

Network Camera Recording and Monitoring System

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

Setting Manual

Ver. 1.3

Introduction

Thank you for purchasing **Network Video Recorder VK-64 v1.3** (hereafter referred to as “**VK-64**”), a network video recording and monitoring system. **VK-64** is a network video recording and monitoring system and consists of the **Storage Server** and **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-16** v1.3 and Viewer-Only use. See P.7 for the difference between the VK-64 and VK-16. See P.40 for the functions not available in the Viewer Only mode.

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

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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

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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.

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Overview

VK-64/VK-16 is a software to view and record video images distributed from the VB150/VB101 or a network camera VB-C300/VB-C50i/VB-C50iR/VB-C50FSi/VB-C50Fi/VB-C10/VB-C10R (hereafter referred to as “**camera server**”). VK-64/VK-16 supports up to 64 camera servers via an IP network (e.g., LAN). Although VK-16 has the same basic functionalities as VK-64, it can support up to 16 camera servers.

	Storage ServerViewer	
VK-64	Up to 64 cameras can be registered	Common
VK-16	Up to 16 cameras can be registered Functionality is the same as for VK-64 except for the above camera limitation.	

VK-64/VK-16 is a software program which 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.

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. 18, P. 40).

Video resolution can be as high as 640 x 480 pixels, 30 fps for NTSC and 25 fps for PAL (depending on Camera Servers installed).

The following table shows each product and license number:

Product Name	Storage Server	Viewer
Network Video Recorder VK-64 v1.3	1 license	1 license
Network Video Recorder VK-16 v1.3 *	1 license	1 license
Network Video Recorder VK-64 v1.3 Viewer	—	1 license
Network Video Recorder VK-64 v1.3 5 Viewers	—	5 licenses

* The Storage Server for VK-16 can register up to 16 camera servers. VK-16 and VK-64 uses the same Viewers.

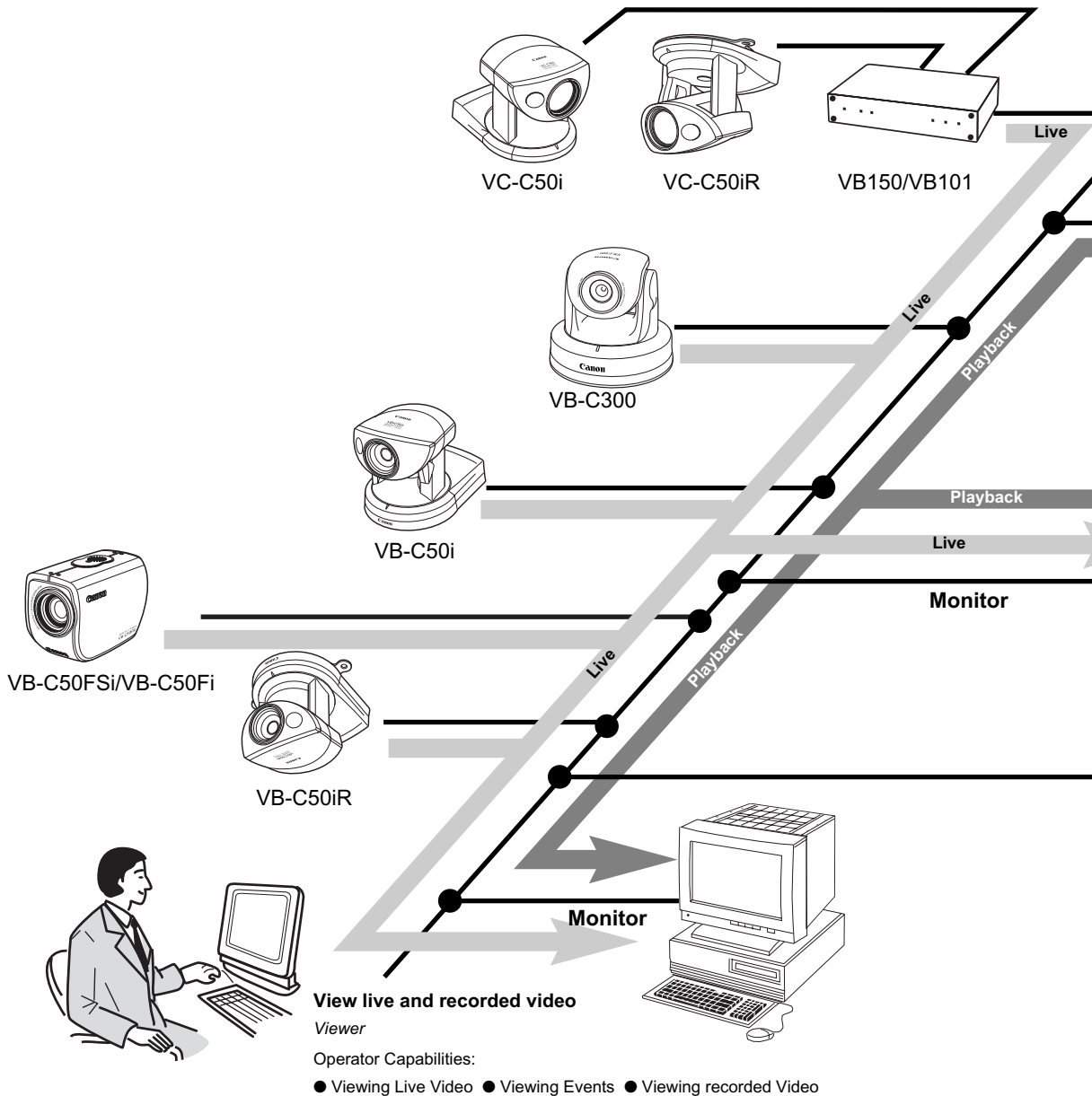
* Licenses to the VK-64 v1.2/VK-16 v1.2 can be used for v1.3.



System Configuration

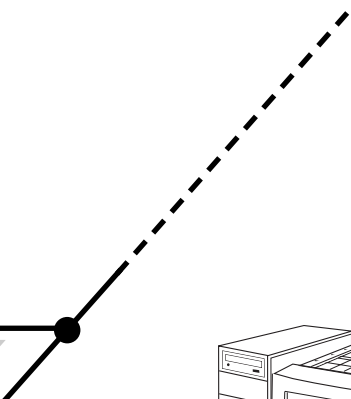
Typical System Configuration

VK-64/VK-16 provides video viewing and recording from Camera Servers via an IP network such as a LAN. Since VK-64/VK-16 makes use of IP networks, installations of cameras can be performed easily. In addition, it is possible to flexibly install new cameras and change installation locations of cameras.



■ Application Types and Functions

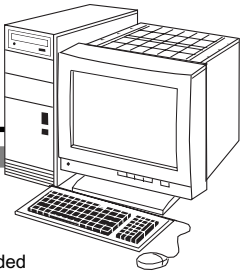
Application	Function
Storage Server	Stores recorded information.
Viewer	Lets users view recorded information, monitor live video and acknowledge/search events. Lets Administrators configure recording and viewing settings.



Record

Playback

Receives and records video.
Plays back recorded video to Viewers.

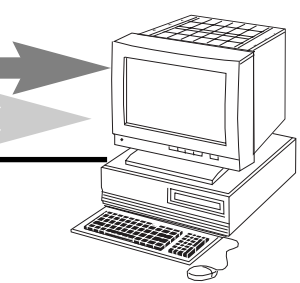


Record video to the Storage Server #1

Storage Server

Administrator Capabilities:

- Configure Storage Server
- Configure Event Notification
- Configure Users



View live and recorded video

Viewer

Administrator Capabilities:

- Configure recording settings
- Configure event alerts
- View Live Video
- View Events
- View recorded Video
- Configure Camera Servers
- Configure Storage Server



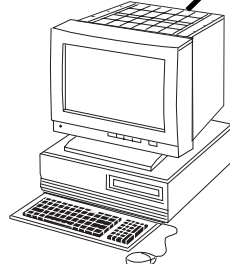
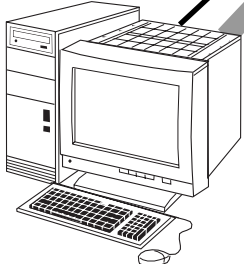
Playback

Record

Monitor

Record video to the Storage Server #2

Storage Server



Overview of Setup

This section explains how to install and configure the Storage Server and Viewer.

1 Set up the Camera Servers

The first step is to set up your cameras and/or Camera Servers. Refer to your camera and Camera Server manuals for connection details.

Camera Servers (→ P. 12)



VB-C50FSi



VB-C50i



VB-C300



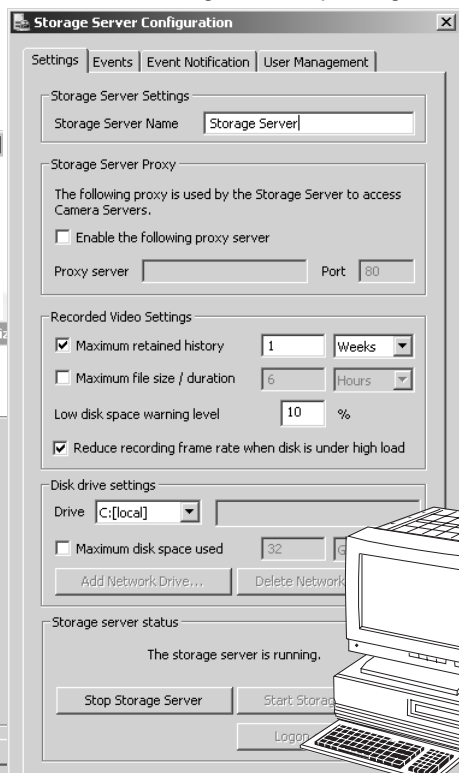
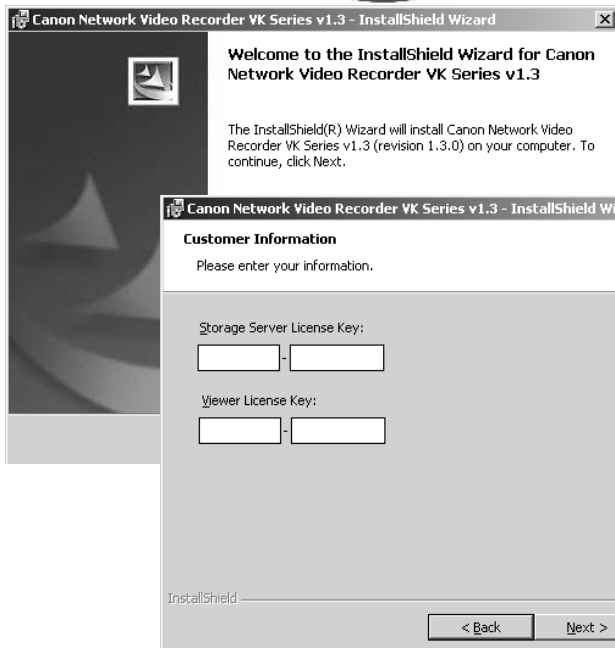
VC-C50i

VB150

2 Install the Storage Server and Viewer

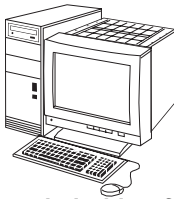
The Storage Server and Viewer can be installed on one computer. Alternatively, the Viewer can be installed on other computers on the network that will access recorded video from the Storage Server.

Configure the Storage Server via the **Storage Server Configuration** utility to set server settings, event notification and configure user privileges.



4 Create and save Viewer Layouts

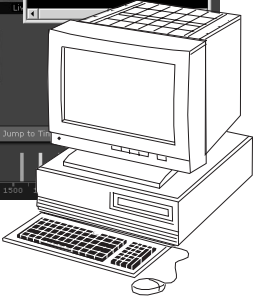
Monitor live video and play back recorded events in the **Viewer** application. From the Viewer you can customize the Viewing Area and save Layouts.



Recorded video from Storage Server

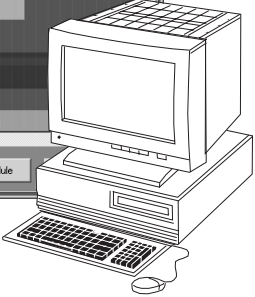
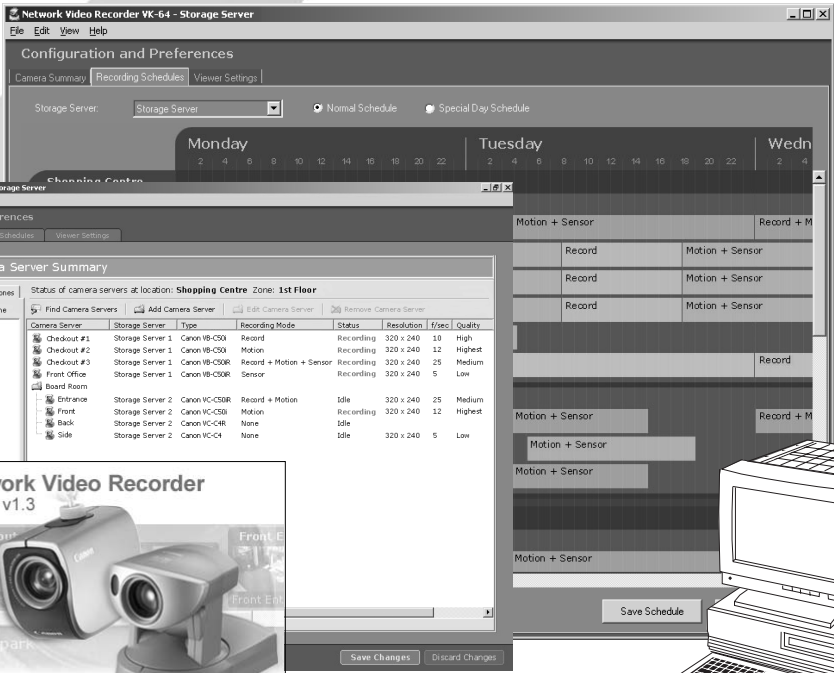


Live video from Camera Servers



3 Configure Recording Settings








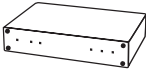
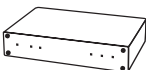
Register Camera Servers and Storage Servers and set up recording schedules.



Supported Camera Servers

The table below lists the Camera Servers that are supported by VK-64/VK-16.

This information is correct as of January 2007. For the latest information, please refer to our WebView Product web page: canon.com/webview

Camera Server	Firmware Version
VB-C300 	Ver. 1.0
VB-C50i  VB-C50iR 	Ver. 1.1 Rev. 33 or later or Ver. 1.2 Rev. 76 or later
VB-C50FSi 	Ver. 1.0 Rev. 68 or later
VB-C50Fi 	Ver. 1.0 Rev. 68 or later
VB-C10  VB-C10R 	Ver. 1.0 Rev. 26 or later
VB150 	Ver. 1.1 Rev. 39 or later
VB101 	Ver. 3.0 Rev. 69 or later



Note

- If using a VB101, you can make use of a single camera connected with VK-64/VK-16 at a time.
- If using a VB150 with multiple cameras, there are restrictions on frame rate.
Refer to your VB150 User's Manual for details (→ P. 36).
- If using the Simultaneous mode with the VB150, upgrade the firmware to Version 1.1 Rev.39 or later.

Firmware Upgrade

The latest information concerning firmware can be found on the following Canon Web site:
canon.com/webview

Operating Environment

This information is correct as of January 2007. For the latest information, please refer to our WebView Product web page: canon.com/webview

Viewer

	Minimum
CPU	Pentium 4 2.2GHz or greater
Operating System	Windows 2000 Server (with SP4) Windows 2000 Professional (with SP4) Windows XP Professional (with SP2) Windows Server 2003 Standard Edition (with SP1) Windows Server 2003 R2 Standard Edition
Memory	1GB RAM or greater
Hard Disk	2GB RAM or greater
Display	1024 x 768 or higher resolution Color display of 16 bits or more A high performance video card is desirable. With PCI video cards, display performance may be reduced.
Sound	Audio playback support is necessary for event notification alert sounds (→ P. 118).

* If using Windows XP Professional SP2 or Windows Server 2003, follow the procedures as described in "Administrator's Manual" for changing your Windows settings.

Storage Server

	Minimum
CPU	Pentium 4 2.2GHz or greater
Operating System	Windows 2000 Server (with SP4) Windows 2000 Professional (with SP4) Windows XP Professional (with SP2) Windows Server 2003 Standard Edition (with SP1) Windows Server 2003 R2 Standard Edition
Memory	1GB RAM or greater For more than 48 Camera Servers, 1.5GB or greater required.
Hard Disk	20GB HDD or greater, SCSI or IDE, NTFS formatted

* The requirements for Storage Server will vary according to the environment you will use (number of Camera Servers, setting of recording frame rate etc.). It is also dependent on pre-event recording settings. Please contact dealers that handle Canon products for further information. If using Windows XP Professional SP2 or Windows Server 2003, follow the procedures as described in "Administrator's Manual" for changing your Windows settings.

Before Starting Operations with VK-64/VK-16 <Important>

It is recommended that you perform tests under actual conditions before starting operations.



Note

- Recording and display of live videos may not be provided as configured because many factors (such as network environment and PC performance) affect the actual performance of VK-64/VK-16.
- When the load on your computer CPU and hard disk is high, the specified frame rate may not be available, or the video recording may be interrupted or the Viewer operation may take longer. Also, when available disk space is low, the disk load may increase and the video recording may be interrupted due to deletion of the recorded video file.
- Using anti-virus and firewall software may affect Storage Server and Viewer operations.
- When using a proxy server (→ P. 25, P. 38)
If you use a proxy server, recording frame rate may not be achieved as specified or live video monitoring may be interrupted. Also, communication between the Storage Server and Viewer may occasionally be disconnected.
- If you are using Windows XP SP2 or Windows Server 2003, you need to change Windows settings. Make sure to change the settings. Refer to “Administrator’s Manual”.
- When recording to a NAS server, it is recommended to separate the communication networks for the camera and NAS. Refer to “Administrator’s Manual” for the details.
- Audio function of the VB-C300/VB-C50i/VB-C50iR/VB-C50FSi can also be used.
 - The VK Viewer supports audio transmission and reception.
 - Audio recording is not available.
 - The audio and video may be out of sync.
 - Depending on the performance of your PC and network environment, the audio stream may be interrupted.
 - The audio feature is not available via a proxy server.
 - If you use a PC on which anti-virus software is installed, the audio stream may be delayed or the audio stream may be temporarily interrupted.

