

# Streamproducer

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## User's Guide



# Welcome to Streamproducer

Welcome to Streamproducer, the software that lets you record and playback MPEG-4 files from up to four GY-DV300U/KA-DV300U or GY-DV5000U/KA-DV5000U cameras/network packs on a PC. Streamproducer provides hot switching of four cameras or MPEG-4 files and its output may be viewed in real-time by a maximum of ten clients via a LAN. Streamproducer enables you to employ these operations on PC easily.

For details on the GY-DV300U/KA-DV300 or GY-DV5000U/KA-DV5000, please read the respective manuals.

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The Agreement shall be governed by and interpreted under the laws of Japan. The Tokyo District Court has jurisdiction over all disputes which may arise with respect to the execution, interpretation and performance of this Agreement.

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# 1. Introduction

Streamproducer 2.0, is JVC's complete streaming software that allows you to stream in a local network or to the Internet from any one of up to four sources. These sources can be any combination of MPEG-4 movie files or JVC's Streamcorder cameras, the GY-DV300/KA-DV300 or the GY-DV5000/KA-DV5000. In addition, Streamproducer will also support future products from JVC, such as cameras, VTRs, etc.

Streamproducer allows you to monitor live the video from up to four sources, as well as the video that is being cast to the Internet. When casting, you can switch between the four sources by simply pointing and clicking with your mouse.

Streamproducer also allows you to capture the MPEG-4 stream, (record to disk) from any or all of the video sources independently, as well as saving the cast video stream.

## 1.1 What is 'Casting' or 'Streaming'?

First of all, casting and streaming are synonymous; they both mean the same thing and these terms will be used interchangeably throughout this manual. So, what is streaming? Video streaming implies the continuous delivery of video & audio in a single direction, from sender to receiver. Streamproducer is a publishing point; it receives MPEG-4 streams generated by any one of up to four sources, such as the GY-DV300 or GY-DV5000 cameras and casts (sends) Microsoft compatible ASF MPEG-4 streams to up to ten media players (receivers) anywhere in the world, through a LAN or the Internet.

Also by nature, streaming implies a high degree of compression so that many users can share the bandwidth. With Streaming, the quality is proportional to the bit rate...and the bit-rate is what makes streaming so desirable. Streaming is content delivery to the masses!

## 1.2 Streamproducer Version Comparison

### StreamProducer Comparison chart

ITEM	Ver.2.0	ver.1.1
Player Component	Directshow custom	WMP6.4
Delay time	2 sec	17 sec
Number of windows	variable from 1 to 4	fixed 4
casting stop function	available	not possible
Switch casting in the middle of the file	available	not possible
Casting Monitor Window	real client monitor	just a picture monitor
Time lag when switch casting source	short same profile	uncertain
Number of clients	10	10
Playable file	exclusive KA-DVxxx file	Any .asf, .wmv
Client type	WMP 7.1, 8	WMP 6, 7.1, 8

## 2. System Requirements

Streamproducer requires the following minimum system requirements for proper operation.

### Minimum requirements

#### Hardware

<b>CPU</b>	Pentium III (or equivalent) 700MHz or faster
<b>Memory</b>	128MB minimum
<b>Display</b>	XGA ( 1024 x 768 ) or better
<b>Hard disk</b>	50MB for install. 25MB space for capturing one hour using highest video compression -- 200MB space for capturing one hour using lowest video compression. 0 MB if not capturing
<b>Network</b>	- One LAN system for connect to KA-DV300 or KA-DV5000 Network Pack. - Internet connection to load the CODEC program for video playback. - Other network connection for casting on internet.
<b>Sound card</b>	SoundBlaster supporting Direct X or SoundBlaster compatible is working normally.
<b>CD-ROM drive</b>	Necessary for install

#### Software

<b>OS</b>	Windows XP Home or Professional Edition Windows 2000 Professional
<b>Other</b>	DirectX 8.1 ( DirectX 8.1 is installed with Streamproducer automatically )

The above minimum requirements will provide satisfactory operation when used under the following conditions:

1. Connecting to only one camera or playback of only one file.
2. Not saving the image from the camera to a disk drive.
3. Casting from a single source without switching.

### Recommended requirements

To benefit from the full set of features available with Streamproducer, including using multiple cameras/files, saving incoming streams to a disk drive, and source switching while casting, you need a PC with the following specifications:

#### Hardware

<b>CPU</b>	Pentium 4 (or equivalent) 2.2GHz or faster
<b>Memory</b>	512MB minimum
<b>Display</b>	SXGA (1280 x 1024) or better
<b>Hard disk</b>	50MB for install. 25MB space for capturing one hour using highest video compression – 200MB space for capturing one hour using lowest video compression. 0 MB if not capturing.
<b>Network</b>	- One LAN system for connect to KA-DV300 or KA-DV5000 Network Pack. - Internet connection to load the CODEC program for video playback. - Other network connection for casting on internet.

#### Software

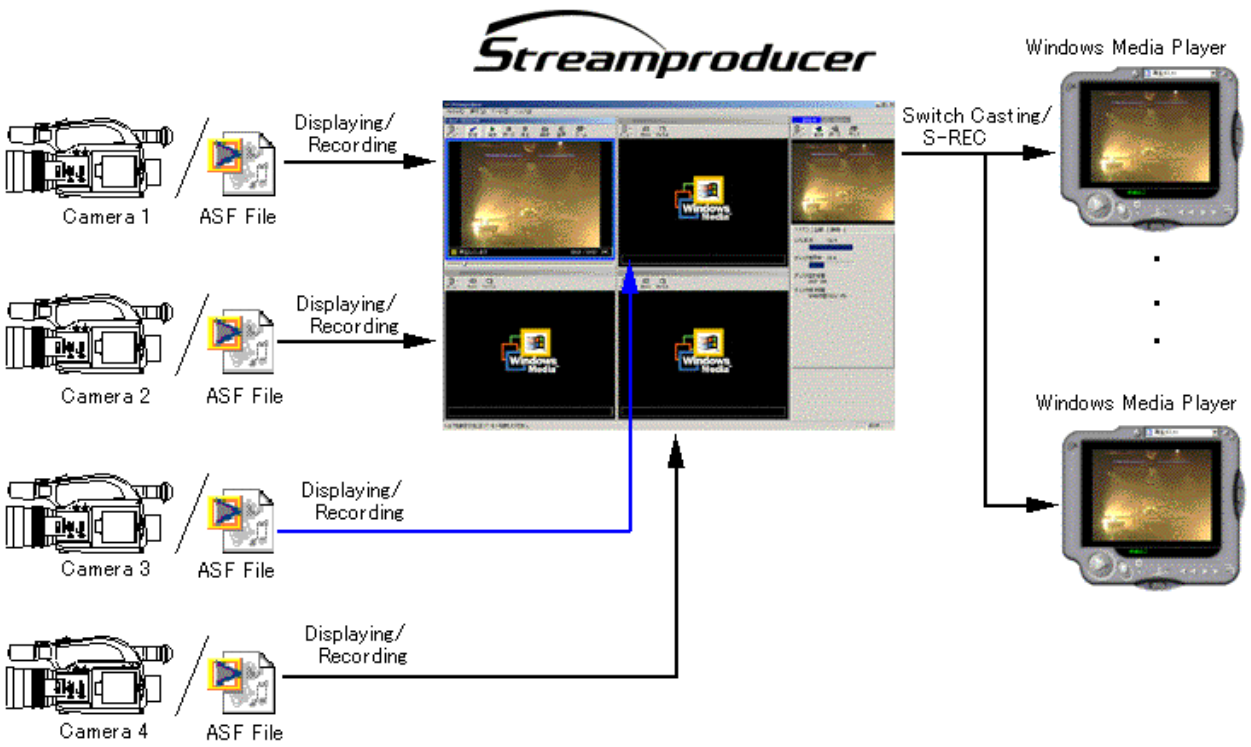
<b>OS</b>	Windows XP Home or Professional Edition Windows 2000 Professional
<b>Other</b>	DirectX 8.1 ( DirectX 8.1 is installed with Streamproducer automatically )

