

**Network Camera Recording and Monitoring System**

***Network Video Recorder  
VK-64/VK-16***

**Viewer Manual**

***Ver. 1.3***

# Introduction

Thank you for purchasing Network Video Recorder VK-64 v1.3 (hereafter referred to as “VK-64”). VK-64 is a network video recording and monitoring system and consists of the Storage Server and Viewer. This manual explains how to use the Viewer. Please read this manual prior to operation to ensure you will be able to use the Viewer and Storage Server effectively. This manual also explains how to use the Network Video Recorder VK-64 v1.3 and Viewer-Only use. When you have finished reading this manual, please store it in a safe place.

\* VK-16 has the same functionality as VK-64 outlined in this manual, unless explicitly indicated otherwise.

## Request to Customers

- (1) Canon owns the copyright of this manual. The content of this manual may not be reproduced in its entirety or in part without prior permission.
- (2) The content of this manual is subject to change without notice.
- (3) All possible measures have been taken to ensure that the content of this manual is accurate. If you happen to notice errors, omissions or other faults, please contact your vendor.
- (4) Irrespective of items (2) and (3) above, Canon cannot bear responsibility for any effects that result from operation.
- (5) When description of this manual uses the Control Panel, it conforms to operations with Window XP Classic style.

## Request to Customers (Indemnity)

Software defect may cause an error in recording and damage or loss of recorded data. Canon cannot bear responsibility for any effects that result from operation. You should agree with it before using the product.

### Support Information

For various types of information relating to support, including updated product software (patch installer), User's Manual, operating environment, etc., please refer to our WebView Product web page: [canon.com/webview](http://canon.com/webview)

### Copyright Information

Please note that copyright laws prohibit the customer from using recorded videos and still pictures for any purpose other than personal requirements, without permission from the copyright holder.

### Trademarks

- Canon and the Canon logo are registered trademarks of Canon Inc.
- Microsoft Windows is a trademark of Microsoft Corporation in the United States and other countries.
- Windows is legally recognized as Microsoft Windows Operating System.
- QuickTime is a trademark of Apple Computer Inc.
- Apache is a trademark of the Apache Software Foundation.
- Pentium is a trademark of Intel Corporation.
- All other company or product names used in this manual are trademarks or registered trademarks of their respective holders.

### Icons Used in this Manual



Note

Indicates important information that must be observed or actions that are prohibited during an operation. These notes must be read to prevent possible faults or errors during operation.



Tip

Indicates supplementary information or a reference to an operation. Users are advised to read these memos.

Storage Server includes software developed by the Apache Software Foundation ([www.apache.org](http://www.apache.org)). Apache software is protected by the copyright law (Copyright(c) 2000-2003 Apache Software Foundation). For the license terms associated with this software, please refer to the file APACHE\_LICENSE in the folder LICENSE, within the installation directory.

# Contents

## Introduction

Overview .....	5
----------------	---

## Chapter 1 Using the Viewer - Operator Login

<b>Viewing Screen Example .....</b>	<b>8</b>
<b>Starting the Viewing Screen .....</b>	<b>10</b>
Launching Procedure .....	10
Connect to the localhost .....	11
Specify the IP address of Storage Server to connect Viewer .....	12
Use Viewer only without connecting to Storage Server (Viewer Only Mode) .....	13
Viewer Start-up Window .....	14
<b>Viewing Screen Menu bar .....</b>	<b>15</b>
Menu Bar Functions .....	15

## Chapter 2 Working with Video Windows

<b>Selecting Cameras for Viewing .....</b>	<b>18</b>
About the Camera Selection Area .....	18
About Camera Thumbnails .....	18
Selecting Locations and their Zones .....	19
<b>Basic Video Window Functions .....</b>	<b>20</b>
Creating, scaling and moving Video Windows .....	20
Arranging Video Windows .....	22
Selecting Multiple Video Windows .....	23
<b>Video Window States .....</b>	<b>24</b>
Video Window Properties include: .....	24
About Video Window states .....	24
<b>Adjust Pan, Tilt and Zoom .....</b>	<b>26</b>
Viewing Live Video - Adjusting Pan, Tilt and Zoom .....	26
<b>Other Video Window Functions .....</b>	<b>31</b>
Changing the size of a Video Window .....	31
Changing the size of a Received Video (VB-C50i/VB-C50iR, VB-C50FSi, VB-C50Fi only) .....	31
Enabling Backlight Compensation .....	32
Other Menu Options .....	33
About Shade Correction .....	34
About Audio Panel .....	34

## Chapter 3 Using the Timeline and Viewing Events \*If you are using the Viewer only, you can skip this chapter.

<b>Using the Timeline .....</b>	<b>38</b>
Timeline Overview .....	38
Monitoring Live Video in relation to the Timeline .....	39
Using the Timeline to check, play and extract video .....	40
Initiating a manual recording with duration of one minute .....	42
Capturing a Still Frame .....	42
Daylight Savings Indicator .....	43
Extracting video to save to another location .....	44

- Viewing and Searching Events .....45**
  - Displaying the Live Events Log List .....46
  - Overview of Alert Parameters .....46
  - Searching Events .....47
  - Selecting Criteria for Searching .....48
  - Viewing found events .....49

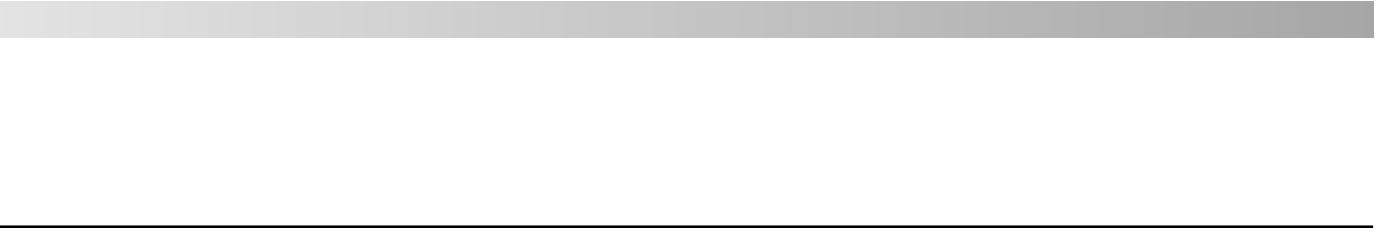
- Index .....51**

# Overview

- VK-64/VK-16 is a network video recording and monitoring software and consists of the Storage Server and Viewer. The Storage Server can record videos and events (sensor input and motion detection) data from multiple camera servers. The Viewer can display videos from multiple camera servers in real time and play back videos recorded on the Storage Server.

This manual explains how to use the Viewer.

- The Viewer can be used by itself without connecting to the Storage Server (Some functions such as video recording, sensor events, and motion detection Capture Still Frame are not available) (→ P. 13).



# Chapter 1

## Using the Viewer - Operator Login

**This chapter outlines how to start the Viewer and gives a brief overview of the Viewing Screen.**

# Viewing Screen Example

**Location selector (→ P. 18)**

Drop-down menu indicating locations available in the system.

**Menu bar (→ P. 15)**

Access common menus from here.

**Zone selector (→ P. 18)**

Drop-down menu indicating zones within a location.

**Camera Control Panel (→ P. 27)**

A range finder enables you to control a camera and quickly determine a camera position.

**Event indicator (→ P. 25)**

A color bar is displayed at the top of live Video Windows when an event occurs (if enabled).

**Viewing Area for Video Windows (→ P. 14)**

The Video Windows are arranged here. Video Windows can be re-sized. They can also be arranged into a uniform grid.

**Video Window (→ P. 20)**

Recorded videos and live videos are displayed in these windows.

**Camera Name (→ P. 38)**

Name of camera currently selected.

**Playback controls (→ P. 38)**

Click the VCR-like controls to play, rewind, fast forward or jump to previous and next events.

**Timeline control (→ P. 38)**

Scroll forwards through the current day or jump forward incrementally by day or week.



**Timeline (→ P. 38)**

Paste date and time as well as events which occurred are displayed here. Events are displayed as bars colored according to the priority. Click and drag the Time bar to go back or forwards in time.

**Record Now button (→ P. 42)**

Click to initiate a manual recording with a duration of one minute.

**Capture Still Frame button (→ P. 42)**

Click to save the current image on a Video Window.



**Camera Selection Area (→ P. 18)**

Thumbnail representations of cameras added to each zone are displayed here. These can be dragged onto the Viewing Area for viewing.

**Video Window menu icon (→ P. 31)**

Select preset camera angles, custom pan, tilt and zoom, and select a Video Window size.

**Live Events Log list (→ P. 45)**

Indicates events that have been logged on Storage Servers after the Viewer was launched.

**Zoom In and Zoom Out buttons (→ P. 38)**

Click to zoom in or out of the Timeline.

**Event Search button (→ P. 47)**

Click to bring up a dialog and enter search details based on time range, Location/Zone and priority.

**Jump to Time button (→ P. 41)**

Click to enter a specific date and time to jump to, to start playing recorded video. The Timeline moves to the time selected.

**Extract Video button (→ P. 44)**

Click to extract a segment of video to save as another file.

