

Viewing Live Video Using WebCam

It is possible to use Microsoft Internet Explorer at the remote PC, without installing extra software, to view live videos, download and play back video files, manage systems within the security network, and control PTZ camera and I/O devices via the WebCam server.

Before starting the WebCam, make sure your system meets the following requirements:

OS	Windows 2000, Windows XP, Server 2003
Web Browser	IE6.0, Netscape Navigator (with limited functionality)
CPU	Pentium 4, 2.0G (minimum)
Memory	256MB RAM (minimum)
Hard Disk	40GB (minimum)
VGA	NVIDIA GeForce II 32MB, 1024x768 screen resolution (minimum)
Network	TCP/IP
DirectX	Version 9.0 or above

Configuring the WebCam Server

GV system is built-in with a web sever. Follow the steps to activate and configure WebCam server for remote connection.

1. Click the Network button in the main system screen, and then select WebCam Sever. This brings up the Setup WebCam For Internet/Intranet dialog box, shown as follows:

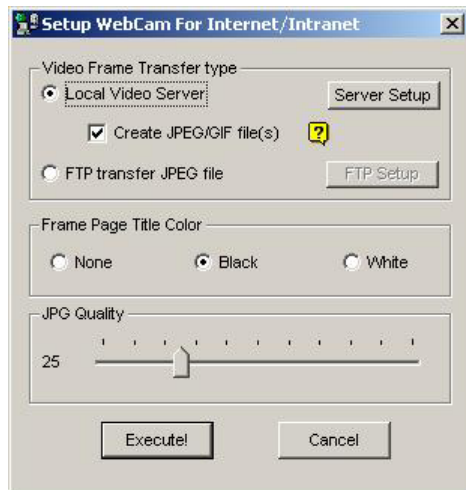


Figure 6-1 Setting Up WebCam

2. There are two ways to publish your video stream. One is by Local Video Server and the other is by FTP transfer JPEG file. Local Video Server allows you to view cameras with a web browser interface, while FTP transfer JPEG file allows you to view cameras in a folder tree structure. For the purpose of this demo, select Local Video Server.
3. Select Create JPEG/GIF file(s) if you wish to allow the connection for G-View (the application running on Windows CE), i-Mode, or JPEG Viewer (used for Apple Mac and Netscape Navigator; this application will be discussed later in this chapter). If this option is selected, use the slide bar to adjust JPG image quality. The bigger the number (sliding it towards right), the better the image quality (thus a bigger image file size).
4. Click the Server Setup button to bring up the Server Setup dialog box, shown as follows:

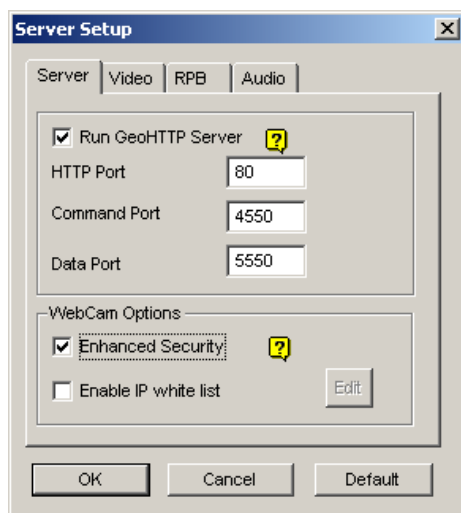


Figure 6-2 Server Setup

5. In the Active Ethernet Adapter section, select the item of Run GeoHTTP Server will open the ports necessary for viewing from a remote PC. Command Port is the port used to connect with

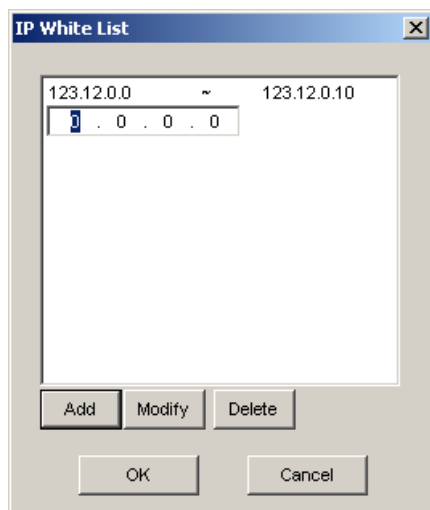
WebCam, and Data Port is the port used to transfer data over the network. You may just use the default port settings.

6. In the section of WebCam Options, there are two options:
 - **Enhanced Security:** Add a security test to prevent automated registrations.
 - **Enable IP White List:** Create a list of IP addresses allowed to connect to WebCam. See the section below for the details.
7. Click the OK button to return to the Setup WebCam for Internet/Intranet dialog box.
8. In the Frame Page Title Color section, select the text color to appear on the camera image.
9. Click the Execute button to finish the setup for the web server.

IP White List Setup

The feature lets you create a list of IP addresses only which are allowed to connect to the WebCam server. To enable the function, follow the steps below.

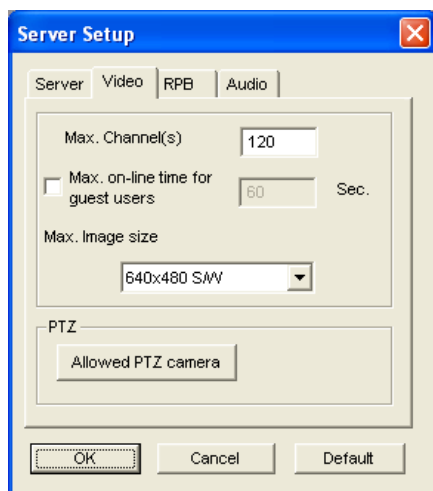
1. Open the Server Setup window. Refer to figure 6-2.
2. Click the check box of Enable IP white list, and then click the Edit button to display the following IP White List window.



3. Click Add to enter an IP address or a range of IP addresses. For this example, only the IP range from 123.12.0.0 to 123.12.0.10 is allowed to connect to WebCam.
4. Click Modify to change a created IP address. Click Delete to delete a created IP address. Click OK to apply the settings.

Video Setup

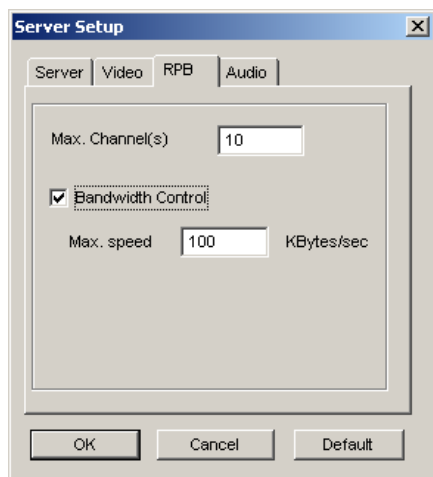
Click the Video tab in the upper of the Server Setup dialog box (see figure 6-2) for video settings.



- **Max. Channel(s):** Specify the number of channels allowed to connect to WebCam.
- **Max on-line time for guest users:** Specify the time allowed for a guest user to connect to WebCam.
- **Max Image size:** Select a desired resolution. The default resolution on WebCam is 320 x 240. If you want to apply the high resolution of 640 x 480 (S/W), you also have to configure Video Source. Click the Configure button on the menu bar, and then select Video Source. In the Video Resolution field, select 640 x 240 or higher resolutions, and then click OK to apply it.
- **Allowed PTZ camera:** The option allows you to control selected PTZ cameras at a remote PC. Click the button and select the desired PTZ cameras to function on WebCam.

Bandwidth Setup

The bandwidth control feature is used to prevent overloading on slower networks. To set up, click the RPB tab in the upper of the Server Setup dialog box; refer to figure 6-2. This brings up the following dialog box:



- **Max. Channel(s):** Specify the number of channels allowed to download to a client computer.
- **Bandwidth Control:** Select the item and specify the rate of data to be transferred over network.
The option effectively controls the bandwidth being used by the WebCam application.

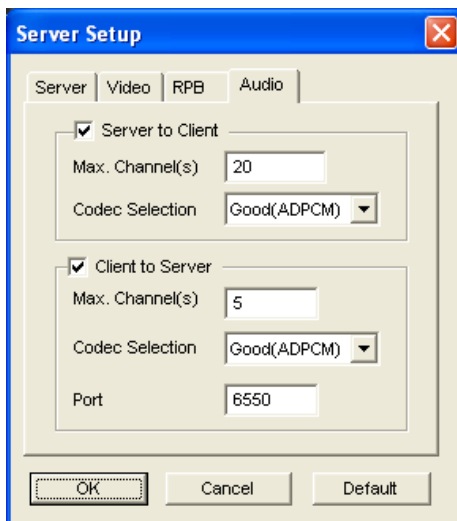
Connecting Audio Devices

You can use WebCam to listen to live audio at a remote site, and talk to the server site. This feature is useful when the remote site requires speaking to the personnel at the server site in case of emergency. Before using this feature, make sure all the necessary hardware are in place:

1. If you've purchased a BNC connector GV system, make sure to connect the audio extend card to the system. See Chapter 1 for this installation. If you've purchased a D-type connector GV system, audio extension cable lines should come available with the D-Type extension cables. For GV-1000, the audio card must be purchased separately (see also Chapter 1 for connecting the 16-channel audio card to the system).
2. Make sure your sound card is already inside the PC. Connect a multimedia speaker to the audio input of your PC sound card.
3. Connect a desktop microphone to the input of the audio extension card (or cable line).