**NOTE:** These minimum and recommended requirements are the standards for using Streamproducer. However, these requirements do not guarantee smooth performance which may depend on other parameters and computer settings, such as background processes, screen settings, network devices and settings etc.

**An example with the minimum system requirements**



**An example with the recommended system requirements**



## 3. Install/Uninstall Streamproducer

### 3.1 Installing Streamproducer

Insert the Streamproducer CD-ROM in CD-ROM drive. If your computer is configured to autorun from CD-ROM, the first setup screen, select a language, appears. If this screen does not automatically appear, manually start the installation: from the Windows "Start" menu, select "Run" and run 'Startup.exe' from the CD drive.

The first screen will ask what language you wish to install, English or Japanese. If English is selected the following screen appears:



From the install screen shown above, click [Install Streamproducer] to start the setup program (setup.exe). All required files and programs are self installing. Just follow the prompts as required to install Streamproducer.

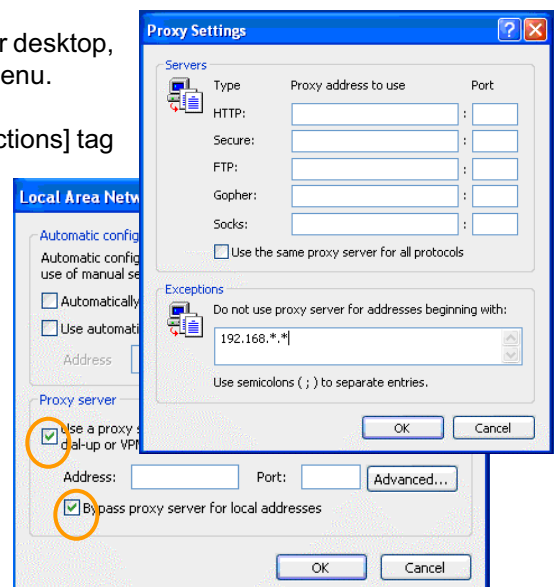
All previous versions of Streamproducer must be uninstalled prior to installation of Streamproducer 2.0. The uninstall process is automatic, and **if you have an earlier version of Streamproducer installed, you will be prompted to remove it now**. Once the previous version is removed, you can re-install Streamproducer.

**Note:** Some operating systems will require you to log in with administrative privileges to install software.

### 3.2 Setting a proxy server

You may need to specify a proxy server to receive the video stream from a KA-DV300 or KA-DV5000 Network Pack.

1. With the mouse pointing to Internet Explorer icon, on your desktop, click the right button and choose [Properties] from the menu.
2. From the 'Internet Connections' dialog box, click [Connections] tag to open the setting dialog for LAN.
3. Click the [LAN Settings...] button to open [Local Area Network (LAN) Settings] dialog box and click [Advanced]. The [Proxy Settings] dialog box, shown here, appears.



4. If you are connecting the PC *directly* to a KA-DV300 or KA-DV5000 Network Pack, remove the check mark on the [Use a proxy server for your LAN] box if it is checked.
5. If you are connecting to a KA-DV300 or KA-DV5000 Network Pack *using a LAN* that requires a proxy server, check on the [Use a proxy server for your LAN] box and type the address of the proxy server. Check on the [Bypass proxy server for local addresses] box and click [Advanced...] button to open the [Proxy Settings] dialog box.
6. Type the IP address of the camera in the blank area of the [Do not use proxy server for addresses beginning with:]. window. You do not need to enter the entire address, just the first two numbers, followed by ‘.\*.\*’ as shown here Click the [OK] button after you have completed the proxy settings.

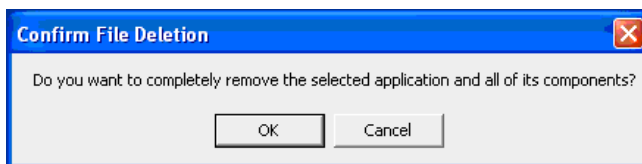
### 3.3 Uninstall Streamproducer

**Note:** Some operating systems will require you to log in with administrative privileges to uninstall software.

You can uninstall Streamproducer using one of the following two ways.

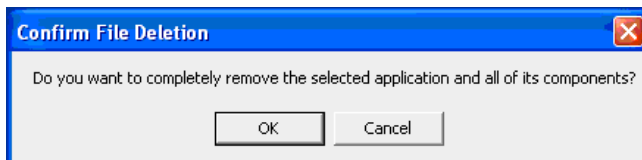
#### 3.3.1 Using Streamproducer CD-ROM

- Insert the Streamproducer CD-ROM in CD-ROM drive. If your computer is configured to autorun from CD-ROM, the first setup screens appear. If these screens do not automatically appear, from the Windows “Start” menu, select “Run” and run ‘Startup.exe’ from the CD drive.
- Choose [English] as the language and click on [Install the Streamproducer].
- Since the installation program will find an instance of Streamproducer already installed, you will be prompted if you would like to remove it. Click ‘OK’ to remove Streamproducer.



