

Canon

NETWORK CAMERA SERVER

VB150

Guide to Creating Web Pages for Video Distribution

E
ENGLISH

Introduction

Thank you for purchasing the Canon Network Camera Server VB150 (referred to hereafter as the VB150).

This manual describes how to use the VB150 for video distribution. Video can be distributed in a number of ways, including displaying multiple images and posting still images or movies on a website. Read this manual carefully before use.

Exclusion of Liability

If the Product is connected to a recording device (for example a VCR), Canon Inc. accepts no responsibility whatsoever for any financial losses that may be incurred as a result of the loss of recorded information or images, regardless of the internal or external cause of the loss.

Copyright Information

Video or still pictures recorded using your VB150 cannot be used in ways that infringe copyright laws or without the consent of the owner, unless intended for personal use only.

Notes

1. The unauthorized transfer of all or any part of the contents of this Manual is forbidden.
2. The contents of this Manual are subject to change without notice.
3. Every effort has been made to ensure that this Manual is flawless. However, if you find any oversights, please let us know.
4. Notwithstanding above, Canon accepts no liability for any results arising from the operation of this product.

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Request concerning disclosure of live videos

With respect to the disclosure of live videos, we request that sufficient consideration be given to matters of privacy and rights not to be photographed. Canon considers the following points concerning such matters when it operates camera sites for which it has been responsible to install and operate:

- We take measures such as adding limitations on zoom magnifications so that people cannot make special specifications.
- When videos are taken of specific buildings, interiors and the like, we install the camera only after receiving approval from the administrator.

Please note that the operator of the camera site and not Canon has full responsibility regarding the disclosure of live videos.

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Links from WebView World

<http://www.x-zone.canon.co.jp/WebView-E/>

If you are interested in having your Website linked from our WebView World Website, please contact us from one of the following options (Be sure to read "Request Concerning the Disclosure of Live Pictures" in the Introduction page):

1. <http://www.canon.com/webview/>

[Link] - [Link from WWV] - [To Link from WebView World Page]

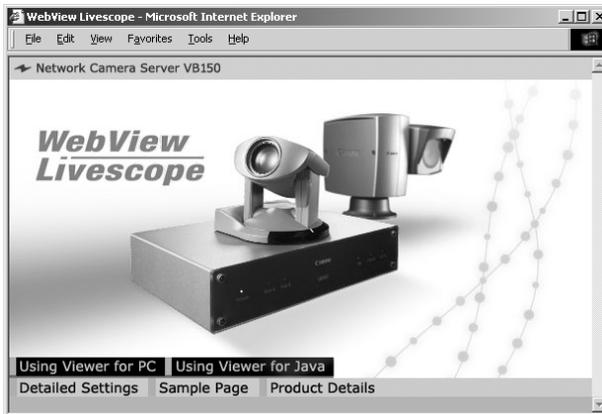
2. Read "2. Links from WebView World" in the CD-ROM's ReadMe-E.txt and e-mail us with the required information.

*Note that the link may be refused in some cases.

Web Pages for Video Distribution

To distribute live video using the VB150, you create a dedicated web page. The viewers that can be used with the VB150 are “Viewer for Java” (with or without camera control function) and “Viewer for PC”, and detailed parameters can be specified for each of these. You need to determine which of these viewers is supported and create the Web page.

■ Example of a Web page for video distribution (VB150’s built-in page)



The above page is built into the VB150 and can be accessed from the URL below.

http://192.168.100.1*/

* The underlined portion is a sample IP address. Enter the actual IP address set for the VB150 (→ VB150 User’s Manual P.38).



Note

● File Names

The VB150 can handle file names consisting of up to 8 characters followed by a 3-character extension. Note that the names of applets built into the VB150 are exceptions to this rule.

- The VB150 includes a built-in Web server. If the content of Web pages used for distributing video is stored onto a the flash memory, the VB150 can be used alone for distributing Web pages and videos over the Web. Refer to step 3 on page 113 for information on saving content.



Tip

You can use the Language setting function for the Browser to create a multi-lingual Web site. For example, if you set the French-language top page as `index-fr.htm` and the English-language top page as `index.htm` and supply users with a URL address terminates in slash, such as `http://vb150/sample/`, the server will transmit a file that corresponds with the language setting for the Browser. For further information on the Language setting function for the Browser, refer to the Browser Help.

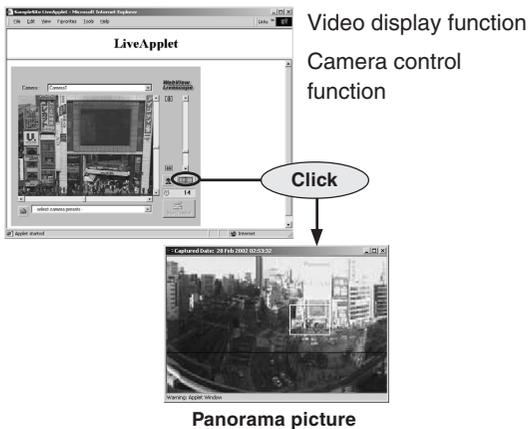
Viewer Overview

There are two types of viewers: the Viewer for Java and the Viewer for PC.

Viewer for Java

The Viewer for Java provides two types of viewers: LiveApplet containing video display and camera control functions, and Glimpse containing a video display function. Because both viewers use the WebView-HTTP transfer protocol, data can pass through firewalls with no need for special settings.

LiveApplet



Glimpse

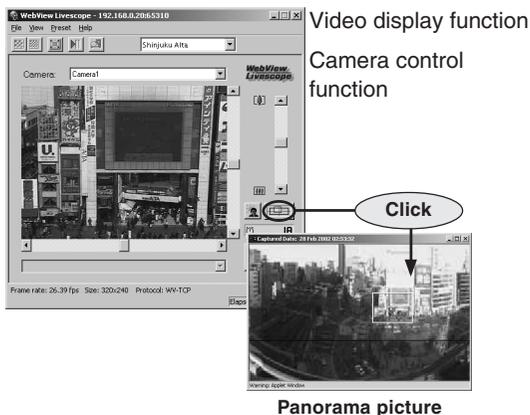


* The Viewer for Java is installed in the VB150 and automatically downloaded when it is connected to the VB150.

Viewer for PC

The Viewer for PC provides video display and camera control functions. In addition to WebView-HTTP, the VB150 also supports Canon's WebView-TCP transfer protocol.

Viewer for PC



* You need to install the Viewer for PC from the supplied CD-ROM (MonSetup.exe).



- Viewer Software User's Manual is provided on the CD-ROM supplied with the VB150 (VIEWER-E.pdf).
- Use VB Administration Tools to create a panorama picture. Refer to P.67 of the VB150 User's Manual for details.

Viewing Sample Pages

Ready-made video distribution sample pages are provided with the VB150. Follow the procedure below to view these pages. Refer to these pages when creating your own Web pages.

Viewing the Pages

- 1 Launch your Web browser and enter the following URL:
http://192.168.100.1/sample/
* The underlined portion is a sample IP address. Enter the actual IP address set for the VB150 (→ VB150 User's Manual P.38).
- 2 The page shown below appears with links to the other sample pages. Click on the link to the sample page you want to view.



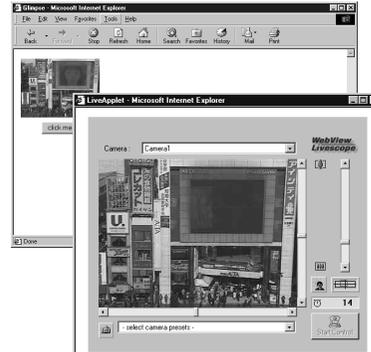
Examples of sample pages

JavaApplet sample 1



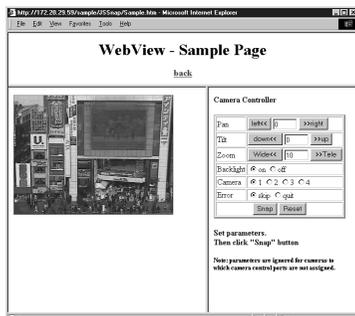
This is a LiveApplet sample page which distributes live videos and allows users to control the camera.

