

## 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

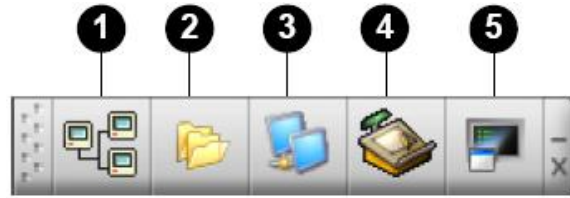
#### 3.4.1 Install from CMS Disk

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”.



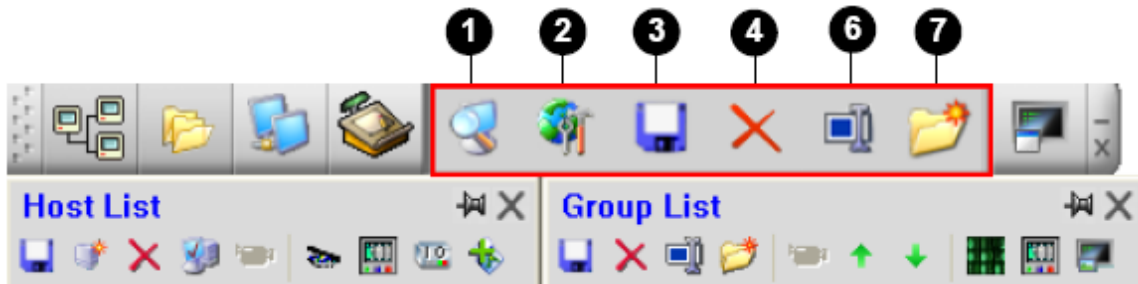
4. Follow on-screen instructions to complete setup.

### 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:

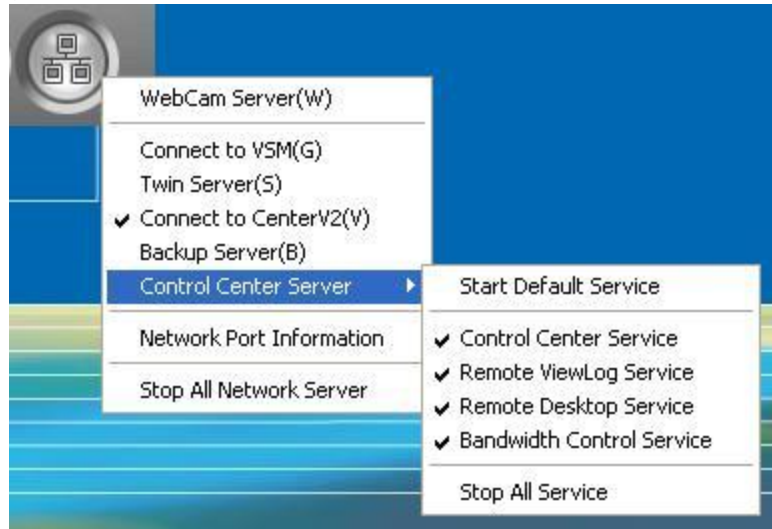
No.	Name	Description
1	Search Host	Opens the Search Host window, by which you can detect any devices on the same LAN and add them to the Host List.
2	Configure	Displays these options: System Configure, E-Map Editor, DirectDraw Configuration, IP Matrix Service, Import Data, Export Data, Change Password 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