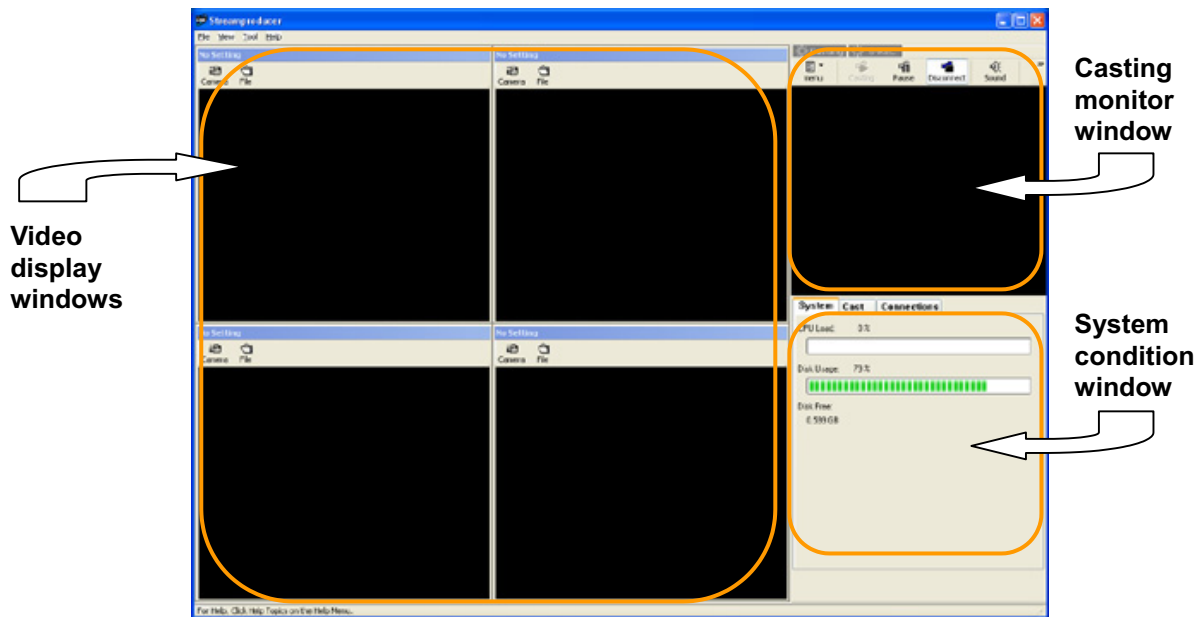
#### 3.3.2 Using "Add/Remove Programs"

- From the Windows desktop, open ‘My Computer’. Open ‘Control Panel’ and choose [Add/Remove Programs].
- Click [Streamproducer] on the list of Currently installed Programs and click [Remove] button.. A message for confirmation of removing Streamproducer appears.
- Click [OK] to remove Streamproducer.



## 4. Running Streamproducer

From the Windows [Start] menu, choose [Programs], [JVC], [Streamproducer]. The main window, shown here, appears.



The Streamproducer desktop has three areas; one for each function:

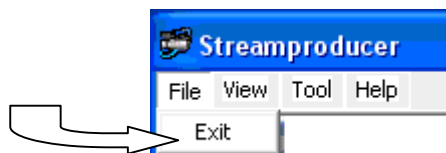
**[Video display windows]** These four windows can display saved contents from files or images from cameras. Four windows can be shown maximally. See Section 6.2 "Option Dialog" for information about setting of the number of the Video display windows. Until a file is selected or a camera is connected, the video display window will be blank.

**[Casting monitor window]** This window shows a preview of the video casting image.

**[System condition window]** This window, with three specific function tabs, shows information about the system condition and casting. See Section 0 for information about the information presented in these windows.

### 4.1 Closing Streamproducer

Choose [Exit] from [File] menu of Streamproducer to close, or click on the X icon on the upper right hand corner. If you have not already disconnected from any connected cameras, you will be prompted to disconnect now and close Streamproducer.

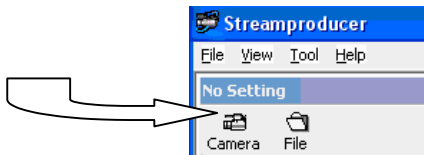


## 4.2 Display images from cameras

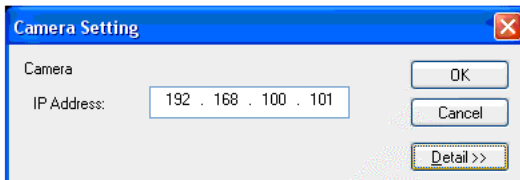
Streamproducer can record and cast (stream) live images from GY-DV-300 and GY-DV5000 cameras. First you must connect Streamproducer (your PC) with from one to four cameras. Up to four cameras can be connected at a time; each camera's image is shown on its own video display window in the Streamproducer desktop.

### 4.2.1 Connecting to cameras

- Click [Camera] button on any one of the video display windows that show "No Setting" in the title bar. 'No Setting' indicates that no camera is connected or no file is open in that window.



- The camera setting dialog box appears.



- Enter the camera's IP address and click [OK]. You can also invoke the camera setting dialog by pressing the 'Menu' button and choosing [Connect to Camera]. (Note: The menu button only appears in windows that already are connected to a camera or are displaying a file)
- In most cases, the default port number will be satisfactory. If you cannot connect to the camera with the default settings you may need to change one or more port settings.

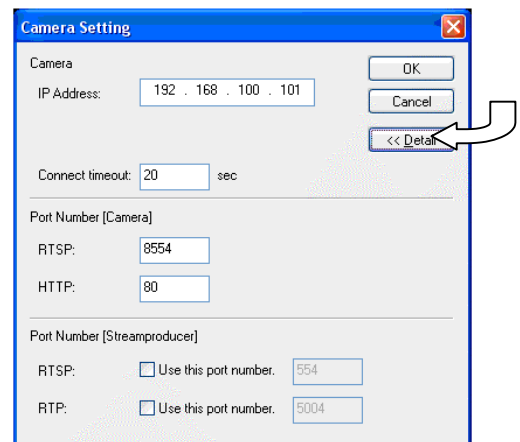
You will not need to change the port numbers if you connect the camera/network pack directly to Streamproducer and both are in their factory default condition.

It may be necessary to specify the port number if there are network devices like routers between the camera's network pack and Streamproducer. Ask your network administrator for more detail. IN addition, some firewalls may require port setting changes.

If you need to change the port numbers, click on the [Detail>>] button of the camera setting dialog and from the window shown here, specify the port number for the camera and for Streamproducer.

For the details on the setting, please read the Network Pack Setup chapter of your Network Pack User's Guide.

Set the port numbers using the following definitions and guidelines:



**Port Number [Camera]** - Enter the port numbers specified on the network pack. The network pack port numbers must match the Streamproducer port number settings.

**RTSP:** Enter the port number for RTSP connection (TCP). This number is specified on the Network Pack. You will not be able to connect to the camera if you enter the different port number from that specified on the network pack.