Audio Setup

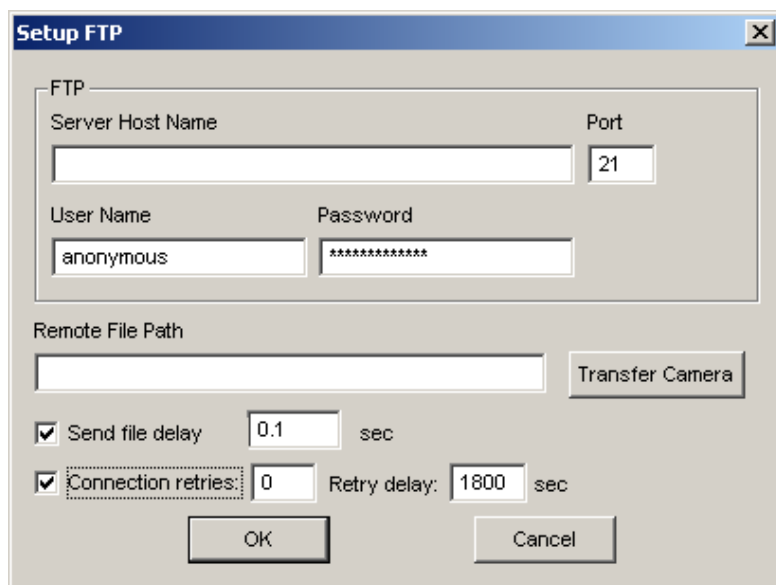
Click the Audio tab in the upper of the Server Setup dialog box for audio settings; refer to figure 6-2. Enabling Server to Client will allow a client PC to listen to the audio of the server site, while enabling Client to Server will allow a client PC to speak to the server site. The Max. Channel(s) option allows you to limit the number of client PCs allowed to use the audio function. The drop-down list of Codec Selection allows you to choose the audio codec. ADPCM requires 4KByte bandwidth, while G.723 requires only 0.66KByte bandwidth, but ADPCM offers much better audio quality compared to G.723.



Note: If the server site has installed a firewall, configure the port settings in the firewall as 4550, 5550, 6550 and 80.

FTP Server Setup

The option of FTP transfer JPEG file allows you to access to GV-System's recording files in a folder tree structure. In figure 6-1, select the item of FTP transfer JPEG file, and then click the FTP Setup button to bring up the following dialog box.



1. In the Server Host Name field, enter the IP address or domain name of the designated GV-server. Leave the port setting as default at 21.
2. Enter a valid user name and password with privilege to use this function.
3. Specify the file path that accesses to the video files of the GV-server.
4. Click the Transfer Camera button and assign which camera's files to be transferred.
5. In the Send File Delay field, specify the time of sending JPEG files from the GV-server to the FTP server.
6. In the Connection Retries field, specify the number of retries when FTP connection fails (Max : 999). In the Retry Delay field, specify the interval between each retry (Max : 9999 seconds).

Starting WebCam at the Client PC

Once the WebCam server at the GV-system is enabled, it is then possible to view images using a web browser at a client PC or from a remote site. Microsoft Internet Explorer will be used as the browser through the entire chapter.

1. To start the connection, open an IE browser.
2. Key in the IP address or the domain name of the GV-system to display the following window.



Figure 6-3 WebCam Compression Selection

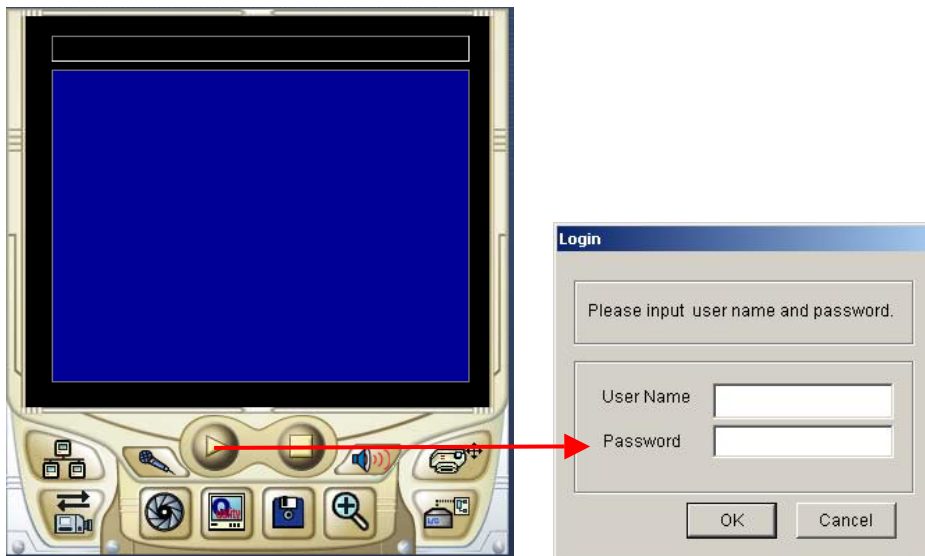
- **MPEG4 Encoder Viewer:** Provides the most complete functionality of the WebCam applications, allowing you to view up to sixteen cameras from different GV-systems.
 - **JPEG Image Viewer:** Provides least features but is suitable for the users with limited bandwidth, for example, users viewing with Apple Mac, and operating systems using Netscape Navigator.
 - **Remote Play Back:** Downloads history files from the GV-system onto the client PC.
 - **Emap:** Accesses the Emap files.
 - **Remote Control:** Accesses the GV-system settings.
3. For the purpose of this demo, select MPEG 4 Encoder, and then click the Submit button to display the following window.



Figure 6-4 Select Internet Connection

4. Select the type of Internet Connection you're using. Modem users are limited to Single Window, while broadband users have the option of 2 Windows or Multi View. For this demo, select Single Window, and then click the Submit button.
5. Your IE browser starts loading the MPEG4 Encoder interface. When the loading is completed,

click the Connect button and input a valid user ID and password. To set up an ID and a password, see *Setting up Password* on page 40 for details.



6. If the Enhanced Security option was selected in WebCam Options (see figure 6-2), you will be prompted to enter a security code. In the following example, enter *r5dfsw*, and then click OK. If the connection is established, you will see video streaming in the MPEG4 Encoder Viewer.