JavaApplet sample 2



This is a sample page which combines LiveApplet and Glimpse.

Still picture request page using JavaScript



This is a sample page which displays a live still picture.

Using the Viewer for Java to Distribute Videos

This section describes how to use the Viewer for Java to provide videos. Application examples are also given.

Creating a Web Page that Uses the Viewer for Java

When you use the Viewer for Java, the viewer applet to be used must be incorporated into the Web page you provide. However, this is not especially difficult. The page can be created using the HTML normally used to include an applet.

LiveApplet

```
<applet codebase="http://192.168.100.1/-wvdoc-01-/LiveApplet/"
  code="LiveApplet.class" archive="LiveApplet.zip"
  width=450 height=380>
<param name=url value="http://192.168.100.1/">
<param name=cabase value="LiveApplet.cab">
</applet>
```

Glimpse

```
<applet codebase="http://192.168.100.1/-wvdoc-01-/Glimpse/"
  code="Glimpse.class" archive="Glimpse.zip"
  width=160 height=120>
<param name=url value="http://192.168.100.1/">
<param name=cabase value="Glimpse.cab">
</applet>
```

Enter the parameters required by the applet between the <applet> -</applet> tags.

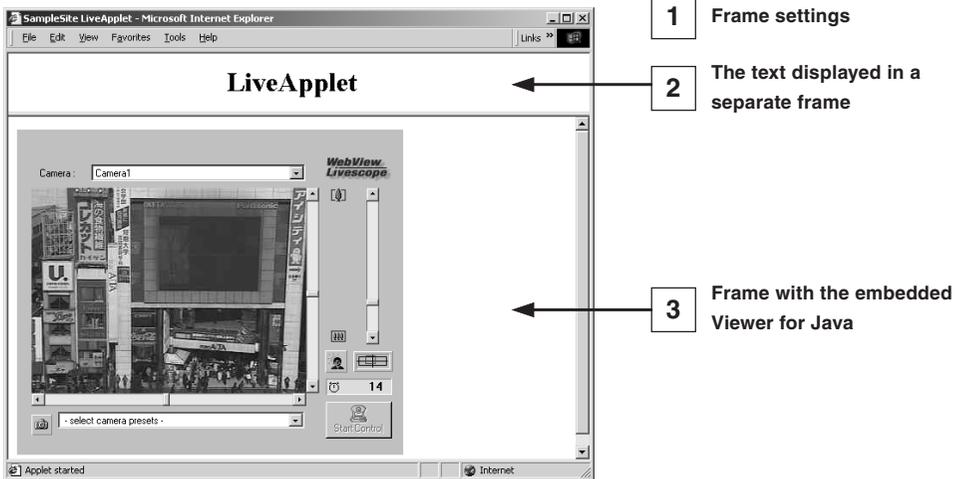
Use the <param> tag for parameters other than the common attributes for applets (codebase, code, archive, width and height).

* The underlined portion is a sample IP address. Enter the actual IP address set for the VB150.

Example of a Web Page that Uses the Viewer for Java

This section describes an example in which the Viewer for Java is used to create a Web page. Use this example to create your own original Web page.

Embed the Viewer for Java, and display a text in a separate frame.



Tip

● Writing IP Addresses

Using the Web server functions built into the VB150, IP addresses can be expressed as `<_I_P_A_D_D_R_>` (all upper-case characters, including the angle brackets) in the two file types (htm,vvh) used by the Web server in the VB150.

Since `<_I_P_A_D_D_R_>` is replaced with the actual IP address when accessed, the Web page does not need to be changed even when the IP address for the VB150 is changed. In addition, NAT can be supported by specifying a Web page global address. (→ P.22, VB150 User's Manual P.57)

```
1 sample.htm
<html>
<head>
<title>SampleSite LiveApplet</title>
</head>
<frameset rows="70,*">
<frame src="header.htm">
<frame src="lvappl.htm">
</frameset>
</html>
```

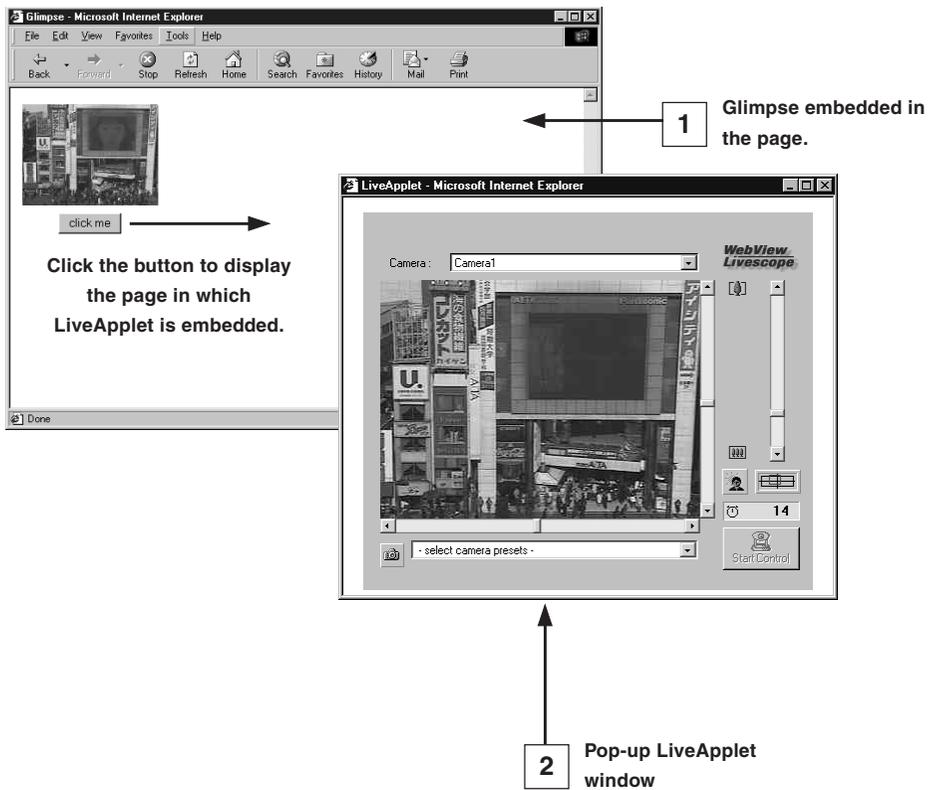
```
2 header.htm
<html>
<head>
<title>LiveApplet comment</title>
</head>
<body>
<center><h1>LiveApplet</h1></center>
</body>
</html>
```

```
3 lvappl.htm
<html>
<head>
<title>LiveApplet</title>
</head>
<body>
<applet codebase="http://192.168.100.1/-wvdoc-01-/LiveApplet/"
        code="LiveApplet.class" archive="LiveApplet.zip"
        width=450 height=380>
<param name=cabbase value="LiveApplet.cab">
<param name=url value="http://192.168.100.1/">
</applet>
</body>
</html>
```

* The underlined portion is a sample IP address. Enter the actual IP address set for the VB150.

Using Glimpse and LiveApplet Together

This section describes how to create a Web page that allows clients to use Glimpse to download quickly and display live video at a low frame rate, and then use LiveApplet to view video at a high frame rate and control the camera when they find videos they are particularly interested in.