**HTTP:** Enter the port number for HTTP connection.

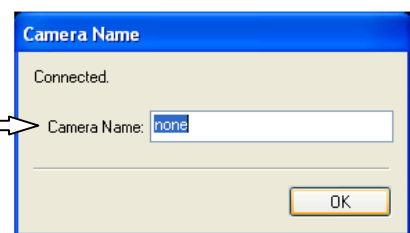
**Port Number [Streamproducer] –**

**RTSP:** Enter the port number for RTSP connection (TCP). This is the port number for which Streamproducer sends the RTSP commands to the network pack.

**RTP:** Enter the port number for RTP connection (UDP). This is the port number that Streamproducer uses to receive streaming video data from the network pack.

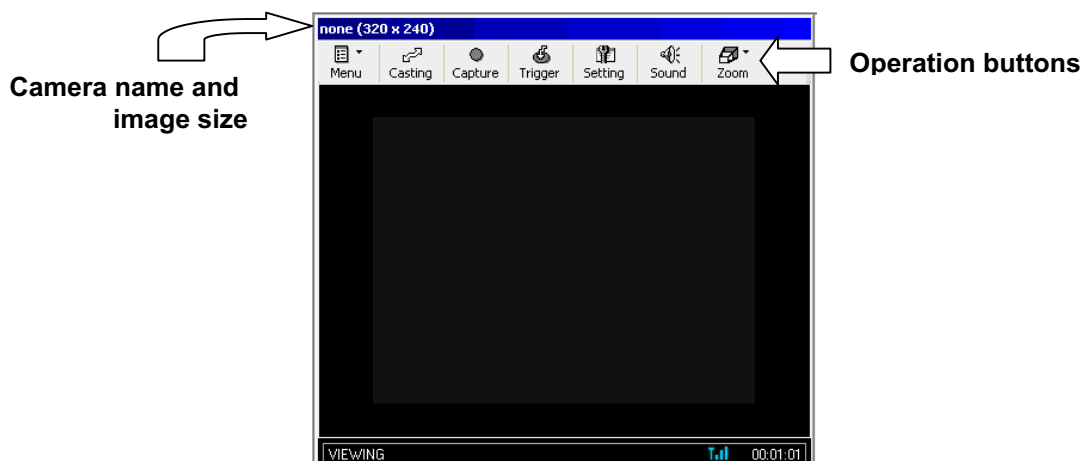
**Connect timeout:** – Specify the time limit of TCP connection to complete when Streamproducer connects a to a camcorder. Streamproducer will quit trying to connect with the camcorder if the connection can not be completed within the specified time. Change the timeout longer if Streamproducer takes longer time to complete the connection with a camcorder.

- Click [OK] button when you finished setting.
- The 'Camera Name' dialog appears. The host name of the camera is shown as the Camera Name. If you have not specified the host name from the camera menu, "none" appears as the camera name.



A folder with this name is created on your computers' hard drive where the image clips are recorded and stored.

- Enter the camera name and click [OK] button. If you have set a camera name from the camera's menu, this name will appear here. Streamproducer is now connected to the camera. And the window should now look like this:



The camera name (and image size) is shown above of the video display window.

Operation buttons appear above of the video display window.

You can see more information about the camera currently connected by clicking on the [Menu] button and choosing [Property...].

It is possible to change to another camera by clicking on the [Menu] button and choosing [Other Camera...].

If the window size is too small to display all operation buttons, you can show the hidden buttons by clicking on the double arrows (>>) on the right side of the button bar.

## 4.2.2 Displaying images from cameras

Each video display window has its own buttons and operation menu. It is possible to operate up to four video display windows separately by clicking on any of its control buttons.

### [ Casting ]

Click the [Casting] button to start casting (streaming video). See Section 4.4 for more information about casting. You can also start casting by choosing [Start/Switch Casting] from the [Menu] pull-down. When casting from a window, the border of that window will turn blue and the [Casting] button is highlighted.

### [ Capture ]

Click the [Capture] button to start recording the image from the camera to a disk drive. The [ Capture ] button will turn red when recording. You can also start recording by choosing [Start Capturing] from the [Menu] pull-down. When capturing the video to a file, the [Capture] button is highlighted.

Click [ Capture ] again to stop recording.

Recorded images are saved in the location specified on Option dialog of Streamproducer. Please see Section 6.2, "Option dialog" for specifying a location for saving files.

The capture function is independent of casting. You can be casting from one source at the same time you are capturing from another (or the same) source.

This capture function is used for capturing video streams from connected cameras, not the stream that is being cast. See Section 4.5 for information about capturing the cast video.

### [ Setting ]

Click the [Setting] button to open the pages for setting and controlling many camera and network pack functions using an Internet browser. For details on this function, please read the User's Guide of your network pack. You can also open the page by choosing [Camera Setting] from the [Menu] pull-down.

### [ Trigger ]

Click the [Trigger] button to start recording images from the camera automatically when the camera starts recording. (Streamproducer detects the recording trigger from the camera and starts recording to disk at the same time).

Streamproducer will stop recording to disk automatically when the camera stops recording.

The [Trigger] button appears to be pushed (highlighted) when you click it, indicating that the trigger mode is in effect. You can also activate the trigger mode by choosing [Capture Trigger] from the [Menu] pull-down.

When the trigger mode is enabled, the [Capture] button is disabled.

Click the [Trigger] button again to stop the trigger mode. The [Trigger] button reverts to its normal appearance, indicating that the trigger mode disabled. You can also disable the trigger mode by choosing [Capture Trigger] from the [Menu] pull-down. If there is a check mark next to 'Capture Trigger' it indicates that the trigger mode is effective, and stopped if there is no check mark.

Please read "Trigger mode" on Page 12 in this chapter for more details about the various trigger modes

### [ Sound ]

Click the [Sound] button to enable sound output and hear the audio from the connected camera. You can also enable sound output by choosing [Output Sound] from [Menu] pull-down.

The [Sound] button appears to be pushed when you click it to indicate 'output sound' is enabled.

Click the [Sound] button again to mute the sound. The [Sound] button switches to the default position which is sound off. You can also mute the sound by choosing [Output Sound] from the [Menu] pull-down. If there is a check mark next to 'Output Sound' it indicates that sound is enabled, and muted if there is no check mark.

You can hear the sound from multiple windows simultaneously.

**NOTE:** The sound button in the individual windows only controls the sound of that window, and has no effect on the audio being cast.

### [ Zoom ]

Choose [Fit to Window Size], [50%], [100%] or [200%] from [Zoom] button to change the magnification of the displaying image. You can also change the magnification by choosing [Zoom] from the [Menu] pull down of each video display window. Each window can have a different zoom factor.

When first opening a file or connecting to a camera, the default size is 100%.