Single View MPEG 4 Encoder Viewer

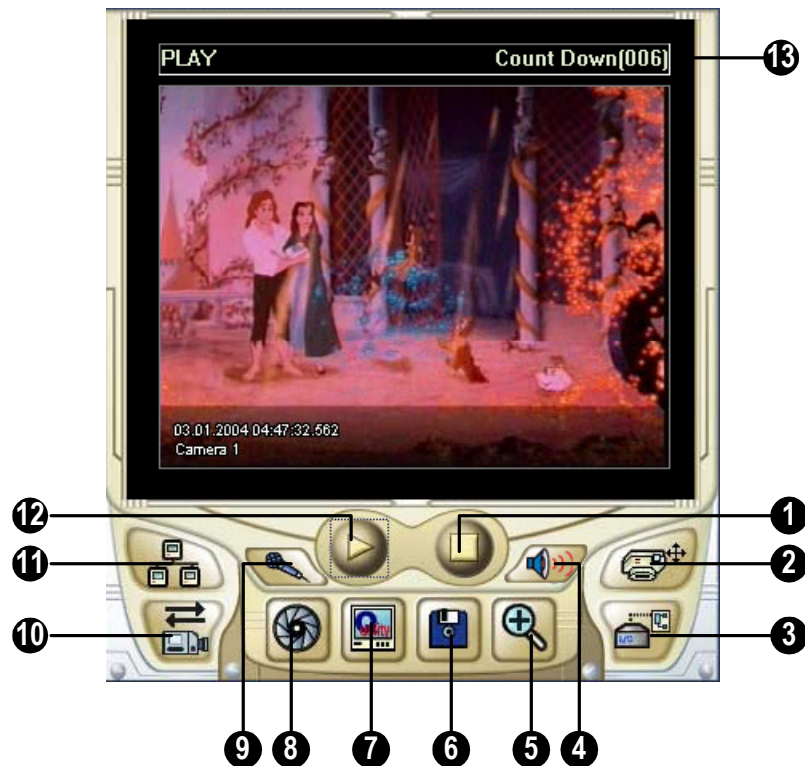


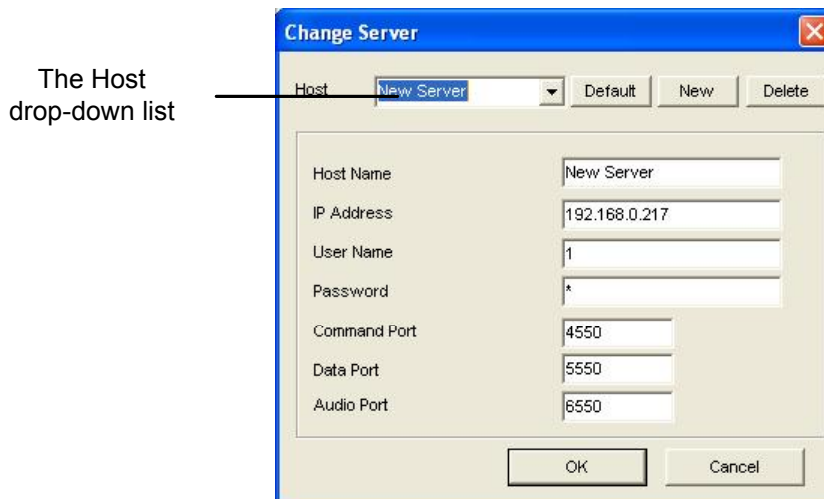
Figure 6-5 Single View MPEG4 Encoder Viewer

The buttons in the Single View Viewer:

Name	Description
1 Disconnect Button	Click to terminate connection from GV Server
2 PTZ Button	Click to bring out the PTZ control panel
3 I/O Control Button	Click to bring out I/O control panel
4 Speaker Button	Click to listen to live audio of the server site
5 Full Screen	Click to switch to full screen view. Click [Esc] to switch back
6 File Save	Click to save live video in client PC's HDD
7 Change Quality	Click to adjust video quality in 4 levels
8 Snapshot	Click to take a snapshot from the displayed live video
9 Microphone Button	Click to speak to the server site
10 Camera Select	Click to select different camera to be displayed in monitoring window.
11 Change Server	Click for the options of Change Server, Alarm Notify and Data Rate Configure.
12 Connect	Click to connect to GV Server.
13 Time Remaining	A countdown timer that shows the remaining time of your usage

Administrating Host Server

This option allows you to add, edit, and remove a GV Server from the Host drop-down list. The drop-down list is used to switch the connection to a different GV Server listed inside. Click the Change Server button to display the following Change Server dialog box.



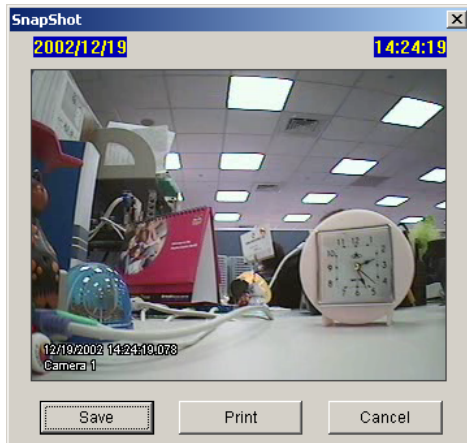
[Adding Host Server] To add a host server to the drop-down list, click the New button. In Host Name field, input a name to identify the designated GV Server. Input the IP address or domain name of the GV Server. Input a valid user name and password with privilege to use this function. Leave all port settings as defaults at 4550, 5550, and 6550 respectively unless otherwise necessary. Click the OK button. Then the created GV Server will appear in the drop-down list with the given ID name.

[Editing Host Server] Select the GV Server you wish to edit from the Host drop-down list. All information of the selected server will be displayed. Change the information in the fields as required and click the OK button. Then the information is updated and connection is switched to the edited GV Server.

[Removing Host Server] Select the GV Server you wish to remove from the Host drop-down list, and then click the Delete button to remove it.

Taking a Snapshot from a Live Video

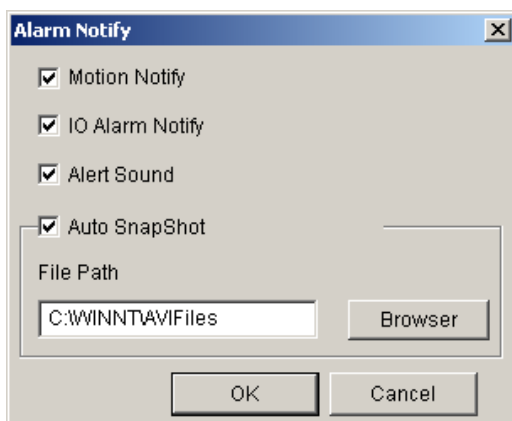
Click the Snapshot button to display the following Snapshot window. Click the Print button to print out the displayed image. Or click the Save button to save this image in a client PC.



Pop-up Setup

The Single View MPEG4 Encoder Viewer can be set to pop up as soon as motion is detected or I/O devices are triggered. To enable the function, follow the steps below.

1. Click the Change Server button, and then select Alarm Notify to display the following dialog box.



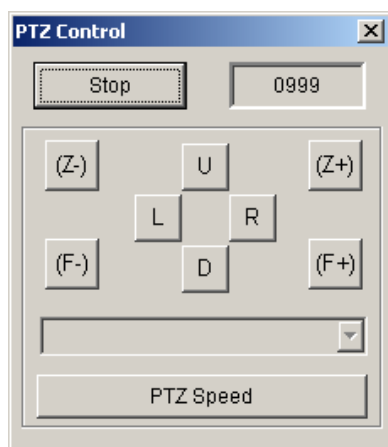
- **Motion Notify:** The Viewer will pop up as soon as motion is detected.
 - **I/O Alarm Notify:** The Viewer will pop up as soon as I/O devices are triggered.
 - **Alert Sound:** Enable the computer noise alarm on motion and alarm activation.
 - **Auto Snapshot:** The program will take a snapshot every 5 seconds on motion and alarm activation.
 - **File Path:** Assign a path to save the snapshots.
2. Click OK to apply the above settings.
 3. Minimize your IE browser to test the pop-up function.

Saving Files to Play Back at Third-Party Viewers

Click the File Save button to save video file in the client PC's HDD. Files saved in *.avi format are playable at third party viewers.

PTZ Control

Click the Camera Select button to select one PTZ camera, and then click the PTZ Control button to bring up the PTZ control panel.



One PTZ camera only allows one user to control at a time. If several users are trying to control the same PTZ camera at the same time, the Single View viewer will give the priority to the first login user and then to the next user in queue. Each user will be given 60 seconds to control the PTZ camera. The Timer at the upper right corner serves two meanings: the remaining time of your control or the total waiting time.

The supervisor is given the highest priority to control the PTZ camera and won't be restrained by 60-second time limit. When the supervisor logs in WebCam, the Timer will show up 999.

The PTZ Speed button in the lower part allows you to configure the speed of a PTZ camera up to five levels.

Output Control

Click on the I/O control button to bring out the I/O control panel. The I/O control panel allows you to review the alarm status of the connected GV-System and to initiate its relay output device. The alarm status is display in a 3 levels file tree. The first level indicates date, second indicates time, and the third indicates alarm ID. Click the Reset button will clear the alarm list.



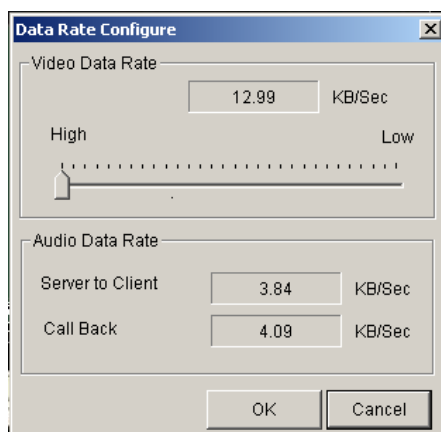
To initiate output device, use the Module drop-down list to select module and use the Pin Name drop-down list to select output pin. Click the Force Output button will initiate device connected to the selected output pin. The Timer serves same meaning as in the PTZ control panel. Each user will be given 60 seconds of control time. Click the Stop button will stops the operation and turn over the control privilege to the next user waiting online.

Two Way Audio

To make two way audio possible, both hardware and software must be properly set up and installed. For the instructions on setup and installation, refer to *Audio Setup* on page 117. Click the Speaker button to listen to the audio from the server site, and click the Microphone button to speak to the server site. See figure 6-3 for button 4 and 9. When both buttons are enabled, you can perform two-way communication between the client PC and the server site.

Data Rate Configuration

When sounds seem pause or break up, you can configure Data Rate to improve the situation. Click the Change Server button and select Data Rate Configure to display the following window. Moving the slide bar to the Low direction will decrease the frame rate but increase the audio performance; moving the slide bar to the High direction will increase the frame rate but decrease the audio performance.