Chapter 1

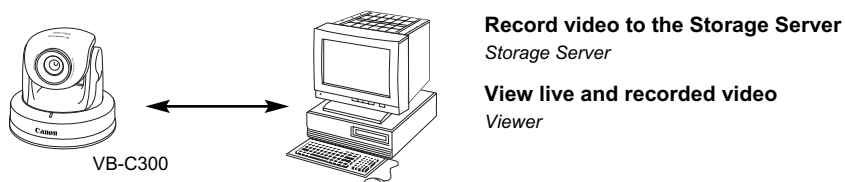
Installation

This chapter outlines the installation of the Storage Server and Viewer.

Before you begin installation...

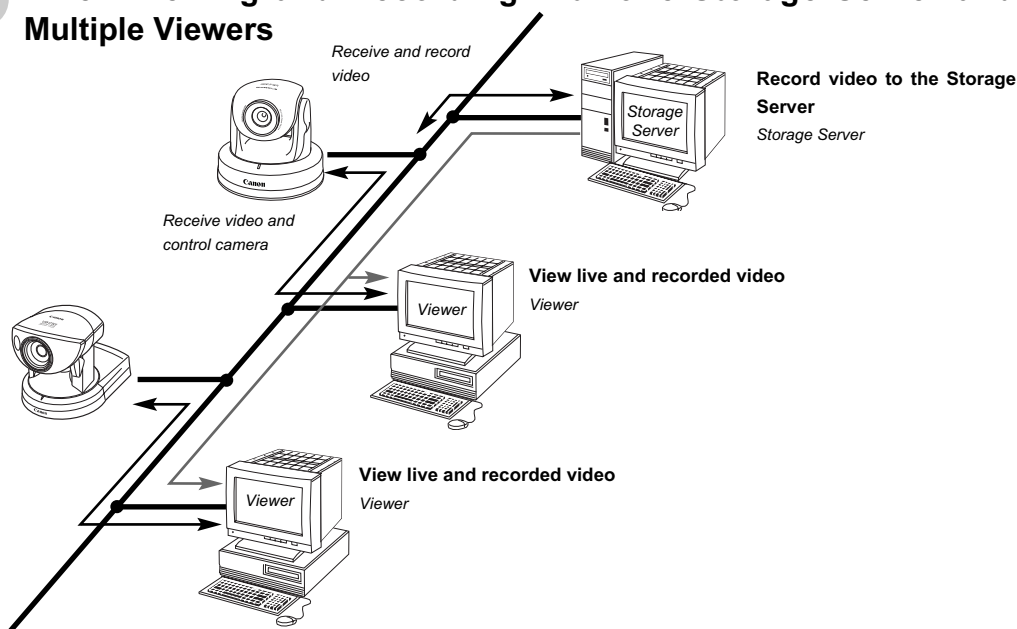
System Configuration

When Viewing and Recording with one PC



Load on PC may increase depending on the number of Camera Servers and recording schedule.

When Viewing and Recording with one Storage Server and Multiple Viewers

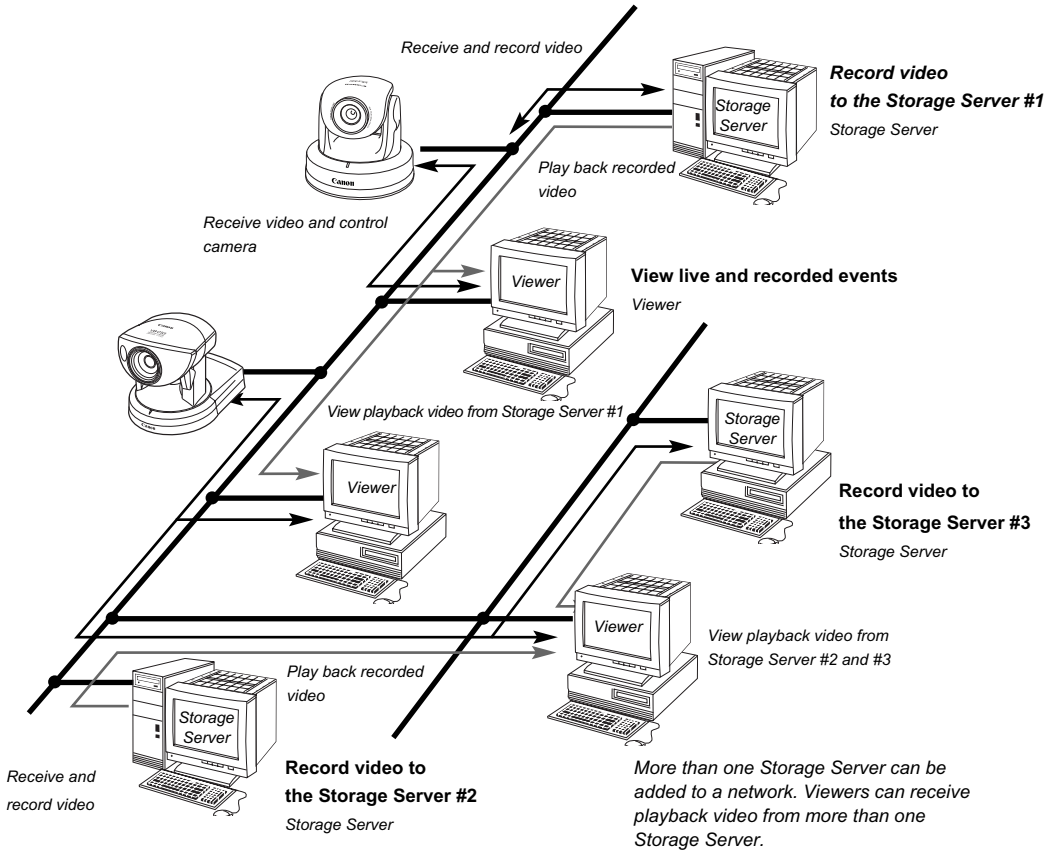


Note

- Having many Viewers accessing the same Camera Servers and Storage Servers will affect system performance.
- Installation of both Storage Server and Viewer on a single PC may cause a heavy load on your PC depending on the number of Camera Servers or recording schedule. If you use VK-64 /VK-16 with many Camera Servers, install each application on separate PCs.
Viewing with a low capacity PC may take longer, the specified frame rate may not be achieved, recording frame rate may be lower or recording may be interrupted.

When using multiple Storage Servers and Viewers

One or more Storage Servers can be used on a network and Viewer applications can be configured to play video from more than one Storage Server. For each Viewer, a Master Storage Server (→ P. 18) needs to be defined for saving information such as zones and locations of cameras, as well as saving Viewer layouts created by the user.



Note

- You can operate VK-64/VK-16 with up to ten Storage Servers using any combination of VK-64 Storage Server and VK-16 Storage Server. Up to 192 Camera Servers can be operated.
- Up to ten Viewers can connect to the Storage Servers at the same time.
- If the Storage Server and/or Viewer are installed on multiple PCs, you'll need to purchase the necessary licenses separately (→ P. 7).

Setting up the Camera Servers

1

First make sure the firmware is the required version or later (as specified in the table → P. 12).

Before you begin installation...

2

Check to ensure the Camera Server has been correctly installed and that the initial settings (network settings) have been made. Then connect to the network.

For procedures on installing and setting up Camera Servers and cameras, please see the User's Manual supplied with the Camera Servers and cameras.

About the Master Storage Server

A Master Storage Server is the Storage Server which a Viewer will connect to in the first place. Information about Camera Servers, Locations and Zones and Viewer Layouts are stored on the Master Storage Server. The Viewer extracts the information from the Master Storage Server.

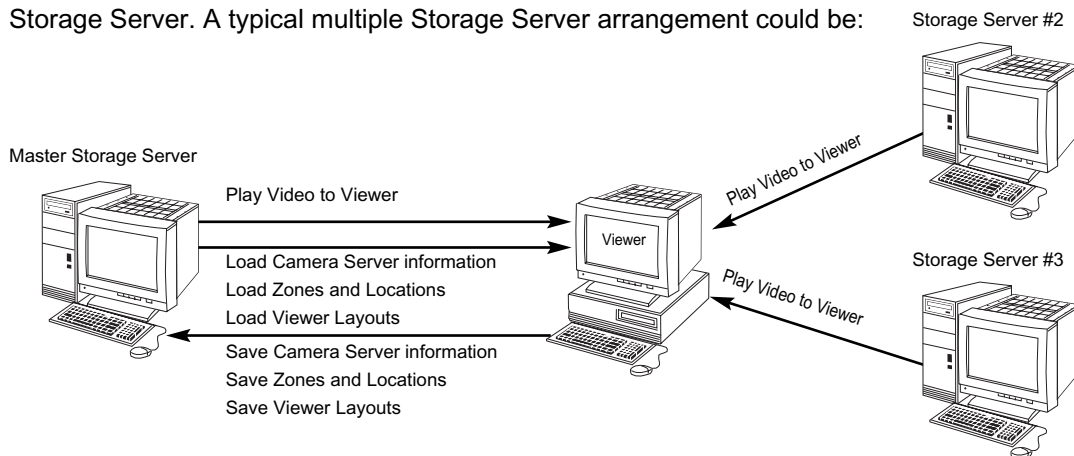


Note

- It is recommended that all Viewers within a system use the same Storage Server as a Master Storage Server. This ensures that all Viewers use the same Zones, Locations and Viewer Layouts.
- For correct operation, the time setting of all PCs within a system (including Storage Servers and Viewers) must be correct. We recommend that you use NTP function to set the time for Storage Server automatically.
- Adjusting the time of Storage Server during recording may cause problems to the recording video.

When using multiple Storage Servers

If multiple Storage Servers are being used, you should decide which one is the Master Storage Server. A typical multiple Storage Server arrangement could be:



Note

When multiple Storage Servers are operated, if the Storage Servers other than the Master Storage Server are stopped, it takes time to display the Configuration and Preferences screen (approximately up to 30 seconds).

When using Viewer alone

The Viewer can be used by itself without connecting to the Storage Server. Although there are some restrictions on functions such as recording and Event Search (→ P. 40), Viewer-Only mode allows to view live videos.

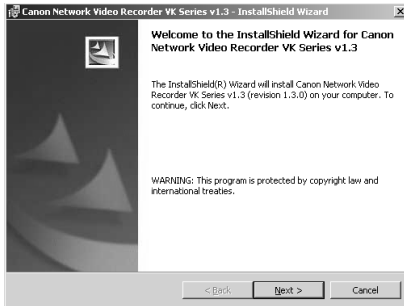
Installation Procedures



Note

Types and number of licenses you can install vary according to the product you have purchased. If additional Storage Server and Viewer installations are required, you will need to purchase the necessary software for each PC (→ P.7).

Starting up the Installer

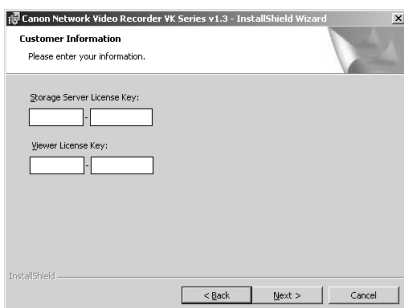


- 1 Insert the Network Video Recorder installation disc into your CD drive. The **Welcome** screen appears. Click **Next** to continue.

If the installer does not automatically load, open the CD directory in Explorer and browse to locate **Setup.exe**. Double-click to begin installation.



- 2 The **Software License Agreement** screen appears. Read the agreement carefully. Click the radio button, **I accept the terms in the license agreement** and then click **Next** to continue.

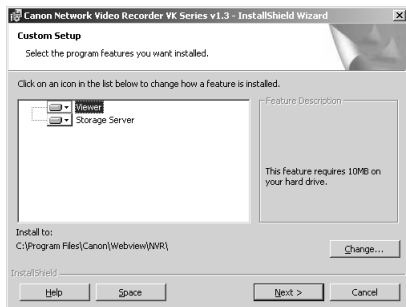


- 3 Enter your License Key(s) and click **Next**. Your License Key is indicated on the “About License Key” included in the package.



Tip

If you are installing the Storage Server alone, enter the License Key for the Storage Server only. If you are installing the Viewer alone, enter the License Key for the Viewer only.



4 Depending on your License Key, you will be presented with one or both of the following applications shown below:

- **Viewer**
- **Storage Server**

It is recommended to keep the Install to: path as is. Click **Change...** to choose another installation path if necessary.

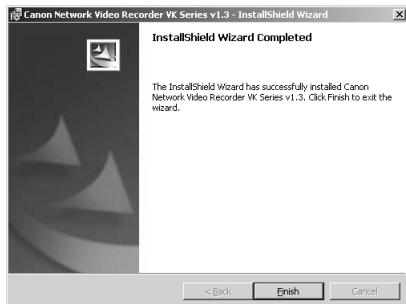
Click **Next** to continue. See “Tip” below for the **Help** and **Space** buttons.



Tip

- **Click Help to obtain details on the type of installation. The type is indicated by the icon next to the application to be installed. You can set a custom install here.**
 - **Click Space to view the amount of disk space required in order to install VK-64/VK-16. A list of drives is shown.**
- In either dialog, click OK to return to the installation steps.**

When you click Next, installation will proceed and a progress bar will be displayed.



5 When the **InstallShield Wizard Completed** screen displays, click **Finish**.

Installation is now finished.



Note

- **In future, if you need to check your product type, refer to the About box of the Storage Server or Viewer (→ P. 24).**
- **If the Storage Server is installed, it will be automatically started after installation.**

Upgrading from Version 1.0, 1.1, and 1.2

When installing over an earlier version, VK-64/VK-16 will attempt to use settings from your previous installation. It is important to verify your settings after installation.



Note

- **The Viewer v1.3 can connect to the Storage Server v1.2. In this case, the functions not available with the Viewer v1.2 are also not available with the Viewer v1.3.**
- **If the Storage Servers v1.3 and v1.2 coexist, either Storage Server can be specified as the Master Storage Server.**
- **The Viewer v1.3 cannot connect to the Storage Server v1.0 or v1.1.**
- **The Viewer v1.0, v1.1, or v1.2 cannot connect to the Storage Server v1.3.**
- **When upgrading from any versions before 1.1.2.27, you need to set motion detection (→ P. 83) again. You can check your version information from the About box (→ P. 24) of the Storage Server and the Viewer.**
- **The VB-C300 cannot be registered on the Storage Server v1.0, v1.1, or v1.2.**

Chapter 2

Configuring the Storage Server

This chapter shows Administrators how to start and stop the Storage Server as required. It also explains how to configure the Camera Server proxy for the Storage Server, set disk space used, set event notifications and configure users.

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

Configuring the Storage Server



Double-click the **Storage Server Configuration** desktop icon.

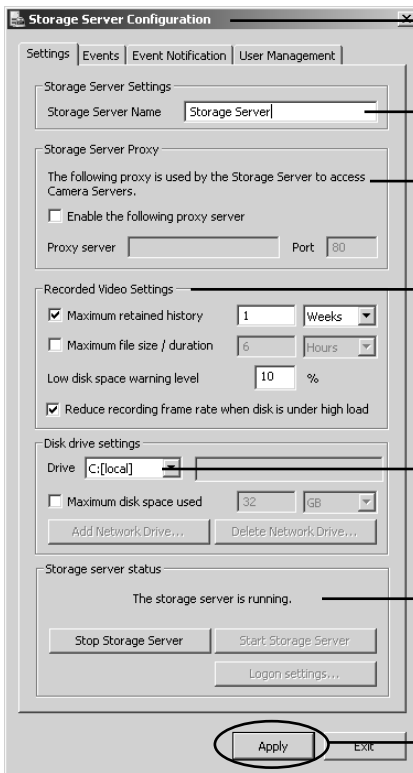
Alternatively, from the Windows **Start** menu select: **Programs > WebView Livescope > Network Video Recorder VK Series v1.3 > Storage Server Configuration**.

To configure the Storage Server, you must log into Windows with the Windows Administrator privilege.

Configuring the Storage Server

The **Storage Server Configuration** dialog, **Settings** tab allows you to configure:

- Storage Server name
- Proxy Servers
- Recording options



Click the icon of the toolbar or right-click the title bar to display the **About** box.

Enter a name for your Storage Server.

Enter a proxy address for connecting to Camera Servers.

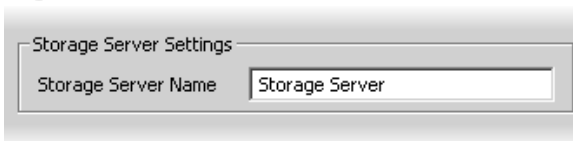
Set Maximum retained history, Maximum file size / duration and Low disk space warning level.

Set maximum disk space used for each device. Also, add or remove network drives.

Storage Server status indicator. The **Start Storage Server** and **Stop Storage Server** buttons start and stop the Storage Server.

Click **Apply** to save changes when you modify settings from each tab.

Change the Storage Server Name



Enter a new name in **Storage Server Name** to change the Storage Server name (You can use up to 20 characters).



It is recommended to use an easy-to-understand name if you are using multiple Storage Servers.

Enter the Storage Server Proxy Address



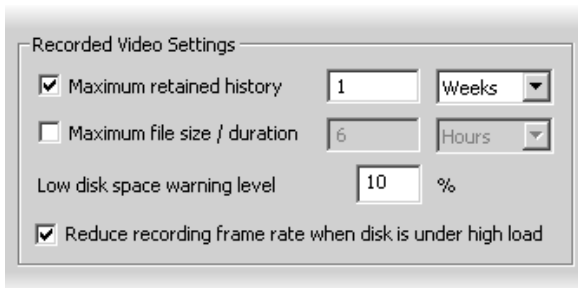
If the Storage Server needs to access Camera Servers outside the LAN, you may need to configure proxy settings.

* See "When using a proxy server" (→ P. 14).

- 1 In the **Storage Server Proxy** field, tick the **Enable the following proxy server** box.
- 2 Enter the **Proxy server** address and **Port**.

For more information on proxy server usage, ask your System administrator.