**Return to Live button (→ P. 44)**

Click to return the Timeline playhead to the current time. If you click this button while playing recorded video, the selected Video Window will return to live video.

**Timeline playhead (→ P. 40)**

Click and drag to positions on the Timeline to show video from that time.

**Timeline control (→ P. 39)**

Scroll forwards through the current day or jump forward incrementally by day or week.



# Starting the Viewing Screen



Note

Before you use the Viewing Screen, make sure you have the user name and password. Ask your System Administrator for the user name and password.

## Launching Procedure

Before you launch the Viewer, make sure your monitor resolution is set to a minimum of 1024 x 768 pixels.

### Step 1: Start the Viewer



VK Viewer

Double-click the **VK Viewer** desktop icon.

Alternatively, from the Windows Start menu select: **Programs > WebView Livescope > Network Video Recorder VK Series v1.3 > VK Viewer**.

The connect option menu (Start-up Screen) is displayed. Select **Master Storage Server** option and click **Connect**.

#### Start-up Screen



#### localhost

Connects to Storage Server and starts the Viewer. Select this option if you want to use the local PC where Viewer is installed as the Master Storage Server.

#### Use IP address

Connects to Storage Server and starts the Viewer by specifying its IP address. Select this option when the Storage Server and the Viewer are installed on separate PCs.

#### Not use Storage Server

Select this option to use the Viewer only without connecting to a Storage Server.



Tip

If a connection error occurs, you may not have a **Master Storage Server** connected. Ask your System Administrator.

### Connect to the localhost

If you want to use the local PC where Viewer is installed as the Master Storage Server, select localhost to start the Viewer.

#### Step 1: Connect to localhost



1 Select **localhost** from the drop-down menu.

2 Click **Connect**.

#### Step 2: Login



Enter your **User Name** and **Password**, and click **Login**.



The user name and password for the VK-64/VK-16 entered in this step are defined by your System Administrator on the Storage Server Configuration dialog. They can be different from the user name and password used to log into Windows.

## Specify the IP address of Storage Server to connect Viewer

If you installed the Viewer and Storage Server on separate PCs, specify an IP address of Storage Server and connect Viewer to the Storage Server.

If you are unsure of the address to use, ask your System Administrator.



1 Select **Use IP address** from the drop-down menu.

2 Click **Connect**.



3 Enter the IP address or host name of the Master Storage Server in **Host Name or IP**, and the port number in **Port**.

4 Click **Connect**.



5 Enter your **User Name** and **Password**, and click **Login**.



Note

● If you need to use a proxy server, you need to change the Internet option settings in the following procedure:

1. Select Start > Control Panel > Internet Option.
2. Select the Connection tab.
3. Click LAN settings ....

Change the proxy server settings.

- If using a proxy server between a Viewer and a Storage Server, it should be one which does not perform response buffering. Proxies which are configured to perform response buffering may lead to delays in sending small amounts of data (such as events) from the Storage Server to the Viewer. The Apache proxy server does perform response buffering so is not recommended.
- You cannot transmit or receive audio when using a proxy server.



Tip

The dialog for entering the IP address will also be shown even when connection to the Storage Server failed.

## Use Viewer only without connecting to Storage Server (Viewer Only Mode)

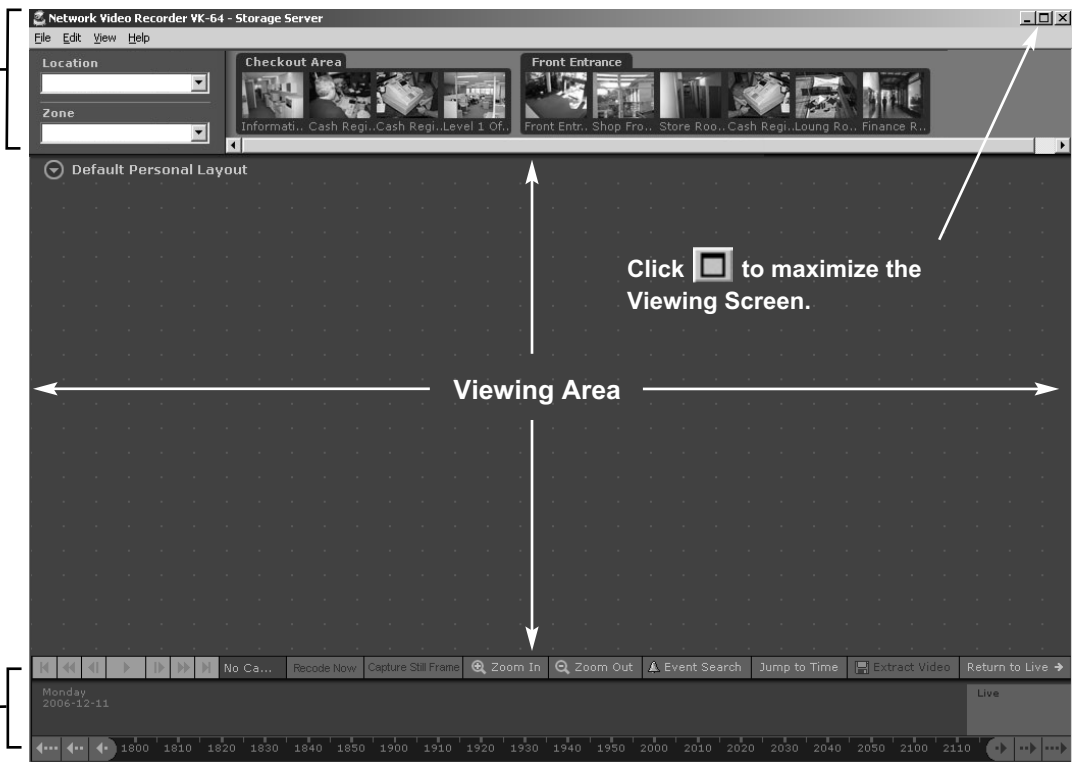
You can use the Viewer only without connecting to a Storage Server. When Storage Server is not used, some functions such as video recording, sensor events, motion detection, and event search are not available.




- 1 Select **Not use Storage Server** from the drop-down menu.
- 2 Click **Connect**.

## Viewer Start-up Window

When you start the VK-64/VK-16 for the first time and/or no Layouts have been configured, you will notice that the Viewing Area is blank as shown below. Previously-configured cameras on the network will appear as thumbnail images in the Camera Selection Area on the top of the screen. These can be dragged onto the Viewing Area for monitoring. If your Administrator has already created a Layout for you, then **the Viewing Area will display the first Personal Layout (or first Shared Layout if there are no Personal Layouts)** as shown in the example on the previous pages.



You can hide these panels via the **View** menu (→ P. 15).

Click  to maximize the Viewing Screen.

Viewing Area

# Viewing Screen Menu bar

## Menu Bar Functions



The following table lists the Viewing Screen menus.

Menu	Menu sub-item	Function	
File	Switch Master Storage Server	Switches among Master Storages Servers. The connect option menu for Storage Server is displayed.	
	Exit	Closes the application.	
Edit	Cut	In the Viewing Screen, this removes selected Video Windows from the current layout and places to the Clipboard. You can paste these Video Windows onto the same or another layout.	
	Copy	In the Viewing Screen, this copies selected Video Windows from the current layout and places to the Clipboard. You can paste these Video Windows onto the same or another layout.	
	Paste	In the Viewing Screen, this action pastes the cut or copied Video Window into the current Layout.	
	Delete		In the Viewing Screen, this deletes selected Video Windows from the current layout.
			In the <b>Storage and Camera Server Summary</b> screen, this deletes selected Storage Servers, Camera Servers, Locations or Zones.
			In the <b>Recording Schedule</b> screen, this deletes selected Normal or Special Day schedules.
Select All	In the Viewing Screen, this action selects all Video Windows in the current Layout.		
Search Events	The Event Search dialog is displayed.		
View	Configuration	Selects the <b>Configuration and Preferences</b> Screen if the Viewing Screen is open.	
	Viewing Screen	Selects the Viewing Screen if the <b>Configuration and Preferences</b> Screen is open.	
	Full screen	Hides the Menu Bar and Title Bar to allow more display room for Video Windows. Clicking the <b>Esc</b> key restores the Viewer to its previous state (i.e., before selecting the Full Screen mode).	
	Captions	Hide/Show the captions of Video Windows.	
	Camera Selector	Hide/Show the Camera Selection Area.	
	Timeline	Hide/Show the Timeline Area.	
	Live Events	In the Viewing Screen, this action opens the <b>Live Events Log</b> at the position and size that it was last open. A tick beside the menu item indicates that the screen is open. Selecting the menu item again will close the window and the menu item will be unticked.	
	Camera Control	Brings up the Camera Control Panel where you can set the viewing position and zoom.	

## *Viewing Screen Menu bar*

---

<b>View</b>	<b>Audio panel</b>	Displays the Audio panel to transmit or receive audio.
	<b>Status bar</b>	Shows or hides the captions of the status bar. The status bar displays load information for the Viewer (i.e., total frame rate, CPU %, number of displayed events, number of Video Windows).
<b>Help</b>	<b>About</b>	This action opens the <b>About</b> box featuring the startup splash screen with version number.