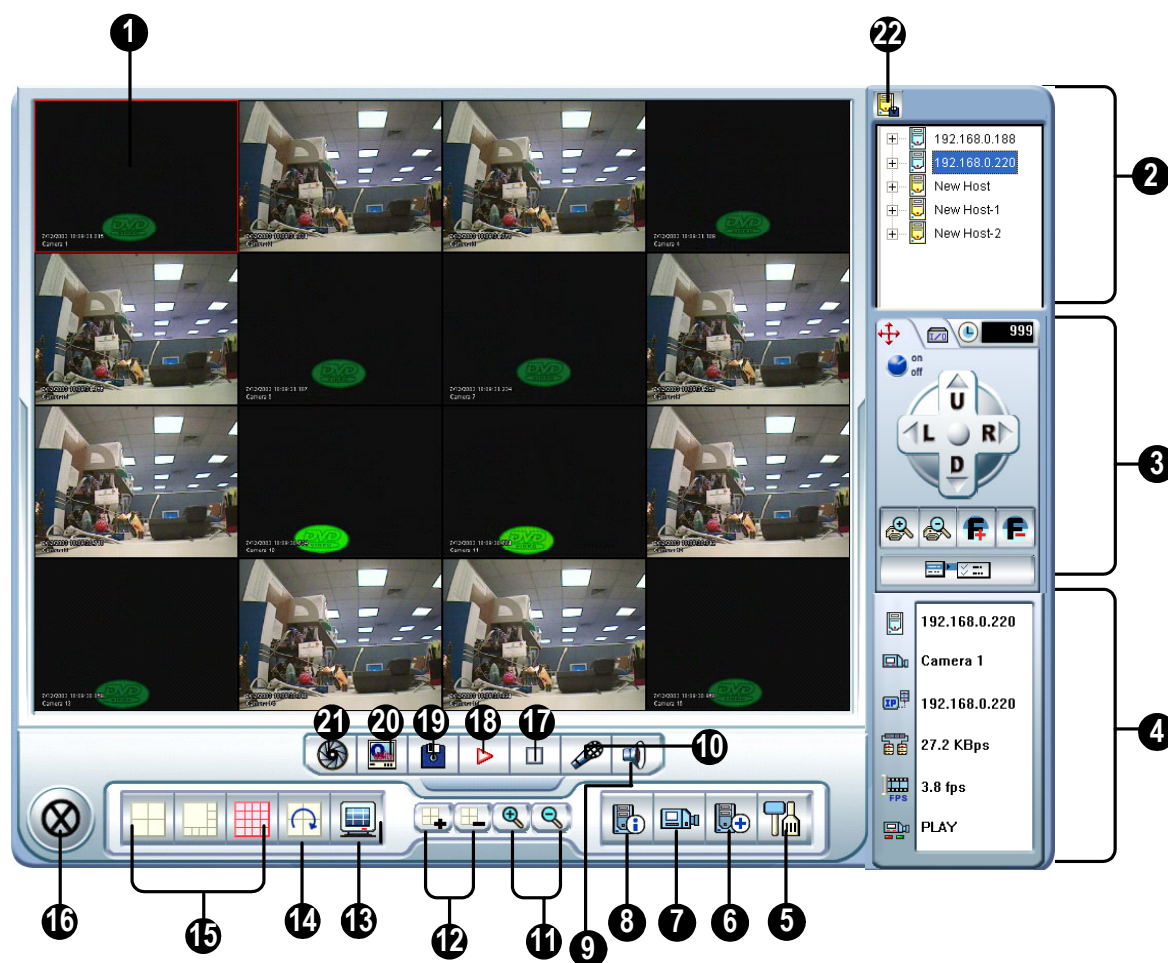


Multi View MPEG 4 Encoder Viewer

Multi View is a multi-channel MPEG4 Encoder Viewer, allowing users to view 4, 8, and 16 live cameras simultaneously. Because video streams from multiple channels require a large amount of data to be transferred over Internet, this function is limited to broadband users only.

To start Multi View, follow these steps:

1. Follow the instructions in the section of *Starting WebCam at the Client PC* on page 118 until the Select Internet Connection window appears.
2. Select DSL/CABLE/T-1, choose Multi View, and then click the Submit button. First time users will be prompted to install the Multi View applications. Select Yes, and then follow the instructions to complete the installation.
3. When the Login dialog box appears, enter a valid user ID and password, and then click OK to display the following Multi View window.



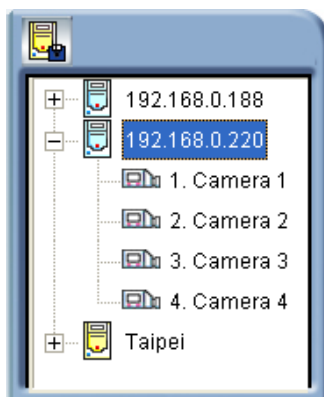
The controls in the Multi View viewer:

	Name	Description
1	Monitoring Window	Displays live videos of a camera
2	Host Server Window	Displays all available servers and its camera channels
3	PTZ & I/O Control Panel	Controls PTZ and output devices
4	Channel Status	Shows the current status of the selected channel
5	Configure	Click to access the Multiview setup
6	Edit Host	Click to create a quick connection to an additional server
7	Camera Status	Click to view the general information of the connected camera
8	Host Information	Click to view the general information of the connected server
9	Speaker Button	Click to speak to the server site
10	Microphone Button	Click to listen to server site's live audio
11	Zoom-in and Zoom-out	Click to zoom-in or zoom-out the selected camera
12	Add/Remove Channel	Click to add or delete camera channels for camera polling.
13	Full Screen	Click to switch to full screen view
14	Camera Polling	Click to randomly scan selected cameras
15	Screen Division	Selects 4, 8, or 16 screen division mode
16	Exit/Minimize	Click to exit or minimize Multi View System
17	Disconnect	Click to terminate the connection to a GV Server
18	Connect	Click to establish the connection from a GV Server
19	Save	Click to save the live video of one camera
20	Quality	Click to change the video resolution
21	Snapshot	Click to take a snapshot of one camera view
22	Save Camera to Multiple Host	Click to save the selected camera channels to create a multiple host.

Working With the Host Server Window

The Host Server Window displays a list of available GV Servers. The server icon is used for identifying each available server and camera icon is used for identifying all cameras within the selected server. To connect to a server site, use the mouse left button to select a Monitoring Window, which will be highlighted in red frame. Click on a camera icon and its corresponding video will be loaded to the selected Monitoring Window.

First time users will only see one server icon as no additional servers are created yet. For the description of adding new servers to the Host Server Window, refer to *Create a Quick Connection to a Host Server* on page 130.



Saving Files to Play Back at Third-Party Viewers

The feature lets you save the live video in a client PC. The file in .avi format is playable at the third party viewer. Click a desired camera screen, and then click the Save button to start recording.

When the recording is in progress, the frame of the camera screen will flash in red and yellow.

Clicking Save again can stop the recording.

Taking a Snapshot from a Live Video

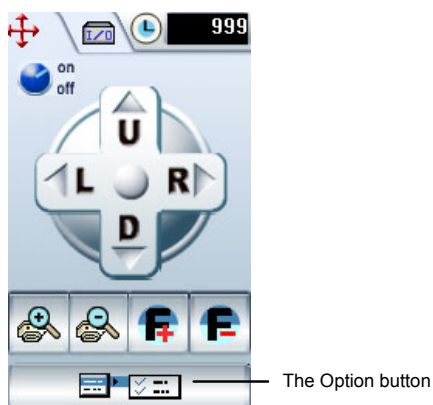
Click a desired camera screen, and then click the Snapshot button to take a snapshot of the live video.

PTZ Control

Choose a PTZ capable camera from the Monitoring Window or the Host Server Window. Turn the blue switch to the ON position, and then use the directional, zoom-in, zoom-out, focus-in, focus-out buttons to control the PTZ camera. The Timer at the upper right corner has the same functions as the one found in the Single View MPEG4 Encoder Viewer.

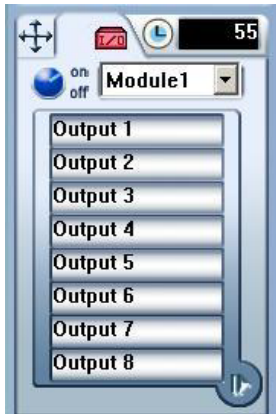
The supervisor is given the highest priority to control PTZ on Multi View and won't be restrained by 60-second time limit. When the supervisor logs in Multi View, the Timer will show up 999.

The Option button lets you direct the PTZ camera to a preset position and configure the speed of the PTZ camera up to five levels.