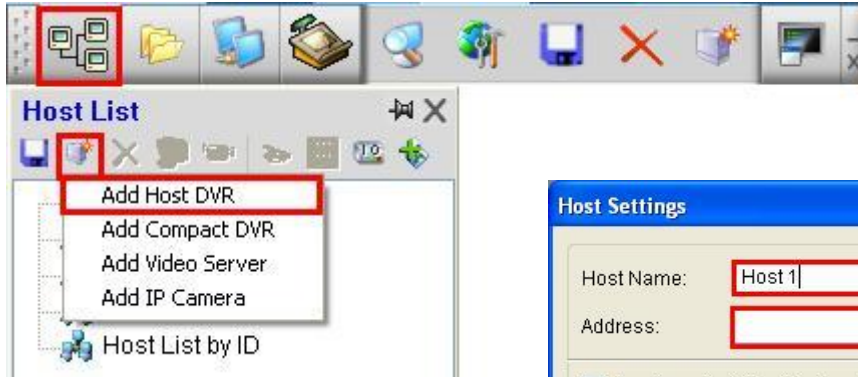
### 3.5.2 Open Connection Port

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.*

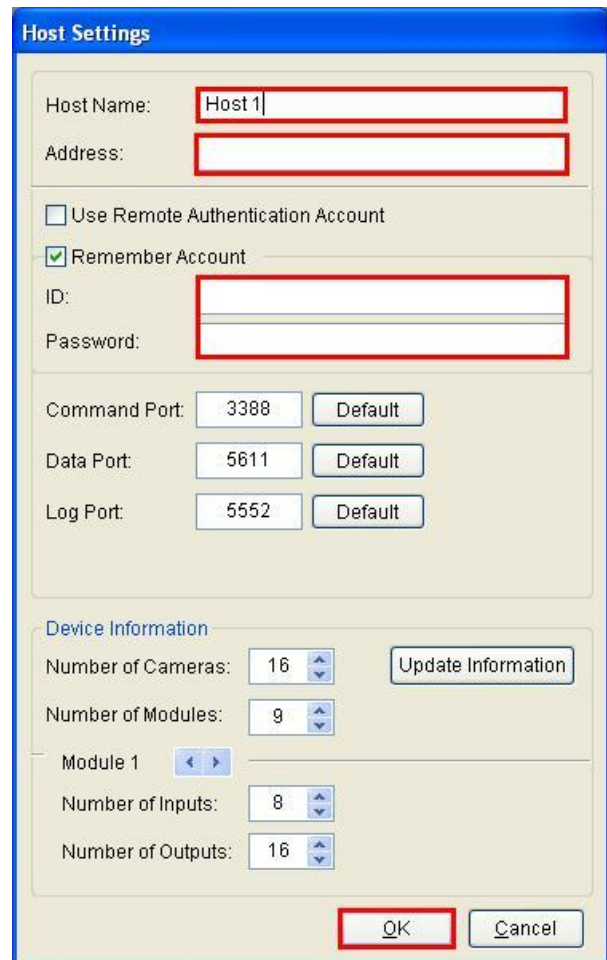
1. Click on “**Host List**” button.
  2. Click on “**Add Host**” button in the Host List window, select “**Add Host DVR**”.
- ✓ If Control Center is used to connect to GV-IP Devices such as IP cameras, video servers, or Compact DVRs, select the host accordingly.



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*

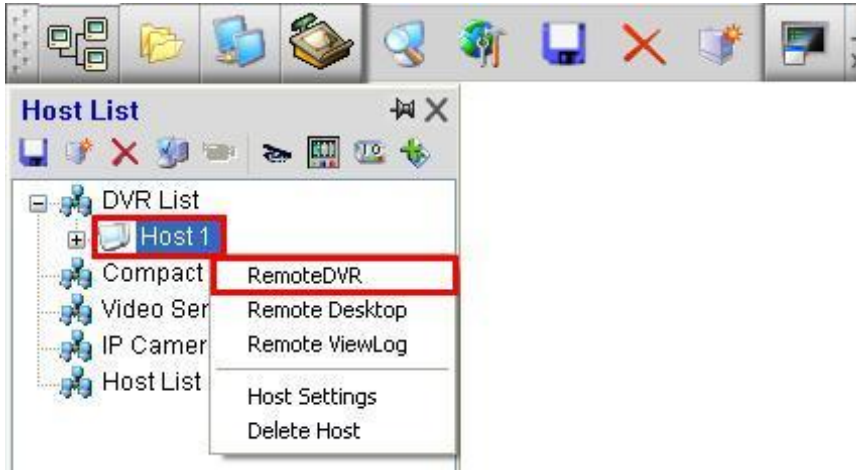
5. Click “**OK**”.
- ✓ Repeat steps 1 through 5 to add more hosts in Control Center.



- ✓ 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**”.