# Chapter 2

## Working with Video Windows

**This chapter shows you how to create Video Windows for viewing in the Viewing Area and how to adjust camera angles.**

# Selecting Cameras for Viewing

## About the Camera Selection Area

The Camera Selection Area is used to display thumbnails of all the camera servers. You can select another set of thumbnails of currently-available cameras via the **Location** and **Zone** drop-down menus.

- The **Location** drop-down menu lists the physical locations of cameras on the system.
- The **Zone** drop-down menu lists the groups of areas within each location.



When you select a location, its associated zones will be listed below.

## About Camera Thumbnails

When a Location is selected, the thumbnail images of the Camera Servers registered in that **Location** will appear. Depending on the number of cameras in the selected **Location**, a scrollbar at the bottom of the **Camera Selection Area** can be used to scroll the display of thumbnails.



Thumbnail images can be dragged onto the Viewing Area to create Video Windows.



Note

**Locations, zones and thumbnails are configured and managed by users with Administrator privileges. You must have Administrator privileges in order to modify settings.**

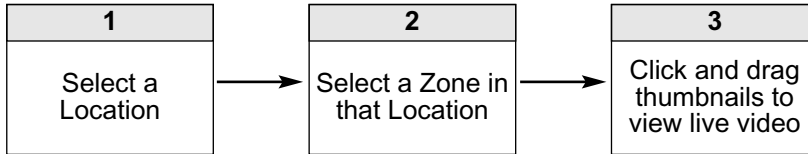


Tip

**You can hide the Camera Selection Area to allow more display space for Video Windows. From the View menu, select Camera Selector to hide/show the Camera Selection Area.**

## Selecting Locations and their Zones

Selection is performed in the following order:



### Step 1: Select a Location from the drop-down menu



Click the **Location** drop-down menu or on the down arrow.

A list of pre-configured locations appears.

Click a location in the list. Zones for that list will appear in the thumbnail section to the right.

### Step 2: Select a Zone from the menu or thumbnail folder region



Click the **Zone** drop-down menu or on the down arrow.

A list of pre-configured zones appears.

Click a zone in the list.

Once a Zone is selected from the drop-down menu, the Camera Selection Area for the selected Zone moves to the left.

Alternatively, click the scrollbar located under the Camera Selection Area. Drag it to the right until the desired Zone is displayed.

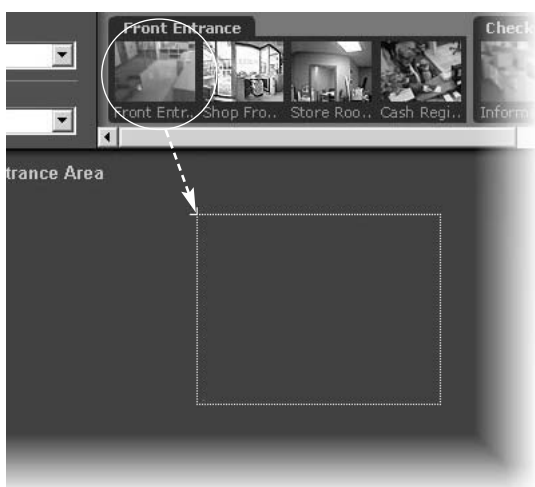


# Basic Video Window Functions

## Creating, scaling and moving Video Windows

Once you have chosen a location and a zone, you are ready to view one or more cameras in that zone. Camera thumbnail images are used to create Video Windows in the Viewing Area. The Viewing Area can support multiple Video Windows for live monitoring and viewing recorded video simultaneously.

### Click and drag a camera thumbnail onto the Viewing Area



- 1 Click the thumbnail image and while holding down the mouse button, drag its boundary anywhere onto the Viewing Area.
- 2 Release the mouse button. The live Video Window with video image will be displayed.

When placed the thumbnail image, the Video Window is re-sized and re-positioned according to the **Layout Grid**.

A selected Video Window is highlighted.



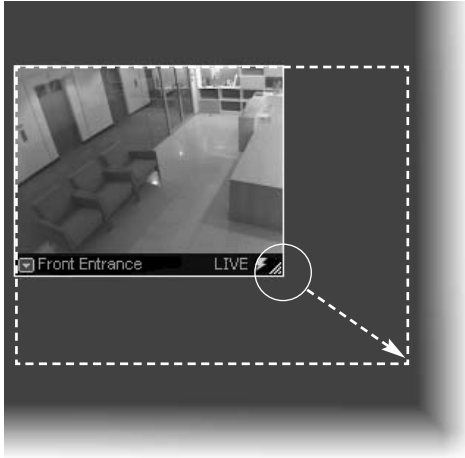
Note

Could not connect to camera


Cash Register #1 Live

An error message will appear in the Video Window if there is a connection problem.

## Re-size a Video Window



1 Click a Video Window to highlight it. An arrow icon will appear in the lower right corner. Click the arrow icon and drag outwards. You can also click on the other corners and drag to re-size the window. Release the mouse button when you have reached the desired size.

2  Alternatively, click the Video Window menu button and select **Video Display Size**. Select **Small**, **Medium**, **Large**, or **Default** from the sub-menu. A right-click action on the Video Window will also bring up the same menu.

## Move a Video Window



Click anywhere on a Video Window and drag it to any position in the Viewing Area.



Note

- For best performance on the Viewer, such as to view as many Video Windows as possible, re-size the Video Windows to a standard resolution (for example, 160 x 120, 320 x 240, 640 x 480).
- When Video Windows that are other than a standard resolution are displayed, the load on the computer CPU will be high and Viewer operations may take longer.

## Add more Video Windows

Click and drag other camera thumbnails onto the Viewing Area to create Video Windows for monitoring. Your Viewing Screen could look like this.



## Arranging Video Windows

There are various ways you can manage the layout of Video Windows in the Viewing Area. Ask your System Administrator.



Note

- In the Viewer, the number of Video Windows you can display simultaneously will depend on your video card, the resolution and quality settings of the camera and the Live Video Viewing Settings (frame rate) set in the Viewer Settings window of the Configuration and Preferences screen.
- If the load on the computer CPU is high, Viewer operations may take longer.

## Selecting Multiple Video Windows

You can select multiple video windows easily. You can also move, cut, or copy multiple windows simultaneously.

### Selecting Multiple Video Windows



There are three ways to select multiple windows:

- On your keyboard, hold down the **Ctrl** key and click each Video Window to select them.
- Click outside the Video Windows and drag a selection box around the Video Windows you want selected, as shown below. Only windows contained within the area of selection are selected. Dragging around part of an image will not select it.



- If you wish to select all Video Windows, click **Select All** from the **Edit** menu (or on your keyboard press **Ctrl + A**).



Tip

- Video Windows from different zones and locations can be displayed in the same Layout.
- You can copy and paste a multiple selection of Video Windows at one time which can be pasted into and saved as a new Layout.

# Video Window States

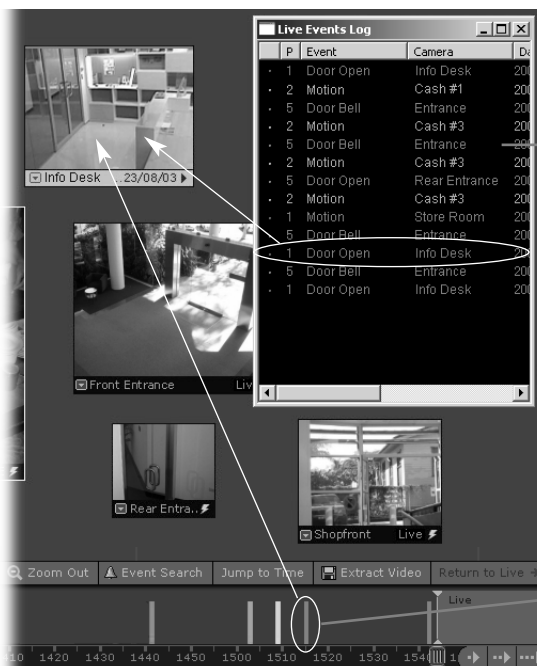
## Video Window Properties include:

- **Title bar** - indicates name of camera, live or recorded viewing.
- **Video display** - displays live or recorded information.
- **Pre-recorded video indicator** - displays a time/date stamp in the title bar for recorded footage.
- **Event indicator** - displays a colored bar across the top of the Video Window.
- **Pan, tilt and zoom controls** - when the Video Window is double-clicked or the Video Window menu item, **Get Camera Control** is selected, controls appear to enable pan, tilt and zoom.

## About Video Window states

Video Windows can be displayed in the Viewing Area according to their conditions:

- **Live** - when viewing live video from a Camera Server.
- **Pre-recorded** - displays pre-recorded video from a Storage Server.



### Live Events Log list

Double-click an event to view it in the corresponding Video Window. The **Live Events Log** opens automatically when you launch the Viewer, if left open in a previous session.

### Pre-recorded

Click to view recorded footage in the corresponding Video Window.



Note

The full camera name/event may not display if you reduce the size of the window.





Each Video Window displays video from an individual camera. Video Windows can be re-sized, repositioned or closed.

● Title bar

The title bar consists of menu, camera name and live or recorded status.

● Video display conditions

Live video



Recorded video Playback



The lightning symbol in the lower right-hand corner indicates live video.