Enter Recorded Video Settings



- 1 **Maximum retained history** - Tick the **Maximum retained history** option and enter a value from 1 to 999 and then select **Days** or **Weeks** from the drop-down menu.
- 2 **Maximum file size/duration** - Tick the **Maximum file size/duration** option, enter a value, and select **MB** or **Hours**. You can enter 32 - 1024 for **MB** and 1 - 24 for **Hours**. This will establish the maximum size used for each file of recorded video. If you do not enter a value, 1024 MB or 24 hours is used for the Maximum file size/duration value.

- 3 **Low disk space warning level** - Enter a percent value. When remaining space reaches, for example, 10%, a notification will be emailed (→ P. 30).
- 4 **Reduce recording frame rate when disk is under high load** - When disk is highly loaded, recording frame rate is temporarily reduced to prevent the recording from stopped. Refer to "Administrator's Manual" for details.



Tip

When Reduce recording frame rate when disk is under high load is ticked, you will receive an event notification such as "Recording rate (<rate before change> → <rate after change> %)".
Ex. "Recording rate (100.0 → 90.0 %)"

Select Disk Drive Settings



1 In the **Disk drive settings** field, set: **Drive** - Select the disk drive to configure, from the drop-down menu.

2 **Maximum disk space used** - Tick the box and enter a value in Megabytes (MB) or Gigabytes (GB), for example, "**50 GB**".

This establishes the maximum disk space used for all video files on the specified drive.

3 **Add Network Drive** - Add a disk drive on the network used as the network drive. The added network drive is shown on the **Drive** drop-down menu.

4 **Delete Network Drive** - Delete an added network drive.

Adding Removing a Network Drive

By adding a network drive, you can save recorded video data on a network drive such as NAS (Network Attached Storage) in addition to the internal HDD.

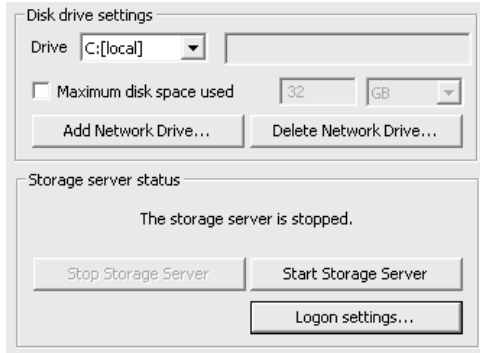
If you add a network drive in the Storage Server Configuration window, the drive will be added to the list of the pull-down menu of the **Add/Edit Camera Server** dialog (→ P. 60).



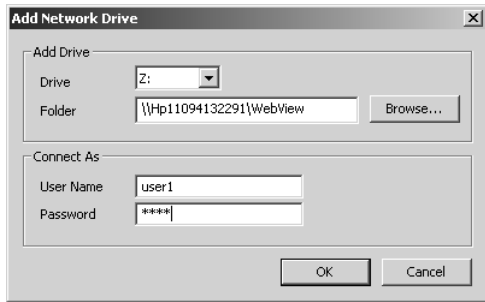
Tip

When using the Storage Server with the local system account, the Add Network Drive and Delete Network Drive buttons are disabled.

To add a network drive...

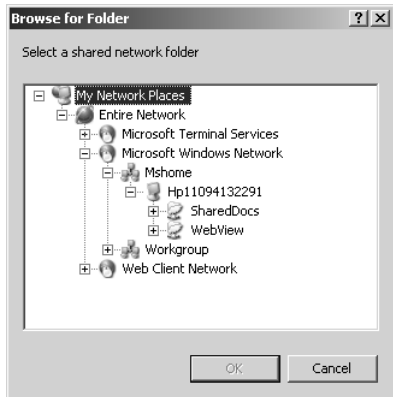


1 Click **Add Network Drive**.



2 The **Add Network Drive** appears. Select a drive to add as a network drive and enter a path assigned to the drive.

When selecting a folder with Browse...



Click **Browse...**, select a folder where you want to save recorded video data in the dialog that appears, and click **OK** to enter the path of the selected folder in the path field.

3 Enter the user name and password to access the network drive in the respective fields, and click **OK**.

Be sure to use different user name and password from the logon user name and password for the local system account.

If addition is successful, the added drive appears on the drive selection pull-down menu.

To remove a network drive...



Select a network drive and click **OK** to delete the selected drive from the Storage Server.



Note

● About Network Drive

VK-64/VK-16 can record videos on a drive on the network. The drive type is shown at the head of the Drive drop-down menu as “Internal disk: local, Network drive: network”.

● About Video Recording

If disk space is not enough to cover the specified value configured with Maximum disk space used, the retained duration of recorded video may be shorter than the specified period or the recording may be temporarily stopped. Please be sure to perform sufficient tests before starting operations.

- For details about disk space on the Storage Server, refer to “Administrator’s Manual”.
- Windows does not allow a user who has logged in with a local system account (used for normal service management) to add a network drive. The Add network drive and Delete network drive items are disabled while you are logging into Windows with a local system account. To set the network drive, click Stop Storage Server to stop the Storage Server, and click the Logon Settings and switch to an account which is allowed to use the network drive (i.e., account with Windows’ Administrator and Logon As Service privileges). Refer to “Administrator’s Manual” for the Logon As Service privilege.
- You cannot use a UNC path or removable disk when adding a network drive.
- If you add or delete a network drive, the Storage Server program will reboot.
- Multiple Storage Servers cannot use the same network drive simultaneously.
- Single network drive cannot allocate to multiple drives.
- Internal information (thumbnails, location, zone, and recording schedules) related to a network drive will not be lost even if the network drive is deleted. Therefore, if you add the same network drive later, you can restore the status before deletion.
- If the selected network drive cannot be accessed because the network is disconnected, the selected drive is powered off, or you entered a wrong path, the following error message will appear.
“Network path cannot be found.”
- While the network drive is not operating (e.g., due to network disconnection), video will not be recorded until the drive recovers.

Start or Stop the Storage Server Program



Click **Stop Storage Server** to stop the Storage Server.

Click **Start Storage Server** to start the Storage Server.



Tip

If you need to stop the Storage Server Program first inform all users connected to the storage server.

Change the Logon Settings



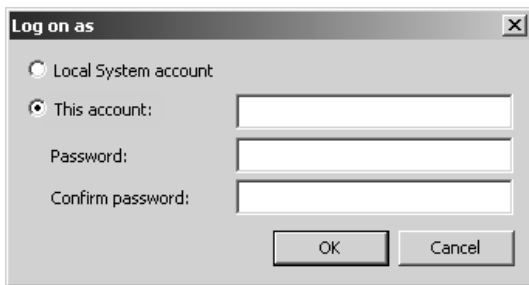
1

If you need to log onto the Storage Server with another account when using a network drive, click **Stop Storage Server**. After the Storage Server stops, click **Logon Settings**.

The **Log on as** dialog appears.

2

If you are logging onto the Storage Server with a local system account, select **Local System account**. If you are logging onto the Storage Server with another account, enter the account in **This account** and password in **Password**.



3

Click **OK**.

4

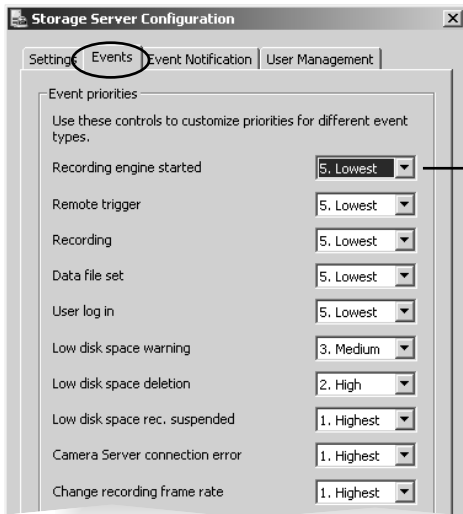
Click **Start Storage Server** to start the Storage Server with the specified account.

Setting up Event Notifications

Set up a user to receive Event Notification emails

The **Storage Server Configuration** dialog, **Events** and **Event Notification** tabs allow you to set up event priorities and email notification to a particular user.

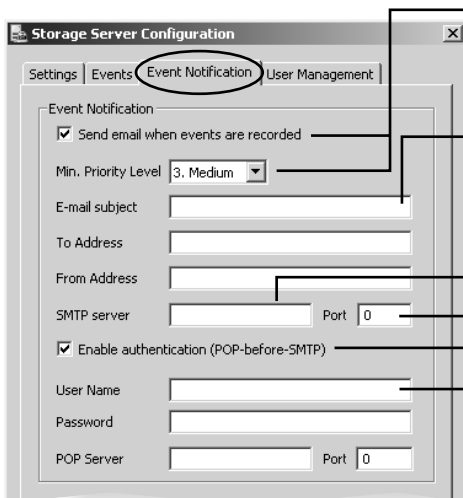
Adjust settings for the “Events” tab and “Event Notification” tab.



Select a suitable event priority from the drop-down menu for each event type listed.

The priority of an event created by a manual recording using **Record Now** will always be Priority 1. The priority cannot be changed from this dialog.

The events associated with “Recording engine started”, “Data file set” and “User log in” do not appear in a Viewer’s Timeline, Live Events Log or Event Search Dialog. Refer to “Viewer Manual” for the details.



Enable email notification and select a priority. Events of that priority and above will lead to notification emails.

Enter the email subject line, for example, ‘Immediate Action Required’. Enter the address of the recipient and enter your from address.

Enter a Host Name or IP address and Port Number of mail server for outgoing mail.

Enable authentication (POP-before-SMTP) for connection and enter **User Name**, **Password** and **POP Server** details.

If this is enabled, the Storage Server will attempt to perform a POP login before sending email that may be required for some SMTP servers.



Tip

You can only register one e-mail address in the To Address field. If you want to send the e-mail to multiple addresses, use a group address.

Example event notification email

An event of priority 3 occurred on 12/05/2006 at 15:15:17 PM +1000.

Parking Lot 1: Sensor on

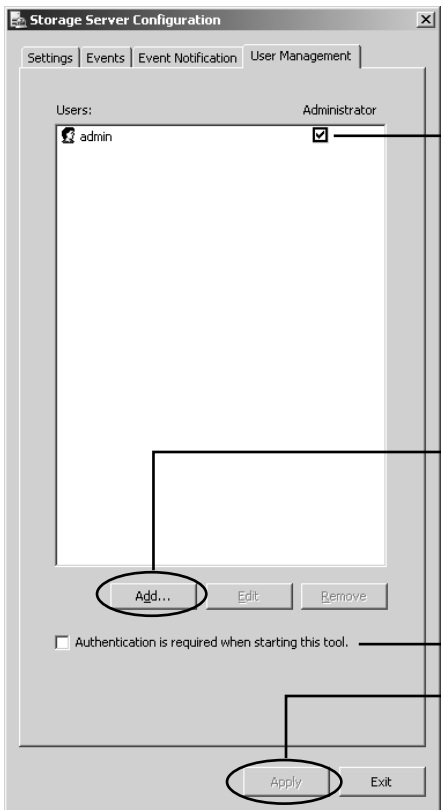
Setting up Users

Adding and Editing Users

The **Storage Server Configuration** dialog, **User Management** tab allows you to set up users and their privileges. Administrators have access to the Viewer including Camera Server setup, recording schedules and Viewer setup. Operators only have access to live video and recorded video on Storage Servers they have permission to access.

The **User Management** tab is laid out in the following manner:

- **Users list** - Lists all users who can access the Storage Server.
- **Add / Edit / Remove** - Allows you to add users, edit passwords and remove users.



Tick to enable user to have Administrator privileges (full access to configuration functions).

Use **Add** to add users to this field. There is no limit to the number of users you can add.

If the **Authentication is required when starting this tool.** box is checked, the Login dialog opens.

Click **Apply** to save changes.



Note

- **Users who have Operator status cannot configure, register and change Camera Servers, or configure and change recording schedules.**
- **By default, a user called “admin” is created. The password is “NVR”. It is strongly recommended that this is changed after installation.**
- **It is necessary to set up users on all Storage Servers. A particular user should be set up to have the same password on each Storage Server.**

User Management tab - Add Users

The **Add User** dialog is used to add new users to the system. To add a user:

Step 1: Click Add



In the **User Management** tab, click **Add** to bring up the **Add User** dialog.

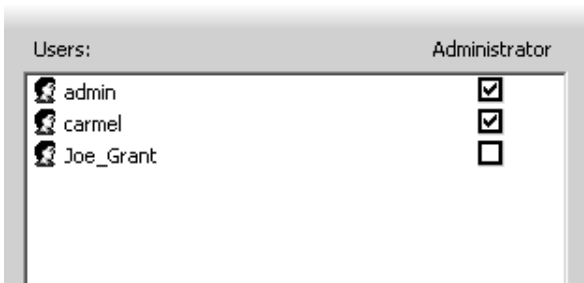
Step 2: Enter user details



In the **Add User** dialog, enter the following details:

- 1 Enter the user's **User Name** (up to 20 characters, including alphanumeric letters and underscore "_").
- 2 Enter the password in **Password**. The **Confirm Password** field will become active. Re-enter the password (up to 20 characters, including alphanumeric letters and underscore "_").
- 3 Click **OK** when finished. The dialog closes and the new user is displayed in the User List.

Step 3: Assign user status to Administrator if necessary



- 1 In the user list under **Administrator**, tick the box to give the user full access to Network Video Recorder Configuration function, otherwise leave unchanged.
- 2 Click **Apply** to save changes.

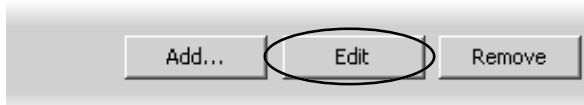


The VK-64/VK-16 Administrator status is independent of the Windows Administrator status.

User Management tab - Edit Users

Use the **Edit Users** dialog to edit the password for an existing user. To edit a user:

Step 1: Click Edit



- 1 Click a user entry in the user list to select it.
- 2 Click **Edit** below the user list to bring up the **Edit User** dialog.

Step 2: Enter user details

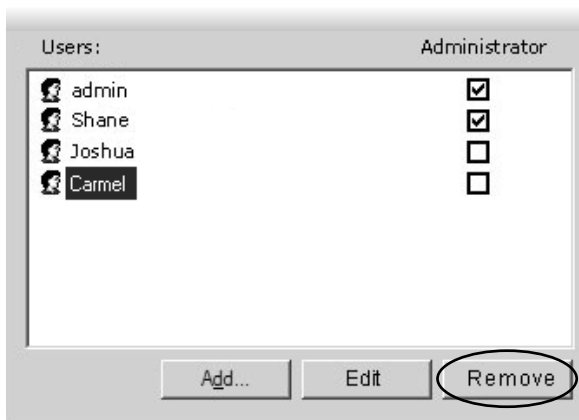


In the **Edit User** dialog, enter the new password for the user (up to 20 characters, including alphanumeric letters and underscore “_”). The **Confirm Password** field will become active. Re-enter the new password.

Changes are kept when you click **OK**.

User Management tab - Remove Users

Remove Users



- 1 Click a user entry in the user list to select it.
- 2 Click **Remove**.

Chapter 3

Starting the Viewer

This chapter describes how to start and login to the Viewer and connect to the Storage Server.

Starting the Viewer

Launching Procedure



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 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.



Note

If you want to add a Storage Server to the connect option menu, login the Storage Server of your choice and click **Add Storage Server** in the Viewer Settings window (→ P. 115).



Tip

- If multiple Storage Servers are being used, you should decide which one is the Master Storage Server.
- If the Storage Servers v1.2 and v1.3 coexist, either Storage Server can be specified as the Master Storage Server.
- The Viewer v1.0, v1.1, or v1.2 cannot connect to the Storage Server v1.3.
- If you want to connect to the Storage Server directly without displaying Start-up Screen when launching, untick **When starting, Master Storage Server is selected** in the Viewer Settings window (→ P. 115).

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.



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

2 Click **Connect**.

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



Tip

- The default user name and password are as follows:
User name: admin
Password: NVR
 It is strongly recommended to change the user name and password after installation.
- The Viewer can be launched directly without displaying Start-up Screen and Login dialog. Refer to “Administrator’s Manual” for details.

Specify the IP address of Storage Server to connect Viewer

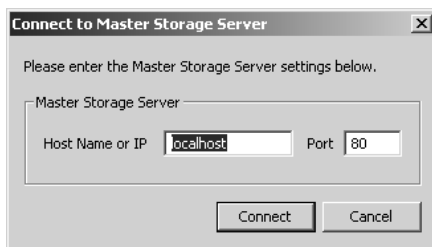
If you installed the Viewer and Storage Server on separate PCs, specify an IP address of Storage Server and connect Viewer to the Storage Server.

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**.

Functions not Available during Viewer Only Mode (Not Use Storage Server)

When you launch the Viewer with Viewer Only Mode, the following functions are not available.

● Viewing Screen

- Timeline is not displayed. **Timeline** under the **View** menu cannot be used.
- **Capture Still Frame** feature cannot be used.
- **Search Events** under the **Edit** menu cannot be used.
- **Live Events** under the **View** menu cannot be used.
- **Shared Layouts** are not displayed.
- In the **Add Layout Sequence** dialog, a **type** of layout is fixed to **Personal Layout Sequence**.

● Configuration and Preference Screen

- **Recording Schedules** tab is not displayed (→ P. 73). Some functions such as video recording, sensor events, and motion detection are not available.
- In the **Storage and Camera Server Summary**, **Storage Servers** tab is not displayed (→ P. 50).
- In the **Storage and Camera Server Summary**, the Camera Server list shows only Camera Server, Locations / Zones and Type (→ P. 51).
- In the **Add Camera Server** and **Edit Camera Server** dialog (→ P. 60), the following items are gray (disabled):
 - **Save Recorded Video on**
 - **Camera Server Settings**
 - **Camera Settings > Save video in**
- In the **Viewer Settings** window (→ P. 114), items in the **Event Notification Settings** area are gray (disabled).