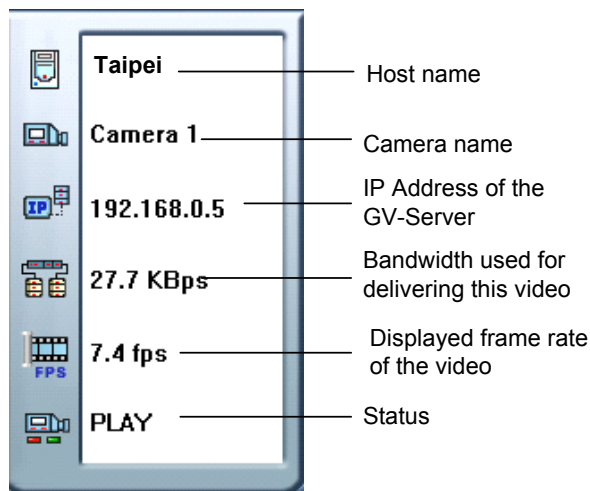
Output Control

Click the I/O tab, turn the blue switch to ON position, then choose a module from the drop down menu. Each module provides 4~16 connected relay output devices. Click on the Output (x) buttons to initiate the output device.



Channel Status Information

When choosing a camera from the Host Server Window or the Monitoring Window, the general information of the selected camera will be displayed in the Channel Status Window as shown below.



Camera Polling Function

To add one camera channel to the camera-polling group, click the Add Channel button and then left click its Monitoring Window. The selected channel will be framed in red color. When you click the Camera Polling Scan button, the applications will rotate each selected cameras in the specified time. (To configure the polling time, see *Mult View Configuration* on page130.) To remove one camera channel from the polling group, click the Remove Channel button and then left click its Monitoring Window.

Two Way Audio

The two way audio in Multi Views functions similarly to the one found in Single View MPEG4 Encoder Viewer. See page 83 for further details.

Multi View Configuration

Click the Configure button and the following window will appear. This window allows you to set up the following five functions.

The screenshot shows a configuration window with the following settings:

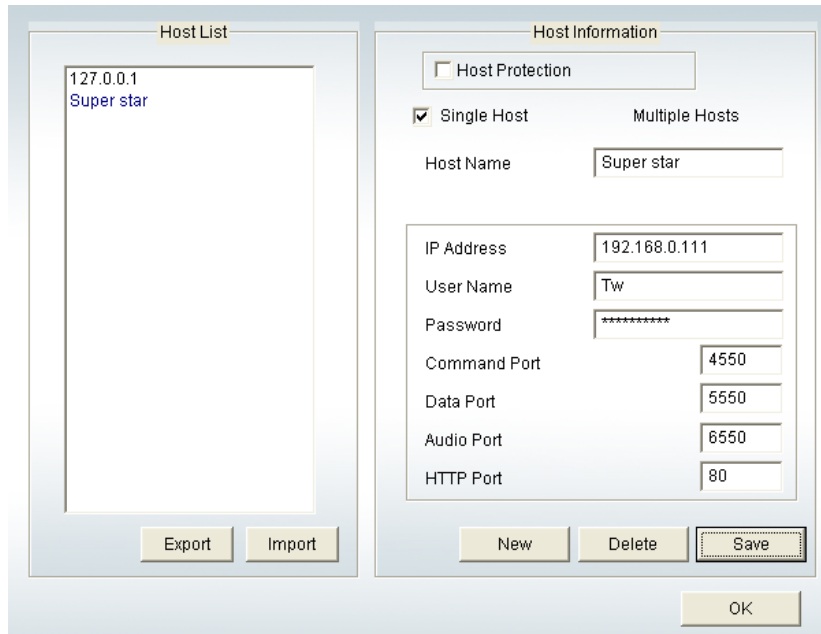
- Startup:** Initial Screen is set to 4. Division is set to Default.
- Video Polling:** Polling time is set to 1. Sec is set to Default.
- Server Status:** Server Status Refresh Time is set to Never. Minute is set to Default.
- Camera Status:** Camera Status Refresh Time is set to Never. Minute is set to Default.
- Save:** File Path is set to C:\Program Files\w61001DMMultiView\AviFiles. Browse button is available.

An OK button is located at the bottom right of the window.

- **Initial Screen:** Select screen divisions at startup.
- **Polling Time:** Specify the camera polling time from 1 to 60 seconds.
- **Server Status Refresh Time:** Specify the refresh time to update Host Information.
- **Camera Status Refresh Time:** Specify the refresh time to update Camera Information.
- **File Path:** Specify a path to save the recording file.

Creating a Quick Connection to a Host Server

To create a quick connection to a new host server, click the Edit Host button to display the following window .



[Host List] When a host server is created, it will appear in the Host List section at the left side. Each server can be identified by its given host name. Click on the host name and its information will be displayed in the Host Information section.

[Adding Host Server] Click the New button and all fields in the window will be cleared. In the Host Name field, input a name to identify the designated GV Server. Input the IP address or domain name of the GV Server. Input a valid user name and passwords with privilege to use this function. Leave all port configuration as defaults at 4550, 5550, 6550, and 80 respectively unless otherwise necessary. Click the Save button, and then the GV Server will appear in the Host List section with the given ID name.

[Editing Host Server] Select the GV Server you wish to edit in the Host List section. All information of the selected server will be displayed in the Host Information section. Change the information as required and click the Save button.

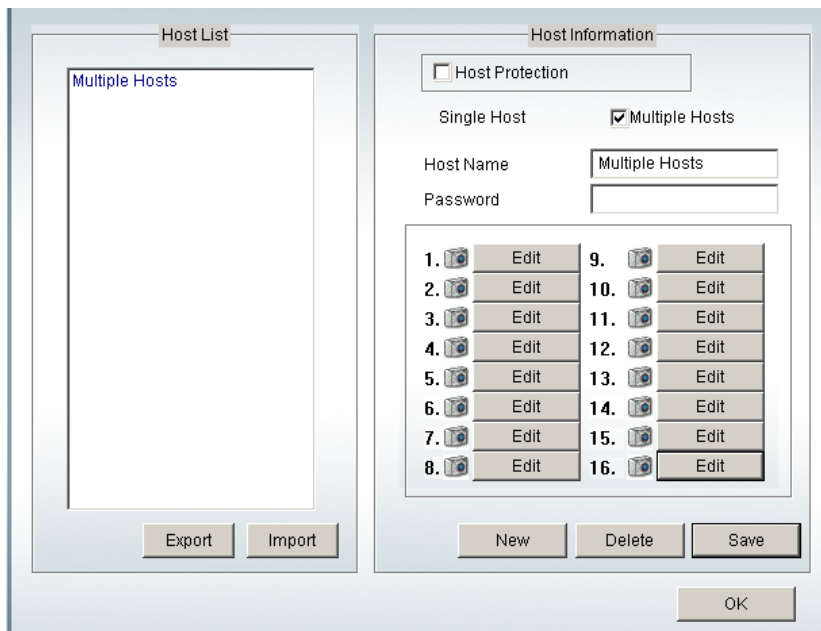
[Removing Host Server] Select the GV Server you wish to remove from the Host List section, and click the Delete button.

Creating a Multiple Host

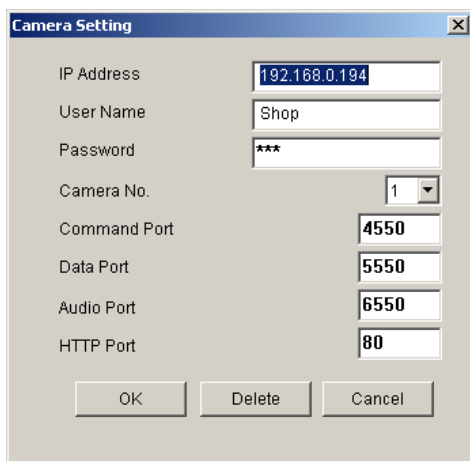
The feature lets you create a multiple host including the camera channels all from different IP addresses. There are two methods to create a multiple host: one is the manual creation of a multiple host; the other is the quick creation of a multiple host.

Manual Creation of a Multiple Host

1. Click the Edit Host button to display the Host Information window, and then click the New button to create a new host.
2. Click the check box of Multiple Hosts to display the following window.



3. In the Host Name field, enter a desired name to identify the multiple host.
4. To set up each camera channel of the multiple host, click the Edit tab one at a time. When you click Edit, the following window will be called up.



5. Enter the IP address, user name and password of a remote host.
6. In the Camera No. drop-down list, select one desired camera channel from the remote host.
7. Let the port settings match those of the remote host, or keep them as defaults
8. Click OK to apply the camera channel.

The icon of the created multiple host in the Host Server window is yellow, while others are blue.

Quick Creation of a Multiple Host

1. Click on a desired monitoring window, which will be highlighted in the red frame.
2. Double click a desired camera channel from the Host Server window. The selected channel then displays in the highlighted monitoring window.
3. Repeat the step 1 and 2 to configure other monitoring windows for different camera channels.
4. Click the Save Camera to Multiple Host button in the upper left part of the Host Server window to create the multiple host.