● Pre-recorded Video Indicator

When recorded video is shown, the title bar on a Video Window will change from black to gray.



For recorded video, the time/date indicator may not fully display if the Video Window size has been reduced.

● Event Indicator

If the option for **Operator Notification** has been set, a color bar will flash on top of a live Video Window when an event occurs. The color indicates the event priority. The bar will flash for a pre-defined time and then remain steady for one minute until disappearing. An audio alert may also sound if pre-defined.



Color	Priority
Red	Highest
Orange	High
Yellow	Medium
Light Green	Low
Dark Green	Lowest

# Adjust Pan, Tilt and Zoom

## Viewing Live Video - Adjusting Pan, Tilt and Zoom

This is done in one of three ways:

- Directly from within the Video Window
- Using the Camera Control Panel
- Selecting a Preset



Note

- For a VB-C50FSi and VB-C50Fi, only zoom is available.
- If a fixed camera or an external camera such as VC-C50i is connected to VB-C50i, you cannot use pan, tilt, and zoom operations.

### Using the Camera Directly from within the Video Window

Double-clicking on a live Video Window.



Alternatively, click the down-arrow at the base of the Video Window (or right-click on the window). A drop-down menu will appear. Select **Get Camera Control**.



If the camera server is being used by the Viewers or VBAAdmin Tools supplied with the Camera Server, a “Can’t get camera control” message will appear. You may have to wait a few moments and attempt to get control later.




Move the mouse cursor around the Video Window. Arrows will appear in the cursor position when you have gained control of the camera. Click and drag the cursor in the direction of the arrow for pan and tilt. When you move the mouse cursor to the center of the image, a zoom in or zoom out control will appear.


Hold down the mouse on “+” to zoom in.

Hold down the mouse on “-” to zoom out.

When you have finished, select **Release Camera Control** from the Video Window menu.

-  Tip
- If you have camera control, you can only drag the window by clicking and holding the title bar.
  - When you have control, the camera can be controlled either by clicking or moving the mouse while holding the left button down. The latter method provides finer control.
  - If a control warning “Control will be lost in 10 seconds.” appears, it means you have stopped making changes for 30 seconds and a 10 second countdown commences. To continue control, click in the Video Window, i.e. use the controls.
  - You can still manipulate a camera that is currently recording. If the recording position has been set, the Camera Server will return to that position after the Viewer release camera control.

### Using the Camera Control Panel



Set Night Mode.

Pan/Tilt controls. Click to nudge or click and hold for continuous movement.

Clicking this button returns the camera to face the front.

Release Control

Preset: [Dropdown]

Night Mode:  Day Mode  Night Mode

Output1:  OFF  ON

Output2:  OFF  Off

Output3:  OFF  Off

Exposure ▾ White balance ▾ Others ▾

Click this button to display exposure control (→ P. 28).

If preset camera angles have been set up by your Administrator, they will be available from a drop-down menu.

Click this button to display white balance control (→ P. 29).

Switch On and Off of external device output of the camera.

When the Video Window is selected, click **Get Control**. Click **Release Control** when finished.

To display, select **View > Camera Control** from the menu bar, or click the Video window menu icon (or right-click in the Video Window) to bring up a context menu and select **Camera Control**.

If a Video Window is not selected, the preview window will be blank. Click on a Video Window to control the camera.

You can control the pan, tilt, and zoom operation using a panorama image. Click inside the Panorama window to adjust the pan and tile angles so that the clicked position becomes the center of the image. Alternatively, you can move or zoom in/out the yellow scope to perform the pan, tilt, and zoom operation.

If the digital zoom is enabled by the Camera Server, a boundary between the optical and digital zoom is displayed.

Click and drag the Zoom slider to perform the zoom operation.

Click this button to display extended camera control panel (→ P. 29).

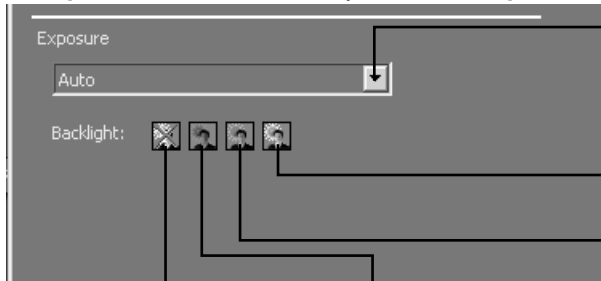


Note

When using the VB-C300, you cannot use Night Mode in the following cases:

- When Day&Night is set to Auto on the Camera and Video Settings page
- When the Night Mode is set to Auto with a recording schedule

### ● Exposure Control Items (when the Exposure Mode is Auto)



Set the Exposure Mode to **Auto** (VB-C300 only).

**Auto:** Automatically adjusts the exposure.

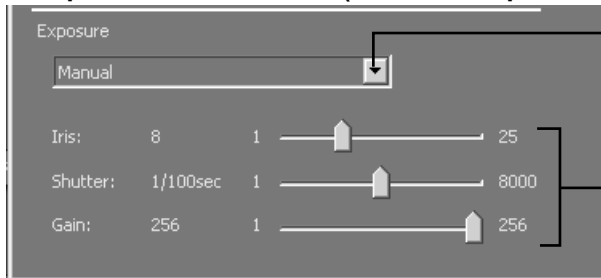
Clicking this button enables high-level backlight compensation.

Clicking this button enables mid-level backlight compensation.

Clicking this button disables backlight compensation.

Clicking this button enables low-level backlight compensation.

### ● Exposure Control Items (when the Exposure Mode is Manual)

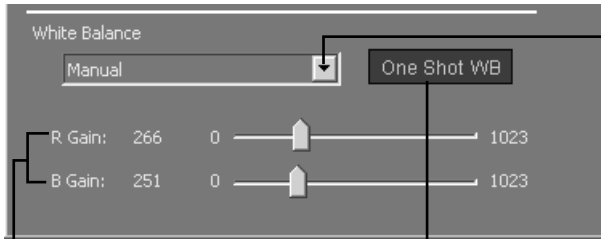


Set the Exposure Mode to **Manual** (VB-C300 only).

**Manual:** Dragging slide bars adjust the aperture value, shutter speed, and gain value.

Drag each slide bar to adjust the aperture value, shutter speed, or gain value.

● White Balance Control Items



Drag each slide bar to adjust each gain value.

To forcibly adjust the white balance, capture a white object (e.g., a piece of white paper) and click **One Shot WB**.

Select the White Balance mode from the drop-down menu. The following modes are available (VB-C300 only).

**Auto:** Automatically adjusts the white balance.

**Fluorescent:** Select this option when using the camera under neutral white or cool white fluorescent lighting.

**Fluorescent H:** Select this option when using the camera under a day light fluorescent lighting.

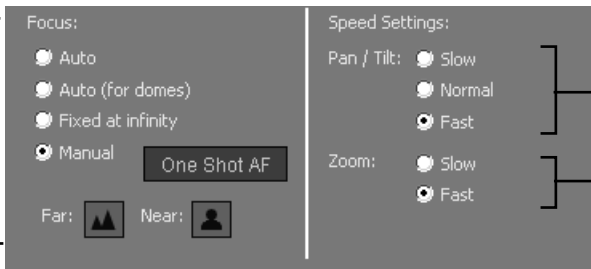
**Mercury light:** Select this option when using the camera under a mercury lighting.

**Sodium light:** Select this option when using the camera under orange light of a sodium lighting.

**Halogen light:** Select this option when using the camera under a halogen or incandescent lighting.

**Manual:** Drag each slide bar to adjust each gain value (R or B gain).

● Other items



Switch between Auto Focus and Manual Focus.

**Auto:** Adjust the focus automatically.

**Auto (for domes):**

When the optional dome housing is used, select this option to automatically adjust the focus without focusing on the wall surface.

**Fixed at Infinity:**

Focus is fixed at a point of infinity.

**Manual:** Press and hold **Far** or **Near** button to adjust the focus. Clicking **One Shot AF** adjusts the focus just once automatically (VB-C300 only).

Select from Slow, Normal, and Fast for Pan and Tilt.

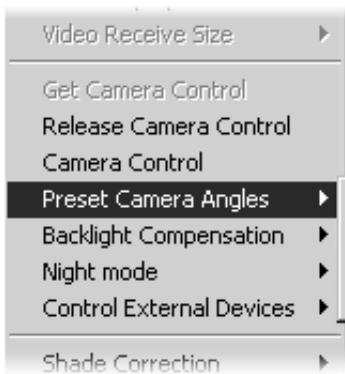
Select from Slow and Fast for Zoom.



Note

- When you have finished, select **Release Camera Control** from the active **Video Window** menu.
- **Panorama** image needs to be set on the **Camera Server** in advance. **VB-C50FSi/VB-C50Fi** cannot display panorama image.
- **Exposure** can be adjusted for **VB-C300** only.
- **White balance** can be adjusted for **VB-C300** only.

### Selecting a Preset Camera Angle



If preset camera angles have been set up, they will be available from the **Preset** drop-down menu of the **Camera Control** panel or a sub-menu. The following explains how to select a preset from a sub-menu.