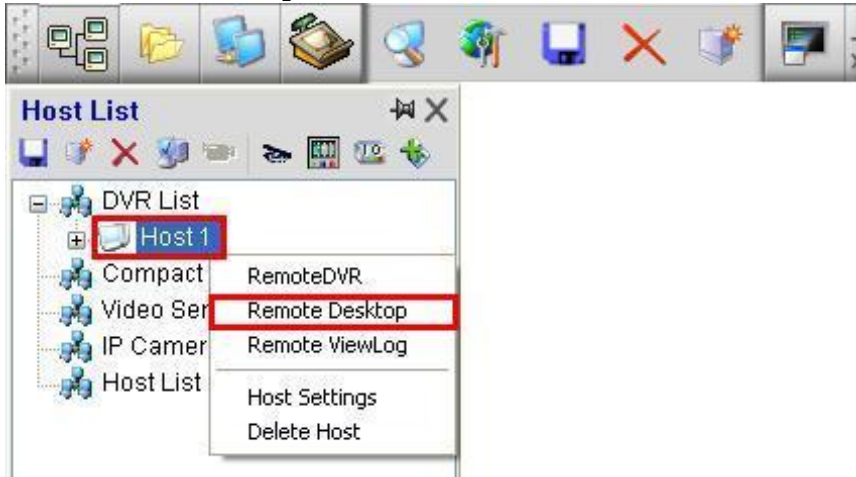
3. When Multicam interface appears, configure Multicam settings as you would on the GV-DVR/NVR.



- ✓ *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.

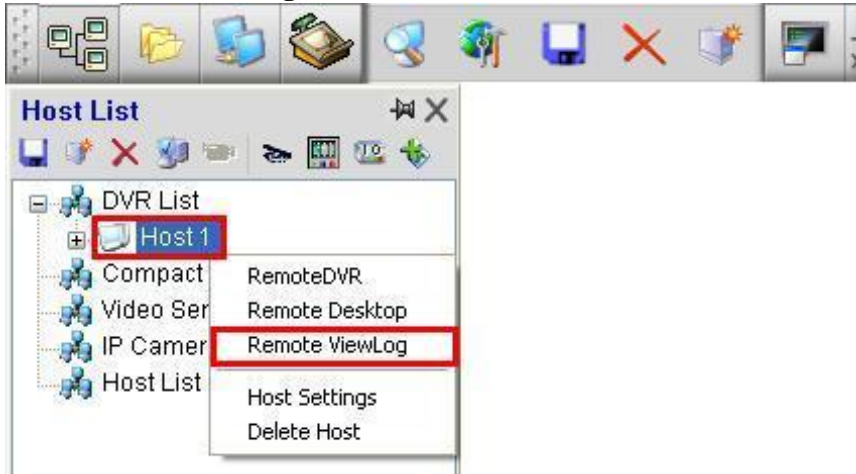


- ✓ *File transfer between Control Center and host DVR/NVR is also possible through Remote Desktop.*
- ✓ For detail instruction, refer to p.166 of v8.4 CMS User Manual