Camera Status

To show the camera status of the selected GV server, click the Camera Status button to display the following window. “Camera ON” indicates the camera is active. “No Privilege” means you’re not authorized to view this camera. Clicking the View button will bring up a small window displaying the selected camera’s video. Clicking the Refresh button will refresh the information in this window.

The screenshot shows a software interface with two main sections. The top section, titled 'Host Information', contains three input fields: 'Host Name' with the value '2.dipmap.com', 'IP Address' with the value '2.dipmap.com', and 'User Name' with the value '1'. The bottom section, titled 'Camera Status', features a 'Refresh' button at the top right and an 'OK' button at the bottom right. Between these buttons is a table listing 16 cameras. Each row in the table includes a camera icon, the camera name (Camera 1 through Camera 16), its status (all are 'Camera ON'), and a 'View' button.

Host Name	IP Address	User Name
2.dipmap.com	2.dipmap.com	1

Camera	Status	Action
Camera 1	Camera ON	View
Camera 2	Camera ON	View
Camera 3	Camera ON	View
Camera 4	Camera ON	View
Camera 5	Camera ON	View
Camera 6	Camera ON	View
Camera 7	Camera ON	View
Camera 8	Camera ON	View
Camera 9	Camera ON	View
Camera 10	Camera ON	View
Camera 11	Camera ON	View
Camera 12	Camera ON	View
Camera 13	Camera ON	View
Camera 14	Camera ON	View
Camera 15	Camera ON	View
Camera 16	Camera ON	View

Host Information

Click the Host Information button to display the following window. The Host Information window contains the following three categories. Use the control tabs to toggle among them.

The screenshot displays a web interface with a light blue background. At the top, there is a 'Host Informations' section with a table containing the following data:

Host Informations	
Host Name	192.168.0.5
IP Address	192.168.0.5
User Name	1

Below this is a tabbed interface with three tabs: 'Alarm List', 'Host Informations', and 'Log List'. The 'Host Informations' tab is selected. It contains two text areas:

Host Informations

Server Update : 2004/07/13 10:12:49
Recycle Log : 2004/07/09 11:45
Camera On : 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
Camera Off : None
Camera Signal Lost : None
IO Device : Normal

Web Informations

WebCam Update time : 2004/07/13 10:13:14
WebCam Server Startup Time : 2004/07/13 10:09:14
Mpeg4 Current Channel(s) : 16
RPB Current Channel(s) : 0
Audio Current Channel(s) : 0
WebCam Version : WebCam 6.1.0.0 beta

An 'OK' button is located at the bottom right of the interface.

[Alarm List] Displays a list of alarm events occurred in the selected GV server. Clicking the reset button will clear the listed events. New events will be generated until the alarms of the local site are invoked.

[Host Information] The upper section shows the general information of the connected GV Server. The lower section shows the number of MPEG4, RPB, and audio channels currently serving over the Internet.

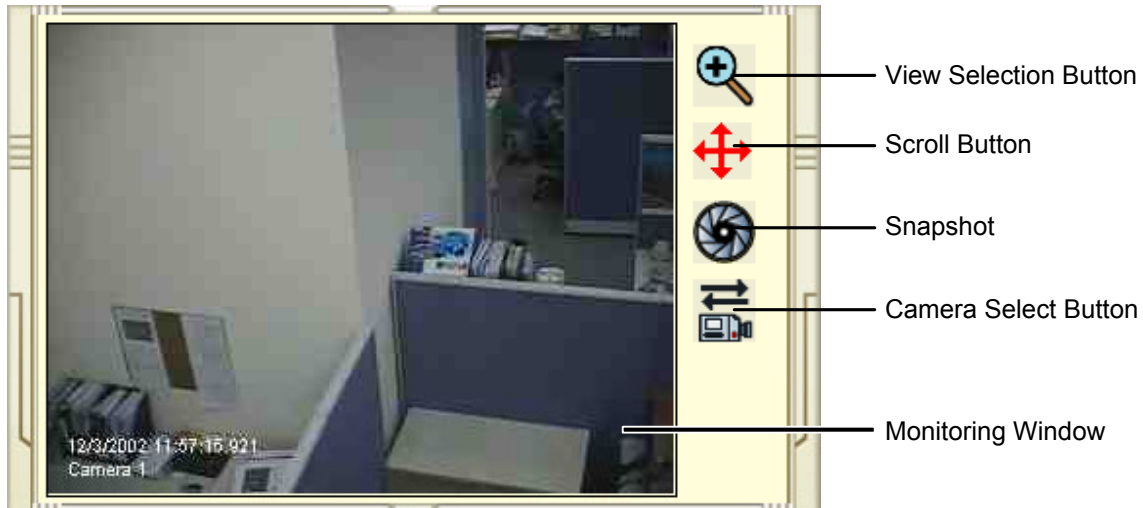
[Log List] Displays a history of login and logout information.

JPEG Image Viewer

JPEG Image Viewer is a cross-platform viewer, practicable on Mac OS, Netscape, and Microsoft IE browsers. Continuously receiving JPEG images from GV-system and limited to the single camera view, the viewer is an ideal tool for the users with limited Internet bandwidth. For this application, the option of Create JPEG/GIF File(s) in GV-System must be enabled (see figure 6-1 on page 114), while the option of Enhanced Security must be disabled (See figure 6-2 on page 119).

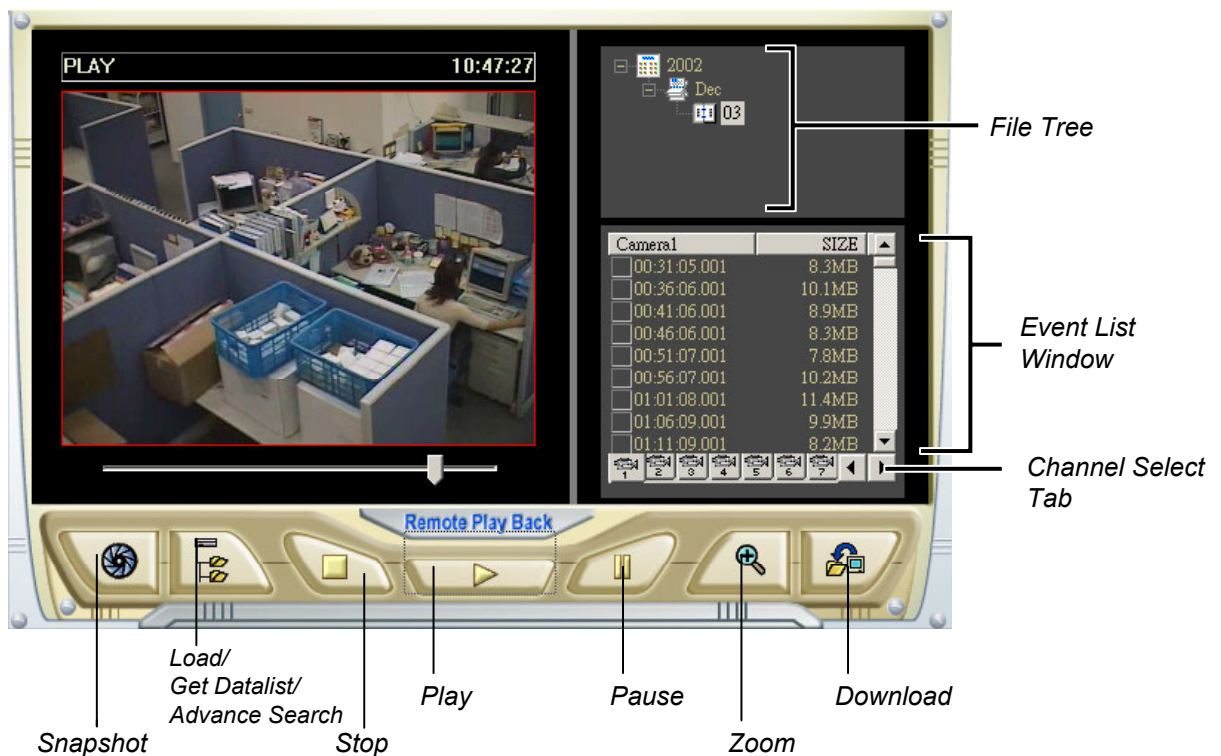
To start the JPEG Image Viewer, follow these steps:

1. Open an Internet browser from a client PC.
2. Enter the IP address or domain name of the GV-System to display the WebCam Compression Selection window. See figure 6-3 on page 119.
3. Select JPEG Image Viewer, and then click Submit. A valid ID and password are required.
4. The following JPEG Image Viewer window appears.