1

```

glimps.htm
<html>
<head>
<script language="JavaScript">
<!--
function clicked(btn) {
    url = btn.name
    window.open(url,"LiveApplet","width=490,height=400")
}
// -->
</script>
<title>Glimpse</title>
</head>
<body>
<table>
<form name="form">
<tr><td><center>
<applet codebase="http://192.168.100.1/-wvdoc-01-/Glimpse/"
        code="Glimpse.class" archive="Glimpse.zip"
        width=160 height=120>
<param name=cabase value="Glimpse.cab">
<param name=url value="http://192.168.100.1/">
</applet>
</center></td></tr>
<tr><td><center>
<input type="Button" name="popup.htm" value="click me"
onClick="clicked(this)">
</center></td></tr>
</form>
</table>
</body>
</html>

```

2

```

popup.htm
<html>
<head>
<title>LiveApplet</title>
</head>
<body>
<center>
<applet codebase="http://192.168.100.1/-wvdoc-01-/LiveApplet/"
        code="LiveApplet.class" archive="LiveApplet.zip"
        width=450 height=380>
<param name=cabase          value="LiveApplet.cab">
<param name=url             value="http://192.168.100.1/">
</applet>
</center>
</body>
</html>

```

* The underlined portion is a sample IP address. Enter the actual IP address set for the VB150.

Providing "LiveApplet" without Camera Control

This section describes how to create a Web page that only displays live video and has no camera control GUI for situations where you want to prohibit camera control.



```
<applet ... width=320 height=240>  
<param name=controller_style value="none"> ..... ①
```

- ① Specify the camera control user interface.
 - "normal" = the usual style
 - "preset_only" = preset operation only is displayed
 - "none" = not displayed

Modifying the Startup and Disconnection Screens

You can modify the image files (JPEG or GIF image files) shown in the startup and disconnection screens.

Nothing Specified

■ Startup screen



■ Disconnection screen

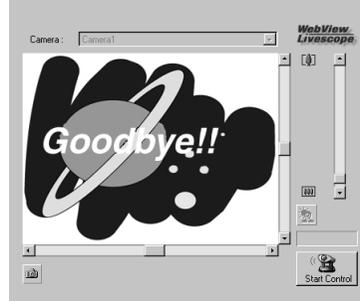


Certain Images Specified

■ Startup screen



■ Disconnection screen



If no particular image is specified, the “connecting to hostname” (when the hostname parameter is specified) or “now connecting” animation is displayed at startup and the “disconnected hostname” (when the hostname parameter is specified) or “disconnected” is displayed at disconnection. You can modify the screens to show any image by providing images for the startup and disconnection screens and setting the parameters. The image size is automatically adjusted to the size specified in the `video_width` parameter. The display time for the specified screen at startup can also be specified.

```
<param name=open_image value="/opt/images/opening.jpg"> ..... ①
<param name=open_image_time value="3000"> ..... ②
<param name=close_image value="/opt/images/closing.jpg"> ..... ③
```

- ① specifies the file name for the startup image screen.
- ② specifies the display time for the startup image screen (in milliseconds).
- ③ specifies the file name for the disconnection image screen.



Note

You must use the absolute path name (name that begins with “/”) to specify the URL for the image file displayed.

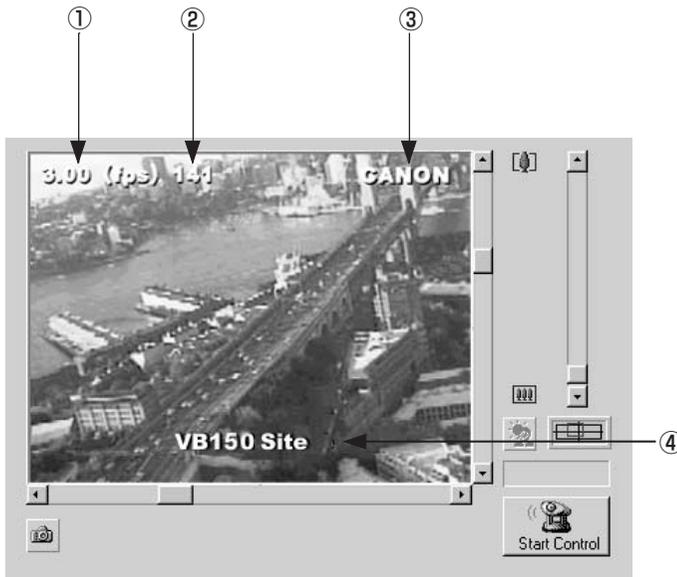
(→ See step 3 on page 113 of the VB150 User’s Manual)



Tip

- At startup, the default character string that is displayed while a connection to the VB150 is being established is “now connecting...”, but it can be changed. For additional parameters for changing display character strings, see page 13.
- If user service times have been specified (→ VB150 User’s Manual P.56), screen images are not displayed outside those times.

Displaying the Host Name, Frame Count and Other Information on the Video Screen

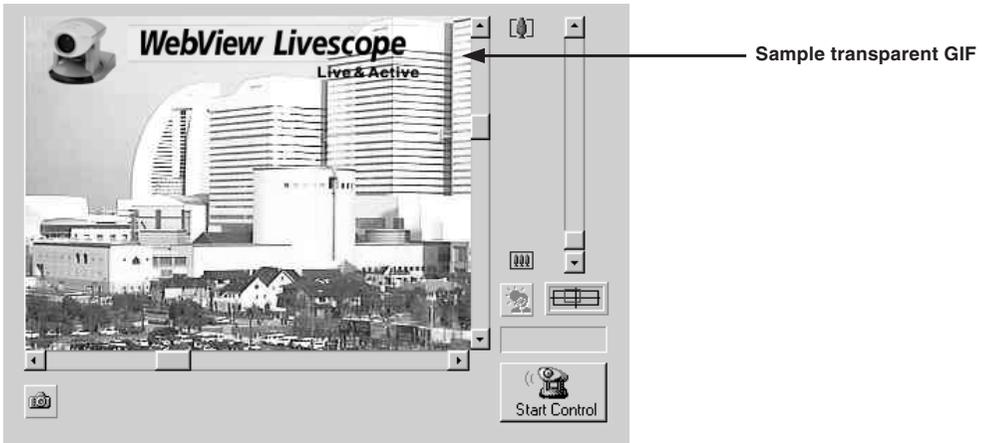


```

<param name=show_fps value="on"> _____ ①
<param name=show_counter value="on"> _____ ②
<param name=hostname value="CANON"> _____ ③
<param name=show_hostname value="on"> _____
<param name=comment value="VB150 site"> _____ ④
<param name=show_comment value="on"> _____
  
```

- ① specifies whether the frame rate is displayed on the screen.
 "on": Displayed.
 "off": Not displayed.
- ② specifies whether the frame count is displayed on the screen.
 "on": Displayed.
 "off": Not displayed.
- ③ specifies the host name (any text string) to be displayed on the screen and whether the host name is displayed.
 "on": Displayed.
 "off": Not displayed.
- ④ specifies a comment to be displayed on the screen and whether the comment is displayed.
 "on": Displayed.
 "off": Not displayed.

Displaying Bitmap Images on the Video Screen



```
<param name=superimpose value="/logos/newlogo.gif,0,0">
```

* The underlined portion "x,y" specifies the display position. When x,y = 0,0, the image is displayed in the top left corner. If "x,y" is omitted, the image is displayed in the center of the frame.

Specifying the Background Color

```
<html>
<body bgcolor=#cccccc>
<applet codebase=http://...code="LiveApplet.class" width=450 height=380>
  <param name=url value="http://192.168.100.1">
    <param name=bg_color value="#cccccc">
  </applet>
</body>
</html>
```

* The underlined portion is a sample IP address. Enter the actual IP address set for the VB150.

Pasting a picture to the background

```
<param name=bg_image value="/opt/images/back.gif"> _____ ①
<param name=image_offset value="0,0"> _____ ②
```

- ① Specify the displayed picture file.
- ② Specify to display it at x,y (underlined portion).

Viewer for Java Parameters

You can specify applet parameters to provide an applet tailored to modify the behaviour or appearance of applets. Refer to the table below to ensure that you thoroughly understand the parameters.

