** in the drop-down list as defined in section 5.8.9

✓ *Pin Code is valid under “Card and Pin Code Mode” only*

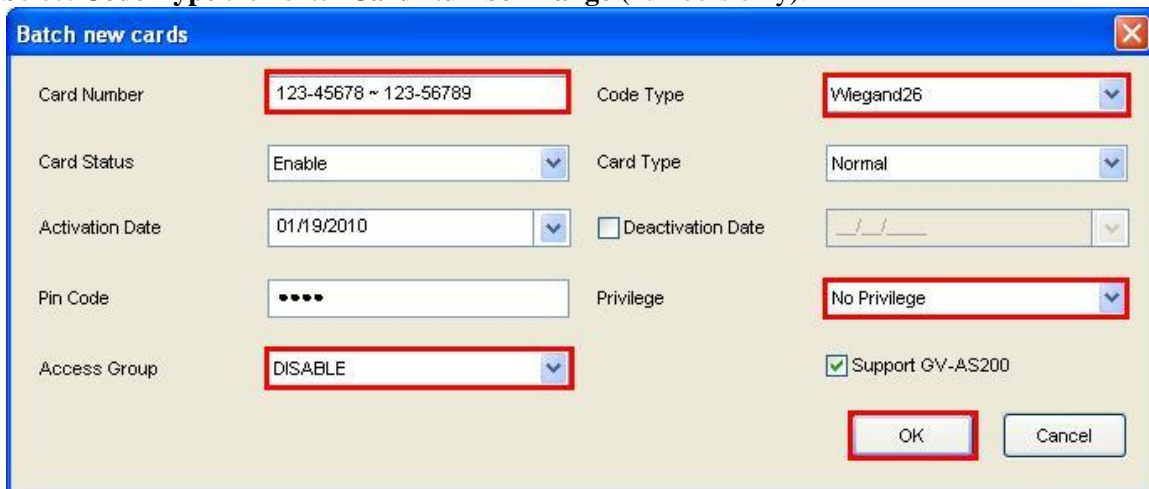
5. Click “OK” when finished.

- ✓ Alternatively, to enroll multiple cards with consecutive card numbers, use “**Batch New**” option.

6. Click “**Batch New**”.



7. Select **Code Type** then enter **Card Number Range** (numbers only).

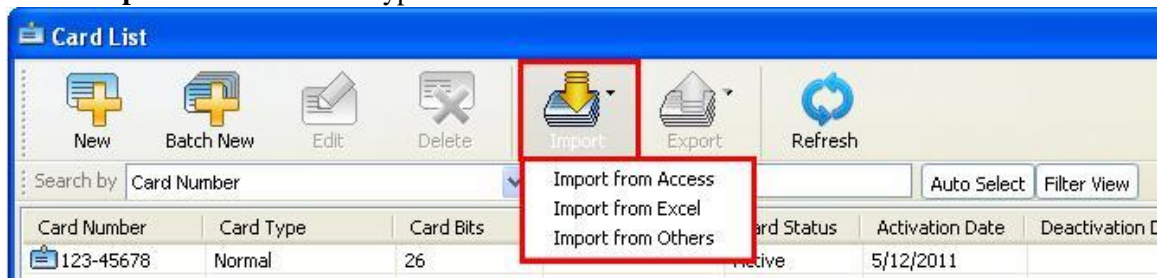


8. Enter the **Privilege** level for the batched cards and assign them to an **Access Group** in the drop-down list as defined in section 5.8.9

9. Click “**OK**” when finished.

- ✓ The third option to create a card database would be to import from Microsoft Excel or Access.