- 1 Double-click a **Video Window** or select **Get Camera Control** from the **Video Window** menu.
- 2 From the **Video Window** menu, click **Preset Camera Angles**.
- 3 Select a preset position from the sub-menu.

# Other Video Window Functions

## Changing the size of a Video Window

Apart from manually clicking on the corner and dragging out the Video Window to a new size, you can also select a set size from the Video Window menu.

To change the display size of a Video Window via the menu:

### ● Open the Video Window menu and select Video Display Size



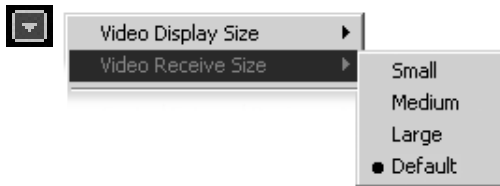
1 Click the Video window menu icon, or right-click in the Video Window to bring up a context menu.

2 Select **Video Display Size** from the menu, and then select **Small**, **Medium**, **Large**, or **Raw** from the sub-menu. A **Raw** selection displays the Video Window selected at the **Video Receive Size**.

## Changing the size of a Received Video (VB-C50i/VB-C50iR, VB-C50FSi, VB-C50Fi only)

You can select a video size received by the Viewer. To change the size of received video via the menu:

### ● Open the Video Window menu and select Video Receive Size



1 Click the Video window menu icon, or right-click in the Video Window to bring up a context menu.

2 Select **Video Receive Size** from the menu, and then select **Small**, **Medium**, **Large**, or **Default** from the sub-menu. Selecting **Default** displays the Video Window in the size received from the Camera Server.



Note

- When multiple Video Windows from a single Camera Server are displayed and the Video Receive Size is changed from one of them, the change will apply to all Video Windows.
- Selected video receive sizes are saved when the layout is saved.
- The Video Receive Size used for Default is determined when connection with Camera Server starts. Even if you change the size from the Camera Server after the connection is made, it will not apply.

## Enabling Backlight Compensation

Backlight compensation is a camera feature used to compensate for camera views with strong backlighting, i.e., viewing a dark image against a strong backlight. It can be enabled from the Video Window menu. It is not to be confused with Shade Correction.

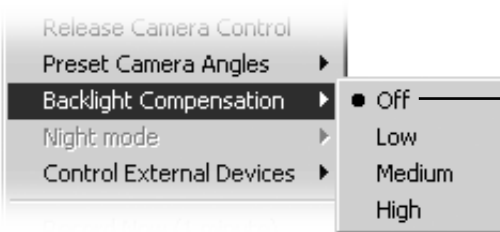
To enable backlight compensation:

### ● While Camera Control is active, select Backlight Compensation



1 Click menu bar of the Video window, or right-click in the Video Window to bring up a context menu.

2 Select **Backlight Compensation** from the menu and select **Off**, or **On** from the sub-menu.



You can set the backlight compensation to **Off**, **Low**, **Medium** or **High** for VB-C300, VB-C50i / VB-C50iR, VB-C50FSi and VB-C50Fi.



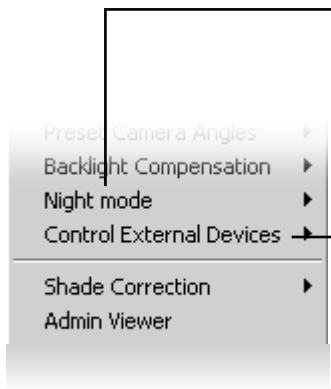
Note

If Low, Medium, or High is selected, the tick (black dot) is not displayed.



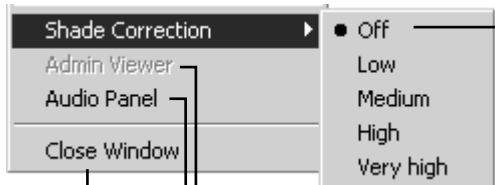
## Other Menu Options

Other functions available from the Video Window menu include:



Click **Night mode** and select **Disabled**, **Enabled**, **IR light off**, or **Enabled, IR light on** from the sub-menu. Selecting **Enabled, IR light on** will remove the IR cut filter and turn the built-in IR light on. The IR light cannot be used with the VB-C300, VB-C50FSi, or VB-C50Fi.

Click **Control External Devices** to control any external devices that may be connected to your Camera Server. This is only enabled when you have camera control. For more information on external devices, ask your System administrator.




Click **Shade Correction** to correct shaded areas in the Video Window. This affects the individual Video Window on display, i.e., any duplicate (unselected) windows are not affected. This is discussed on the following page.

Click **Admin Viewer** to activate the WebView Livescope Admin Viewer if the Admin Viewer or NC Viewer is installed. For the VB-C300, the NC Viewer is activated. Refer to your Camera Server User's Manual for more information on the Admin Viewer or NC Viewer.

Click **Audio Panel** to display the Audio Panel (→ P. 34) when you want to use the audio function of the VB-C300, VB-C50i/VB-C50iR, or VB-C50FSi. Refer to your VB-C300, VB-C50i/VB-C50iR, or VB-C50FSi User's Manual for more information on the audio settings.

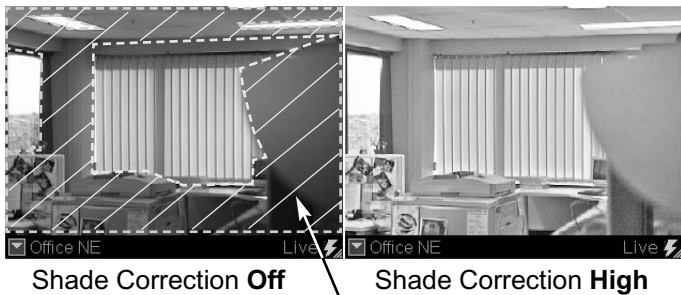
Click **Close Window** to close the Video Window that is currently selected. You can also close a selected Video Window by pressing the **Delete** key.

 Note

- It is recommended to install the Admin Viewer and/or NC Viewer in advance.
- The camera server which is sending or receiving audio cannot interact with other viewer or Admin Viewers.
- Shade Correction cannot be applied to multiple Video Windows.
- Shade correction is performed by using image processing within the Viewer and not on the Camera Server. It can be used on live or recorded video (see below).

### About Shade Correction

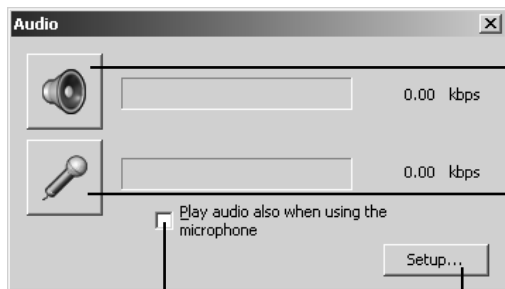
Shade Correction compensates darker regions of images and makes them lighter.



Correction only applies to the displayed Video Window in the Viewer.

Darker regions are most affected by Shade Correction.

### About Audio Panel

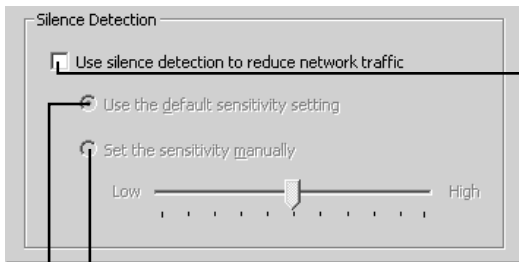


Clicking this button after selecting a Video Window, or selecting a Video Window after clicking this button starts audio playback.

Clicking this button after selecting a Video Window, or selecting a Video Window after clicking this button starts audio transmission.

When ticked, audio is played back even when a microphone is used.

Click this button to display silent detection control.



When ticked, silent intervals are detected while transmitting audio. For a silent interval, network load can be mitigated by reducing data to transmit.

Tick this option to detect silent intervals with predefined sensitivity.

Tick this option to manually adjust the detection sensitivity. Drag the slide bar to adjust the detection sensitivity.



# Chapter 3

## Using the Timeline and Viewing Events

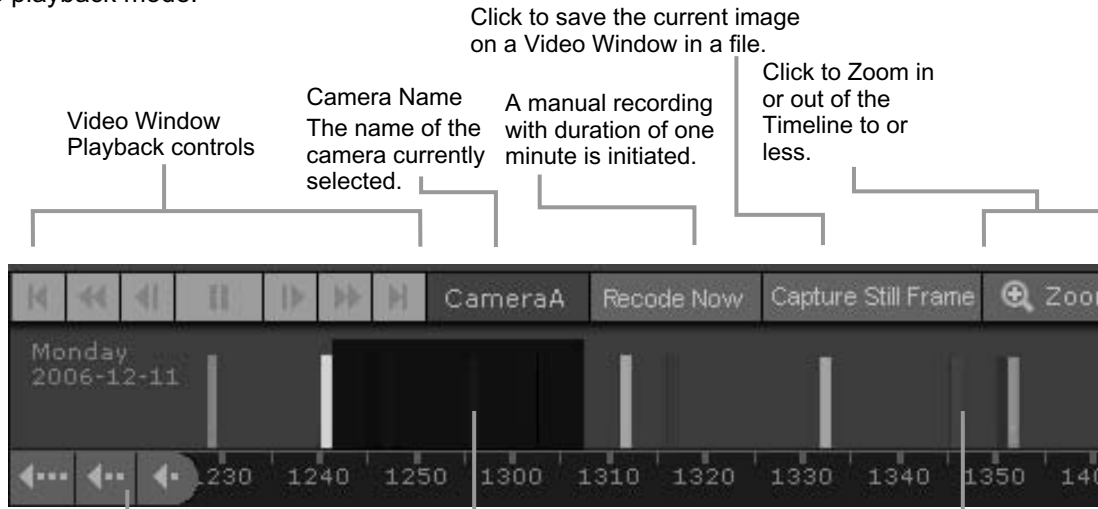
**This chapter shows you how to use the Timeline for live and pre-recorded viewing as well as view and search events.**

If you are using the Viewer only,  
you can skip this chapter.