■LiveApplet

Parameter Name	Omissible	Description
bg_color	Yes	Use this parameter to set the background color. The parameter specification format is "#RRGGBB" (values between 0 and 255 for each component color expressed as a hexadecimal). Eg. White: "#FFFFFF", Grey: "#AAAAAA", Green: "#00FF00" If this parameter is omitted, the default background color is used.
close_image	Yes	You can use this parameter to specify the screen displayed in the video display window at the time of disconnection. Specify the name of a JPEG or GIF file. If this parameter is omitted, the default disconnection screen is displayed.
comment	Yes	This parameter specifies the comment text string displayed as an overlay on the applet. If this parameter is omitted, no comment is displayed.
gui-type	Yes	Specifies whether the panorama window should be pop-up displayed or embedded in the page. Specify "embed" for making it an embedded display. When specifying "embed", the Width and Height of the applet tags must be specified a little larger (Eg. width=500; height=660).
hostname	Yes	This parameter specifies the host name displayed in the applet. This value is used as the host name in messages displayed during connection, etc. If this parameter is omitted, no host name is displayed.
open_image	Yes	You can use this parameter to specify the screen that appears in the video display window until the first video image appears. Specify the name of a JPEG or GIF file. If this parameter is omitted, the default startup screen is displayed.
open_image_time	Yes	When a startup screen is specified in the "open_image" parameter, this parameter specifies the display time. The time is specified in milliseconds (1/1000 sec.), and the default value is 0. The image is displayed until the first video frame appears. Values from 0 to 30000 (30 seconds) can be specified.
show_capture	Yes	This function specifies whether the Snapshot button is displayed. Specify "on" or "off". The default value is "on". The button is always displayed unless "on" is explicitly specified.
show_comment	Yes	This function displays the comment as an overlay on the video image. Specify "on" or "off". The default value is "off".
show_counter	Yes	This function displays the frame count as an overlay on the video image. Specify "on" or "off". The default value is "off".
show_fps	Yes	This function displays the frame rate as an overlay on the video image. Specify "on" or "off". The default value is "off".
show_hostname	Yes	This function displays the host name as an overlay on the video image. Specify "on" or "off". The default value is "off". Note that this parameter is only valid if the "hostname" parameter is specified.
show_panobutton	Yes	Specify whether or not to display the panorama window pop-up button.
superimpose	Yes	This function displays a bitmap image as an overlay on the video image. Specify the image using the "bitmap-filename,x,y" format. Use the GIF format for bitmap images (transparent GIFs supported). The "x,y" parameters specify the coordinates of the bitmap image position on the video frame. If "x,y" is omitted, the image is displayed in the center of the video frame.
url	No	Specify the URL of the HTTP server for applet access. Specify the IP address and port number that match those specified in the codebase attribute.
video_width	Yes	This parameter specifies the video image display size (in pixels). Specify the width. The display sizes are 80 to 640, and any value can be set as the width. The height is calculated as 3/4 of the specified width. Eg. video_width="240" (height = 240 × 3/4 = 180.)

Parameter Name	Omissible	Description
auto_connect	Yes	Specifies whether or not connection to the camera server should be established at the same time that the applet starts up. Select "on" or "off". When "on" is selected, connection is established when the applet starts up and moving pictures are displayed. With "off", the connection is not established when the applet starts up and the character string that was specified with the "no_connect_msg" parameter is displayed. The "connect()" method is called up to establish connections.
bg_image	Yes	The picture displayed in the background of LiveApplet can be specified. A JPEG or GIF file can be specified. The WebView Livescope logo is not displayed if specified. If not specified, the default picture is used. (Refer to image_offset about the display position.)
click_action	Yes	Specifies behavior when a moving picture display area is clicked. "pt" specifies pan and tilt; "none" specifies no reaction. The default is "pt".
connect_msg	Yes	Specifies the character string that is displayed while connection to the camera server is being established. The default is "now connecting".
controller_style	Yes	Specifies the GUI style for controlling the camera. "normal" specifies the usual GUI style; "preset_only" specifies preset operation only; "none" specifies that the entire GUI will not be displayed. With "preset_only", only the Start Control button, the Camera Control Status window, the Preset Selection Box, and the Snapshot button are displayed.
disconnect_msg	Yes	Specifies the character string that is displayed when the connection to the camera server is cut. The default is "disconnected".
error_msg	Yes	Specifies the character string that is displayed when connection to the camera server has failed. The default is "can't connect".
font_size	Yes	Specifies the display size for connect_msg, disconnect_msg, error_msg, no_connect_msg, and too_many_msg. The default makes size dependent on the display area.
image_offset	Yes	Specifies the display position of the picture file specified at bg_image. With the upper left coordinates of the picture at "0,0" and the right direction given as x and the down direction as y, image_offset is specified as "x,y". The default is "335,0".
no_connect_msg	Yes	Specifies the character string to be displayed following applet startup when auto_connect is "off". The default is "no connection".
overlay_font_color	Yes	Specifies the color of the character string specified for "comment" and "hostname". The color is specified at "#RRGGBB". The default is yellow.
show_logo	Yes	Specifies whether or not the WebView Livescope logo should appear in the upper right of the screen. It appears if show_logo is "on" and does not appear if it is "off".
too_many_msg	Yes	Specifies the character string that is displayed when connection to the camera server fails because the limit on the number of connections was exceeded. The default is "too many clients".

■Glimpse

Parameter Name	Omissible	Description
comment	Yes	This parameter specifies the comment text string displayed as an overlay on the applet. If this parameter is omitted, no comment is displayed.
hostname	Yes	This parameter specifies the host name displayed in the applet. This value is used as the host name in messages displayed during connection, etc. If this parameter is omitted, no host name is displayed.
show_counter	Yes	This function displays the frame count as an overlay on the video image. Specify "on" or "off". The default value is "off".
show_hostname	Yes	This function displays the host name as an overlay on the video image. Specify "on" or "off". The default value is "off". Note that this parameter is only valid if the "hostname" parameter is specified.
sleep	Yes	This parameter specifies the interval (in milliseconds) at which the screen is updated. If this parameter is omitted, the screen is updated at 5-second intervals. Because the Glimpse applet is designed to be used for displaying multiple sites as a list, this parameter is provided as a means of reducing the processing load. Intervals between 0 and 300,000 ms (5 minutes) can be set. If 0 is specified, the interval is not adjusted.
url	No	Specify the URL of the HTTP server for applet access. Specify the IP address and port number that match those specified in the codebase attribute.
auto_connect	Yes	Specifies whether or not connection to the camera server should be established simultaneously with applet startup. Specify either "on" or "off". When "on", a connection is established simultaneously with applet startup; when "off", no connection is established when the applet starts up and the character string specified for no_connect_msg is displayed. The connect() method is called up in order to make connections.
connect_msg	Yes	Specifies the character string to be displayed while a connection to the camera server is being established. The default is "now connecting".
disconnect_msg	Yes	Specifies the character string to be displayed when a connection to the camera server is disconnected. The default is "disconnected".
error_msg	Yes	Specifies the character string to be displayed when an attempt to connect to the camera server has failed. The default is "can't connect".
font_size	Yes	Specifies the font size for connect_msg, disconnect_msg, error_msg, and no_connect_msg, when these messages are displayed. The default is to depend on the display area.
no_connect_msg	Yes	Specifies the character string to be displayed after the applet starts up, if "off" is specified for auto_connect. The default is "no connection".

■Applet Tag Descriptions

Attribute Name	Omissible	Description
code	No	This parameter specifies the applet file name. Enter "LiveApplet.class" or "Glimpse.class". If this parameter is not specified correctly, the applet (LiveApplet or Glimpse) is not downloaded.
codebase	No	This parameter specifies the directory that contains the applet. http://HTTP server IP address: port number/directory/ If this parameter is not specified correctly, the applet (LiveApplet or Glimpse) is not downloaded. Directories are fixed for each applet. Directory (LiveApplet)=wvdoc-01-/LiveApplet Directory (Glimpse)=wvdoc-01-/Glimpse
width	No	This parameter specifies the size of the area acquired for the applet (in pixels). For LiveApplet, if the value specified is smaller than the LiveApplet drawing area, the applet may not be displayed correctly. If the camera control function GUI is to be added (controller_style=normal), add about 130 to the value. Eg. For an image size of 320 × 240, width=450. For Glimpse, because the areas used for the applet and for the video display are the same size, specify the same value as the image width. Eg. For an image size of 320 × 240, width=320.
height	No	As for width. For LiveApplet, add around 140. Eg. For an image size of 320 × 240, height=380. For Glimpse, specify the same value as the image height. Eg. For an image size of 320 × 240, height=240.
archive	Yes	Specify LiveApplet.zip or Glimpse.zip.