### [ Property... ]

Choose [Property...], from the [Menu] pull-down (no associated operation button) to confirm the camera setting. You can change the camera name from this window; all other fields are read-only.

### [ Other Camera... ]

Choose [Other Camera], from the [Menu] pull-down (no associated operation button) to disconnect from the currently connected camera and connect with another camera.

### [ Close ]

Choose [Close], from the [Menu] pull-down (no associated operation button) to cut the network connection with the currently connected camera. The connection is closed only for the camera associated with the current window. The network connection is cut and the video display window reverts to "No Setting".

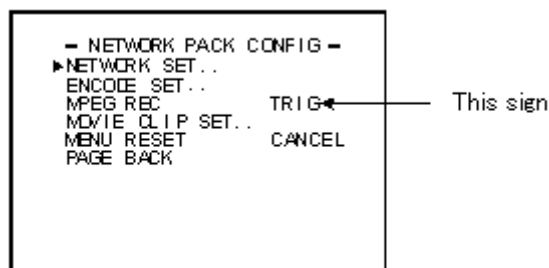
## 4.2.3 Trigger mode

Streamproducers' exclusive trigger mode allows buttons on the GYDV300 or GY-DV5000 camcorder to control the streaming capture function of Streamproducer. Trigger mode is the unique function of the Streamcorder products. Three trigger modes are available; these are set from the camera menu but activated from Streamproducer.

Click the [Trigger] button to activate the selected trigger mode and the button is highlighted. To cancel the trigger mode, click the [Trigger] button again.

### 4.2.3.1 Setting the Trigger Mode from the camera


You need select "MPEG REC" from the "NETWORK PACK CONFIG" menu on the camera. Please refer to your cameras Users Guide for instructions for navigating through the menu.




The following trigger modes are supported:

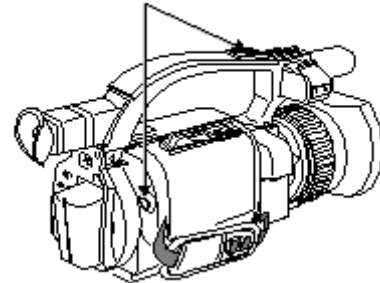
- **TRIG** – In this mode, you can record to the camera's DV tape and the PC (running Streamproducer) simultaneously, and both recordings are controlled by the camera's REC buttons. In this mode, it is necessary to have a recordable tape in the camera.

The "NO TAPE" warning appears on the camera's viewfinder/LCD screen if no tape is loaded.

To start recording to the tape and to the PC disk drive simultaneously, push the [REC START/STOP] button on the camera. In addition to the 'REC' indicator in the viewfinder or LCD screen, the  sign turns red on the display of camera indicating that you are recording to tape and PC. The 'Capture' button in the Streamproducer window associated with the camera will highlight when capturing video.

To stop recording, push the [REC START/STOP] button on the camera again. The 'REC' indication will change to 'STBY' and the red  will revert to yellow (to red in case of GY-DV5000) on the camcorder display.


REC START/STOP Button




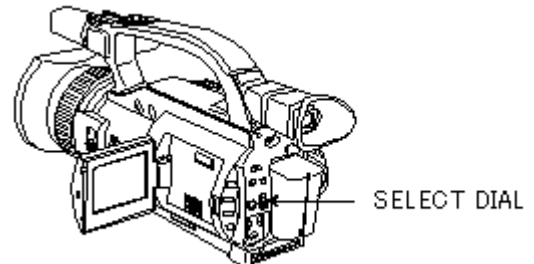
\* This figure shows a GY-DV300U. For details of other models, please see your Users Guide.

- **SPLIT** – In this mode, you can record on the DV tape and/or the PC (running Streamproducer) independently. It is not necessary to have a recordable tape in the camera.

To record to DV tape, use the [REC START/STOP] button on the camera as you normally would. When recording to tape, the 'REC' indicator will be shown in the viewfinder/LCD display.

To capture the video on the PC, push the [SELECT] dial on the camcorder. The  sign turns red on the display of camera indicating that you are recording to the PC. The 'Capture' button in the Streamproducer window associated with the camera will highlight when capturing video.

To stop capturing the video, push the [SELECT] dial on the camera again. The red  will revert to yellow (to red in case of GY-DV5000) on the camcorder display, and the 'Capture' button on Streamproducer screen will revert to normal.



\* This figure shows a GY-DV300U. For details of other models, please see your Users Guide.

- **OFF** – Trigger mode is disabled, and the camera and Streamproducer work independently, the camera record button controls recording to tape, and the Streamproducer 'Capture' button controls stream capture.

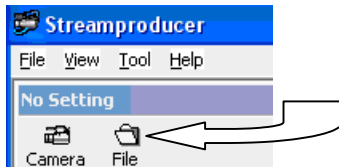
## 4.3 File Playback

Streamproducer can playback video clips saved on the hard disk or CompactFlash (CF) memory card, up to four files simultaneously, each is shown on its own video display window. In addition, you can cast (stream) from any one of these files, and even switch between them.

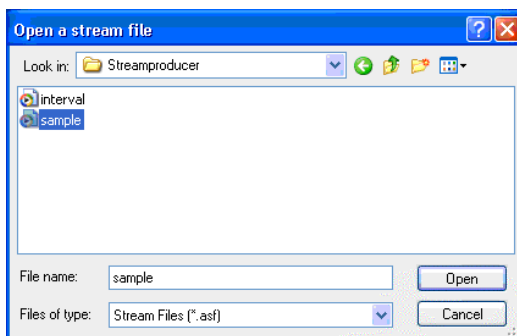
### 4.3.1 Selecting files

To open a file in any view window not already allocated (No setting is shown in title bar).

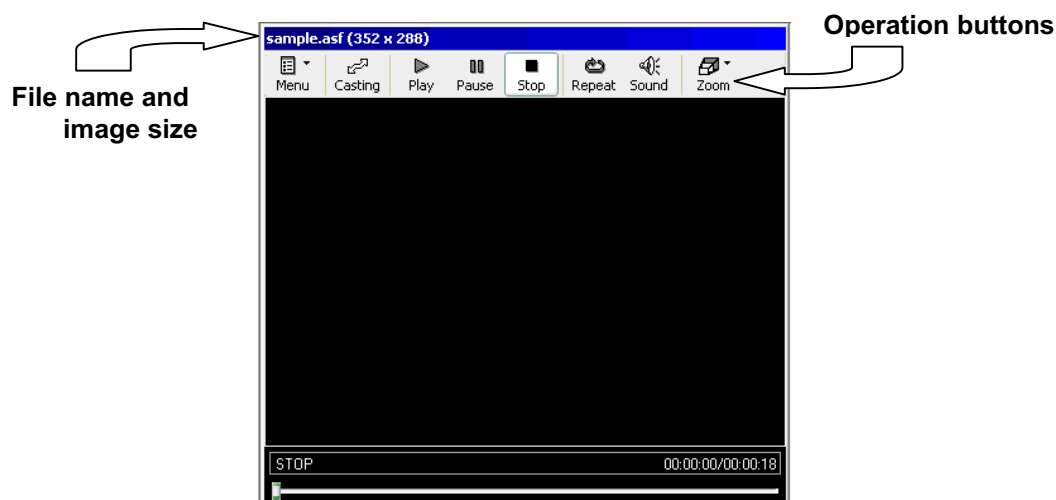
- Click the [File] button on the video display window to open a file. The 'Open a stream file' dialog appears.