# Using the Timeline

## Timeline Overview

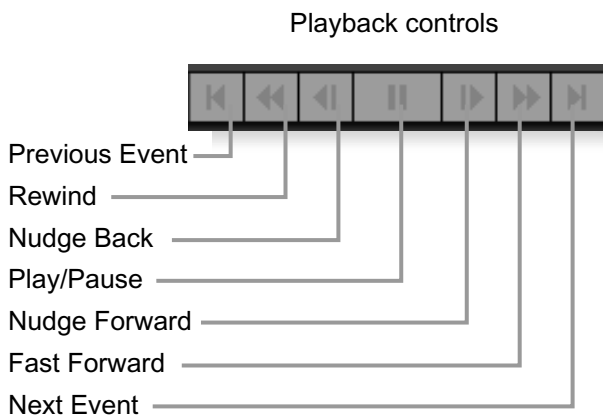
On the Viewing Screen, a timeline of past events associated with displayed cameras is shown in the Timeline Area (→ P. 8) at the bottom of the Viewer as colored bars. Selecting a colored bar moves the Playhead to the event and the associated Video Window is switched to playback mode.



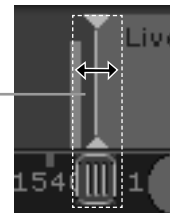
Click to scroll back hours, by days or by weeks.

Darker areas indicate recorded video for this period.

Events for non-selected cameras (Video Windows) in the Viewing Area are in weaker colors indicated as secondary event.



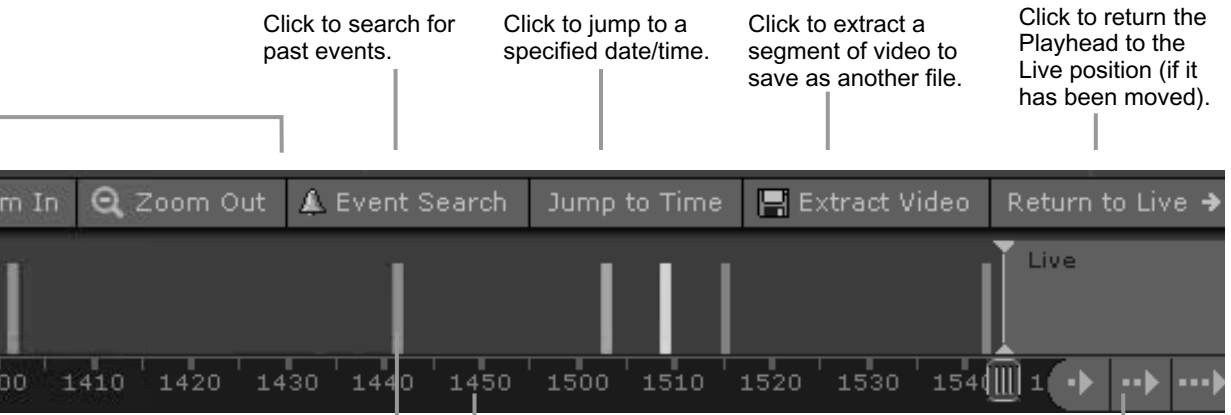
### Playhead region



Click in this area of the Playhead shaft and drag to positions on the Timeline.

## Monitoring Live Video in relation to the Timeline

When a Video Window is created from a camera thumbnail, video is seen live. The Playhead (shown below) will be in a “live” position. The “live” position represents the present time. The Playhead remain fixed as time scrolls to the left underneath, representing the passage of real time.



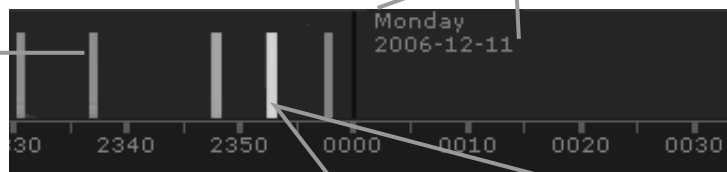
Click the time bar and drag to scroll through the Timeline.

Click to scroll forward hours, by days or by weeks.

Events associated with selected cameras (Video Windows) in the Viewing Area are indicated in stronger colors as primary events.


Event display area


Day indicator



Priorities are color-coded as follows.

Color	Priority
Red	Highest
Orange	High
Yellow	Medium
Light Green	Low
Dark Green	Lowest

 **If no cameras are selected, all events are shown as primary events.**  
Note

 **You can hide the timeline by de-selecting Timeline from the View menu.**  
Tip

## Using the Timeline to check, play and extract video

You can view pre-recorded video by moving the Playhead control in the Timeline or entering a timecode and jumping to it. Methods include:

### ● Use the Playback Controls



You can control to play, rewind, fast forward or jump to previous and next events (→ P. 38).

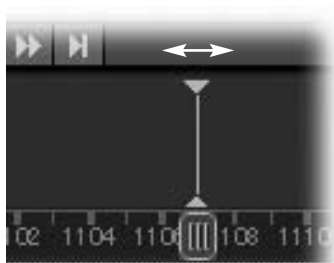
The fast forward and rewind speeds change by 1x, 2x, 5x and 10x each time you click the buttons.



Tip

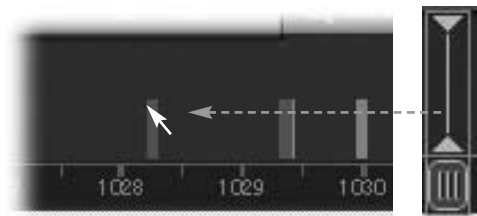
**Videos recorded at different times can be played back simultaneously. First select a Video Window and move the Playhead to start playback. Next select another Video Window and move the Playhead to another time. This is ideal for comparing the same or different cameras at different times.**

### ● Drag the Playhead to a new time



Click and drag the Playhead shaft to another location. When you move the Playhead, you are effectively controlling all Video Windows that have been selected.

### ● Click in the Event Display Area of the Timeline



Click in the Event Display Area of the Timeline. The Playhead will move to that location and playback of recorded video commences from that time.



Note

- When you choose to play back video, the video is played over a network. Therefore the response and smoothness of the play back will depend on network traffic and other properties of the network.
- The time displayed on the Timeline is the time of PC where the Viewer is running.



● Click and drag the time bar to move through the Timeline



Move your mouse pointer over the time bar and it becomes a hand. Click and drag to the left or right to move back or forward in time. You can only scroll right to the current time, or “live” time.

● Jump to Time

Jump to Time

1 Select a Video Window and click **Jump to Time**.

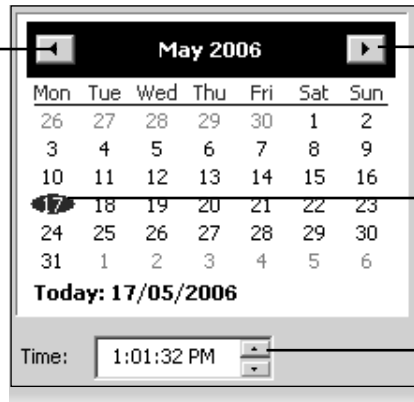


2 The **Jump to Time** dialog opens. Select a day and/or time.

3 Click **OK**.  
The Playhead and Timeline will move to the time selected. If no Video Windows are selected, only the timeline is moved.

Using the calendar is shown below.

Click to scroll back through the months.



Click to scroll forward through the months.

Click a day to highlight it, then click **OK** to bring up that day in the Timeline.

Click up/down arrows to select a time or click each time segment and overwrite existing value.

Alternatively, click the current month and a month selector will appear.

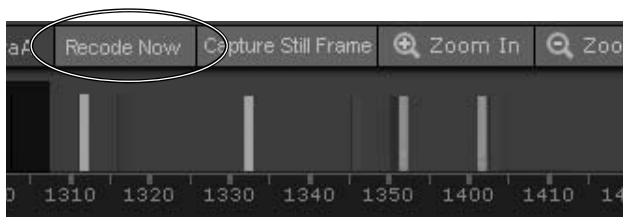


To select another year, click the current year and scroll down or back up, using the up/down arrows.

## Initiating a manual recording with duration of one minute

A manual recording with duration of one minute can be initiated at the maximum frame rate. The manual recording is displayed on the Timeline and **Live Events Log** as “**Manual recording (username)**”. This is handy for capturing random events not associated with sensor recording or outside preset recording times.