Remote Playback on WebCam

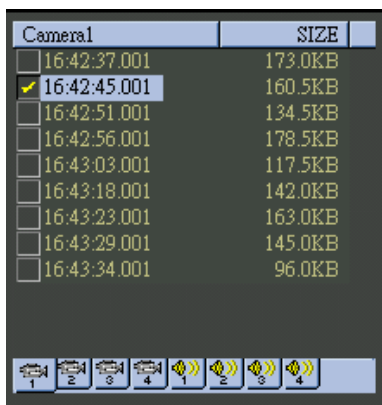
The WebCam's Remote Playback (RPB) is a web-based application, allowing you to play back recorded video or audio files of the connected GV-System. To start WebCam's RPB, repeat the procedures on page 118 until the WebCam Compression Selection window appears (see figure 6-3). Select Remote Playback, and then click the Submit button to display the following RPB window. Click the Play button to log in the application. A valid ID and password are required here.



Searching and Playing Back Recorded Files

The WebCam RPB system allows you to play back video and audio files. Audio files are only available when your system is equipped with the optional audio recording function.

1. Click the Get Data List button to load the recorded data from the GV-System.
2. Select a date in the file tree.
3. All video files recorded within the selected date will be listed in the Event List window, shown as below.



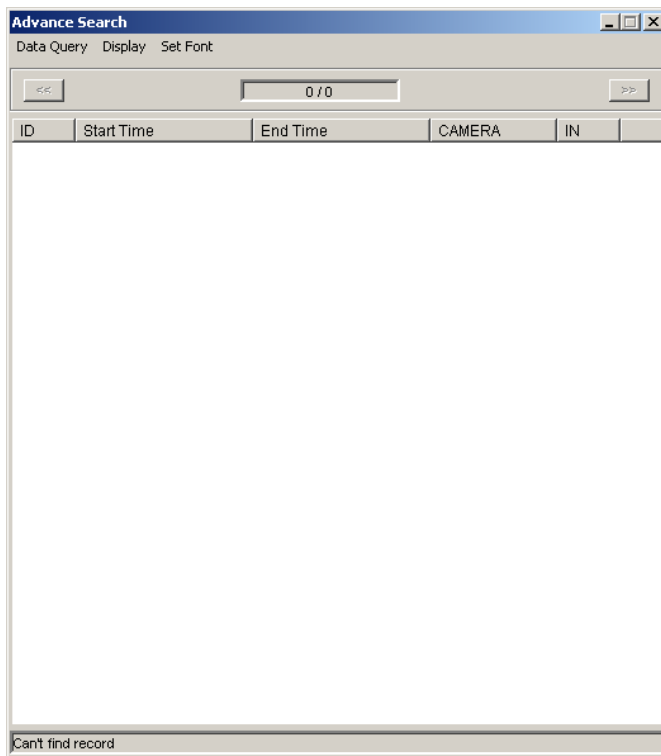
Camera1	SIZE
<input type="checkbox"/> 16:42:37.001	173.0KB
<input checked="" type="checkbox"/> 16:42:45.001	160.5KB
<input type="checkbox"/> 16:42:51.001	134.5KB
<input type="checkbox"/> 16:42:56.001	178.5KB
<input type="checkbox"/> 16:43:03.001	117.5KB
<input type="checkbox"/> 16:43:18.001	142.0KB
<input type="checkbox"/> 16:43:23.001	163.0KB
<input type="checkbox"/> 16:43:29.001	145.0KB
<input type="checkbox"/> 16:43:34.001	96.0KB

4. Select one camera or audio channel from the Channel Select tabs in the lower part of the window.
5. Select one video file from the List , and then click the Play button to play it.

Notice that selected audio file can only be downloaded to a client PC, but not play back on the RBP window.

Advanced Search

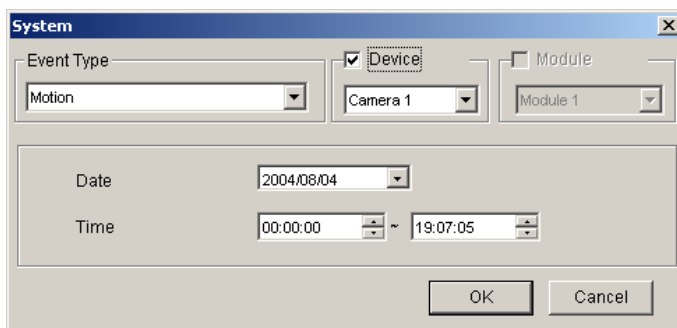
The advanced search function, in Remote Playback of the WebCam applications, lets you easily locate an event by search criteria. The search results can be displayed in a text form and/or a statistic chart. Click the GetDataList button and select Advance Search to open the following advanced search window.



[Data Query] To locate an event, click Data Query on the menu bar. The selections included inside are: Monitor, System, Login, Counter and POS. The five categories are based on those of System Log in the main system (refer to page 47), so that you can locate any event type recorded in System Log.

- **Monitor/System/Login/Counter:** The four selections let you locate an event about monitoring, system, login/logout and counter status. The dialog boxes of the four selections are similar, so we take Monitor as an example below.

Click Data Query on the menu bar, and select Monitor to display the following window. Define your search condition in each field, and click OK to start searching.



- **POS:** The selection lets you locate a desired POS transaction event. Click Data Query on the menu bar and select POS to display the following window.

POS

Date: 2004/07/13

Time: 00:00:00 ~ 13:43:19

Event Type: All

Device: POS 4

☒ Condition 1

Content = coke

☒ Condition 2

Value >= 1

☒ Condition 3

Value <= 99

☒ Statistic

Value ☒ Sum ☐ Average

OK Cancel

Restrict your search to a certain date, time, event type, POS system, transaction item (content), and price amount (value). Then click OK to start searching. For this example, we like to search all the transaction types related to Coke, registered in the device POS 4, from 00:00:00 to 13:43:19 on 2004/07/13. Its price amount may be *greater than or equal to* (\geq) 1 and *less than or equal to* (\leq) 99.

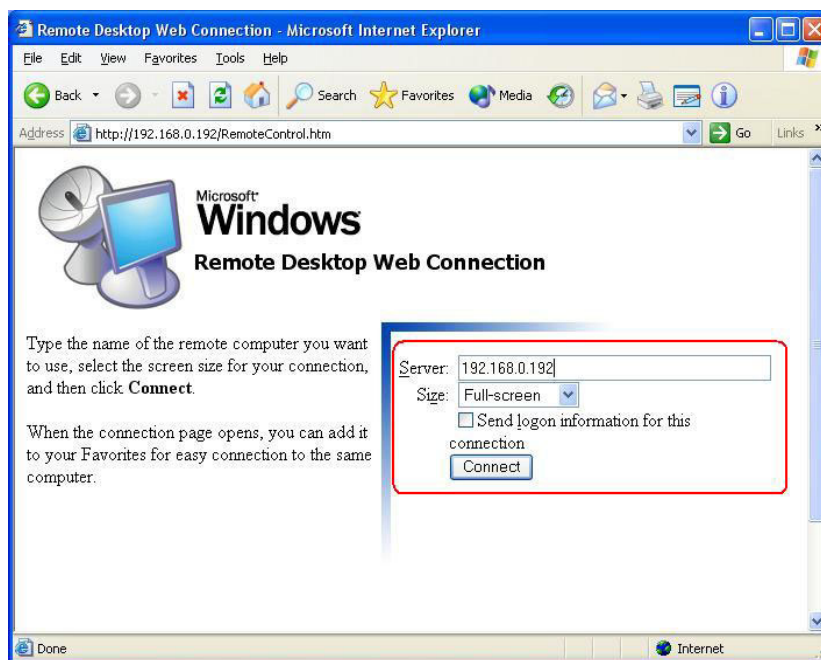
If we select the Statistic option and click OK here, we will get the sum or the average price of all the discovered transaction events, not a list of these events.

[Display] This option on the menu bar lets you choose which way to display search results: a text form or a statistic chart.

Remote Control Using Remote Desktop

The WebCam Remote Control function is based on Microsoft's Remote Desktop platform. To begin using WebCam remote control feature, your GV-System must be run on Windows XP Professional with Microsoft Remote Desktop properly setup. The client PC can be Windows XP, Windows 2000, or Windows Server 2003.

To use Remote Control, repeat the procedure on page 118 until the WebCam Compression Selection window appears (see figure 6-3). Select Remote Control and then click the Submit button to bring up the following screen. Input IP address or domain name of the GV-System you wish to control and click the Connect button.



When Windows prompt you for user name and passwords, enter a valid Remote Desktop user name and passwords then press OK. If logging in successfully, you will see the desktop of the GV-System you're controlling.

Note:

1. For this function, the Enable Directdraw Overlay option in the main system must be disabled.
2. If you are using the DSP card, it won't support this function.

Remote Viewing with PDA

G-View is a remote view application for Pocket PC device. It can run on PDA using Windows CE or Microsoft Pocket PC operating system.