10. Click “**Import**” then select file type.



11. Indicate **File Path** to locate database file.

12. Click “**OK**” when finished.

- ✓ For detail instruction, refer to p.26 of ASManager User Manual

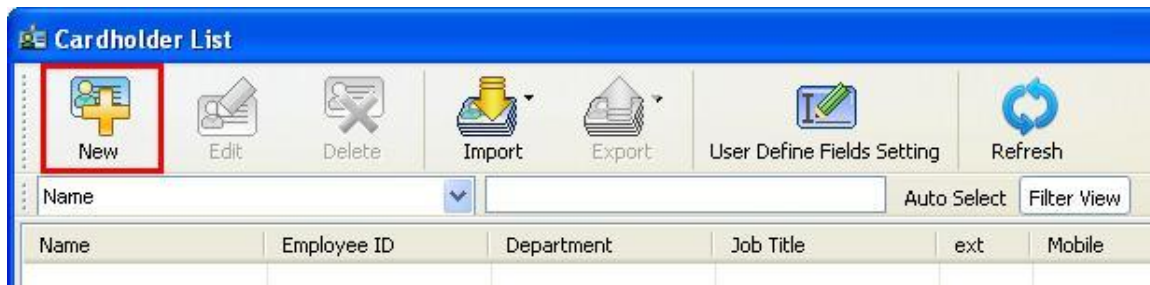


5.8.11 Cardholders Setup

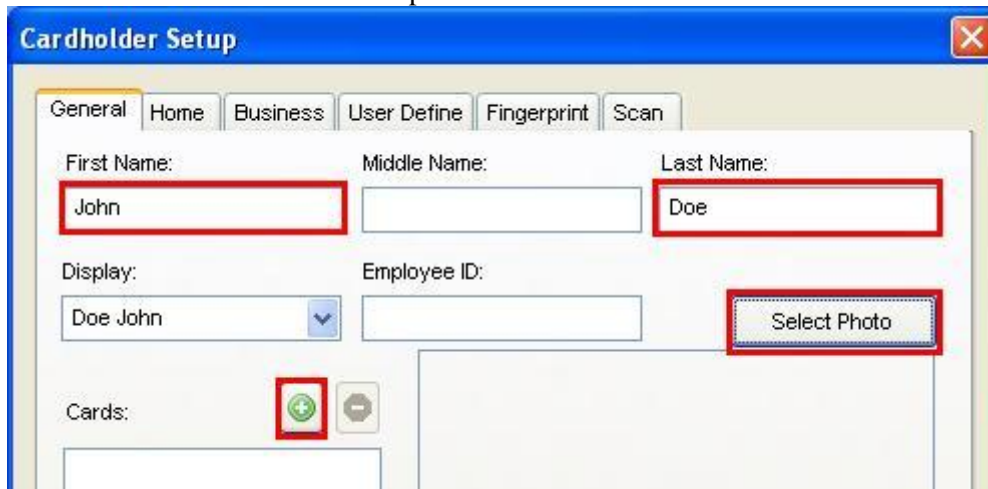
1. Under ASManager, select “Cardholders”.



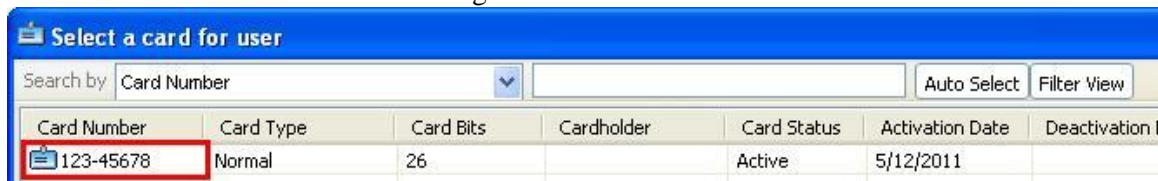
2. Click “New”.



3. Enter **First Name**, **Last Name**, and **Employee ID** (if applicable).
4. Click “Select Photo” and locate a picture to associate with the cardholder.



5. Click “Add” to add a card that belongs to this cardholder.
6. Double-click on the card number to assign the card to the card holder.



7. Repeat steps 5 and 6 to add more cards for the same cardholder.
8. Go to **Home** and **Business** tabs to add in additional personal information regarding the card holder, if applicable.

Cardholder Setup

General **Home** **Business** User Define Fingerprint Scan

Name: Doe John Employee ID: 001

Job Title: Engineer Hire Date: 12/23/2012

Business

Department: FAE Office: Irvine

Phone: 949-583-151 ext: 1 Fax:

Company: GeoVision Zip Code: 92618

Address: 9235 Research Dr.

E-Mail Address: sales@usavisionsys.com

Web Page: www.geovision.com.tw

Notes:

9. Click **“OK”** when finished.

✓ Alternatively, a cardholder database can also be imported from Microsoft Excel or Access.