To initiate manual recording:



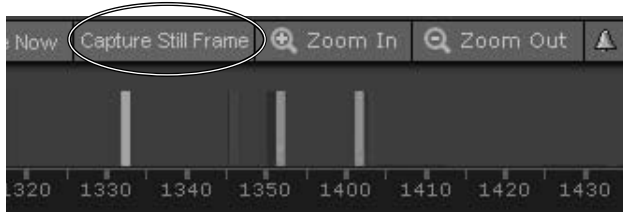
- 1 Select a Video Window for manual recording.
- 2 Click **Record Now**.



Note

- The Record Now function records at the maximum frame rate. Extended recording time will use additional disk space on the Storage Server. Excessive use of this function should not be performed without first checking with an administrator.
- The Record Now function is only enabled if a Storage Server is configured for the camera.
- Recording will be for approximately one minute. The actual duration of recorded video may vary depending on settings and network delays.
- The priority of an event created by a manual recording using Record Now will always be Priority 1. It cannot be changed from Event tab.

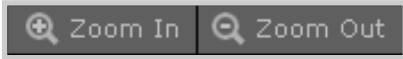
## Capturing a Still Frame



Click **Capture Still Frame** to save the current image on a Video Window.

- 1 Select a Video Window to capture a still image.
- 2 Click **Capture Still Frame**.

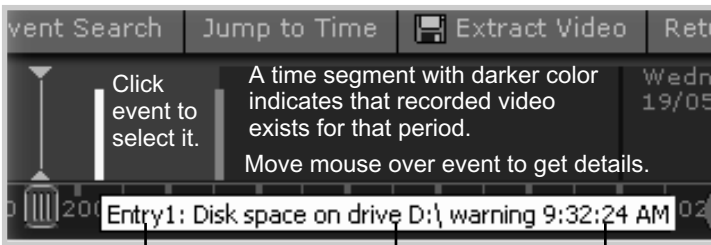
## Zooming In and Out of the Timeline



Click **Zoom In** to zoom into a time period in the Event Display Area.

Click **Zoom Out** to zoom out a time period in the Event Display Area.

## Click event to select it



When you click an event to select it, the associated Video Window will display the event(s).

Camera Name

Type of event


Time of event

## Daylight Savings Indicator

The Storage Server will adjust for Daylight Savings if configured in **Date and Time** property of the control panel as follows:

- When normal time has changed to Daylight Savings time, time that is skipped is displayed in the Timeline as missing.
- When gaining time (rewinding the clock back from 02:00 to 01:00), the extra time is duplicated.

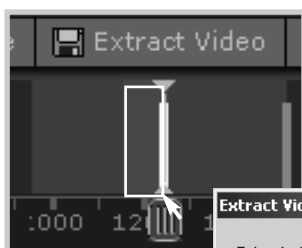


 **Where Daylight Saving changes have occurred, the Timeline display is still continuous. Only the labels are affected.**

## Extracting video to save to another location

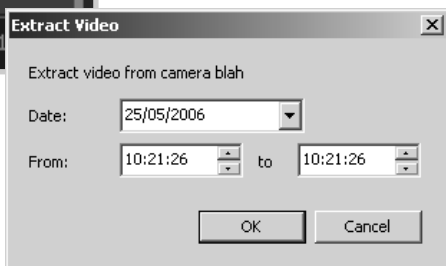
A portion of video can be saved to another location if required. Files are automatically saved as QuickTime .mov format and can be viewed in a QuickTime player or any other player that supports .mov files. A maximum of one hour of video can be extracted at a time. If you do not have a QuickTime player installed, visit <http://www.quicktime.com> for a free download.

### Select a Video Window and time period then click Extract Video



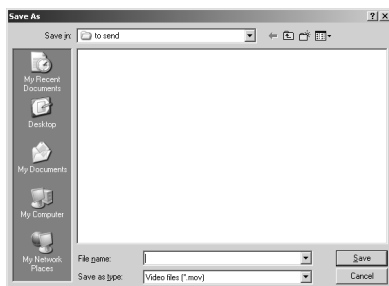
1 Click a Video Window to highlight it, then click and drag a time period for it in the Timeline.

2 Click **Extract Video**. The **Extract Video** dialog opens.



3 In the **Date:** field, click each segment and overwrite with desired date. Alternatively click the down arrow to use the calendar.

4 In the From and To field, click the time segments and overwrite with desired time, or use the up/down arrows.



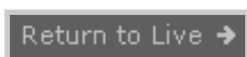
5 Click **OK** to display the **Save As** dialog. Browse to a suitable folder in which to save the extracted video, and click **Save**.



Note

- You must select only one Video Window to extract video.
- QuickTime player version 6.5.1 or later is recommended.

### Returning to Live Video

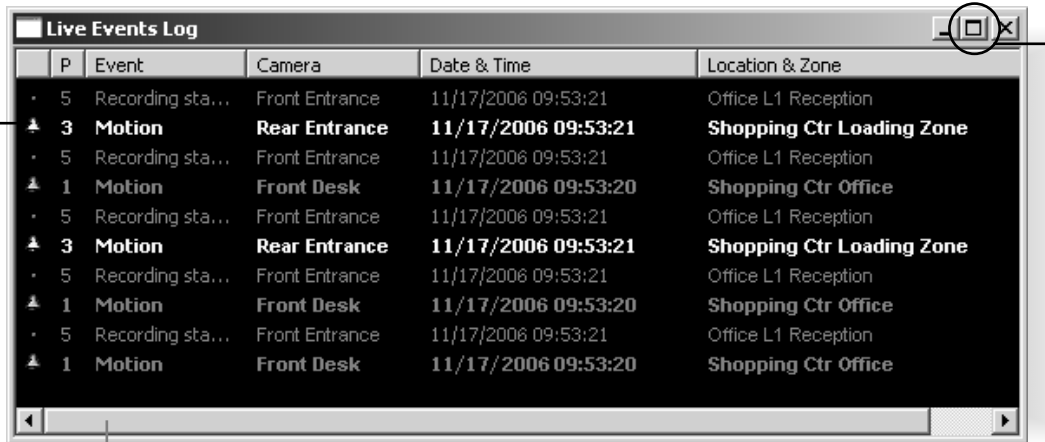


To return to the live video, click **Return to Live** →. The Playhead returns to the live position in the Timeline.

# Viewing and Searching Events

## About Live Events Log list

The **Live Events Log** displays events that have occurred with one or more cameras after the Viewer has been launched. Events are color coded according to priority. The **Live Events Log** opens automatically when you launch the Viewer, if left open in a previous session of VK-64/VK-16.



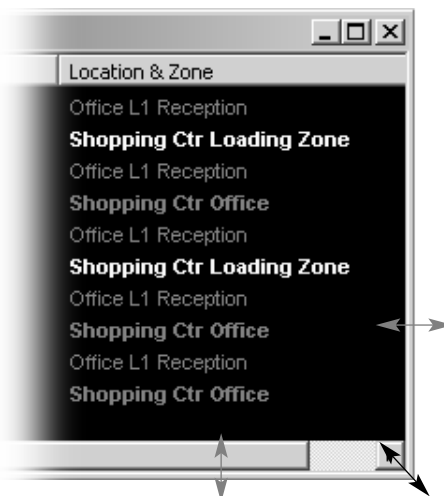
	P	Event	Camera	Date & Time	Location & Zone
	5	Recording sta...	Front Entrance	11/17/2006 09:53:21	Office L1 Reception
▲	3	<b>Motion</b>	<b>Rear Entrance</b>	<b>11/17/2006 09:53:21</b>	<b>Shopping Ctr Loading Zone</b>
	5	Recording sta...	Front Entrance	11/17/2006 09:53:21	Office L1 Reception
▲	1	<b>Motion</b>	<b>Front Desk</b>	<b>11/17/2006 09:53:20</b>	<b>Shopping Ctr Office</b>
	5	Recording sta...	Front Entrance	11/17/2006 09:53:21	Office L1 Reception
▲	3	<b>Motion</b>	<b>Rear Entrance</b>	<b>11/17/2006 09:53:21</b>	<b>Shopping Ctr Loading Zone</b>
	5	Recording sta...	Front Entrance	11/17/2006 09:53:21	Office L1 Reception
▲	1	<b>Motion</b>	<b>Front Desk</b>	<b>11/17/2006 09:53:20</b>	<b>Shopping Ctr Office</b>
	5	Recording sta...	Front Entrance	11/17/2006 09:53:21	Office L1 Reception
▲	1	<b>Motion</b>	<b>Front Desk</b>	<b>11/17/2006 09:53:20</b>	<b>Shopping Ctr Office</b>

Click and drag scroll bar to view events.

To maximize, double-click title bar or click the maximize icon.

The bell icon is replaced by a dot icon when the event is acknowledged by double clicking.

## Re-sizing the window to a custom size



Click the corners or edges and drag the window out to a new size. Release the mouse button.

When you launch the Viewer again, the **Live Events Log** will retain the size you selected.



**Only the most recent 200 events are shown in the Live Events Log.**

### Displaying the Live Events Log List

To display the **Live Events Log** List, if it is not displayed:

#### Selecting Live Events from View Menu

Select **Live Events** from the **View** menu bar.