Chapter 4

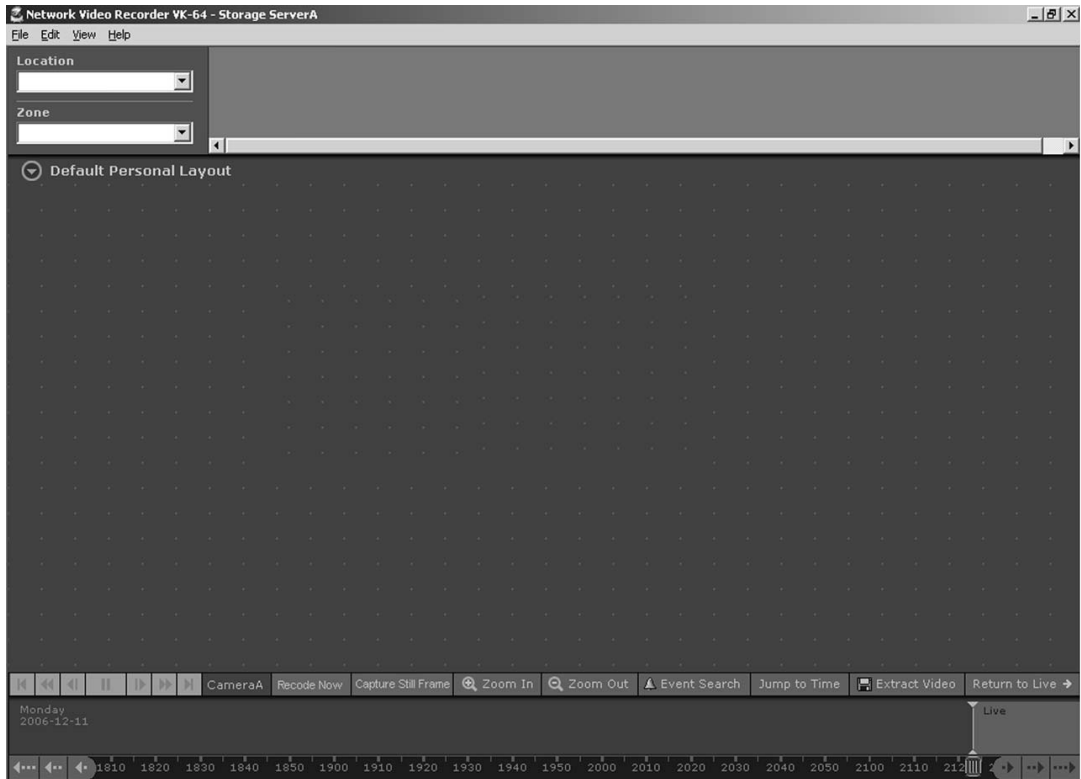
Overview of Viewer Configuration

This chapter gives a brief overview of the Viewer Configuration process

(which is outlined in Chapters 5 to 7).

After the Viewer has launched...

When the Viewer accesses a Master Storage Server which has not been set up with camera information, the entire Viewing Screen is initially blank. You will need to configure the Viewer using the **Configuration and Preferences** screen.



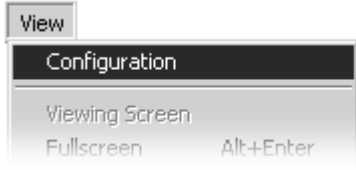
Note

It is recommended that only one Administrator perform configuration on a network at a time.

Accessing the Configuration and Preferences screen

To open the **Configuration and Preferences** screen:

In the Menu Bar, select View → Configuration

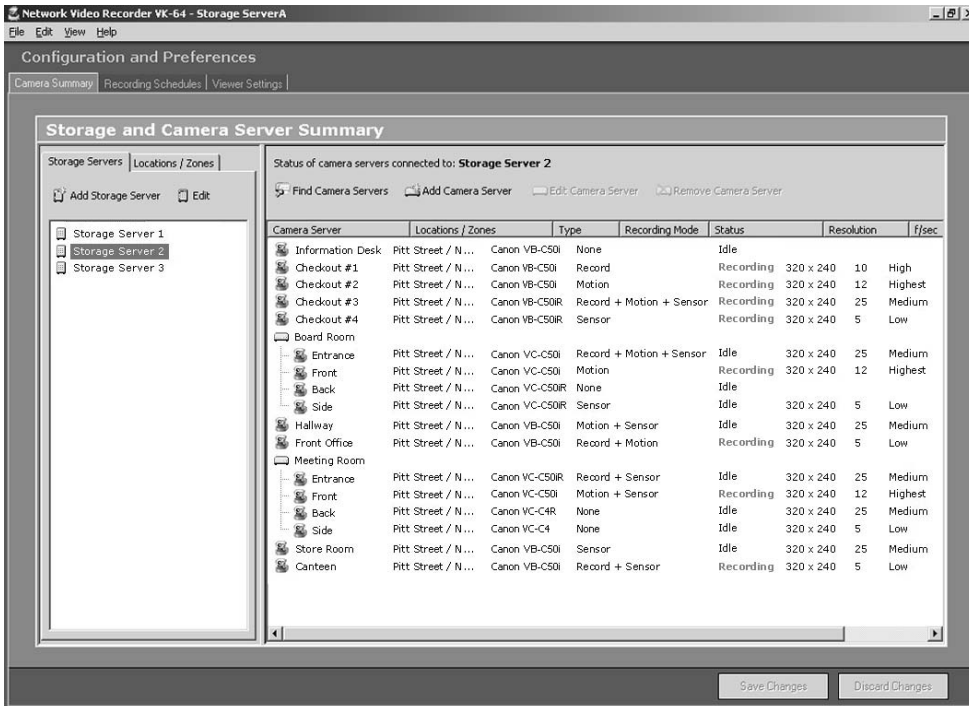


The menu bar is located at the top left of the Viewing Screen.

In the Menu Bar, select **View → Configuration**.

The **Configuration and Preferences** screen opens with the **Storage and Camera Server Summary** window displayed.

An example configuration is shown below.



A configuration process diagram is given on the following pages. Configuration is discussed thereafter. When you have finished configuration, select **View → Viewing Screen** to return to the Viewer.

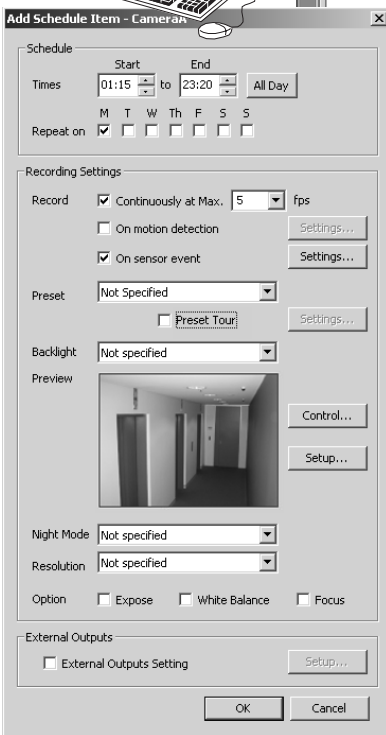
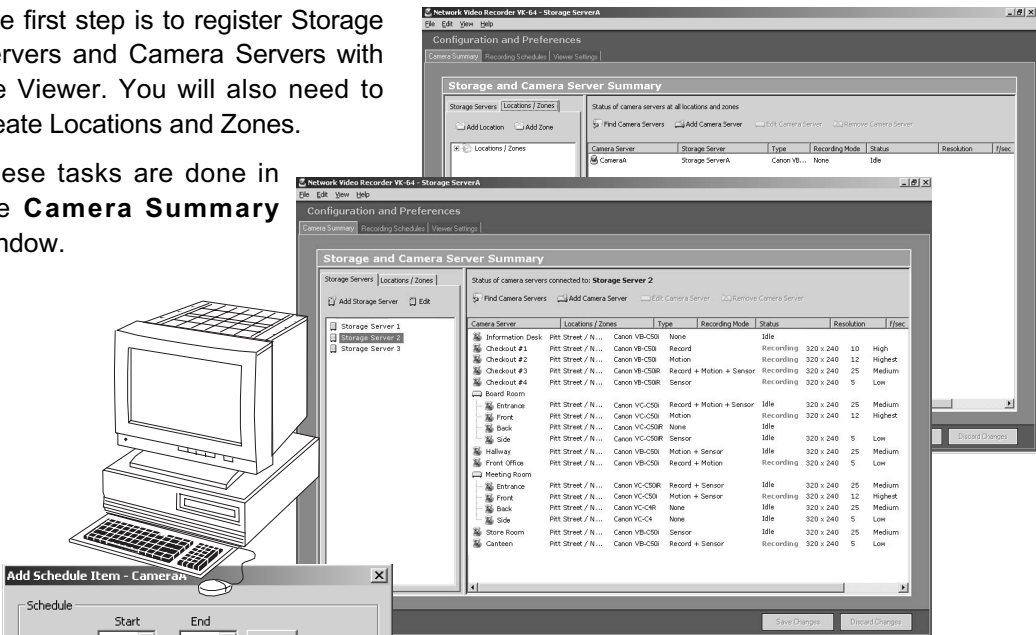
System Configuration Process

After configuring the Storage Server and launching the Viewer, you are now ready to configure the Viewer for monitoring, recording and playing back video. The flow diagram below shows the Viewer configuration process via the **Configuration and Preferences** Screen.

1 Register Storage and Camera Servers

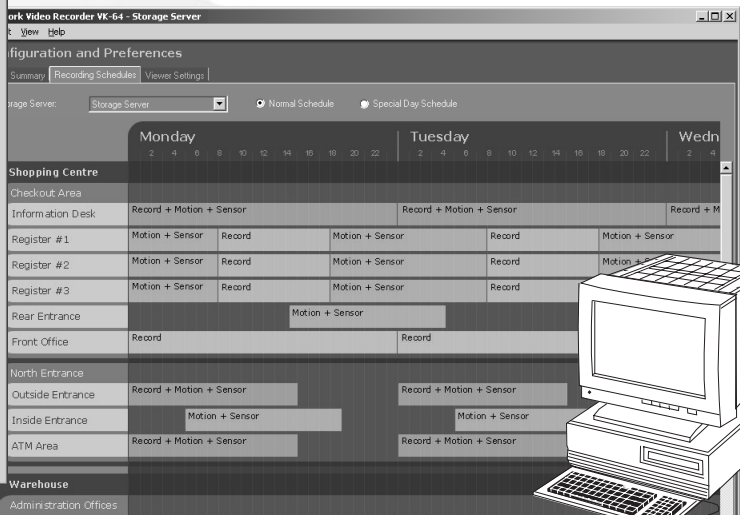
The first step is to register Storage Servers and Camera Servers with the Viewer. You will also need to create Locations and Zones.

These tasks are done in the **Camera Summary** window.



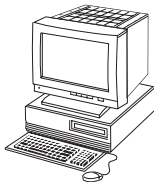
2 Set up Recording Schedules

For recording video, set up **Normal** and **Special Day** Recording Schedules in the Recording Schedules window.



4 Create and Save Viewer Layouts

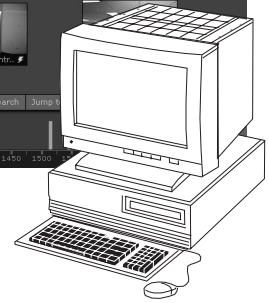
Monitor live video and play back recorded events in the **Viewer**. From here you can customize the Viewing Area and save Layouts.



Recorded video from Storage Server

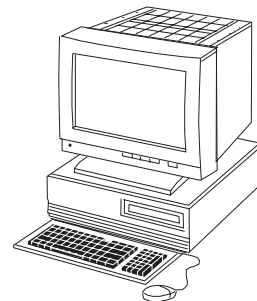
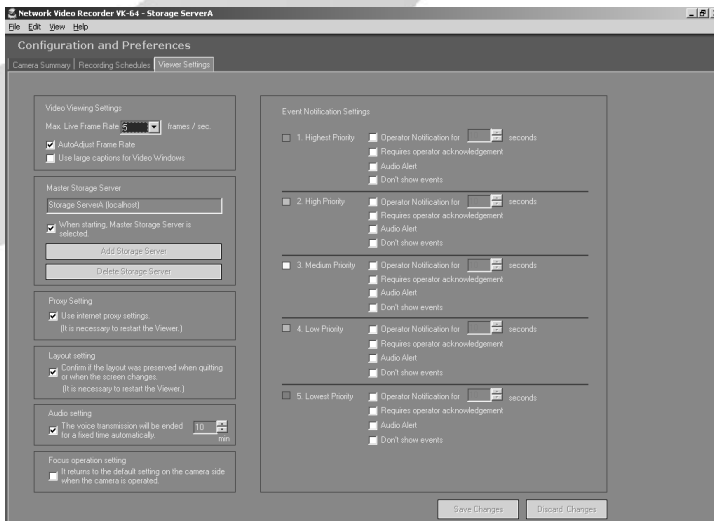


Live video from Camera Servers



3 Set up Viewer Settings (optional)

In the **Viewer Settings** window, you can adjust live viewing frame rate, identify an individual Viewer's Master Storage Server, and set priorities for event.



4

Overview of Viewer Configuration

Configuration and Preferences screen

About the Configuration and Preferences screen

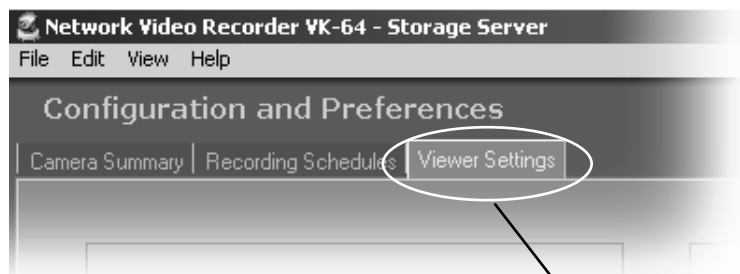
The **Configuration and Preferences** screen is used for configuring one or more Storage Servers and for setting up preferences on a Viewer computer. Storage Servers may include the local computer being used or another computer on the network.

There are three windows in the **Configuration and Preferences** screen used for connecting and configuring VK-64/VK-16 settings:

- **Camera Summary** - add a new Camera Server to a zone and search for existing Camera Servers on the network. This is discussed in Chapter 5.
- **Recording Schedules** - set up recording schedules for each known camera and specify events for triggering recording. You can also set special day schedules such as public holidays and display summary of settings. This is discussed in Chapter 6.
- **Viewer Settings** - set up event priorities and change the live video frame rate. The current Master Storage Server is indicated. This is discussed in Chapter 7.

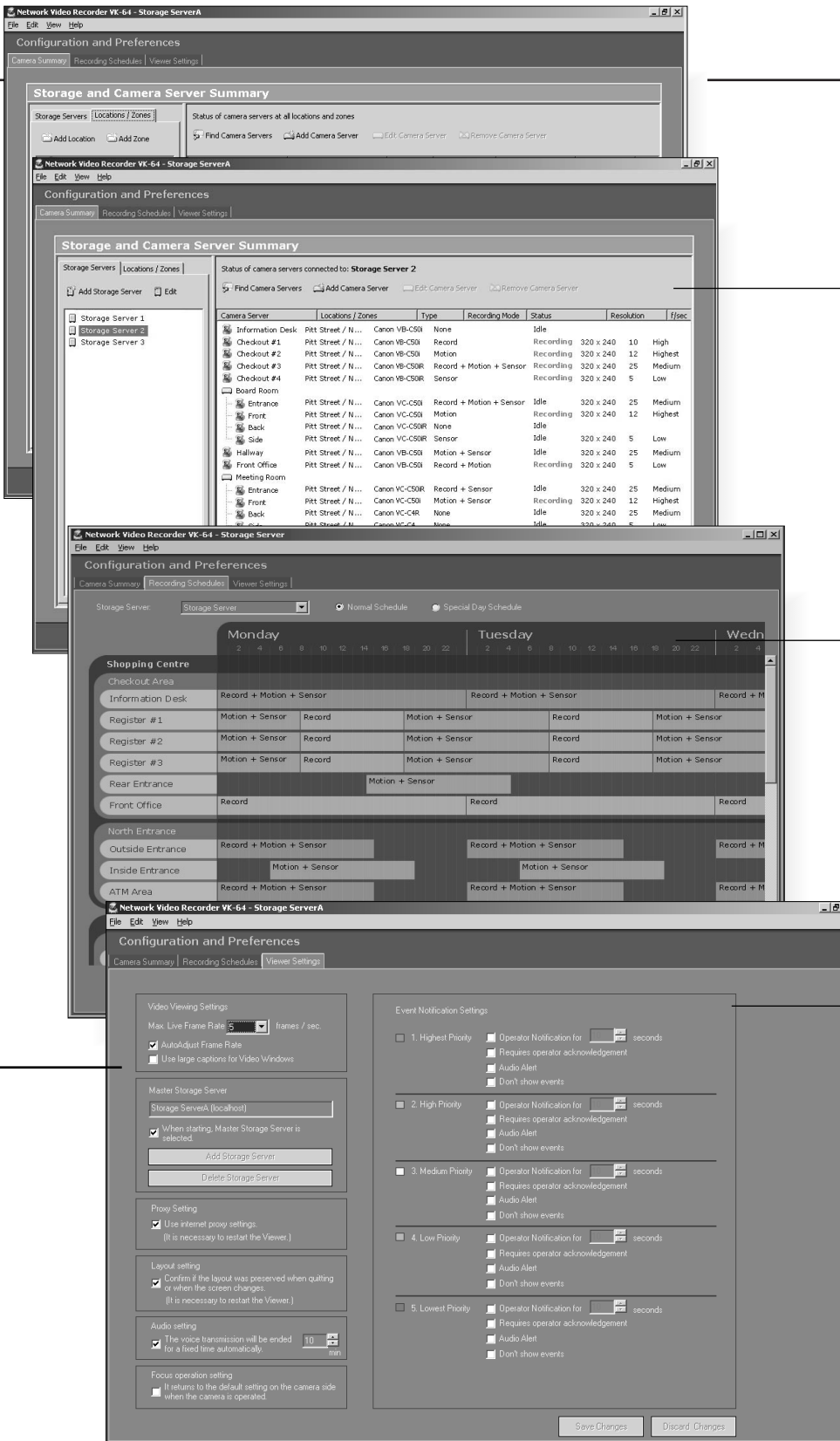
Selecting a window in the Configuration and Preferences screen

When the **Configuration and Preferences** screen is launched, three tabs are displayed. The default selection is the first tab, the **Camera Summary** window.



Click another tab to bring up the corresponding window.