Tip

When specifying an address included in the codebase attribute of the applet tag and a URL parameter of the applet, specify one that can be accessed from the client's computer. This is particularly necessary when using NAT (→ P.22).

Using the Viewer for PC to Distribute Videos

This section describes how to use the Viewer for PC to provide videos. Application examples are also given.

If a client is using the Viewer for PC to receive videos, the video sender must set up the Web server and create the necessary wvh files.



Tip

If the VB150 is used as the Web server, the settings described below are not required. Refer to page 113 of the VB150 User's Manual for information on saving Web page data.

Setting Up the Web Server

Set up the Web server to be used for providing Web page. Add the MIME type to the Web server software and specify the extension. Refer to the manual for your Web server software for details.

MIME type	video/x-webview-h
Extension	wvh

For Apache

In the settings for adding the MIME type in Apache, edit the "mime.types" file in the "conf" directory.

■ Use the following syntax to add the required MIME type to the computer:

```
type/subtype extension
```

■ The settings for the viewers are as follows:

```
video/x-webview-h wvh
```



Note

If the MIME setting is not specified correctly for the Web server, you may not be able to launch the Viewer for PC. Be sure to specify the setting correctly.

Creating wvh files

This section describes how to create the wvh file required for launching the Viewer for PC application.

- 1 Use a text editor or similar program to create a new text file and type the following type of code in the file:

```
(Example) 192.168.100.1 65310
           192.168.100.1 65311
           wvhttp:192.168.100.1 80
```

- The first line gives the IP address (or host name) of the VB150 and the TCP port number used for the video transmission service.
The default setting is 65310 (→ VB150 User's Manual P.56). The default setting will be used if no particular value is specified.
- The second line gives the IP address (or host name) of the VB150 and the TCP port number used for the camera control. The default setting is 65311 (→ VB150 User's Manual P.56). The default setting will be used if no particular value is specified.
- The third line gives the setting for the Viewer for PC to use HTTP protocol. After "wvhttp:", type in the IP address of the VB150 and "80" as the HTTP port number. As a result of this, you will be able to view video images from the VB150 through firewalls.

* **Type in the actual IP address (or host name) set for the VB150 .**

- 2 After you save the text file and quit the text editor program, create a wvh file by changing the file name and extension. Be sure to add the ".wvh" extension, as in "WebView.wvh". File names can contain up to 8 characters. (eg. WebView)



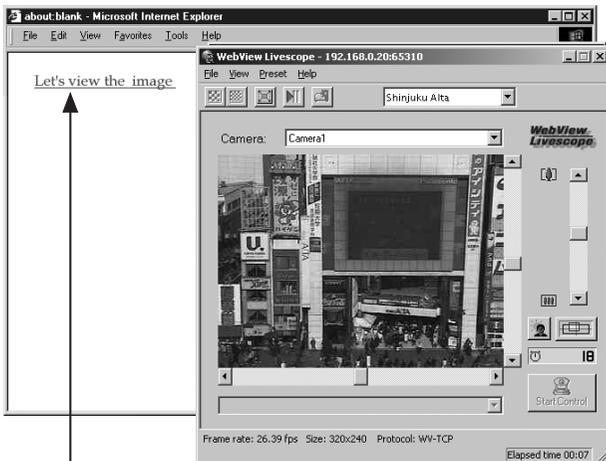
Tip

Viewer for PC supports WebView Livescope protocol and HTTP protocol.

- **WebView Livescope protocol: Cannot be viewed through firewalls. This protocol is primarily for clients who are connected directly to the Internet.**
- **HTTP protocol: In general, this protocol is used with Web browsers. By using this protocol, clients inside firewalls can view videos by penetrating firewalls. The Viewer for Java also uses this protocol.**

Example of a Web Page that Uses the Viewer for PC

This section describes an sample Web page in which the Viewer for PC is used.



1 Click the link to launch the viewer.

Include the tags that link to the wvh file in the text or images in the Web page.

```
1 <A HREF="WebView.wvh">Let's view the image</A>
```

 **Tip** To use the sample page template in the VB150 to supply videos, specify ``.

Distributing Videos Using a Browser Only

You can also use the WebView-HTTP protocol to provide videos from the camera directly to a Web browser. Some example of this are described in this section.

Displaying the Live Video at Access as a Still Picture

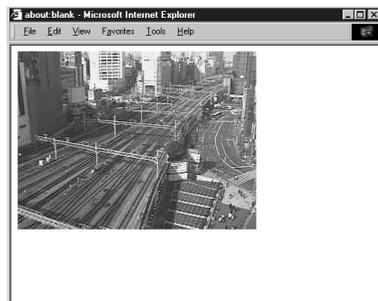


When a client accesses the Web page that provides videos, the video shot at that point can be supplied as a still picture.

```
<IMG SRC=http://192.168.100.1/-wvhttp-01-/GetStillImage>  
(or)  
<IMG SRC=http://192.168.100.1/-wvhttp-01-/GetOneShot>
```

* The underlined portion is a sample IP address. Enter the actual IP address set for the VB150.

Displaying a Specified Number Of Live Video Frames As a Video at Access



The Server Push format provided as an extended function by Netscape Communications Corp. can be used to distribute multiple-frame images. However, these images can only be displayed on Netscape Navigator. In the coding example below, 100 frames of live video are distributed when the client accesses the server.

```
<IMG SRC=http://192.168.100.1/-wvhttp-01-/GetOneShot?frame_count=100>
```

* The underlined portion is a sample IP address. Enter the actual IP address set for the VB150.



Tip

- **frame_count=no_limit**

This setting removes the limits on the number of image frames.

- Be sure to specify the camera if the Video Input (→ VB150 User's Manual P.42) setting on the VB150 is set to Multiple.

mux=C* (Specify * from 1 to 4)

Displaying Live Video from a Specified Angle as Still Pictures

By specifying the camera angle as a parameter in the HTML code beforehand, you can display the picture from a specified camera angle. The example below displays a still picture shot with the camera panned right by 40° and tilted down 10°.

```
<IMG SRC=http://192.168.100.1/-wvhttp-01-/GetStillImage?p=40&t=-10>
```

* The underscored portion is a sample IP address. Enter the actual IP address set for the VB150.

■GetStillImage Parameters

Parameter	Description
p/pan	Specifies the camera pan angle. "p" is a 1°unit, and "pan" is a 0.01°unit. For example if the camera pans right 20°, then p is 20 and pan is 2000. If this parameter is omitted, the camera pan angle is not controlled.
t/tilt	Specifies the camera tilt angle. "t" is a 1°unit, and "tilt" is a 0.01°unit. If this parameter is omitted, the camera tilt angle is not controlled.
z/zoom	Specifies camera zoom. "z" is ten times the zoom ratio of the widest angle, and "zoom" is the view angle in 0.01°units (horizontal direction. If this parameter is omitted, camera zoom is not controlled.
b/back_light	Specifies camera backlight compensation. When this parameter is set to on, the picture captured will be bright and when this parameter is set to off, the picture captured will be dark. If this parameter is omitted, camera backlight compensation is not controlled.
camera_id	Assigns the numbers 1 to 4 to camera 1 to 4. If this parameter is omitted, the camera that is currently selected will be used.
delay	Waiting time until camera focus is stabilized (in milliseconds). Specified in the range 0 to 10000.
option	Specifies how errors are dealt with. When "skip_on_error" is specified, the process will be continued. When "quit_on_error" is specified, the process will be aborted. The following errors can occur: failure to acquire camera control right, loss of camera control, camera selection errors and camera control errors. To omit, the default value is "quit_on_error".
seq	Allows any number (sequence number) to be specified to avoid displaying old still pictures (numeric value).
v/image_size	Specifies the display size of the picture. Settings of 640 × 240, 320 × 240, and 160 × 120 are possible. Styles for v and image_size are different: For v, only the horizontal size is specified, as in "v=640", for instance; while for image_size, both horizontal and vertical sizes are specified, as in "image_size=320 × 240", for instance.
q/quality	Specifies picture quality. Use an integer between 1 and 99. If omitted, the value set in the VB150 is used.