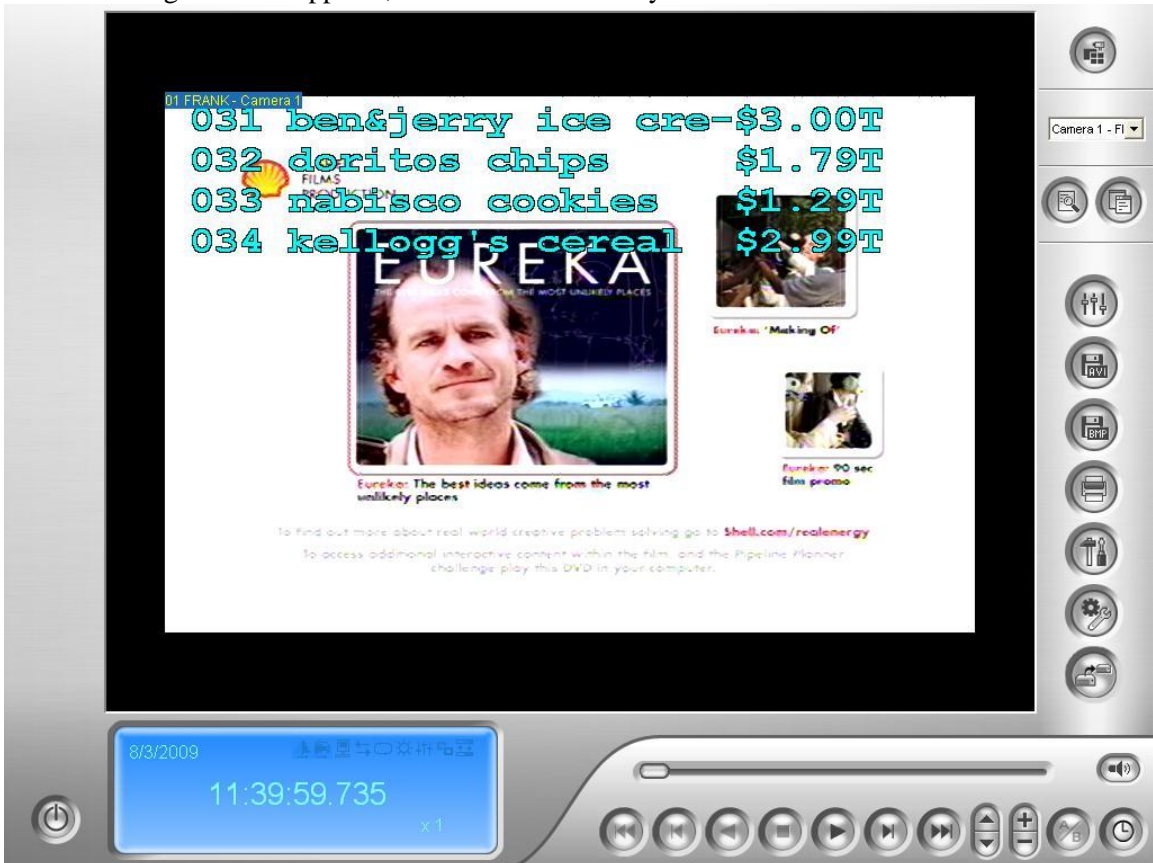


### 3.5.6 Remote Viewlog

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



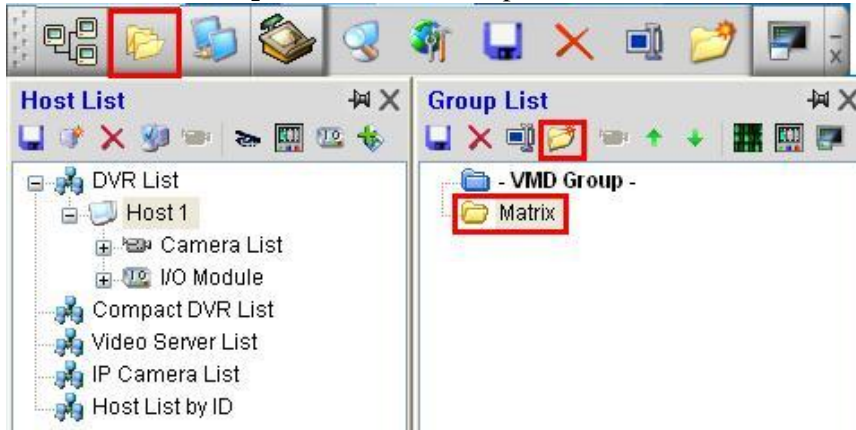
3. When Viewlog interface appears, review video files as you would on the GV-DVR.



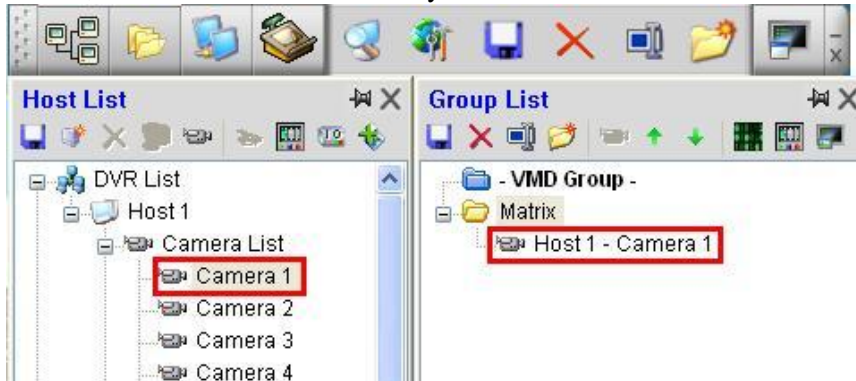
- ✓ “Save as AVI” and “Backup” are also available through Remote Viewlog. Refer to p.44 in *GeoVision Technical Handbook Part I* for video backup instructions
- ✓ For detail instruction, refer to p.168 of v8.4 CMS User Manual