Configuration and Preferences screen



Storage and Camera Summary windows

Recording Schedules window

Viewer Settings window

4

Overview of Viewer Configuration

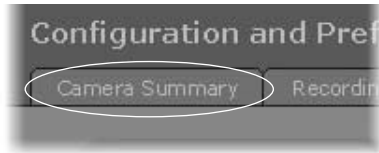
Chapter 5

Register Storage Servers and Camera Servers

This chapter outlines how to register Storage Servers and Camera Servers and to manage Locations and Zones.

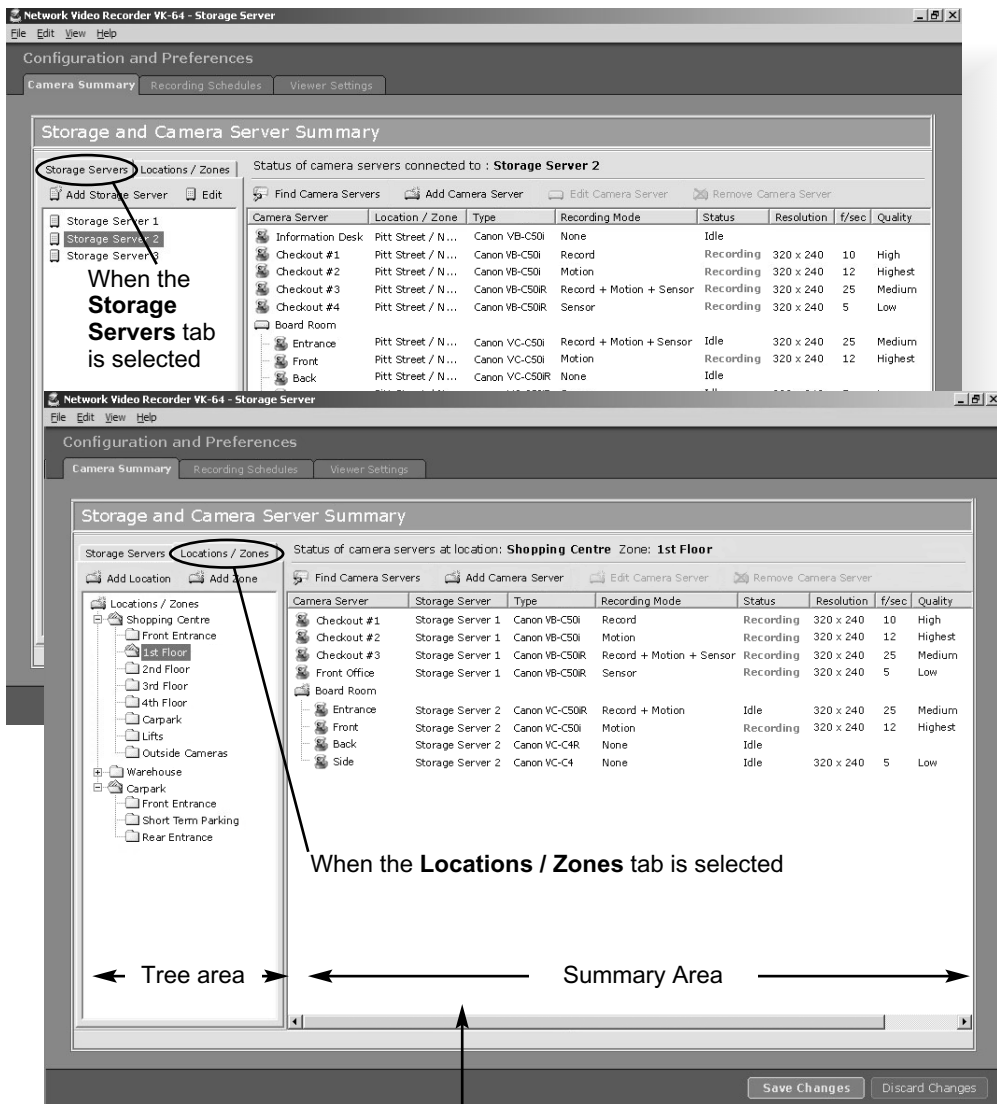
Camera Summary Window

About Storage and Camera Server Summary Window



Clicking the **Camera Summary** tab opens the **Storage and Camera Server Summary** window.

The window consists of two sub-windows which are opened by their respective tabs, **Storage Servers** and **Locations / Zones**.



→ P.54

→ P.56

Click and drag scrollbar(s) to view any portions of the Summary Area that are not visible.

Status of camera servers at location: **Shopping Centre** Zone: **1st Floor**

Find Camera Servers Add Camera Server Edit Camera Server Remove Camera Server

Camera Server	Storage Server	Type	Recording Mode	Status	Resolution	f/sec	Quality
Checkout #1	Storage Server 1	Canon VB-C50i	Record	Recording	320 x 240	10	High
Checkout #2	Storage Server 1	Canon VB-C50i	Motion	Recording	320 x 240	12	High

Click and drag divider line to the right to reveal full values.

Storage Servers and Locations / Zones options

The following options are available via the **Storage Servers** tab:



Add Storage Server - Allows you to register a Storage Server with the system (up to ten Servers are recommended).

Edit - Allows you to change the address of the selected Storage Server.

Select a Storage Server from the tree in the left panel. The right panel will update with a list of Camera Servers recorded by the Storage Server you selected.

The following options are available via the **Locations / Zones** tab:



Add Location - Allows you to add a new location to the system.

Add Zone - Allows you to add zones to locations.

When you select a zone within a location in the left panel, a list of cameras in that zone is displayed in the right panel.

Other Functions in Both Tabs



Camera server functions are located on the right-hand panel regardless of which tab is selected:

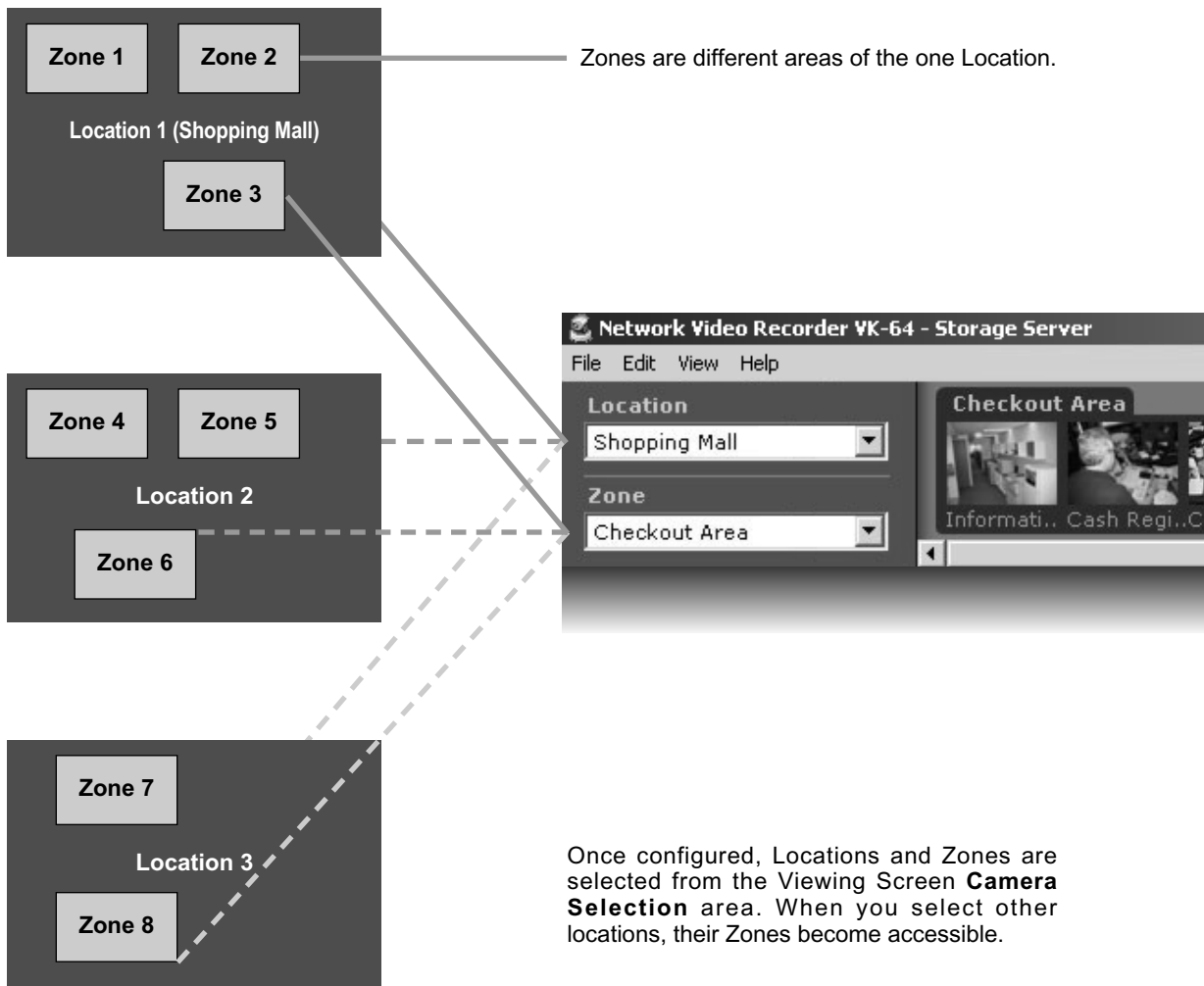
- **Find Camera Servers** - Allows you to initiate a network search for unlisted camera servers on the LAN.
- **Add Camera Server** - Allows you to add a new Camera Server to the system.
- **Edit Camera Server** - Allows you to edit an existing Camera Server's settings.
- **Remove Camera Server** - Allows you to remove a Camera Server from the system.

Location and Zone

About Locations and Zones

Cameras are grouped into Locations and Zones. Locations could include an office building, shop or school. Zones are a part of Locations, that is, a zone could be assigned to each floor in the office building and specific areas in a shop such as a cash register.

The diagram below illustrates an example of physical Locations and Zones on a VK-64/VK-16 network. Viewer access is via the **Location** and **Zone** drop-down menus.



When a Location is selected from the drop-down menu at left, all of the Zones associated with the Location will appear to the right as camera thumbnail images. This tab containing four thumbnail images indicates that there are four cameras in the Zone.



This tab containing six thumbnail images indicates that there are six cameras in the Zone.



Note

- **The Location/Zone hierarchy is independent of the grouping of cameras into Storage Servers. For example, a single Storage Server may record video from multiple Locations, and cameras from a single Location can be recorded to multiple Storage Servers.**
- **When more than one Storage Servers are used and the Storage Server configuration is changed after Camera Servers are registered to Storage Servers, thumbnails of registered Camera Servers may not be displayed. Register the Camera Servers again.**

Configure Camera Summaries

Camera Summary - Add, Edit and Delete a Storage Server

If you are using multiple Storage Servers, add each Storage Server as directed below. You need not perform these steps if you are using only one Storage Server and that Storage Server has already been added.

By adding the Storage Server, you can select the Camera Servers managed by the Storage Server from the Viewer screen.



Note

If you are using the Viewer only, the Storage Servers tab is not shown and you cannot add the Storage Server.



Tip

You can operate VK-64 with up to ten Storage Servers using any Up to 192 Camera Servers can be operated.

Add the Storage Server



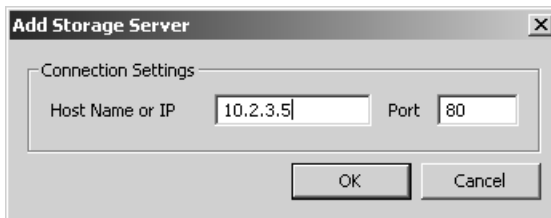
1

In the **Camera Summary** window, select the **Storage Servers** tab.

2

Click **Add Storage Server**.

The **Add Storage Server** dialog opens.



3

Enter connection settings and click **OK**.



Note


- Do not add the same Storage Server more than once.
- If you add a Storage Server with a different configuration (such as one managed by another Master Storage Server), your original Locations and Zones will be lost.
- If you are using Windows XP SP2 or Windows Server 2003, you need to change Windows settings. Make sure to change the settings. Refer to “Administrator’s Manual” for details.
- Do not change the port number.

Edit the Storage Server



- 1 Double-click the Storage Server in the list. Alternatively, select the Storage Server and click **Edit**. This will bring up the **Edit Storage Server** dialog.


- 2 Modify the entry and click **OK** to close and save changes.

 **Note**

- This function lets you change the network address used to access a particular Storage Server in case the IP address has changed.
- The Master Storage Server cannot be edited.

Delete the Storage Server

- 1 Click a Storage Server in the list to highlight it and select **Delete** from the **Edit** menu. Alternatively, press the **Delete** key on your keyboard.
- 2 A confirmation dialog will appear. Click **Yes** to continue. Click **No** to cancel deletion.

 **Note**

If a Storage Server is deleted, all Location, Zone, thumbnail and Layout information for cameras associated with this Storage Server will be lost.



- 3 To save changes, click **Save Changes** at the bottom right-hand corner of the **Camera Summary** window. Click **Discard Changes** to cancel any changes you have made.

Camera Summary - Add, Edit or Delete a Location/Zone

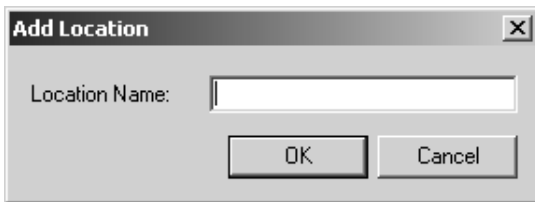
You can easily add a new location to your system, then add zones to the new location folder. For example, a location could be a supermarket and zones inside that location can include cash register areas, supermarket aisles and entrances.

Step 1: Click Add Location on the Locations / Zones tab



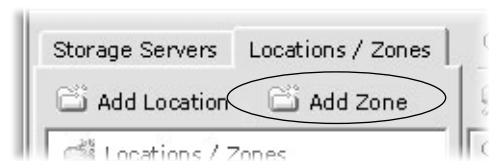
1 In the **Camera Summary** window, select the **Locations/Zones** tab if it is not already selected.

2 Click **Add Location**.
The **Add Location** dialog opens.



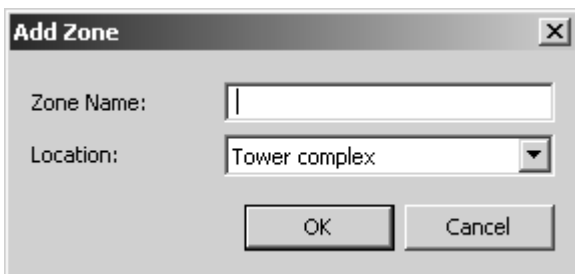
3 Enter the name of the new location (up to 20 characters), then click **OK**.

Step 2: Click Add Zone on the Locations / Zones tab



1 In the **Camera Summary** window, select the **Locations / Zones** tab if it is not already selected.

2 Click **Add Zone**.
The **Add Zone** dialog opens.



3 Enter the name of the new zone (up to 20 characters).

4 Select a location from the drop-down menu in the **Location** field, then click **OK**.

The selected zone will now appear in the specified Location folder.

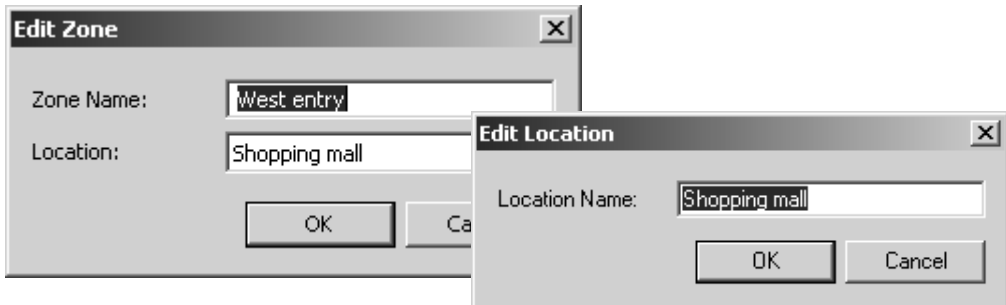


Note

- If you want to add a Zone to another location not listed, you must first create the Location before you add the Zone.
- Each Location name must be unique and each Zone name within a Location must be unique.
- There is no fixed limit on the number of Zones and Locations that can be added.

To edit a Location or Zone:

- 1 Double-click a Zone or Location.
The **Edit Zone** or **Edit Location** dialog opens.
- 2 Enter connection settings and click **OK**.



To delete a Location or Zone:

- 1 Click a Storage Server in the list to highlight it and select **Delete** from the **Edit** menu. Alternatively, click a Zone or Location to select it, then press the **Delete** key on your keyboard.
- 2 A confirmation dialog will appear. Click **Yes** to continue.
Click **No** to cancel deletion.

Camera Summary - Find Camera Servers

You can easily locate and register Camera Servers via **Find Camera Servers**.



Note

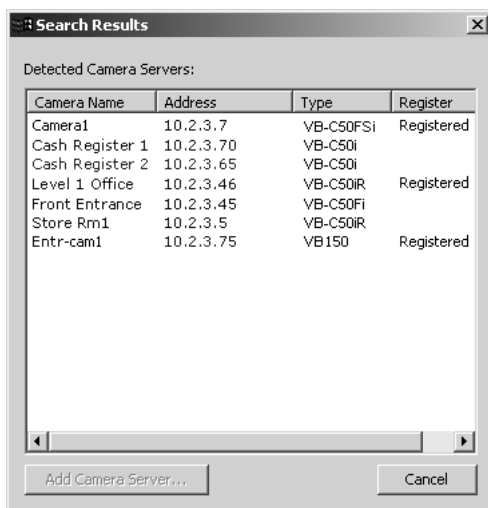
When you initiate the Find Camera Servers function, your computer searches the Viewer's local subnet for all Camera Servers connected to it. It will not find Camera Servers on a different subnet where a Storage Server may be connected. These Camera Servers must be added using Add Camera Servers (→ P. 59).

Step 1: Click Find Camera Servers



In the **Camera Summary** window, click **Find Camera Servers** which is located above the right-hand panel.

The **Search Results** dialog opens and a list of detected Camera Servers will appear.