- Select a file and click [Open] button. You can also open a file by using the [Open file] option from the [Menu] pull-down. You can open any valid .asf file. Use the standard windows pull-down items to locate the desired file.



- When the file is selected, the file name and image size are shown above the video display window as are the operation buttons.



- You can see additional information about the selected file by choosing [Property...] from the [Menu] pull-down.

### **4.3.2 File operations**

Each video display window has its own set of operation buttons and menus that are independent of each other. It is possible to have up to four video display windows in use simultaneously and independently by clicking on its control buttons or operation menu.

Note: The individual buttons, play, pause, stop, repeat, and sound refer to the particular display window only and do not control the casting functions.

#### **[ Casting ]**

Click the [Casting] button to start casting (streaming video). See Section 4.4 for more information about casting. You can also start casting by choosing [Start/Switch Casting] from the [Menu] pull-down. When casting from a window, the border of that window will turn blue and the [Casting] button is highlighted.

#### **[ Play ]**

Click the [Play] button to start the file playback. You can also start playback by choosing [Play] from the [Menu] pull-down. The file starts to playback from the beginning.

#### **[ Pause ]**

Click the [Pause] button to pause playback of the file. You can also pause by choosing [Pause] from the [Menu] pull-down. Click the [Play] button to resume file playback from the current point. When paused, the [Pause] button is highlighted.

#### **[ Stop ]**

Click the [Stop] button to stop the file playback. You can also stop by choosing [Stop] from the [Menu] pull-down. Unlike the pause button, the stop button moves the seekbar to the beginning of the video clip file. Therefore, when [Play] is pressed again, playback begins from the first frame of the file.

#### **[ Repeat ]**

Click the [Repeat] button to automatically repeat playback the same file. You can also activate repeat playback by choosing [Repeat] from the [Menu] pull-down.

The [Repeat] button appears to be pushed (highlighted) if you click it. This indicates that the repeat function is in effect. Click the [Repeat] button again to disable the repeat function. From the [Menu] pull-down, if repeat is checked, then the repeat function is enabled, if it is not checked, then the function is disabled.

#### **[ Sound ]**

Click the [Sound] button to enable sound output for the currently open file. You can also enable sound output by choosing [Output Sound] from the [Menu] pull-down.

The [Sound] button appears to be pushed (highlighted) when clicked to indicate output sound is enabled. Click the [Sound] button again to mute the sound, the [Sound] button switches to the default position, sound off. You can also mute the sound by choosing [Output Sound] from the [Menu] pull-down. If 'Output sound' is checked, then sound output is enabled, if it is not checked, then the function is disabled.

You can hear the sound from multiple windows simultaneously.

#### **[ Zoom ]**

Choose [Fit to Window Size], [50%], [100%] or [200%] from [Zoom] button to change the magnification of the displaying image. You can also change the magnification by choosing [Zoom] from the [Menu] pull down of each video display window. Each window can have a different zoom factor.

#### **[ Property... ]**

Choose [Property...], from the [Menu] pull-down (no associated operation button) to view the detailed information about the file. The displayed information includes the file name and path, the image size, clip length, bit rate, and the audio and video CODECs used.

**[ Open Other File... ]**

Choose [Open Other File], from the [Menu] pull-down (no associated operation button) to close the currently opened file and open another file for playback or casting.

**[ Close ]**

Choose [Close], from the [Menu] pull-down to close the currently open file. The title bar of the Video display windows reverts to "No Setting".

To use the seekbar, with a mouse, click on and drag the file pointer to the point where you want playback to start.

## 4.4 Casting

'Casting', also referred to as Streaming, is sending the image from any one of the four video sources to remote viewers through a network, such as an Intranet or the Internet. It is possible to cast live video from connected cameras or video from selected files. The casting monitor window of the Streamproducer desktop displays the current cast image. The [Casting] sign turns blue while casting.

### 4.4.1 Start casting

Click the [Casting] button in any one of the display windows that is showing camera output or a clip file to start casting the video from that display window. You can also start casting by choosing [Start Casting] from the [Menu] pull-down.

When selected for casting, the window border will turn blue, indicating the active window, and (after a few seconds) the image will appear in the casting window. Casting starts.

The casting monitor window displays the casting image and, the [Casting] sign turns blue while the casting is in progress.



### 4.4.2 Controlling the casting image

You can control the casting image by using the buttons over the casting monitor window. These buttons are independent from any function buttons in the other windows.

#### [ Casting ]

This button is highlighted automatically when a casting button is clicked in any other window. When it is highlighted, clients can connect to Streamproducer using Windows Media Player and see the cast video.

#### [ Pause ]

This button pauses casting of the video, which is replaced by the Streamproducer logo. When casting is paused, the recording of the cast is also paused. Click the [Casting] button on the Video display window to resume casting. It is also possible to pause by choosing [Pause Casting] from the [Menu] pull-down of Casting monitor window. When paused, the [Pause] button is highlighted.

#### [ Disconnect ]

Click [ Disconnect ] button to stop casting.

#### [ Sound ]

Clicking this button or choosing [Output Sound] from the [Menu] pull down of the casting monitor window turns on the monitoring of the sound of the cast video. When sound monitoring is activated, the button will be highlighted.

Click again to mute the sound. When muted, the button will not be highlighted.

The sound function enables *monitoring* of the audio being cast along with the video. It does not affect the stream casting audio. Streamproducer outputs the sound of the streaming image even if [Output Sound] is off.

[ Size ] Choose [Small], [Medium] or [Large] from [Size] button to change the size of casting monitor window. You can also change the size by choosing [Display Size] from the casting preview window [Menu] pull-down.

All currently displayed windows will resize when the casting view window is resized.