### 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.



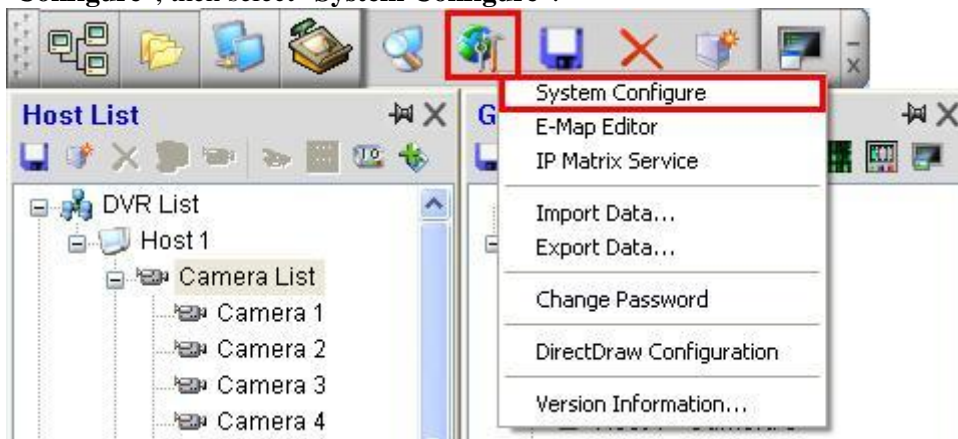
4. Repeat step 3 to add more cameras from multiple hosts into the same Matrix, if needed.
5. Repeat steps 2 and 3 to create multiple Matrices.
6. To start a Matrix, right-click on the folder created in step 2.
7. Select “**Matrix**”.



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.

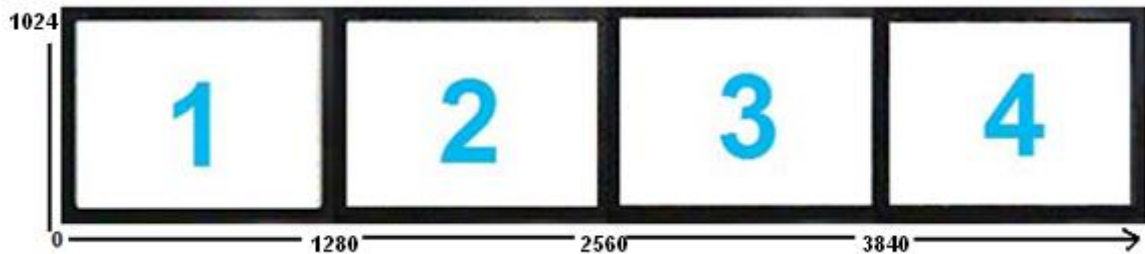
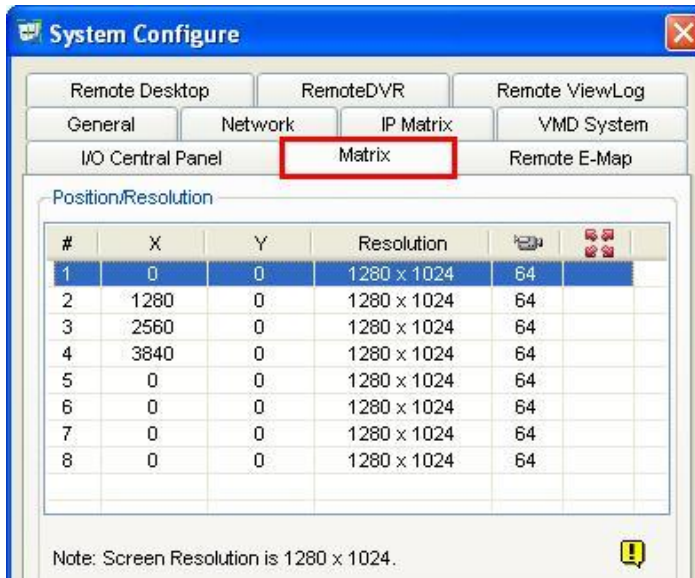


9. To start multiple Matrices, repeat steps 6 to 8.
10. By default, all Matrices will appear on primary monitor. To utilize multiple monitors, click on “Configure”, then select “System Configure”.