10. Click **“Import”** then select file type.

Cardholder List

New Edit Delete **Import** Export User Define Fields Setting Refresh

Name

Import from Access
Import from Excel
Import from Others

Name	Employee ID	Job Title	ext	Mobile
Doe John	001	Engineer	1	

11. Indicate **File Path** to locate database file.

12. Click **“OK”** when finished.

Select Microsoft Office Excel File

Microsoft Office Excel File Path

File Path:

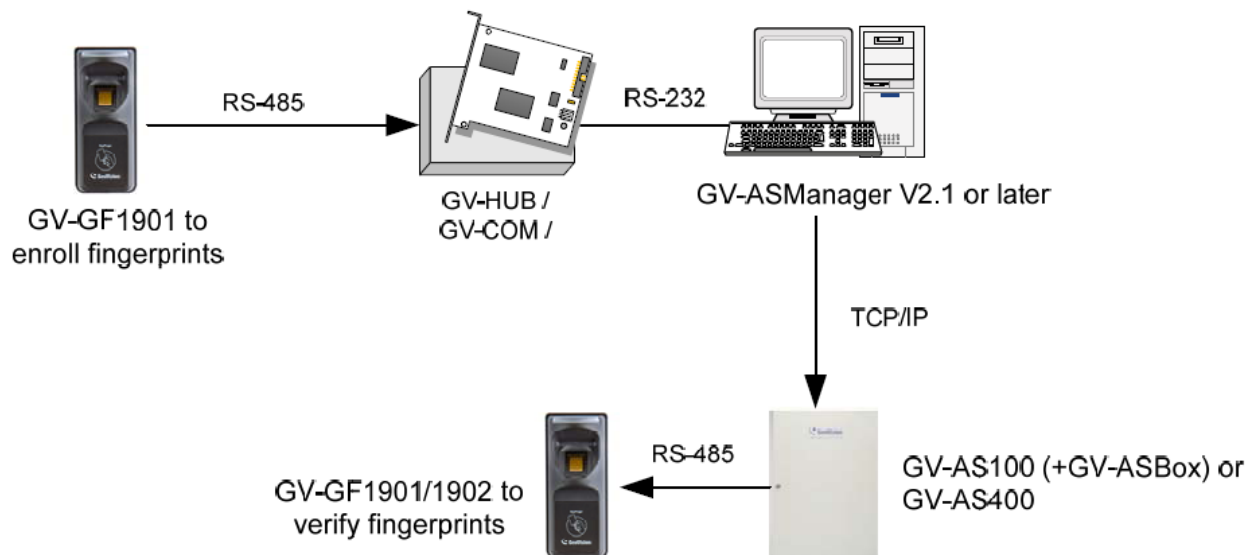
Password:

OK Cancel

✓ For detail instruction, refer to p.38 of ASManager User Manual

5.8.12 Fingerprint Enrollment

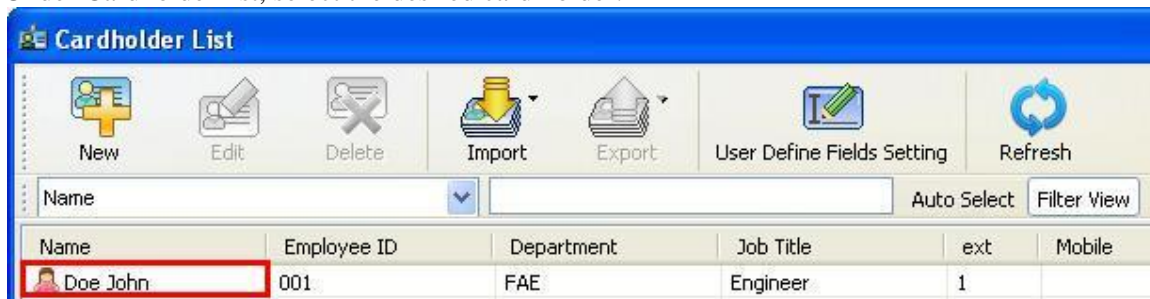
- ✓ In order to enroll fingerprint in ASManager, it is required to connect GV-GF1901 to ASManager directly via GV-COM or GV-Net Card.



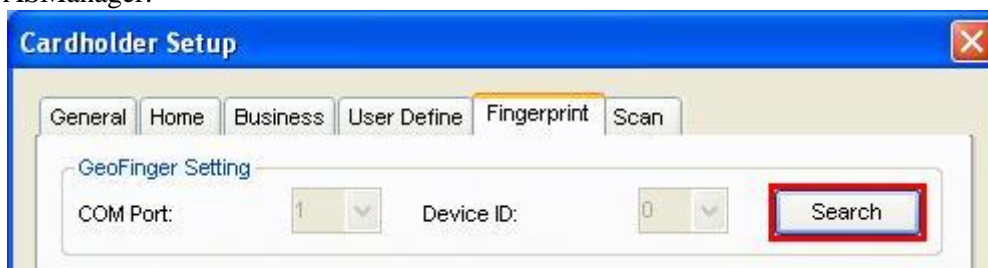
1. Under ASManager, select “**Cardholders**”.