**Live Events Log** list opens.

Once selected, the menu item will be ticked next time you display it.

### Overview of Alert Parameters

P	Event	Camera	Date & Time	Location & Zone
5	Recording sta...	Front Entrance	11/17/2006 09:53:21	Office L1 Reception
3	<b>Motion</b>	<b>Rear Entrance</b>	<b>11/17/2006 09:53:21</b>	<b>Shopping Ctr Loading Zone</b>
5	Recording sta...	Front Entrance	11/17/2006 09:53:21	Office L1 Reception

#### Acknowledging and Viewing Events

A new event entry will appear at the top of the **Live Events Log** list and will flash for a defined period if configured. If Operator Acknowledgement is required, the event will flash indefinitely if not acknowledged.

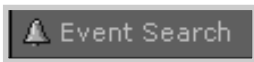
- 1 In the **Live Events Log**, double-click on the event to acknowledge it and view it in its associated Video Window.
- 2 In the bottom right corner of the Viewer, click **Return to Live** → when you have finished viewing the event. The Video Window will return to live viewing.

## Searching Events

If you have multiple events, you can initiate a search for a particular event via the **Event Search** dialog.

To launch the **Event Search** Dialog:

### Click Event Search



On the Timeline, click **Event Search**.

The **Event Search** dialog opens.

Enter a search start date and time.

Enter a search end date and time.

Enter a keyword for particular events.

Select a Location and Zone.

Select a Priority.

Select a state of event.

Select a type of event.

Search Result Display Area

P	Event	Camera	Date & Time	Location & Zone
1	Door Open	Info Desk	8/23/06 12:55:35	Pitt Street Mall Checkout Area
3	Motion	Cash # 1	8/23/06 12:50:04	Pitt Street Mall 1st Floor
2	Door Bell	Entrance	8/23/06 12:40:46	Pitt Street Mall 1st Floor
3	Motion	Cash #3	8/23/06 12:36:24	Pitt Street Mall Checkout Area
4	Motion	Cash #3	8/23/06 12:20:09	Pitt Street Mall Food Court
3	Motion	Cash #3	8/23/06 11:55:37	Pitt Street Mall G/F Lift Area
4	Door Bell	Entrance	8/23/06 11:52:23	Pitt Street Mall Food Court
5	Door Open	Entrance	8/23/06 11:52:15	Pitt Street Mall Checkout Area
1	Motion	Store Room	8/23/06 11:42:24	Pitt Street Mall Checkout Area
3	Motion	Cash #3	8/23/06 11:38:30	Pitt Street Mall 1st Floor
5	Door Bell	Entrance	8/23/06 11:35:15	Pitt Street Mall Food Court
2	Motion	Cash #3	8/23/06 11:25:37	Pitt Street Mall Checkout Area

Double-click an event to view it in the Video Window, or click an event to highlight it and then click **View Event in Camera** to view it.

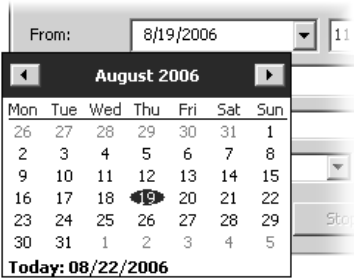
## Selecting Criteria for Searching

When you initiate a search, certain criteria can be specified such as Priority, Location and Zone on the network, a date range when the event may have occurred and a time period.

To initiate a search:

### Step 1: Select a date and time range to search

Click in the **From** and **To** date panels and overwrite the existing entries for month/day/year and time.



Alternatively, click the down arrow next to each date panel to bring up the calendar. Click off the calendar to close it again.

In the **Event Search** dialog, you can also scroll through time using the up/down arrows. Click an hours, minutes or seconds segment to highlight it and then click the up or down arrow.

### Step 2: Select an event keyword



In the **Description** field, enter a keyword such as, “deleting”, “recording”, “frames”, etc. Found events will be based on your text entry.

### Step 3: Select a Location and Zone to Search



From the **Where** fields, select a Location and Zone from the drop-down lists. Only events within the location will be selected.



### Step 4: Select a type of Event



Event:

Select a type of Event from the drop-down list.

### Step 5: Select a State



State:

Select a State for the event, whether it was **On** or **Off** during the period. Alternatively, select **All States**.

### Step 6: Select a Priority



Priority:

Select a Priority from the drop-down list.

### Step 7: Click Search

When you have entered the day and time range, click **Search** to initiate the event search. Events that are found will be listed in the window below. If necessary, stop a search at any time by clicking **Stop Search**.

## Viewing found events



12:09	Pitt Street Mall	Food Court
12:55:37	Pitt Street Mall	G/F Lift Area
12:52:23	Pitt Street Mall	Food Court
12:52:15	Pitt Street Mall	Checkout Area
12:42:24	Pitt Street Mall	Checkout Area
12:38:30	Pitt Street Mall	1st Floor
12:35:15	Pitt Street Mall	Food Court
12:25:37	Pitt Street Mall	Checkout Area

View Event in Camera    Cancel

To view an event in a Video Window, click the event to highlight it and click **View Event in Camera** to view it in a Video Window.

You can also double-click an event to view it in a Video Window.

Clicking **Cancel** stops any searching and closes the dialog.



Note

When you have finished viewing an event in a Video Window, click **Return to Live** → in the Timeline to return the Video Window to live viewing.



# Index

# Index

## A

Audio Panel .....34

## C

Camera Control Panel .....27  
Exposure Mode .....28  
Focus.....29  
Pan, Tilt and Zoom .....29  
Cameras for Viewing .....18  
Camera Thumbnails .....18  
Location and Zone drop-down.....19  
Selecting Locations and their Zones .....19  
Capture Still Frame .....42

## D

Daylight Savings Indicator.....43

## E

Extracting video to save to  
another location .....44

## G

Get Camera Control .....24

## I

Introduction.....2

## M

Manual Recording .....42  
Menu Bar .....15

## O

Overview .....5

## P

Pan, Tilt and Zoom .....26

## S

Searching Events .....47  
Criteria for Searching .....48  
Date and Time Range .....48  
Event Search.....47  
View Event in Camera.....49  
Viewing found events .....49  
Selecting a Preset Camera Angle .....30  
Shade Correction .....34  
Starting Viewing .....10  
Connect to the localhost.....11  
Specify the IP address of Storage Server to  
connect Viewer .....12  
Viewer Only Mode .....13

## T

Timeline .....38  
Capture Still Frame .....38, 42  
Extract Video .....39, 44  
Jump to Time.....39, 41  
Overview .....38  
Playback Controls .....38, 40  
Playhead region .....38, 40  
Record Now.....38, 42  
Return to Live .....39, 44  
Zoom in/Zoo out .....38, 39, 43

## V

Video Window .....20, 31  
Arranging .....22  
Audio Panel .....34  
Camera Thumbnail .....20  
Changing the size.....31  
Control External Devices .....33  
Creating, scaling and moving .....20  
Enabling Backlight Compensation.....32  
Night mode .....33  
Selecting Multiple Video Windows .....23  
Shade Correction .....34  
Video Window States .....24  
Viewing and Searching Events.....45  
Live Events Log List .....46  
Searching Events .....47  
Viewing Screen Example .....8





**CANON INC.** — 30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo 146-8501, Japan

**U.S.A.** — **CANON U.S.A., INC. NEW JERSEY OFFICE**  
One Canon Plaza Lake Success, NY 11042-1198 USA

- If you have any questions, call the **Canon U.S.A. Information Center toll-free at 1-800-828-4040(U.S.A.only)**

**CANADA** — **CANON CANADA INC.NATIONAL HEADQUARTERS**  
6390 Dixie Road, Mississauga, Ontario L5T 1P7

**CANON CANADA INC. CALGARY**  
2828, 16th Street, N.E, Calgary, Alberta T2E 7K7

**CANON CANADA INC. MONTRÉAL**  
8801 Trans Canada Hwy, St. Laurent Québec H4S 1Z6

- If you have any questions, call the **CANON CANADA Customer Information Centre toll-free at 1-800-OK-CANON (652-2666) (Canada only)**

**MEXICO** — **CANON MEXICANA, S DE R.L.DE C.V.**  
Boulevard Manuel Avila Camacho, No.138 PB, Pisos 15, 16 y 17 Col Lomas de Chapultepec C.P. 11000 México, D.F. México

**ASIA** — **CANON SINGAPORE PTE LTD**  
1 HarbourFront Avenue, #04-01, Keppel Bay Tower  
Singapore 098632

**CANON HONGKONG CO., LTD.**  
19/F., The Metropolis Tower, 10 Metropolis Drive, Hunghom, Kowloon,  
Hong Kong

**OCEANIA** — **CANON AUSTRALIA PTY. LTD.**  
1 Thomas Holt Drive, North Ryde, Sydney, N.S.W. 2113, Australia

**EUROPE** — **CANON EUROPA N.V.**  
Bovenkerkerweg 59-61, P.O. Box 2262, 1185 XB Amstelveen, The Netherlands

**CANON EUROPE LTD.**  
6 Roundwood Avenue, Stockley Park, Uxbridge Middlesex, UB11 1JA,  
United Kingdom

## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>