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

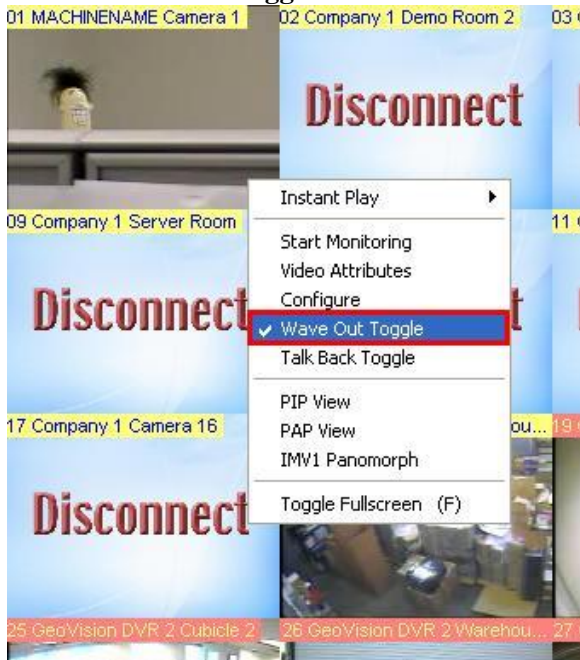
1. By default, Control Center does not require any network port in order to connect to a GV-DVR. However, ports **5201** and **5202** are optional ports that will allow Control Center to scan for GV-DVR and GV-IP Devices within the network if user decides to run auto scan.
- ✓ Refer to p.44 “Network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

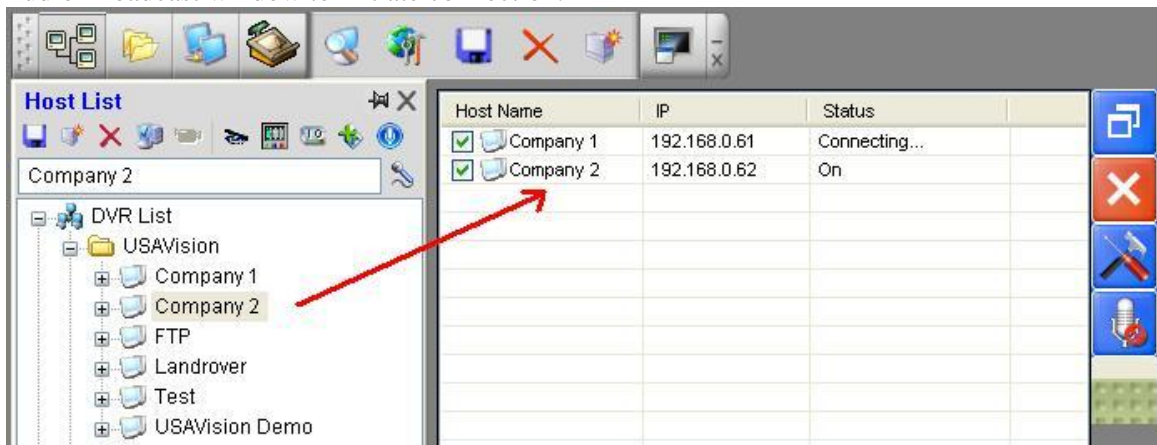
### 3.6.2 Audio Broadcast

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

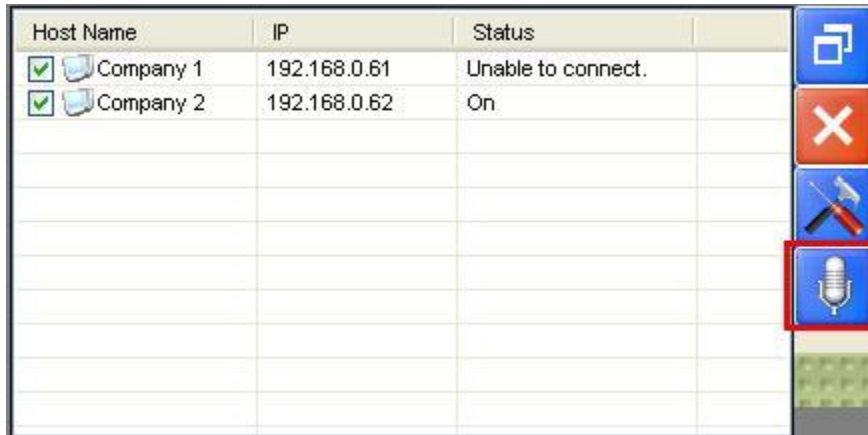
1. To initiate Audio Broadcast, click on **Audio Broadcast** icon under Host List to bring up the service.



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