2. Under Cardholder list, select the desired card holder.

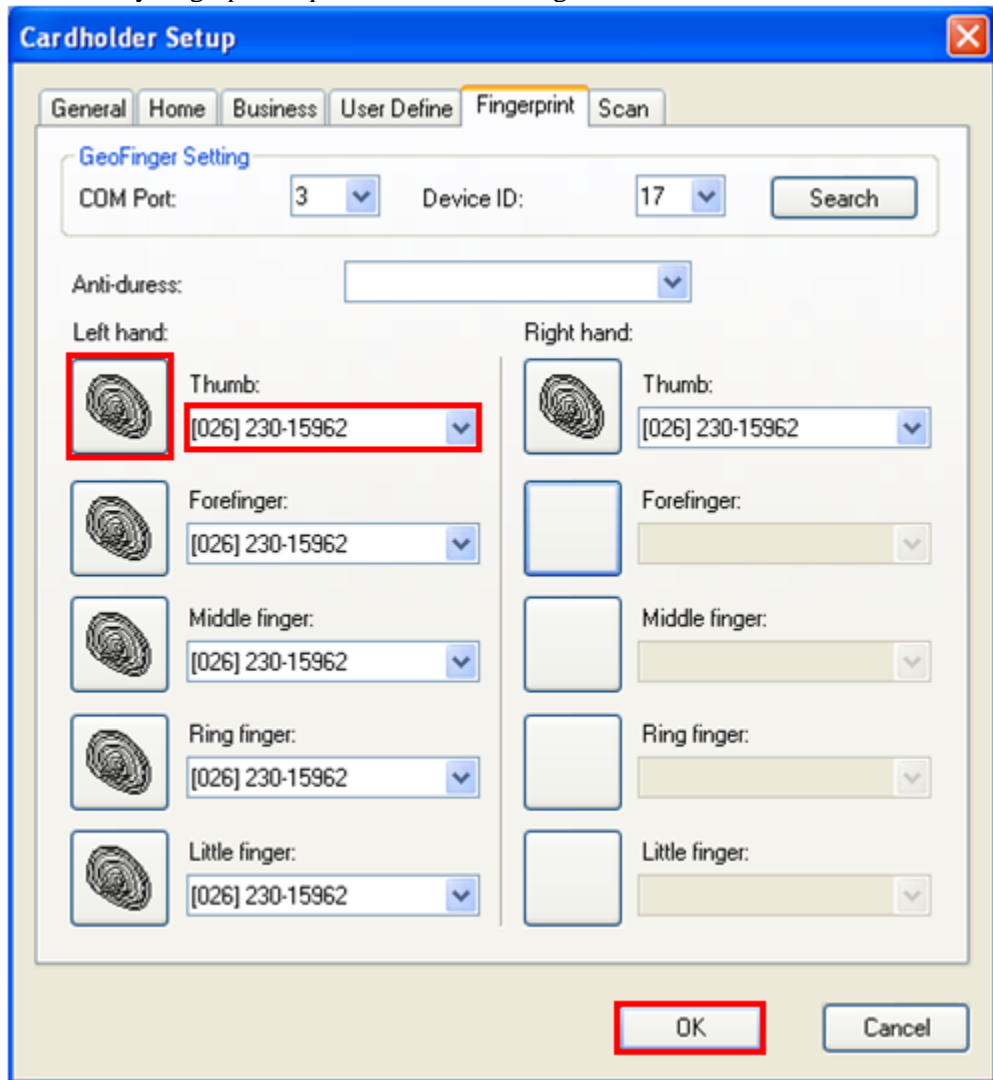


3. Under Fingerprint tab, click “**Search**” to locate the GV-Fingerprint reader connected to ASManager.



- ✓ If a GV-Fingerprint reader is not found, verify COM port and RS485 connection as shown above in the connection diagram.