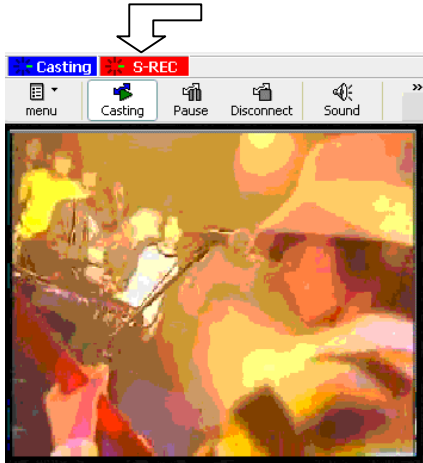
## 4.5 Capturing images

In addition to saving the streams from any or all connected cameras, you can save the cast images automatically.

To automatically save the cast video stream, from the 'Options' dialog (see Section 6.2) check the 'Capture casting contents simultaneously' check box. When this option is selected, all cast video streams will also be saved to the location specified in the Options dialog box.

**Note:** You can only set these functions when not connected to a camera or file.

When capturing the cast video, the red S-REC flag will be highlighted along with the blue Casting flag.

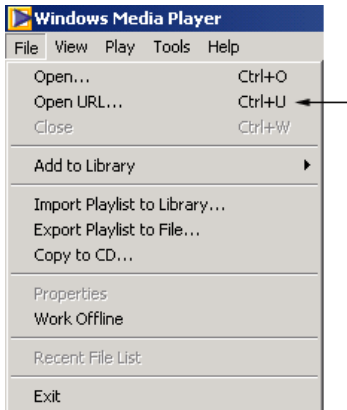


## 5. Receiving the video stream

Using Windows Media Player you can receive and view the cast video from anywhere in the world.

Although any version of Windows Media Player above 6.4 can be used (version 8.0 for Windows XP) the following examples are shown using version 7.1.

Start Windows Media Player and choose [Open URL...] from the [File] menu.

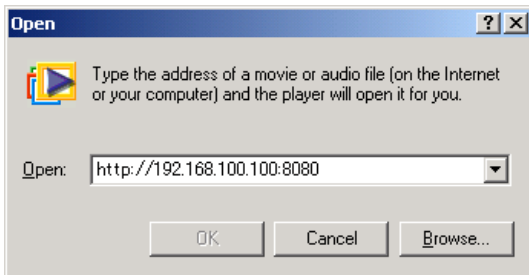


Enter the URL for receiving the casting image. The URL is specified by the IP address and port number of the video stream being cast by Streamproducer.

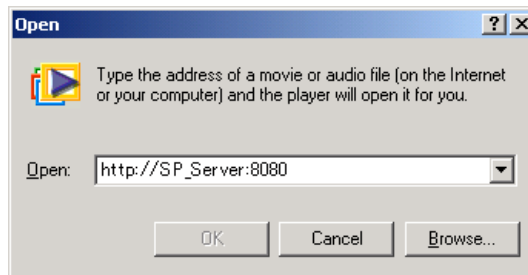
You can determine the casting IP address and port number by clicking on the 'Connections' tab on the Streamproducer desktop. Both the Internet URL and LAN URL are shown in this window.

The client viewers must enter the appropriate URL for their connection in the Windows Media Player 'Open' dialog box to receive the video stream. Enter the URL and click [OK].

Sample of Internet URL:



Sample of LAN URL:



### Notes:

- **Under normal circumstances, the received video stream should be continuous. However, when the video source is switched in Streamproducer, the received stream may be momentarily interrupted. In addition, if the switched video has a different bit rate, Windows Media Player may drop the connection.**
- Network congestion may result in jerky motion
- If you are experiencing problems receiving the video stream, please refer to Chapter 7, Troubleshooting".

## 6. Menu and dialogs

The following discussions are based on the three windows available by clicking on the index tabs in the lower right portion of the Streamproducer desktop.

### 6.1 System condition windows

The three condition windows, accessed by clicking on the 'System', 'Cast', or 'Connections' tabs, show the general condition of the PC and information about casting and connections

The following information is available by clicking on the 'System' tab:

#### CPU Load

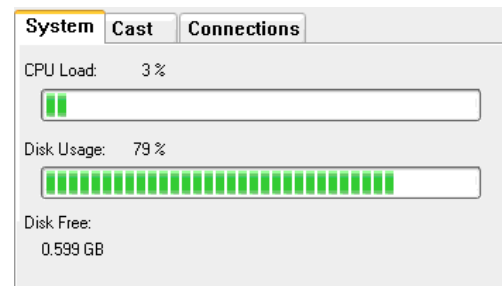
This bar graph shows the approximate load on the CPU.

#### Disk Usage

This bar graph displays the approximate amount of free-space left on the disk for capturing the video images. For systems with multiple drives, the disk specified in the options menu (see Section 6.2) where the video capture files are located is shown.

#### Disk Free

Shows amount of free disk remaining in GB.



The following information is available by clicking on the 'Cast' tab:

#### Source

Shows the source of the video that is currently being cast, either file name or camera name.

#### Total time

Shows the total time that the video from the source is being cast.

#### Size

Shows the pixel dimensions of the casting image. (Width x Height).

#### Bit rate

Shows bit rate of the casting image.

#### Video CODEC

Shows Video Codec used for the creation of the casting image.

#### Audio CODEC

Shows Audio Codec used for the creation of the audio portion of the stream.



The following information is available by clicking on the 'Connections' tab.

### Internet URL

Shows the internet URL that users who want to receive the cast video must use for Windows Media Player.

For details on the process of receiving the casting image, Refer to Section 5 Receiving the video stream”.

More than one URL will be listed if you one interface connected to a camera and another interface for the Internet, or have multiple connections to the Internet. Use the URL of the interface not connected to the camera, unless only one interface is used to connect to both the camera and the internet through a switch.

### LAN URL

When connecting via a local LAN, you can use this LAN name instead of the Internet URL for viewing eh video stream with Windows Media Player.

### Copy Internet URL

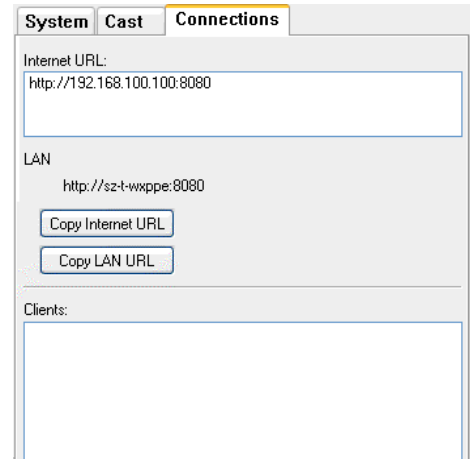
This button is a shortcut for copying the Internet URL so that you can paste it into the address bar of another application, such as Windows Media Player.

### Copy LAN URL

This button is a shortcut for copying the LAN URL so that you can paste it into the address bar of another application, such as Windows Media Player.