Note

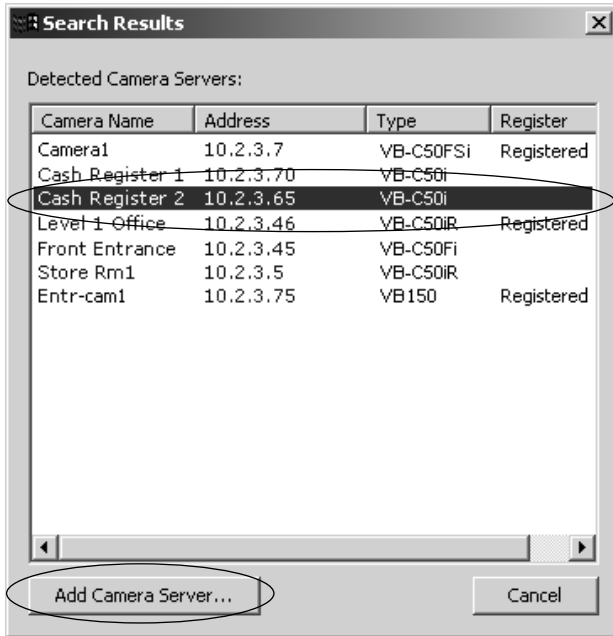
The camera names listed are those specified by the Camera Server. Refer to the Camera Server's User's Manual for more information on setting the name ("Camera Name" for VB-C50i/VB-C50iR, VB-C50FSi, VB-C50Fi, VB-C10/VB-C10R, "Device Name" for VB150 and VB101, and "VB-C300NA" or "VB-C300PA" for VB-C300).



Tip

For the Camera Servers which are already registered, "Registered" is displayed in the "Register" column. The "Register" column for unregistered Camera Servers are blank.

Step 2: Select a new Camera Server



1 In the **Search Results** dialog, click a Camera Server in the search results list to select it.

2 Click **Add Camera Server...**
This will bring up the **Add Camera Server** dialog where you can configure settings for the Camera Server.

Alternatively, double-click an item to bring up the **Add Camera Server** dialog.

Using the **Add Camera Server** dialog is discussed on the following pages.

You can also launch the **Add Camera Server** dialog in the following manner:

Camera Summary - Add Camera Server

To register a Camera Server which cannot be found via **Find Camera Servers**.



Click **Add Camera Server** to bring up the **Add Camera Server** dialog. This is discussed on the following page.

Using the Add Camera Server Dialog

About the Add Camera Server Dialog

The **Add Camera Server** dialog's appearance will depend on the type of Camera Server connected.

Set up camera position and saved video

The **Add Camera Server** dialog allows you to set a camera thumbnail image for the Viewer and to choose a Storage Server for recorded video.

The dialog shown below illustrates an example VB-C300 setup.

Connection Settings

Adjust camera angle

Set backlight compensation.

The screenshot shows the 'Add Camera Server' dialog box with various configuration options. The 'Connection Settings' section is at the top left, followed by 'Save Recorded Video on' and 'Camera Server Settings'. The 'Camera Settings' section is on the right, and 'Save Video in' is at the bottom right. The dialog is annotated with lines pointing to specific fields and sections.

Select a Storage Server to save video from the camera. Selecting **Do not record** prevents video from being recorded.

One or more tabs may show depending on the type of the Camera Server.

Select a drive on the Storage Server to save video.



Note

- The Viewer cannot set the Camera Server name. It must be set on the Camera Server. Refer to the Camera Server's User's Manual for more information on setting the name ("Camera Name" for VB-C300, VB-C50i/VB-C50iR, VB-C50FSi, VB-C50Fi, VB-C10/VB-C10R, "Device Name" for VB150 and VB101. The sensor name is "External Device Name" for VB-C50i/VB-C50iR, VB-C50FSi, and VB-C50Fi, and "External Device Input Name" for VB-C10/VB-C10R, VB150, and VB101).
- Recording schedules must be set in order to record video. Clicking OK does not immediately start recording video.

Add a Camera Server - Set connection details

To add a Camera Server, you must specify how VK-64/VK-16 can connect to the camera server as follows:

Step 1: Enter Host Name, User Name and Password

Connection Settings

Host Name or IP: 192.168.1.99 Port: 80

Camera Server Name: Camera

User Name: root

Password: *****

Connect

1 Enter the Host Name or IP address in **Host Name or IP**, then enter the port number for the Camera Server in **Port**.

2 Enter the user name in **User Name** and password in **Password** to connect the Camera Server. The settings are then saved to the Storage Server.



Note

This is the User Name and Password configured on the Camera Server side, not your VK-64/VK-16. If you do not know your Camera Server user name and password, ask your System Administrator.

Step 2: Click Connect

Click **Connect** when you have added the above information.

Once the Viewer has connected with the Camera Server, a tab is shown next to the **Add Camera Server** dialog.



Note

- You must click **Connect** before clicking **OK** to close the dialog (the **OK** button is disabled until you do so).
- When two or more cameras are used with VB150 (when “Video Input” is set to “Single”), two through four tabs are added. The number of tabs shown for a VB150 does not indicate the physical number of cameras connected. It indicates the number of cameras which have been enabled using the VB150 Camera and Video Settings Page. Please refer to Chapter 3, page 36 of the VB150 User’s Manual for more details.
- For VB101 (or VB150 when “Video Input” is set to “Single”), the camera name displayed is the first camera name in the server’s camera name list. Therefore, it is recommended that the Administrator should set the first camera name to be a general name, applicable to the entire Camera Server.
- If you are using a VB101 or VB150 with the “Settings Web page URL” other than the default setting “admin”, a connection error occurs when you click **Connect**. Restore the default setting and try again.



Tip

If you have a Multi-Terminal Module VB-EX50 unit plugged into a VB-C50i/VB-C50iR/VB-C50FSi/VB-C50Fi and have configured the “Use External Video Input”, video seen in the Viewer may be taken from cameras connected to the Multi-Terminal Module. Switch the video at the Admin Viewer as required.

Step 3: Select the Storage Server for recording

Save Recorded Video on

Storage Server

Storage Server access to Camera Server:

Host Name or IP Port

1

Select a **Storage Server** from the drop-down menu which lists pre-configured Storage Servers and enter the Host Name or IP address in **Host Name or IP** and Port number in **Port**.

2

If you do not want the Camera Server to be recorded video, select **Do not record** from the drop-down menu of **Storage Server**.



Note

- Recording schedules must be set in order to record video. Refer to Chapter 6 for how to set recording schedules.
- There is a maximum number of 64 Camera Servers that can be registered on one Storage Server with VK-64 (or 16 cameras with Network Video Recorder VK-16).
- If you have changed the Camera Server’s IP address, you also need to change the host names in the Connection Settings and Storage Server Settings dialogs.

Step 4: Configure External Device Input

Camera Server Settings

Invert the state of the following external

Input 1

Input 2

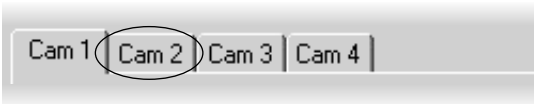
To switch On or Off the external device input, tick the **Invert the state of the following external** option.

*One or more inputs may show depending on the type of the Camera Server. It is not necessary to change this setting if it is not required.

Camera Summary - Edit Camera Server Settings

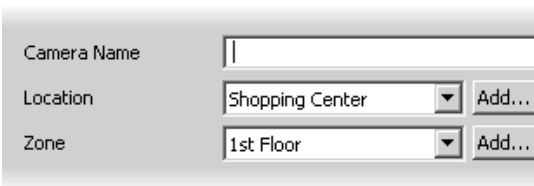
The right-hand side of the **Add Camera Server** dialog may show one or more enabled cameras (depending on the type of Camera Server you are using). To edit settings:

Step 1: Select a camera tab if available



Click a tab to display that camera's settings.

Step 2: Assign a location and zone



- 1 You can change the name of camera in the **Camera Name** field, if necessary. The camera name of Camera Server will not be changed.
- 2 In the **Location** field, select a location for the camera from the drop-down menu.
- 3 In the **Zone** field, select a zone for the camera from the drop-down menu.



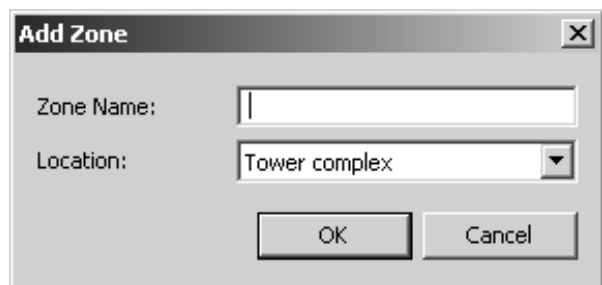
If necessary, click **Add...** to add another Location or Zone.

The **Add Location** or **Add Zone** dialog opens.

Enter **Location Name** or **Zone Name** and click **OK**.

When you add a Zone in the **Add Zone** dialog, you must also add it to a Location in the same dialog.

Select a location from the drop-down menu.



Refer to P. 56 for how to add locations and zones.

Step 3: Update and setup camera thumbnail for Viewer



1 In the **Preview** area, a camera view is given. Click **Update** to grab a current frame from the camera. Captured image is shown in the thumbnail area, and is used as the thumbnail image of the Viewer screen.

2 If you are not happy with the frame, click **Start Control**. You can then use your mouse to redirect the viewing angle and zoom in or out.



Move the mouse cursor around the image. Arrows will appear and you can click and drag the cursor in that direction. The preview will change accordingly. 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.



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.



Tip

If you want to change the thumbnail and the preview area is blank (and the Update and Start Control buttons are disabled), click **Connect** (located in the Connection Settings field).

3

Choose a pre-defined camera position (if already configured) from the **Preset Angle** drop-down menu.



Tip

Presets need to be configured in advance. Please refer to the Camera Server User's Manual for details on making camera presets.

Step 4: Select a hard drive for saving video



In the **Drive** menu, select a hard disk drive on the Storage Server.

Click **OK** when finished.

The **Camera Summary** screen reappears.



Note

Network drives registered via Storage Server Configuration are also shown on the Drive drop-down menu. Refer to “Select Disk Drive Settings” (→ P. 26) for the details.

Edit and Remove Camera Servers

Camera Summary - Edit Camera Server

The right-hand portion of the **Camera Summary** window features **Edit Camera Server** for editing the Camera Server(s) on your system, regardless of which tab you have selected (**Storage Servers** or **Locations/Zones**). The same dialog as **Add Camera Server** (→ P. 60) opens.

Step 1: Select a Camera Server

Camera Server	Storage Server
Information Desk	Storage Server 1
Checkout #1	Storage Server 1
Board Room	
Entrance	Storage Server 2
Front	Storage Server 2
Back	Storage Server 2
Checkout #2	Storage Server 1

In the **Camera Server** list, click a server to highlight it.

Step 2: Click Edit Camera Server



1 Click **Edit Camera Server** to bring up the **Edit Camera Server** dialog. This dialog is identical to the **Add Camera Server** dialog (you can also double-click an entry to bring up the dialog).

2 Change the settings. Click **OK** to close the dialog.

Camera Summary - Remove Camera Server

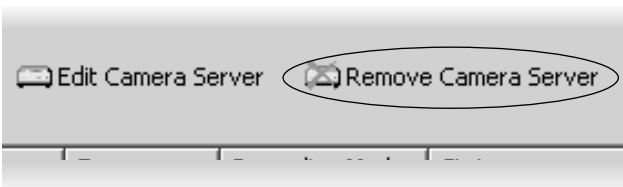
The right-hand portion of the **Camera Summary** window features **Remove Camera Server** for removing the Camera Server(s) from your system, regardless of which tab you have selected (**Storage Servers** or **Locations / Zones**).

Step 1: Select a Camera Server

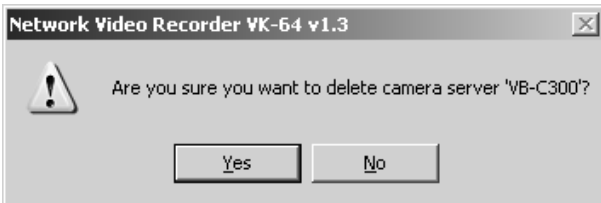
Camera Server	Storage Server
Information Desk	Storage Server 1
Checkout #1	Storage Server 1
Board Room	
Entrance	Storage Server 2
Front	Storage Server 2
Back	Storage Server 2
Checkout #2	Storage Server 1
Checkout #3	Storage Server 1

In the **Camera Server** list, click a server to highlight it.

Step 2: Click Remove Camera Server



1 Click **Remove Camera Server** (you can also press the **Delete** key on your keyboard).



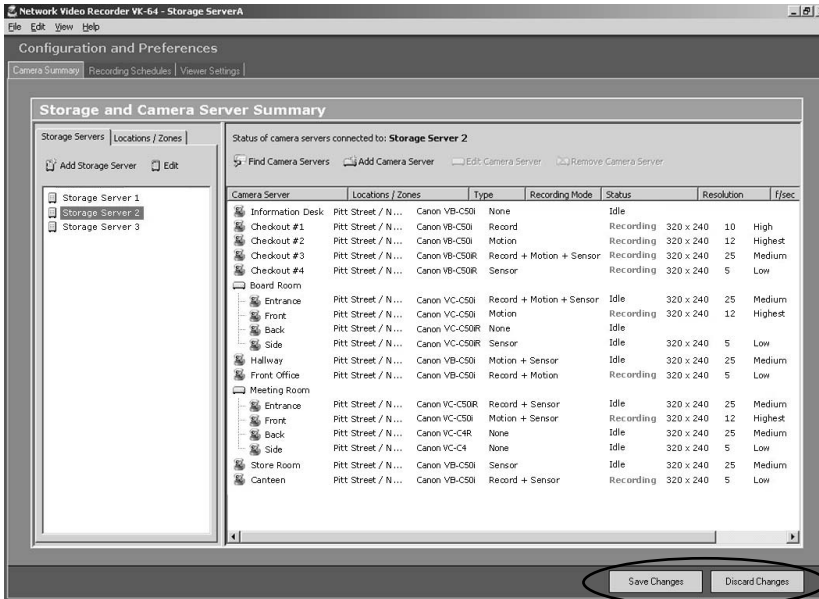
2 A confirmation dialog will appear. Click **Yes**. Click **No** to cancel.



Note If a Camera Server is deleted, all the settings for VK-64/VK-16 associated with this Camera Server will be lost. Make sure to change the settings.

Saving Configuration Changes

Camera Summary - When you have finished configuration



The bottom right-hand corner of the **Camera Summary** window consists of two buttons, **Save Changes** and **Discard Changes**.



- Click **Save Changes** to keep all your settings.
- Click **Discard Changes** to cancel any modifications you have made.

If you want to return to the Viewer dialog, select **View > Viewing Screen** from the menu bar.

Chapter 6

Configuring Recording Schedules

This chapter details how to configure recording schedules for cameras on the network.

Recording schedules are configured for recording videos by motion detection and by sensors.

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



Note

After setting the recording schedule, make sure to perform tests under actual conditions.

Recording Setting Flow

Basic Recording Setting

First you must specify “when” the camera should shoot “what” video.

Just by configuring these two settings, you can start recording video with other default settings.

“When” - Select one from the following:

Specific day of the week (Normal schedule)

Specific day (Special Day schedule)

“What” - Select one or more from the following:

Record video throughout the specified time period (Continuous recording)

Record video by motion detection during the specified time period (Motion Detection recording)

Record video by sensor during the specified time period (Sensor Event recording)

The diagram illustrates the recording settings flow in two columns. Column 1, titled '1 When', contains two radio button options: 'Day of the week' and 'Specific day'. Column 2, titled '2 What', contains three checkbox options: 'Continuous recording', 'Motion Detection recording', and 'Sensor Event recording'.

Motion detection recording starts recording video only when a motion has been detected within a preset detection area.

Sensor Event recording starts recording video only when a sensor input has occurred.



Tip

One recording schedule can have Continuous, Motion Detection, and Sensor Event recording settings. You can record a Camera Server continuously at 1 frame per second and, for example, set recording to increase to 5 frames per second when motion occurs.

Basic Recording Setting Flow

Select “When” Screen

The setting window depends on how to set “when” recording video.

If you want to record video on a day of the week, specify the day of the week and time on the **Add/Edit Schedule** Item dialog under the **Normal Schedule** dialog.

If you want to record video on a specific day, specify the day on the **Special Day Schedule** dialog and specify the time on the **Add/Edit Schedule** Item dialog under the **Special Day Schedule** dialog.

1 When

Day of the week

Specific day

Normal schedule

Special schedule

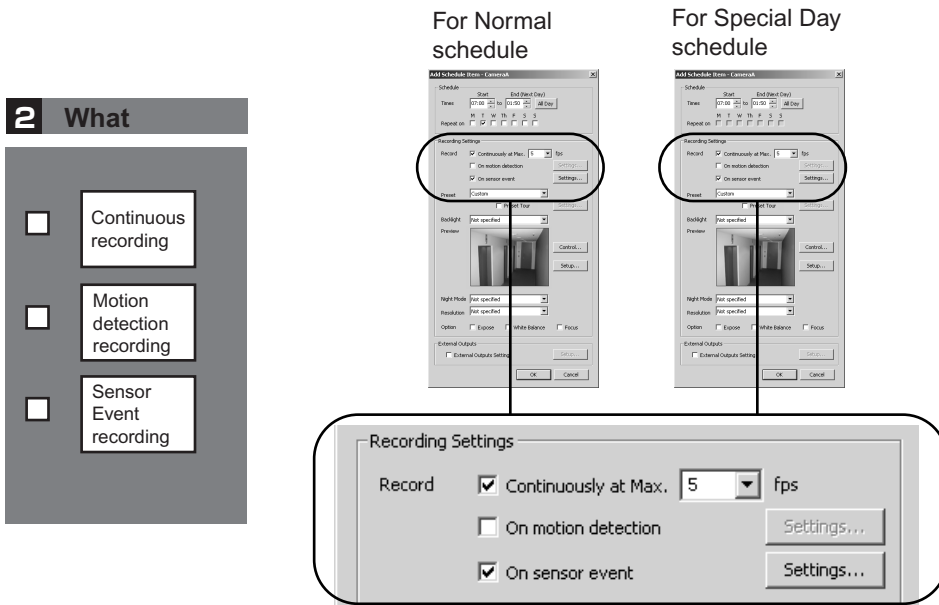


Tip

- Refer to P. 73 for how to use the Normal Schedule dialog.
- Refer to P. 101 for how to use the Special Day Schedule dialog.