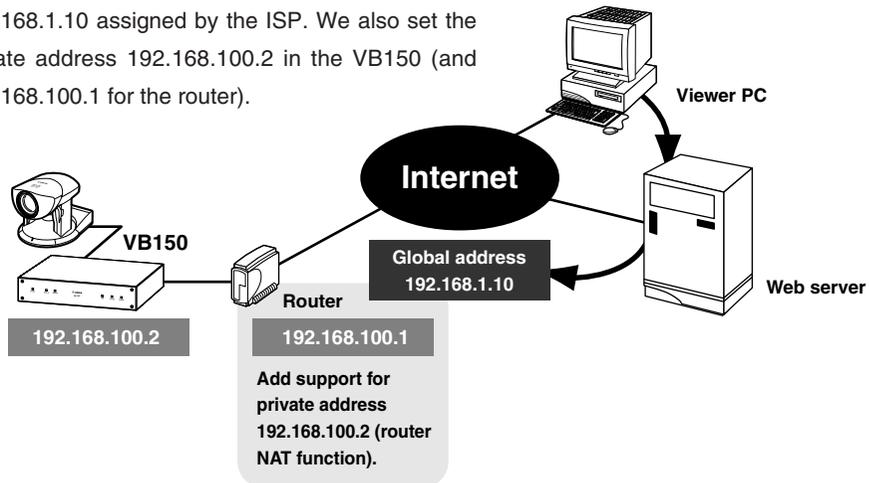
Note

If old still pictures are displayed, you can prevent this recurring by specifying a sequence number in the "seq" parameter.

Example of video distribution using one global address

One fixed global address is required if the VB150 is being used to distribute live video on the Internet. An Internet service provider (ISP) that offers a single-address fixed global address service can be used (Note: a router with NAT function is required).

Example: In this example, we use the global address 192.168.1.10 assigned by the ISP. We also set the private address 192.168.100.2 in the VB150 (and 192.168.100.1 for the router).



A sample page of the VB150 is automatically generated based on the IP address that was actually assigned (192.168.100.2 in this case). In this case, this page cannot be viewed in the Viewer for Java or the Viewer for PC when "http://192.168.1.10/sample/" is accessed through the Internet. Set "Global Address for Web Pages" (→ VB150 User's Manual P.57) to 192.168.1.10. If you are not using the VB150's Web server, describe the Web pages for distributing videos as follows.

Set the Viewer for Java description (→ P.6) as follows:

```
<applet codebase="http:// 192.168.1.10/-wvdoc-01-/LiveApplet/"
  code="LiveApplet.class" archive="LiveApplet.zip"
  width=450 height=380>
<param name=url value="http:// 192.168.1.10/">
<param name=cabase value="LiveApplet.cab">
</applet>
```

Set the wvh file description of the Viewer for PC (→ P.18) as follows:

```
192.168.1.10 65310
192.168.1.10 65311
wvhttp:192.168.1.10 80
```

* The underlined portion is a sample IP address. Enter the actual IP address set for the VB150's "Global Address for Web Pages".



Contact respective manufacturers for details on setting the router.

Note

Log Messages

The Syslog log messages are classified into the following 5 categories. Classification details are dealt with in the UNIX syslog the levels are explained on page 58 of the VB150 User's Manual.

Classification	Level	Fault Severity
crit	Error	Critical fault at the software level (stops task operation)
err	Error	Fault involving a malfunction (operation interrupted)
warning	Warning	Fault not involving malfunction
notice	Warning	Fault outside the system
info	Information	Information on correct operation

* The syslog facility is local7.

Application-related Log Messages

●A005 Camera control channel assignment error (warning)

Message	conflicting channel assignment for %1: %2
%1	Camera control port (CC1 CC2)
%2	Cascade number (1-4)
Explanation	The same camera control port (a combination of camera control port and cascade number) is assigned to multiple video input channels. Or, the specified cascade numbers are not in sequence. The settings may be corrupted.
Response	Correct the settings or restore the factory default settings.

●A006 Camera control system initialization failure (err)

Message	cannot open camera control port %1
%1	Camera control port (CC1 CC2)
Explanation	The camera control port cannot be opened.
Response	If rebooting does not solve this problem, there is a malfunction. Contact an authorized Canon service representative.

●A007 View restriction setting error (warning)

Message	inconsistent view restriction for camera [%1]
%1	Camera number (1-4)
Explanation	The view restriction settings are corrupted. The camera control functions on the affected camera cannot be used.
Response	Restore the factory default settings or reset the view restrictions.

●A008 Compatibility error in the view restrictions settings (warning)

Message	unacceptable view restriction for camera [%1]
%1	Camera number (1-4)
Explanation	Even in the telephoto field of view, the view restriction settings cannot be satisfied in the horizontal or vertical direction. When this occurs, the zoom setting is fixed at the telephoto field of view, and camera head control is prohibited in directions that do not satisfy the permitted field of view restrictions.
Response	Set appropriate values for the view restrictions.

● **A010 Camera control driver start and stop (info)**

Message	%1 driver for camera [%2] %3
%1	Camera type (Canon NU-700 Canon VC-C3 Canon VC-C4 Canon VC-C4R)
%2	Camera number (1-4)
%3	started stopped
Explanation	The camera control device was detected and the driver started up, or a camera control device error was detected and the driver stopped.

● **A011 Camera control device error (warning)**

Message	%1 [%2] malfunction (%3)
%1	Camera type (Canon NU-700 Canon VC-C3 Canon VC-C4 Canon VC-C4R)
%2	Camera number (1-4)
%3	Error (read write timeout ...)
Explanation	Camera control device I/O error.
Response	There is a malfunction if it does not reset automatically. Contact an authorized Canon service representative.

● **A012 WebView Livescope client start and stop (info)**

Message	%1 @ %2 %3
%1	Client type (LS/C LS/D LS/H)
%2	Client host IP address
%3	connected closed
Explanation	WV-TCP camera control client (LS/C), WV-TCP video transmission client (LS/D), WV-HTTP client (LS/H) started or stopped.

● **A014 Access prohibited due to host restriction (notice)**

Message	LS@%1 access denied
%1	Client host IP address
Explanation	Access from the client was denied due to host restrictions.

● **A016 Amount of transmitted video data (info)**

Message	%1 @ %2 %3 frames/%4 bytes in %5 seconds
%1	Client type (LS/D LS/H)
%2	Client host IP address
%3	Number of frames
%4	Number of bytes
%5	Video transmission time
Explanation	This shows the results of video transmission for a video transmission client.

● **A022 Applet archive load failure (warning)**

Message	archive/%1 not found
%1	Applet archive name (glimpse.cab glimpse.zip lvapplet.cab lvapplet.zip imagemap.gif snapanim.cab snapanim.zip digits.gif)
Explanation	Applet archive file does not exist or is corrupted.
Response	Copy the missing (or damaged) file in the 'archive' applet from the CD-ROM and reboot.

● **A023**

Status change of external device input (err)

Message	a %1 detected at %2
%1	external device input change (front-edge rear-edge pulse notch)
%2	external device terminal (In1 In2)
Explanation	A change was detected at external device terminal In1 or In2. front-edge denotes OFF → ON, rear-edge denotes ON → OFF, pulse denotes OFF → ON → OFF, and notch denotes ON → OFF → ON. pulse and notch are brief (10-20 milliseconds) ON and OFF periods detected during OFF and ON states respectively.