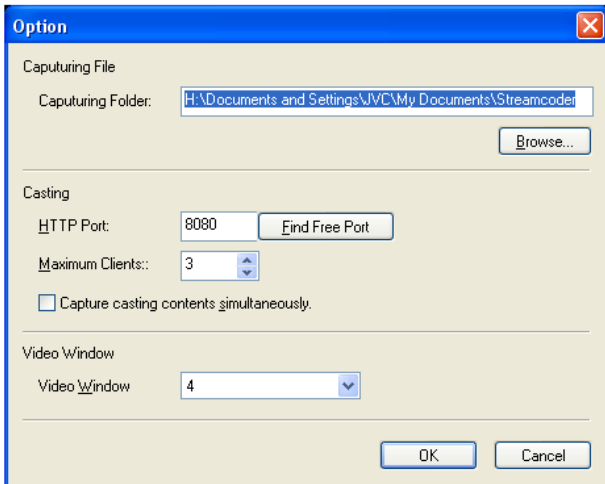
### Clients

This window shows the IP address of any client connected to and streaming from Streamproducer.



## 6.2 Option dialog

Options, such as selecting the folder for saving video streams, casting ports and the number of video windows can be selected by choosing [Option...] from the [Tool] pull-down menu of Streamproducer.



### Capturing Folder

You can specify the disk drive and folder to save recorded images. A subfolder is automatically created under the specified folder according to the connected camera name, and the video clips are stored in this subfolder. For this reason, we recommend that each connected camera be given a unique name. You can type in a folder path directly, or you can click the [Browse...] button to search for an appropriate drive and folder.

### HTTP Port

This field allows you to specify the HTTP port number for casting. An unused port number can be found by clicking the [Find Free Port] button. You can only set this parameter when not connected to any camera or file.

### Maximum Clients

The number of clients that can connect to Streamproducer at the same time. The maximum is 10. You can only set this parameter when not connected to any camera or file.

### Capture casting contents simultaneously

Checking this box captures the cast video stream to a file. This option must be enabled before casting begins. You can only set this parameter when not connected to any camera or file.

### Video Window

If you are only connecting to one or two cameras, you can use this field to change the number of Video display windows. You can only set this parameter when not connected to any camera or file.

## 7. Troubleshooting

The following topics include common solutions to problems you may encounter when using Streamproducer.

### **Failed in connection to a camera.**

- ◆ Make sure the IP address and RTSP port number of the camera and Streamproducer are the same.
  - ⇒ Enter the IP address and port number correctly in Camera Setting dialog.
- ◆ Verify the set up of your PC network. It is necessary to establish a LAN connection with cameras correctly.
  - ⇒ Check the LAN card manual Windows Help of the for more detail.
  - ⇒ Certain Proxy Server and/or firewall configurations may prevent streaming. Please consult your IT department if you suspect this may be a problem
- ◆ Confirm that the LAN card is inserted correctly in the network pack.
  - ⇒ Make sure the LAN card is oriented properly and seated in the PCMCIA slot.
- ◆ Signals may may be poor when using wireless LAN between camera and PC
  - ⇒ Place metal articles that may be blocking (or reflecting) the transmission away from the camera and your PC.
  - ⇒ The distance between the camera and your PC may exceed the maximum allowed for a reliable connection. Check the manual for the wireless LAN card to confirm the maximum distance.
  - ⇒ Other devices in the 2.4 GHz band, such as cordless phones and other wireless networks may be interfering. 2.4 GHz wireless phones have approximately a half mile range.
- ◆ Port setting may not be correct.
  - ⇒ Make sure the setting of your personal firewall allows connections to the assigned ports if you are using WindowsXP.
  - ⇒ Ask your network administrator to make sure the port setting is allowed if you have network devices such as a router between the camera and your PC.

### **Unable to receive live image contents from a camera by [Play] button.**

Communications with the network pack may have been interrupted by some reasons. In addition, bandwidth sufficient to connect to a camera may not be sufficient to receive video from the camera.

- ⇒ Refrain from using microwave devices near to the machines when using wireless LAN.
- ⇒ Place metal articles that may be blocking or reflecting the transmission away from the camera and your PC when using wireless LAN.
- ⇒ Make sure the LAN cables are correct and working..
- ⇒ Make sure the LAN card is inserted correctly in the network pack.
- ⇒ If using a proxy server or other devices between the camera and your computer, make sure that they are configured properly.

### **Unable to receive casting image.**

- ◆ Try Pinging the IP address of Streamproducer.

You may receive the casting image after successfully pinging Streamproducer.

⇒ To send a Ping command:

Click [Command Prompt] from [Accessories] menu of [Program] by Windows [Start] button.

In the Command Prompt window, type "ping *IP address of Streamproducer*" after the command prompt, press [Enter]. For example, C: >ping 192.168.100.101

If the ping works, try receiving the cast video again. If the ping fails, something is wrong with your network connection.

- ◆ Confirm that the receiving PC is connected to the Internet (LAN) correctly.
- ◆ Confirm that the access point is specified correctly on the Windows Media Player.
- ◆ The CODEC (a software program required for compressing or expanding the AV data) is not installed correctly.

### **"Error" in starting live or playback files.**

- ◆ The CODEC (a software program required for compressing or expanding the AV data ) is not installed correctly.

### **Unable to download the CODEC.**

- ◆ If you use Windows Media Player 7.1 and a proxy server for internet connections, setup the proxy server correctly by [Control Panel] > [Internet Options] > [Connections] regardless of a browser you use usually.

### **Unable to cast or change casting contents.**

- ◆ Make sure the contents were generated by the GY-DV300U/DV5000U. Streamproducer assures you of processing only contents recorded or streamed by the GY-DV300U/DV5000U.

### **Unable to record.**

- ◆ Confirm in the system condition window that your PC has enough free space on the hard disk

### **Live contents are not smooth.**

- ◆ Make sure on system condition window that your PC has enough CPU power left.
- ◆ Refrain from running other applications at the same time.
- ◆ Try to connect to fewer cameras or playback fewer files at the same time.
- ◆ Try to stop and resume recording or casting.

◆Disable the DirectDraw acceleration on the Display property dialog.

⇒Click the right button of the mouse pointing desktop and choose Properties to open [Display Properties] dialog box.

Click [Settings] tab, [Advanced] button, and [Troubleshooting] tab.

Drag the bar of Hardware acceleration to control the level.

Change the level to disable the DirectDraw acceleration referring the message on this dialog box.

Click [OK] button after your settings.

#### **Unable to hear the sound.**

◆Turn the [Sound] button on of the video display window.

#### **Unable to start the application.**

◆Restart your PC once.

◆The Application may not be installed correctly.

⇒Install the application again. ( See "3. Install/Uninstall Streamproducer" about install. )