Select “What” Screen

Select an option in the **Recording Mode** area on the **Add/Edit Schedule** Item dialog under the **Normal Schedule** or **Special Day Schedule** dialog, depending on what to record.



Select the recording mode and configure settings.

While only the frame rate (fps) needs to be set for the Continuously at Max, further settings are necessary for the On motion detection and On sensor event on the **Motion Detection Settings** and **Sensor Event Settings** dialogs (respectively) displayed by clicking **Settings...** on the first dialog.



Tip

- If you want to sequentially configure recording settings as you use the camera, first configure the **Continuous recording**.
- Refer to P. 83 for how to use the **Motion Detection Setting** dialog.
- Refer to P. 89 for how to use the **Sensor Event Settings** dialog.

Configure Normal Recording

About the Recording Schedules window - Normal Recording

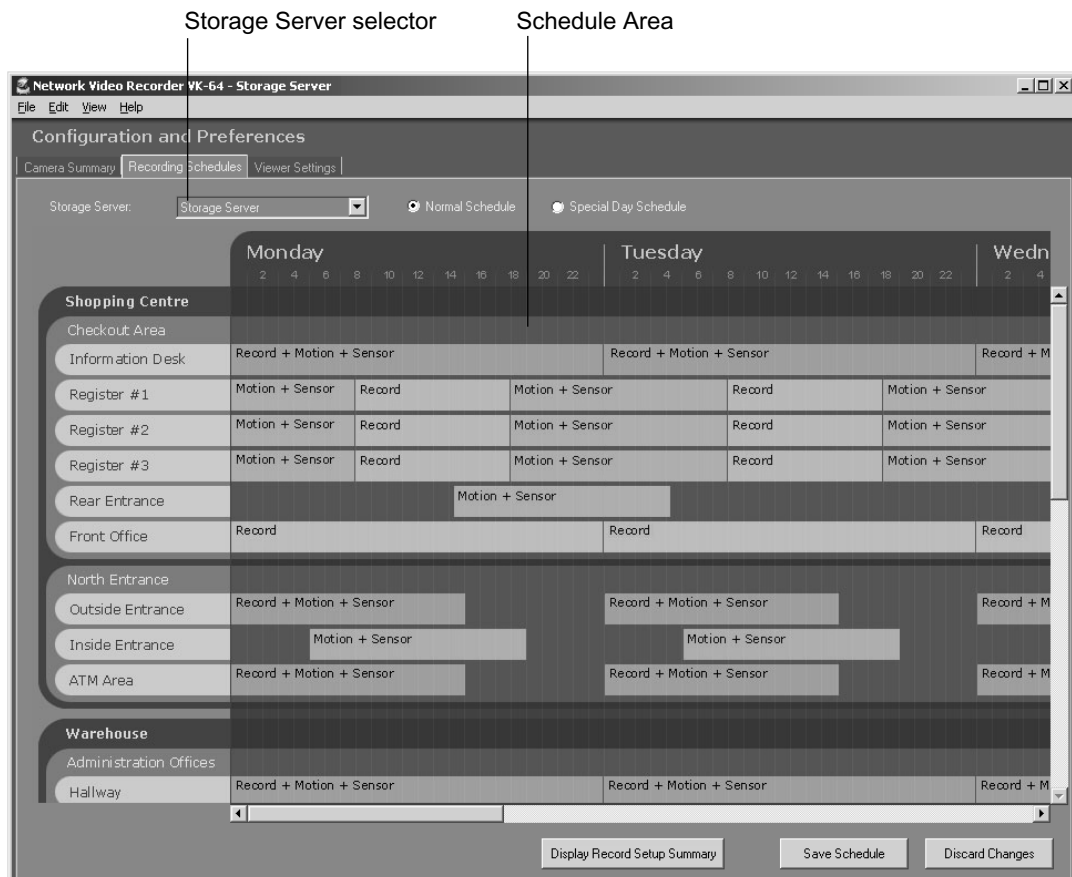
The **Recording Schedules** window is used for configuring recording settings for each known Camera Server on the network.



In the **Configuration and Preferences** screen, click the **Recording Schedules** tab and ensure the **Normal Schedule** is selected.

The **Normal Schedule** consists of:

- **Storage Server** selector - Select the Storage Server to edit the recording schedule. When the **Recording Schedules** window is first opened, the first Storage Server in the list is shown with its associated schedule to the right.
- **Schedule Area** - Used to set up standard day-to-day recording settings of the system.



Configure Normal Recording

Time Scale for schedules

File Edit View Help

Configuration and Preferences

Camera Summary Recording Schedules Viewer Settings

Storage Server: Storage Server

Normal Schedule Special Day Schedules

Monday

2 4 6 8 10 12 14 16 18 20 22

Shopping Centre

Checkout Area

Information Desk Record + Motion + Sensor Record

Register #1 Motion + Sensor Record Motion + Sensor

Register #2 Motion + Sensor Record Motion + Sensor

Register #3 Motion + Sensor Record Motion + Sensor

Rear Entrance Motion + Sensor

Front Office Record Record

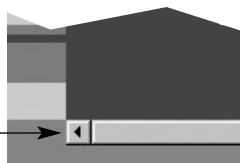
Zone

Location

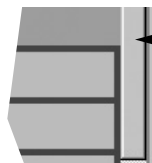
Zone representing camera areas in the Location

Camera schedule time bars

Click and drag the horizontal scroll-bar to the right to view other schedule days.



Click and drag the vertical scroll-bar downward to view any other zones.



Selecting multiple items and dragging or moving

While holding down the **Ctrl** key, click on individual schedule items to select them. You can adjust or move multiple schedule items to new positions by dragging them.



You can also create multiple camera schedules. This is discussed on the following page.

Create, Edit and Delete Recording Schedule Items

To add or edit a schedule for a camera in a zone, you need to launch the **Add Schedule Item** or **Edit Schedule Item** dialog respectively.

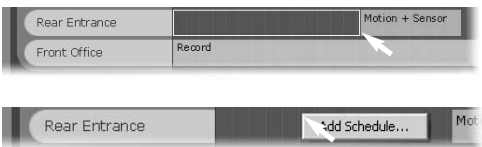
Step 1: Change Storage Server if necessary



If you wish to display another Storage Server's schedule, click the **Storage Server** menu, otherwise proceed to Step 2.

The menu may list more assigned Storage Servers. If you select another Storage Server, the Schedule Area will refresh and associated schedule zones will be shown.

Step 2: Create the recording schedule.



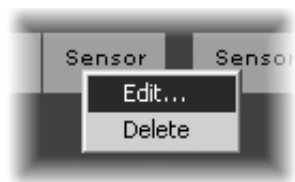
Click and drag a time period for a camera name and release the mouse button. The **Add Schedule Item - Camera** dialog is displayed.

Alternatively, right-click anywhere in the Schedule Area alongside a camera name and click **Add Schedule...** from the context menu.



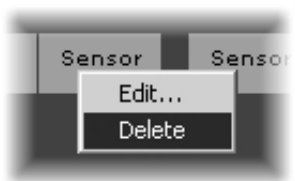
You can also click and drag an area covering several cameras to bring up the **Add Schedule Item - multiple cameras** dialog. This allows you to easily set schedules for multiple cameras. Once created, settings for each camera can be customized.

To edit and delete a recording schedule item:



Right-click the schedule and select **Edit** from the context menu, or double-click the schedule. The **Edit Schedule Item - Camera** dialog is displayed.

Both the **Add** and **Edit** dialogs are identical as shown on P. 76.



Right-click the schedule and select **Delete** from the context menu.

Alternatively, click to select the schedule, and select **Delete** from the **Edit** menu or press the **Delete** key on your keyboard.

Configure Normal Recording



Note

- The minimum duration for a schedule item is 15 minutes.
- You cannot create overlapping schedule items.



Tip

To edit the time only, simply click an existing schedule item and drag the right or left boundary to lengthen or shorten the time respectively. You can modify the time with the mouse by an increment of 5 minutes. To modify less than five minutes, double-click an item and edit the time in the Edit Schedule Item dialog (→ P. 75).

Add Schedule Item - CameraA

Schedule

Start: 07:00 to End (Next Day): 01:50 All Day

Repeat on: M T W Th F S S (T is checked)

Recording Settings

Record: Continuously at Max. 5 fps
 On motion detection
 On sensor event

Preset: Custom
 Preset Tour

Backlight: Not specified

Preview:

Night Mode: Not specified
Resolution: Not specified

Option: Expose White Balance Focus

External Outputs

External Outputs Setting

Annotations:

- Set start and end times and the day of the week (→ P. 77).
- Set frame rate, enable Motion Detection and sensor event recording (→ P. 78).
- Set the preset camera angle and backlight compensation (→ P. 79).
- Move the mouse cursor in the Preview area to change the camera angle (→ P. 64).
- Control the camera via the **Camera Control Panel**.
- Display the Top page of the Camera Server after Internet Explorer launches.
- Set the Night Mode, resolution and options (→ P. 80).
- Set the external device output (→ P. 81).

* The number of external devices available for setting depends on the type of the Camera Server.

Configuration is discussed on the following pages.

Add/Edit Schedule Item dialog - Schedule field

To set the schedule for a camera's recording period:

Step 1: Set the recording period

Click the time segments and overwrite with desired time, or use the up/down arrows.



Tip

- An example time period could be for overnight recording such as 'Start: 22:00 to End 08:00'.
- Click **All Day** if you want 24 hour recording. The **Start** and **End** times will be set at 00:00 respectively.

Step 2: Select the days for recording

In the **Repeat on** area, tick the days you wish to repeat the recording period you set in the **Times** area above.



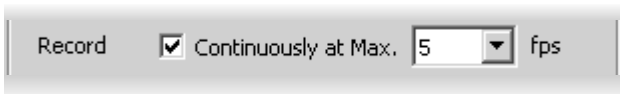
Note

- If you have defined any special day schedules, such as public holidays, such schedules will override normal schedule times for the whole day.
- Times are given in 24 hours, for example 18:00 is 6:00 pm.
- If a Camera Server has been configured with Restrict Service Time, VK-64/VK-16 will not be able to record from the Camera Server during restricted times.
- The time zone used for the recording schedule will be the time of PC where the Storage Server is running.
- The Storage Server will adjust for Daylight Savings if configured in the operating system.

Add/Edit Schedule Item dialog - Recording Settings field

To configure the Camera Server for recording:

Step 1: Set the recording mode



1 Click the **Continuously at Max.** box if you want to set continuous recording for the duration of the time period.

2 Select a frame rate for recorded video from the drop-down menu, or input a value from the keyboard.

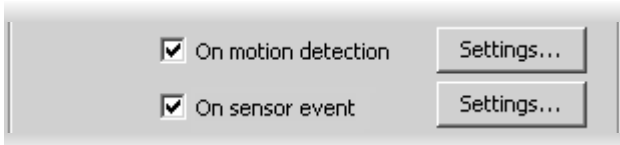
You can set the frame rate from 0.1 to 30 frames per second. The default is 5 frames per second.



Note

- When the load on the storage server CPU and hard disk is high, recording at the specified frame rate may not be available, or the video recording may be interrupted.
- Higher frame rates result in larger disk usage. Make sure you have enough disk space.
- The frame rate specified is the frame rate that the Storage Server will attempt to record, and may not be the actual frame rate recorded. Factors such as the number of Viewers, load on the Camera Server and the Storage Server, and network traffic may reduce the actual frame rate recorded. Also, the maximum frame rate for a VB-C10 configured with a resolution of 640 x 480 is 10 frames per second, and for a VB150 with 4 cameras is 2-3 frames per second.

Select Motion Detection or Sensor Event recording (optional)

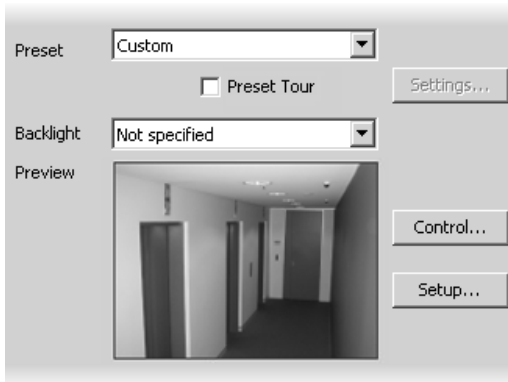


1 Click the **On motion detection** box if you want recording activated when motion is detected during this time period.

2 Click **Settings...** to change the details.

3 Click **Settings...** to change the details of each recording mode (→ P. 83, P.89).

Step 2: Choose a preset angle and adjust backlight compensation



1 In the **Preview** field a live preview is given of the selected camera view when connected.

Select a Preset camera position from the drop-down menu of available camera angles, to retain a live preview from that angle.

Alternatively, move your mouse pointer in the Preview area to display controls and clicking to pan, tilt and zoom (→ P. 64).

2 Tick **Preset Tour** to switch among multiple preset positions sequentially (VB-C300, VB-C50i/VB-C50iR, VB-C50FSi, VB-C50Fi only). Click **Settings...** to specify the order to switch among presets. Refer to P. 94 for how to set the preset tour.

3 Select **On** or **Off** from the **Backlight** drop-down menu (You can set the backlight compensation to **High**, **Medium**, **Low** or **Off** for VB-C300, VB-C50i/VB-C50iR, VB-C50FSi and VB-C50Fi).

Selecting **Not Specified** accepts whatever backlighting the Camera Server offers.



Note

- Camera angle can be changed by moving your mouse pointer in the Preview area to display controls. Click the controls to pan, tilt and zoom (→ P. 64).
- After the camera has been controlled, the preset will be set to Custom. The value this is set to will be the value used for recording and the position set will be the position recorded. If you set a preset position using the digital zoom of the VB-C300, the viewing angle may be misaligned.
- If you select Not Specified the Storage Server does not attempt to change the setting, rather it accepts whatever resolution/mode the Camera Server offers. If the camera angle is changed from the Viewer, the changed setting is used for recording.
- In the following cases the Storage Server records whatever the Camera Server currently displays;
 - Multiple number of cameras are connected to VB150 with the Video Input set to Single.
 - VB-C50i/VB-C50iR, VB-C50FSi, VB-C50Fi with an external camera connected and have configured the Use External Video Input.
- During initializing the camera head position of VB-C50i/VB-C50iR, the camera head moves to face front, and then moves back to the current position. Please note that video will be recorded during this time.



Note

- The On motion detection, Backlight compensation, and additional options are not available, if you use the preset tour function.
- Preset used for the preset tour are created on the Camera Server. Please refer to the Camera Server User's Manual for details on making camera presets.
- Although the VB-C300 does not allow preset tour on the Camera Server, the preset tour is available via this setting.

Step 3: Set the Night Mode and Resolution (VB-C300, VB-C50i/VB-C50iR, VB-C50FSi, and VB-C50Fi)

Night Mode

Resolution

1

Select the **Night Mode** from the drop-down menu. You can select from **Not Specified**, **Disabled**, **Enabled**, and **Auto** (for VB-C300 only).

2

Select a **Resolution** for recording from the drop-down list. You can select from **Low**, **Medium**, **High** or **Not specified**.

If you select **Not specified**, the Storage Server does not attempt to change the setting, rather it accepts whatever Night Mode setting and resolution the Camera Server offers.



Note

- If you select **Enabled**, the **Night Mode** status will be changed to **Disabled** after the configured recording schedule finishes.
- A higher resolution results in larger disk usage. Make sure you have enough disk space.



Tip

- You can also configure the **Night Mode** setting if you use a **VC-C50i/VC-C50iR** connected to a **VB150**.
- The **Top** page of the **Camera Server** is displayed after **Internet Explorer** launches. Please refer to the **Camera Server User's Manual** for details. You can edit an existing **Camera Server's** settings.

Step 4: Configure Additional Options

Option Expose White Balance Focus

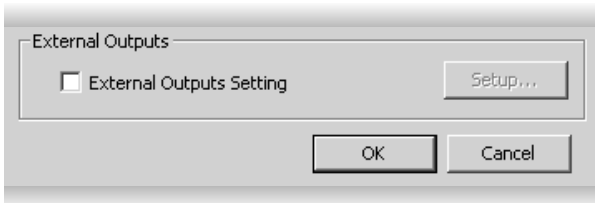
To use the exposure, white balance, and/or focus settings on the **Camera Control Panel**, tick the corresponding check box.



Note

- The additional option is only allows to use with VB-C300. Other models cannot use these options.
- If the Exposure box is ticked, the Backlight compensation option will be disabled.

Add/Edit Schedule Item dialog - External Outputs Setting

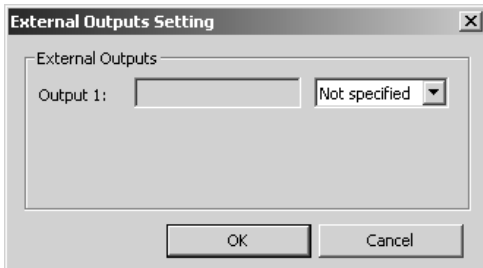


1

Click the **External Outputs Setting** to control any external devices that may be connected to your Camera Server.

2

Click **Setup...** to change the details of external outputs. Otherwise the default settings will be used.



3

If **Setup...** is clicked, click the drop-down menu for the target external device and set External Outputs to **On** or **Not Specified** on the **External Outputs Setting** dialog.



Tip

For the VB-C300, only one external device can be configured on the Control External Devices dialog.

Click **OK** to save the new settings and close the dialog.

Click **Cancel** to discard the new settings.

When you click **OK**, the Preset and Backlight settings are effective on Video Windows in the Viewer. Control the camera as required by clicking **Camera Control**.

If you have not finished, proceed to the following pages which outline the dialogs used for Sensor Event and Motion Detection recording.



Note

Camera Servers have certain features to allow image capture operations based on sensor input or schedule. If settings are enabled on the Camera Server, they take precedence over any settings made in VK-64/VK-16. This may cause some confusion if your VK-64/VK-16 recording schedules fail to record with the correct camera preset. You should disable such Camera Server features if you wish VK-64/VK-16 settings to take precedence.