Detection of motion (err)

Message	motion %1
%1	Motion (detected stopped)
Explanation	Detection of motion started or stopped.

● **A024 Picture recording suspended and restarted (notice)**

Message	picture recording %1
%1	suspended recovered
Explanation	Picture recording stopped because of error or picture recording restarted because of error recovery. Error details will be output as A025.

● **A025 Picture recording processing error (warning)**

Message	picture recording failed: %1
%1	busy index broken index full no video data no storage device I/O error
Explanation	This shows the details of an error during picture recording. This message is only displayed when errors of different types occur. (This message is not displayed if the same error occurs repeatedly.)
Response	If the problem is busy, no response is required. For index broken (corrupted index file), repair the index. For index full (number of pictures that can be recorded has been exceeded), delete some of the recorded pictures. For no video data (video signal input error or maximum picture size exceeded), check the camera and camera settings. For no storage device (memory card not inserted), insert a memory card. For I/O error (input-output error), check the memory card.

●A026 Picture recording processing failure count (warning)

Message	picture recording failed %1 times
%1	Number of pictures that could not be recorded
Explanation	This shows the number of times picture recording failed in the period between suspended and recovered in message A024.
Response	In addition to the responses to A025, take steps such as reducing the picture recording frequency specified in the schedule.

●A027 Recorded picture deletion started (info)

Message	picture deletion started
Explanation	Recorded picture delete processing was started up.

●A028 Recorded picture deletion completed successfully (info)

Message	%1 pictures are deleted
%1	Number of recorded pictures deleted
Explanation	Recorded picture delete processing was completed successfully.

●A029 Recorded picture deletion ended abnormally (warning)

Message	picture deletion failed: %1
%1	index broken no storage device I/O error
Explanation	Processing was cancelled because an error was detected during recorded picture deletion.
Response	For index broken (corrupted index file), repair the index (rebuilding of recorded picture list). For no storage device (memory card not inserted), insert a memory card. For I/O error (input-output error), check the memory card.

●A030 Picture index restoration started (info)

Message	index restoration started
Explanation	Picture index restoration processing was started up.

●A031 Picture index restoration completed successfully (info)

Message	index restoration completed
Explanation	Picture index restoration processing was completed successfully.

●A032 Picture index restoration ended abnormally (warning)

Message	index restoration failed: %1
%1	no space left no storage device I/O error
Explanation	Processing was cancelled because an error was detected during picture index restoration.
Response	For no space left (memory card full), delete some files or replace the memory card. For no storage device (memory card not inserted), insert a memory card. For I/O error (input-output error), check the memory card.

●A033 Invalid file detected during picture index restoration (info)

Message	broken file detected: %1
%1	File name
Explanation	A file was detected during picture index restoration that is not a recorded picture.
Response	Delete any invalid files. This does not affect picture index restoration processing.

●A034 Recorded picture file read error during picture index restoration (info)

Message	picture file I/O error: %1
%1	File name
Explanation	An error occurred while a recorded picture file was being read during picture index restoration processing.
Response	Check the contents of the file. This file is not included in the picture index.

HTTP Server-related Log Messages

●H009 URL error (notice)

Message	HTTPD: %1: Invalid URI in request %2
%1	Client host IP address
%2	HTTP request
Explanation	Invalid URL was entered.(URL was not '***', or did not start with '/').
Response	If it occurs frequently, consider the possibility that the camera server has been attacked.

●H010 Method error (notice)

Message	HTTPD: %1: Invalid method in request %2
%1	Client host IP address
%2	HTTP request
Explanation	Invalid method was entered. (Method specified was other than GET, HEAD, PUT, POST, DELETE, CONNECT, OPTIONS TRACE). Message "501 Method Not Implemented" is returned.
Response	If it occurs frequently, consider the possibility that the camera server may be attacked.

●H011 File specification error (notice)

Message	HTTPD: %1: File does not exist: %2
%1	Client host IP address
%2	File name
Explanation	The specified file was not found.

●H015 Client request accept failure (warning)

Message	HTTPD: accept: (client socket) (%1) error
%1	Error code
%2	HTTP request
Explanation	Failed to accept HTTP client connection request due to server overload.

●H016 Length of the URL exceeded the limit (notice)

Message	HTTPD: %1: request failed for %2, reason: URI too long
%1	Client host IP address
%2	URL
Explanation	Received too long request. (limited to 4096 bytes).
Response	If it occurs frequently, consider the possibility that the camera server may be attacked.

●H017 Request receive error (notice)

Message	HTTPD: %1: request failed for %2: error reading the headers
%1	Client host IP address
%2	URL
Explanation	Reception error other than timeout.
Response	If it occurs frequently, consider the possibility that the camera server may be attacked.

●H019 Authentication scheme specification error (notice)

Message	HTTPD: %1: client used wrong authentication scheme: %2
%1	Client host IP address
%2	Authentication scheme
Explanation	Client used an authentication scheme other than Basic for sending authentication information.

●H022 Content-length specification error (notice)

Message	HTTPD: %1: Invalid Content-Length: %2
%1	Client host IP address
%2	Content-length
Explanation	Only numbers can be used to specify a content-length.

●H023 Inappropriate method was used to send a body (notice)

Message	HTTPD: %1: %2 with body is not allowed for %3
%1	Client host IP address
%2	HTTP method (GET TRACE ...)
%3	URL
Explanation	GET, TRACE etc. method cannot be used for sending a body.

●H031 HOST field not specified (notice)

Message	HTTPD: %1: client sent HTTP/1.1 request without hostname (see RFC2068 section 9, and 14.23): %2
%1	Client host IP address
%2	URL
Explanation	HOST field was not specified in HTTP1.1 protocol.

●H042 Host access restriction applied (notice)

Message	HTTPD: client %1 denied by server configuration: %2
%1	Client host IP address
%2	URL
Explanation	Client's access was denied due to host access restrictions.

●H043 User name specification error (notice)

Message	HTTPD: %1: user %2 not found: %3
%1	Client host IP address
%2	User name
%3	URL
Explanation	Unknown user name was specified for user authentication.

●H044 Password specification error (notice)

Message	HTTPD: %1: user %2: password mismatch: %3
%1	Client host IP address
%2	User name
%3	URL
Explanation	Wrong password was specified for user authentication.

●H049 Embedded CGI startup error (warning)

Message	HTTPD: %1 : "%2" not found, using default handler for: %3
%1	Client host IP address
%2	Embedded CGI
%3	URL
Explanation	Embedded CGI invocation failed. It especially occurs when there was an access to the settings page while it already was accessed and opened.
Response	Reboot if multiple access was not the reason. If rebooting does not solve this problem, there is a malfunction. Contact an authorized Canon service representative.

Driver-related Log Messages

●P001 File system mounting failure (warning)

Message	AUTOMNT: %1 already mounted or %2 busy
%1	Device name
%2	Mount point
Explanation	Two memory cards are inserted together or the memory card cannot be mounted because an error occurred when it was last unmounted.
Response	If the card cannot be mounted because an error occurred when it was last unmounted, reboot.

●P003 Memory card error (warning)

Message	AUTOMNT: cannot mount %1 on %2
%1	Device name
%2	Mount point
Explanation	Mount processing was cancelled due to a memory card error.
Response	Replace the memory card.

●P004 Device busy (err)

Message	AUTOMNT: %1: device is busy
%1	Device name
Explanation	The card was unmounted during file access. This does not occur during normal operation.
Response	If this occurred when Administration Tools Settings Page was used to unmount the card, reboot.

●P005 Card initialization failed in card slot A (warning)

Message	ENABLER: slota enable err
Explanation	Card information read from the card inserted in card slot A failed.
Response	Re-insert the card or replace the card.