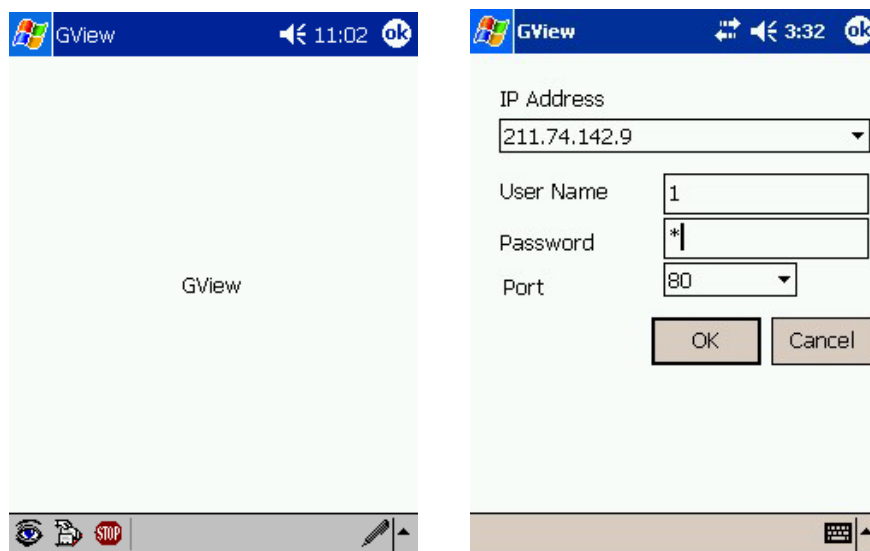
G-View Installation

G-View is included in your GV-System CD-ROM. This application should be installed in a PDA device with Microsoft Pocket PC operating system.

1. Plug your PDA via USB or Com port to a PC installed with Microsoft ActiveSync.
2. Run Microsoft ActiveSync in the connected PC and make sure both the PDA and PC are synchronized.
3. Insert GV-System CD into the CD-ROM drive of the PC and run Setup.exe in the CD-ROM root directory.
4. In the setup dialog box select “PDA Viewer for WinCE” and click Next.
5. Click Brows if you wish to specify another destination directory otherwise click Next and follow the rest of the instruction to complete the installation.

Connecting G-View to GV Server

Once G-View is installed into your PDA device you will be able to use it to monitor GV-System’s video. Make sure your PDA has wireless LAN adapter properly in place with access to the Internet.



1. Click the G-View icon in your PDA to start G-View application.
2. Click the Connect button located at the lower left corner to bring up the Login screen.
3. Input the IP address of the GV-System you wish to connect to in the “IP Address” column; enter a valid user’s ID and password then click the OK button.
4. If logging in successfully, you will see videos streaming to your PDA.

5. The Stop button will exit G-View application.

Functions of G-View Application

The major function of G-View includes live video monitoring, PTZ control, zooming control, and snapshot.

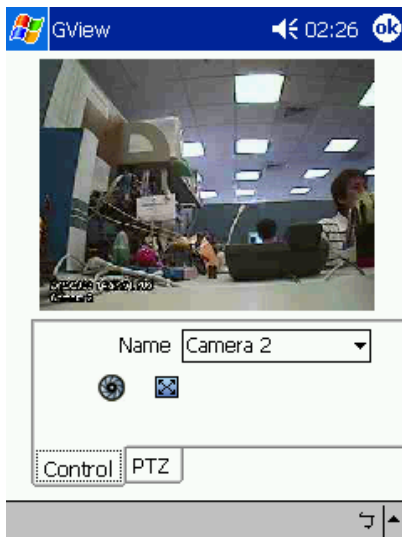


Figure 6-6 View Screen

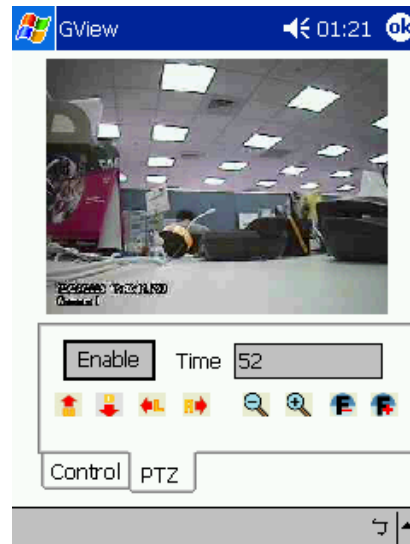
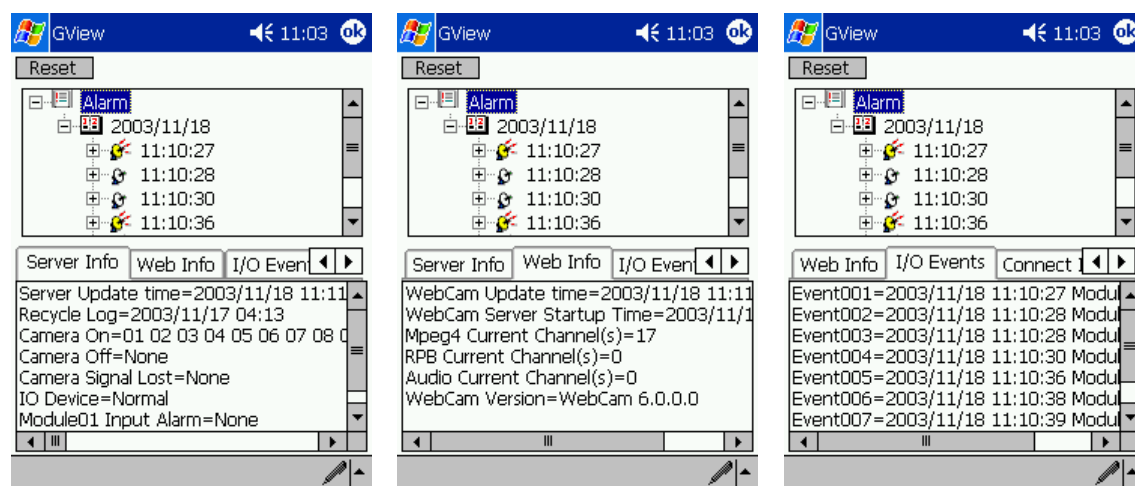


Figure 6-7 PTZ Screen

Buttons	Description
	Click to take a snapshot from the video clip.
	Use this drop-down list to switch cameras.
	Use these buttons for focus-in and focus-out control
	Use [+] and [-] button for zoom-in and zoom-out control.
	Use these buttons to control left, up, down, and right of the PTZ camera.
	Click to switch to a full-screen view.

Using G-View to view GV Server Information

Click on the Server Information button to bring up Server Info screen, which contains the following four categories of information; you may use the control tab to toggle between them.



[Server Info] Displays general information of the connected server. Information in this section includes: Server update time, last data recycle date and time, which cameras are online, which cameras are off line, which camera lost video signals, the status of the connected I/O device, and connected I/O module's alarm status.

[Web Info] Display information of the connected WebCam server. Information in this section includes: WebCam update time, WebCam server start time, how many MPEG4, RPB, and audio streaming channels are currently serving over the Internet, and the software version of the WebCam.

[I/O Event] Displays a list of alarm events occurred in the selected GV Server. The alarm status is displayed in a 3 levels file tree in the upper section of the screen. Click Reset will clear the list.

[Connect Info] Displays a history of login and logout information.

Remote Viewing with i-Mode

Currently, i-Mode services are only available in Japan and Taiwan. When using i-Mode services, you do not pay for the time you connected online, but will be charged by the volume of data transmitted and/or received. Therefore, i-Mode will not receive live video streams, instead, it will only receive one image at a time and will not receive another unless it is requested to do so. To request another image, simply press the Enter key on your i-Mode phone. The images are in GIF or JPEG format with resolution of 96x72 pixels.

Activating i-Mode function

From your GV-System's main screen, click the Network button, select WebCam Server, and check the Create JPEG/GIF file(s) item as shown in figure 6-1. Your GV-System must use a global IP address and be accessible from the Internet.

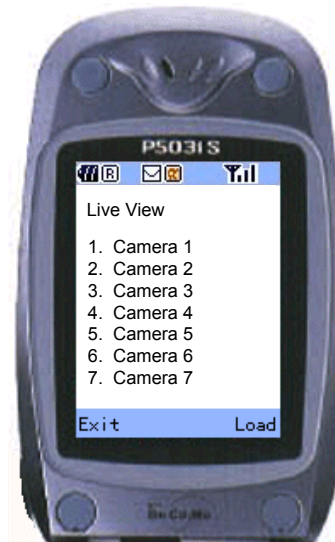
Connecting to GV-System

After activating the i-Mode function, you can now receive live images from the GV-System via an i-Mode mobile phone. The interface and operation of your i-Mode phone may be different from the following example since the interfaces may vary from model to model.

1. Enter to the i-Mode service page of your i-Mode phone.
2. Select Input Web Address, enter the IP address of your GV-System in the Address column, and then press OK.



3. Input a valid user name and password, and then press Submit.



4. Select the desired camera channel, and then press Enter.
5. If you log in successfully, the i-Mode phone will start receiving live images from the GV-System.