4. Click on any fingerprint square to start enrolling.

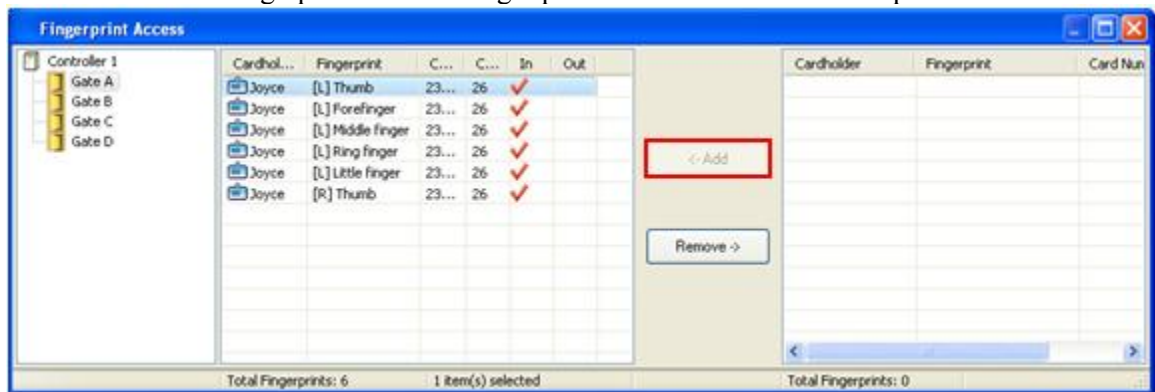


5. Place the specific finger on GV-Fingerprint reader to register fingerprint.
 6. Place the same finger on GV-Fingerprint reader again to confirm the enrollment.
 7. In the drop-down list, assign a card number to associate with the fingerprint.
 8. Repeat steps 4 to 7 to enroll all ten fingers if necessary.
 9. Click “**OK**” when finished.
- ✓ Confirm steps 17 to 20 under section 5.5.7 to verify GV-Fingerprint readers are properly recognized by AS400
 - ✓ Confirm GeoFinger option is checked for the specific door as indicated in step 12 in section 5.8.6.
10. Under ASManager, select “**Fingerprint Access**”.

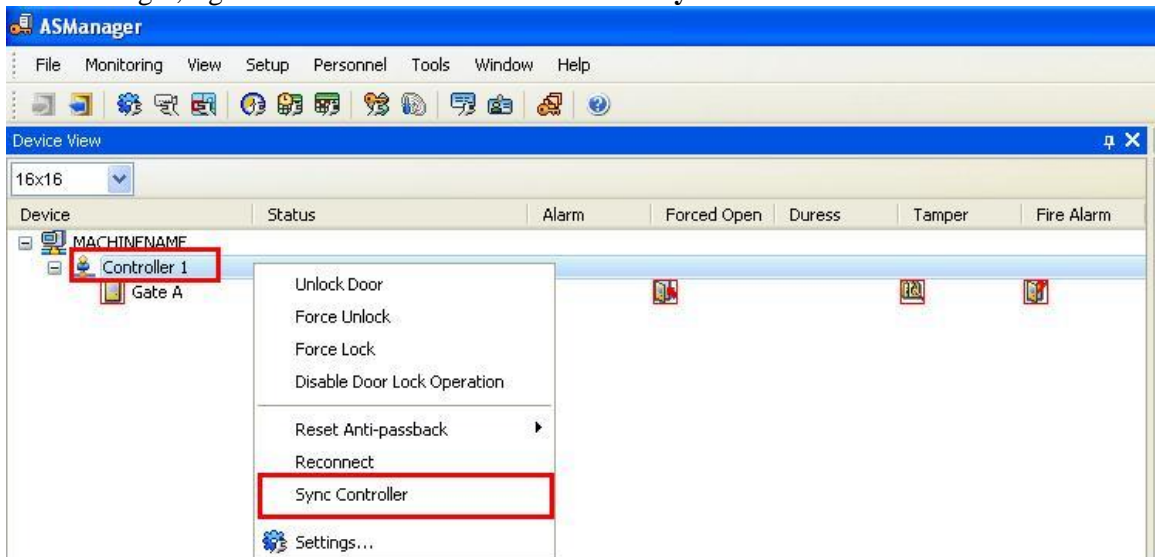


11. Select the desired door on the left panel in which the fingerprints will be uploaded to.

12. Select the enrolled fingerprints from the right panel and click “<- Add” to upload to this door.



13. In ASManager, right-click on the controller and select “Sync Controller”.



- ✓ For detail instruction, refer to p.66 of ASManager User Manual