●P006 Card initialization failed in card slot B (warning)

Message	ENABLER: slotb enable err
Explanation	Card information read from the card inserted in card slot B failed.
Response	Re-insert the card or replace the card.

●P009 Memory card read error (err)

Message	PCMCIA ATA Card (Slot%1 sector %2): Read Sector Error
%1	Slot (A B)
%2	Sector number
Explanation	A sector read error occurred. The card may be damaged.
Response	Check the memory card and, if necessary, reformat the card. If there is a physical fault on the card, replace the card.

●P010 Memory card write error (err)

Message	PCMCIA ATA Card (Slot%1 sector %2): Write Sector Error
%1	Slot (A B)
%2	Sector number
Explanation	A sector write error occurred. The card may be damaged.
Response	Check the memory card and, if necessary, reformat the card. If there is a physical fault on the card, replace the card.

System-related Log Messages

●S001 Ethernet interface initialization failed (crit)

Message	eci: netif can't up
Explanation	Network interface initialization failed.
Response	If rebooting does not solve the problem, there is a malfunction. Contact an authorized Canon service representative.

●S002 Ethernet route registration failure (err)

Message	eci: net route can't add
Explanation	An attempt to register a route for a local Ethernet segment failed.
Response	Correct the Ethernet settings and reboot.

●S003 Ethernet default route registration failed (err)

Message	eci: default route can't add
Explanation	Registration of the default Ethernet route failed.
Response	Correct the Ethernet settings and reboot.

●S004 System startup (info)

Message	System started
Explanation	The VB software started up.

●S005 System settings changed (info)

Message	System settings updated
Explanation	The VB software settings were modified without a reboot.

●S006 IP address conflict detection at startup (err)

Message	Detected a conflict for IP address %1 with %2
%1	IP address
%2	Ethernet address
Explanation	An IP address conflict was detected during startup. If there is a device running on the network that has the same IP address as the VB150, this error occurs when the VB150 starts up.
Response	Change the VB150 IP address or change the IP address of the conflicting network device. If you change the VB150 IP address, the VB150 must be rebooted. When there is an IP address conflict, it may not be possible to modify the settings via Ethernet. In this event, an initial setup tool must be used to change the settings.

●S007 IP address conflict detected during operation (err)

Message	Duplicate IP address. %1
%1	Ethernet address
Explanation	An IP address conflict was detected during operation. This occurs when a network device with the same IP address as the VB150 is started up after the VB150 was started up.
Response	As for S006.

●S010 FAT (File Allocation Table) count error (err)

Message	only 2 FATs are supported (FATs=%1)
%1	Number of FATs
Explanation	The number of FATs is not 2. The file system may be corrupted or it may not be formatted as a FAT file system.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S011 Cluster size error (err)

Message	cluster size is zero.
Explanation	The size of clusters is zero. The file system may be corrupted or it may not be formatted as a FAT file system.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S012 Sector size error (err)

Message	logical sector size is zero.
Explanation	The sector size is zero. The file system may be corrupted or it may not be formatted as a FAT file system.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S013 FAT entry count error (err)

Message	file system has %1 clusters, but only space for %2 FAT entries.
%1	Number of clusters
%2	Number of FAT entries
Explanation	The FAT entry recording area for the number of clusters is not allocated. The file system may be corrupted or it may not be formatted as a FAT file system.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S014 Root directory size error (err)

Message	root directory size is zero.
Explanation	The root directory size is zero. The file system may be corrupted or it may not be formatted as a FAT file system.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S015 Root directory entry count error (err)

Message	root directory doesn't span an integral number of sector sizes.
Explanation	The number of root directory entries is not consistent with the recording area size for root directory entries. The file system may be corrupted or it may not be formatted as a FAT file system.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S016 Logical sector size error (err)

Message	logical sector size is not a multiple of the physical sector size.
Explanation	The logical sector size is not a multiple of the physical sector size. The file system may be corrupted or it may not be formatted as a FAT file system.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S017 Boot sector error (err)

Message	invalid disk format in boot sector.
Explanation	A value recorded in the boot sector is not valid for the FAT format. The file system may be corrupted or it may not be formatted as a FAT file system.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S018 Write error during file system checking (err)

Message	chkdsk: Disk Write Error.
Explanation	A write error occurred during file system checking.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S019 Read error during file system checking (err)

Message	chkdsk: Disk Read Error.
Explanation	A read error occurred during the file system check.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S020 File system checking ended abnormally (err)

Message	device name (%1) chkdsk unsuccessful.
%1	Device name (/dev/hd0a ata card)
Explanation	This error message appears after error messages S010 to S019. If the device name is ata card, the error is on the memory card. If the device name is /dev/hd0a, it affects the internal file system.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S021 File system structural defect (err)

Message	disk has a structural defect.
Explanation	Due to a file system structural defect, file system check and mount is not possible.
Response	If this error affects the internal file system, contact an authorized Canon service representative. If it affects a memory card, replace the memory card.

●S023 The erase count for the on-board flash ROM exceeded the limit (err)

Message	FlashROM erase count (%1) exceeded the limit
%1	Erase count for the on-board flash ROM
Explanation	The erase count limit for the on-board flash ROM has been exceeded.
Response	Contact an authorized Canon service representative. If you continue to write data after this error occurs, there is a risk of data corruption.

●S024 Ethernet connected (info)

Message	fe0: Link Up - %1 %2 Duplex
%1	Line speed (10Mbps 100Mbps)
%2	Communication mode (Full Half)
Explanation	Ethernet link is up.

●S025 Ethernet disconnected (info)

Message	fe0: Link Down
Explanation	Ethernet link is down.
Response	If it occurs frequently, check your cables or connectors. If there is nothing wrong with the cables or connectors, then you need to replace the hub.

●S026 PPPoE connected (info)

Message	PPPoE UP %1 → %2
%1	Local address
%2	Remote address
Explanation	PPPoE link is up.

●S027 PPPoE disconnected (info)

Message	PPPoE DOWN %1
%1	Local address
Explanation	PPPoE link is down.

●S028 POP authentication failure (warning)

Message	POP Authentication failed
Explanation	Failed to conduct POP authentication when transmitting e-mail.

●S029 SMTP error (notice)

Message	SMTP ERROR %1
%1	Error reply from SMTP Server
Explanation	Failed to transmit an e-mail.

●S030 PPPoE discovery error (warning)

Message	PPPoE Can't find server
Explanation	PPPoE Server does not respond. Disconnection of lines and service name error may be found.

●S031 PPPoE connection error (warning)

Message	PPPoE Can't connect server
Explanation	Failed to establish a PPPoE connection. The PPPoE settings are invalid.

Remote Firmware Upgrade-related Log Messages

●I001 Remote firmware upgrade write error (err)

Message	cannot reboot as the firmware is broken
Explanation	Reboot cannot take place because there is an error in the firmware that was written onto read-only memory during the firmware remote upgrade. This error is not a transfer error and has not occurred as a result of a break in transfer. This type of error occurs only when firmware is erased from the ROM or when firmware is written onto the ROM.
Response	Contact your local Canon service representative. There is a possibility that the flash ROM chip has been damaged.

●I002 Application program is stopped because of the remote firmware upgrade (info)

Message	application is halted for updating the firmware
Explanation	The application program has been stopped so that the firmware can be installed remotely. All operations for WebView, picture recording and external device output control that are underway will be discontinued, and new commands will not be accepted until a reboot has been carried out.

●I003 Remote firmware upgrade completed (info)

Message	firmware is updated
Explanation	The remote firmware upgrade process has been completed.

●I004 Reboot due to remote firmware upgrade timeout (warning)

Message	reboot as the firmware update time is out
Explanation	The VB150 restarted due to firmware remote installer timeout. This happens when communication with the installer has been cut for 5 minutes due to network error etc.
Response	Check to be sure that the camera server has been restarted. (Refer to the version and revision numbers that are displayed at the top of the settings title page and check that the numbers are that of previous version firmware).



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