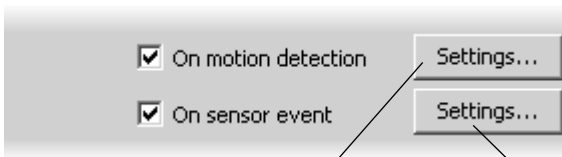
Configure Motion and Sensor Settings

Recording Schedule dialog - Motion and Sensor Settings

The Motion Detection recording starts recording video when a motion has been detected, while the Sensor Event recording starts recording video when a sensor input has occurred.

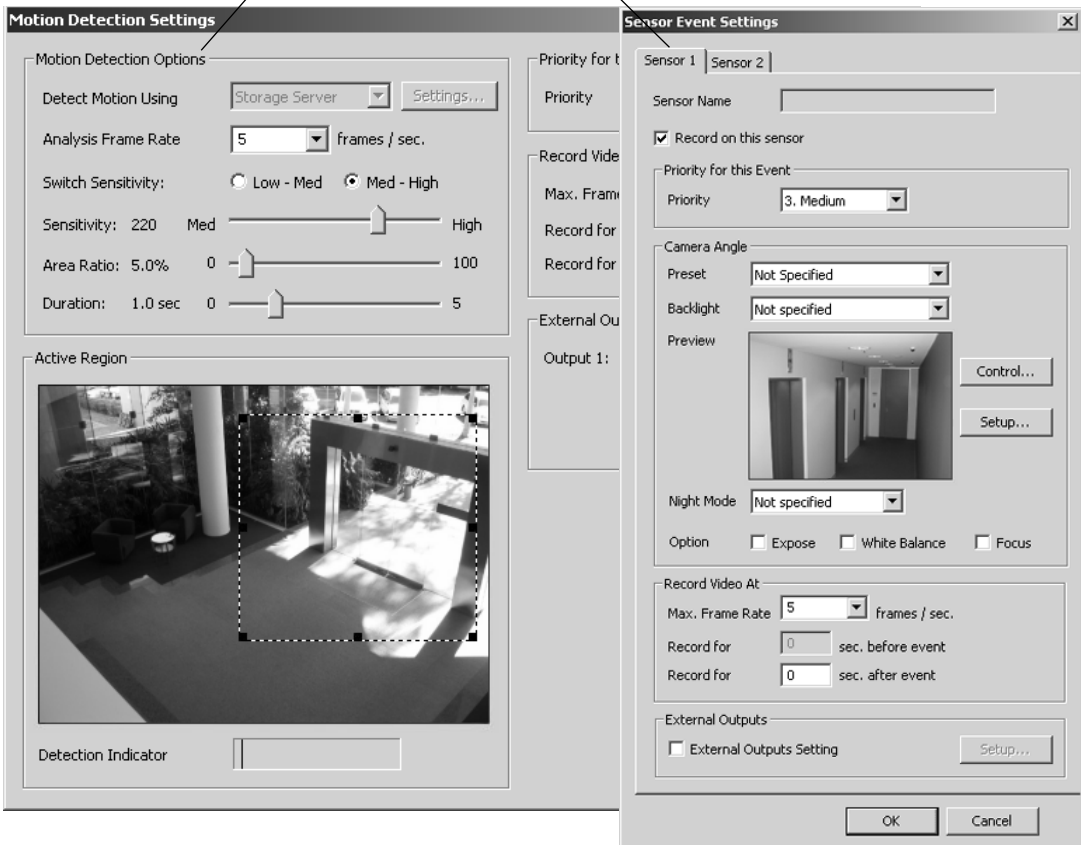
In the **Add/Edit Schedule Item** dialog, there are two options available for setting recording parameters. To enable recording options and adjust settings:

● Displaying the Setting Screen for Motion Detection and Sensor Event Recordings



Tick each box to enable the functions. Default settings are then enabled.

Click **Settings...** to change the details of each option. This opens a new dialog.



Recording Schedule - Edit Motion Detection Settings

You can specify the detection area and the amount of sensitivity for Motion Detection Recording. The area for detection can also be modified which is ideal, for example, if the field of view has two entrances and you wish to monitor motion for one entrance.

Step 1: Next to “On motion detection”, click Settings...



The **Motion Detection Settings** dialog opens (The dialog for VB-C300 is shown below).

Click to activate motion detection on the Camera Server for VB-C50i/VB-C50iR, VB-C50FSi and VB-C50Fi.

Set a priority for events triggered by motion.

Motion Detection Settings

Motion Detection Options

- Detect Motion Using: Storage Server
- Analysis Frame Rate: 5 frames / sec.
- Switch Sensitivity: Low - Med (selected) Med - High
- Sensitivity: 220 Med High
- Area Ratio: 5.0% 0 100
- Duration: 1.0 sec 0 5

Active Region

Detection Indicator

Priority for this Event

- Priority: 3. Medium

Record Video At

- Max. Frame Rate: 5 frames / sec.
- Record for: 0 sec. before event
- Record for: 0 sec. after event

External Outputs

- Output 1: Not specified

Annotations:

- Select sensitivity options.
- Click and drag a control point to re-size the active region.
- Motion detection level indicator will increase during activity.
- Select frame rate and pre/post event duration for recording triggered by motion.
- Activate external outputs.



Note

- If Continuous and Motion Detection recordings are both set, the pre-event recording is not available.
- Camera Servers have certain features to allow image capture operations based on sensor input or schedule. If settings are enabled on the Camera Server, they take precedence over any settings made in VK-64/VK-16, and your VK-64/VK-16 recording schedules fail to record with the correct camera preset. You should disable such Camera Server features when using VK-64/VK-16 to record images.

Step 2: Set the active region for recording

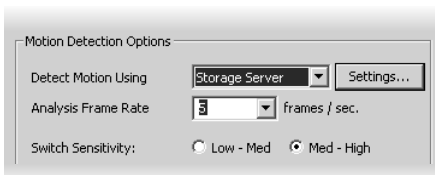


In the **Active Region** field, adjust the region where motion detection is triggered. By default, the **Active Region** is the full area. You cannot use pan, tilt, and zoom operations in this window.

- 1 Click one of the corner or edge handles and hold down the mouse button.
- 2 Drag the handle to change the motion-trigger boundary (dotted frame); click the corners to adjust the area or click the edge handles to bring each side in or out respectively.

Step 3: Set Motion Detection Options

Set the following options on the **Motion Detection Setting** dialog.



- 1 In the **Detect Motion Using** menu, select one of the following:

Storage Server

Obtains video from the Camera Server and detects motion with the Storage Server.

Camera Server

Uses the Motion Detection function of the Camera Server to detect motion (This menu is only active for VB150 servers with the Video Input set to Single or VB-C50i/VB-C50iR, VB-C50FSi, VB-C50Fi).

- 2 In the **Analysis Frame Rate** menu, select from 0.1 to 30 frames per second.

If you select the Camera Server to detect motion, **Settings...** becomes available. Click to launch your VB Admin Motion Detection Setting Tool. You must have VB Admin Tools installed in advance. Refer to the Camera Server's User's Manual for how to configure the motion detection settings. Refer to the Administrator's Manual for important information on Camera Server-based motion detection.

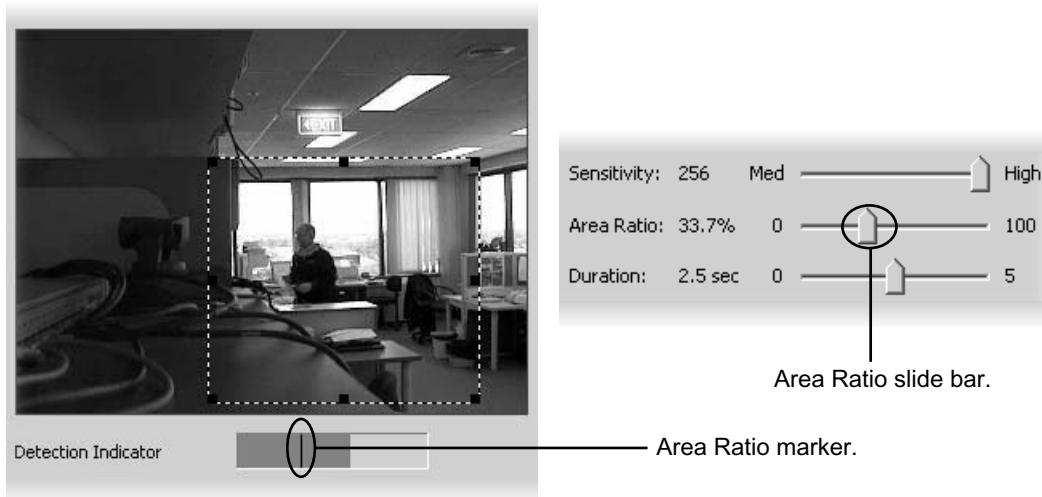


Note

- To use the motion detection function of the VB-C50i/VB-C50iR, VB-C50FSi and VB-C50Fi, it is necessary to configure schedules from the "VB Admin Schedule Setting Tool".
- Setting motion detection at the Storage Server causes high CPU load. It is strongly recommended to set motion detection at the Camera Server whenever it has the motion detection function.

The **Motion Detection Options** field also allows you to set the sensitivity for motion detection within the **Active Region**. There are three controls, **Sensitivity**, **Area Ratio** and **Duration**.

Motion detection status can be checked by the **Detection Indicator**.



Detection Indicator Colors

Motion is displayed in the **Detection Indicator** as a green color bar and will remain green if the level of motion is below the set **Sensitivity** and within a defined **Area Ratio**. If motion reaches the set **Sensitivity** and **Area Ratio**, the color bar changes to yellow and if the detected motion remains at the yellow level for the defined duration, a red color bar is displayed and an event is triggered. The behavior of the **Detection Indicator** is described as follows.



Area Ratio marker.



Area Ratio marker.

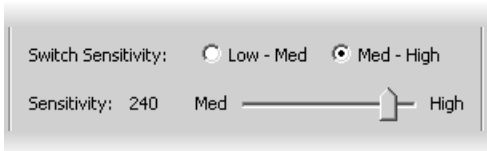


Area Ratio marker.

- Green color bar - The area of change that is less than the specified **Area Ratio**, i.e., activity remains at the left of the Area Ratio marker.
- Yellow color bar - The area of change that is equal to or greater than the specified **Area Ratio** (activity peaks on or to the right of the Area Ratio marker) but the required amount of motion has not met the specified duration in order to trigger an event.
- Red color bar - The amount of change that meets the defined detection conditions and motion is detected, triggering an event, i.e., the required amount of motion has been detected for the specified duration.

Set the Sensitivity

Sensitivity is the degree of change detected as motion.



1 Select **Low-Med** or **Med-High**. The available sensitivity settings range from 1 to 256.

You can specify 1 through 128 as Sensitivity by clicking **Low-Med** and 129 through 256 by clicking **Med-High**.

2 Drag the slide bar to adjust **Sensitivity** to the desired value (depending on the Switch Sensitivity setting).



Note

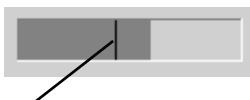
The Motion Detection settings are affected by the video quality setting of the Camera Server. After configuring the Motion Detection settings, do not change the video quality on the Camera Server.

Set the Area Ratio

Area Ratio is the degree of change of area (ratio against the defined detection area) detected as motion.



Click and drag the **Area Ratio** slide bar to any position from 0% to 100%. This establishes the proportion of image inside the Active Region (dotted frame) allowed before motion is detected.

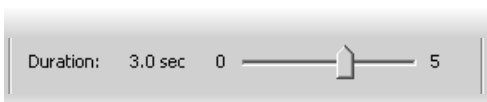


Area Ratio marker.

When you drag the slide bar, the black vertical line in the Detection Indicator will move to reflect the change in specified **Area Ratio**.

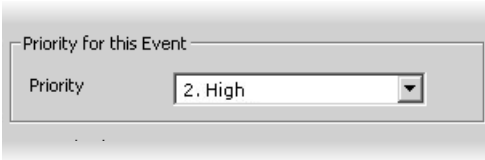
Set the Duration

Duration is the length of time necessary for the change to be recognized as motion.



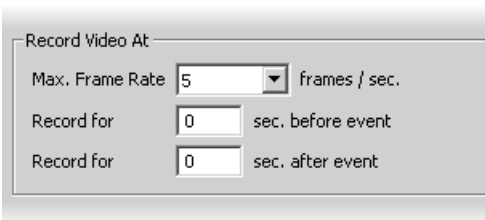
Click and drag the **Duration** slide bar to any position between 0.0 and 5.0 seconds. This establishes the duration of motion allowed before an event is triggered. It also establishes the period where there is no motion in order for the event to be completed.

Step 4: Set the event priority status



In the **Priority** field, select the priority for the event to be generated for this motion from a menu of five options, ranging from **1. Highest** to **5. Lowest**. Priorities are color-coded as events in the Timeline in the Viewing Screen.

Step 5: Set frame rate and pre and post event recording duration



In the **Record Video At** field:

1 Max. Frame Rate - select a maximum frame rate for recorded video from the drop-down menu, or enter a value from the keyboard. Choose from 0.1 to 30 frames per second (5 is the default).

2 Record for before event - enter a number of seconds for the amount of recording time before the event occurs (up to a maximum of 30 seconds).

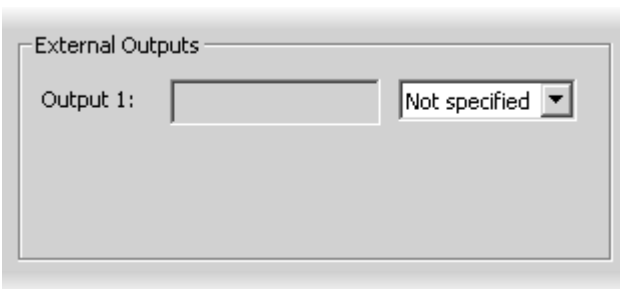


Note

- If **Continuous Recording** is also set, **Record for before event** is not available.
- If **Record for before event** is set to one second or longer, it may take approximately 10 seconds after event occurrence until its display.

3 Record for after event - enter a number of seconds for the amount of recording time after the event has transpired (up to a maximum of 999 seconds).

Step 6: Set the External Outputs



1 Click the drop-down menu for the target external device and set **On** or **Not specified**.



Note

- Available external outputs depend on the Camera Server.
- Certain Camera Servers have features to allow image capture operations based on sensor input or schedule. If settings are enabled on such a Camera Server, they take precedence over any settings made in VK-64/VK-16. This may cause some confusion if your VK-64/VK-16 recording schedules fail to record with the correct camera preset. You should disable such Camera Server features when using VK-64/VK-16 to record images.

Click **OK** to save the new settings and close the dialog.

Click **Cancel** to discard the new settings.



Note

If the before event and after event fields are set to 0 seconds, video will still be recorded while motion is detected.



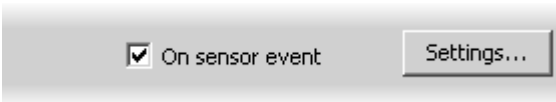
Tip

Refer to the “Administrator’s Manual” for important information on Camera Server-based motion detection.

Recording Schedule - Edit Sensor Events Settings

You can specify recording settings based on the occurrence of a sensor event. A number of tabs in the **Sensor Event Settings** dialog are shown to reflect the number of sensors on each camera. You can modify the recording settings for each sensor.

Step 1: Next to “On sensor event”, click Settings...

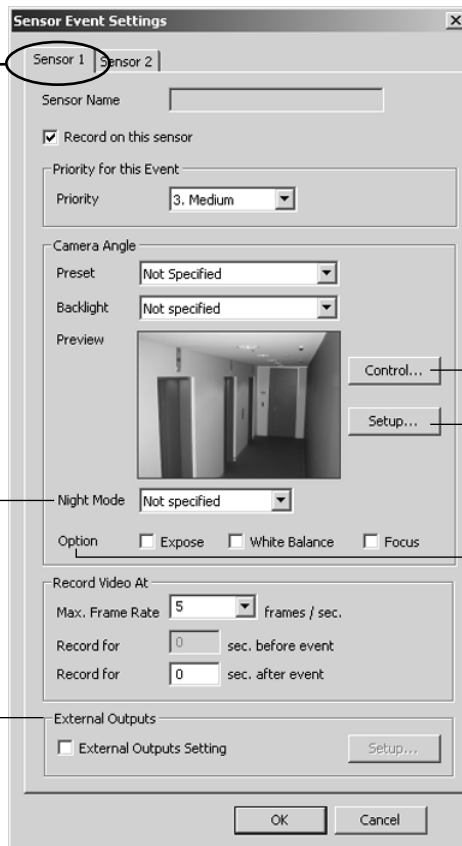


The **Sensor Event Settings** dialog opens.

Click a tab to change the sensor’s settings. The sensor name displayed is the name set by the Camera Server.

Night Mode is available for VB-C300, VB-C50i/VB-C50iR, VB-C50FSi and VB-C50Fi Camera Servers or VC-C50i/VC-C50iR cameras connected to Camera Server VB150s. Select from **Not specified**, **Day Mode**, or **Night Mode**.

You can set **External Outputs** to **On** or **Not Specified** when a sensor event occurs.



Control the camera via the **Camera Control Panel**.

Refer to the Viewer Manual for the information about the Camera Control Panel. The Top page of the Camera Server is displayed after Internet Explorer launches.

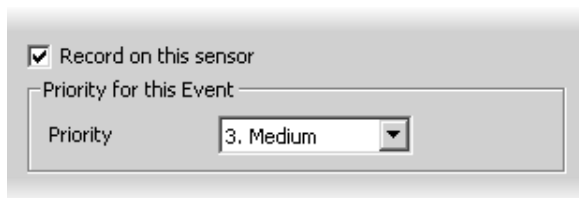
Set whether or not to use additional options (exposure, white balance, and focus).



Note

- Frequent sensor events result in high CPU load on the Storage Server. If you have 10 or more sensor events per minute continuously, we recommend continuous recording.
- Setting Night Mode to “Enabled” will activate the IR cut filter. It will not turn on the built-in IR light. To turn on the IR light, perform the operation from the Video Window menu.

Step 2: Set the recording and an event priority

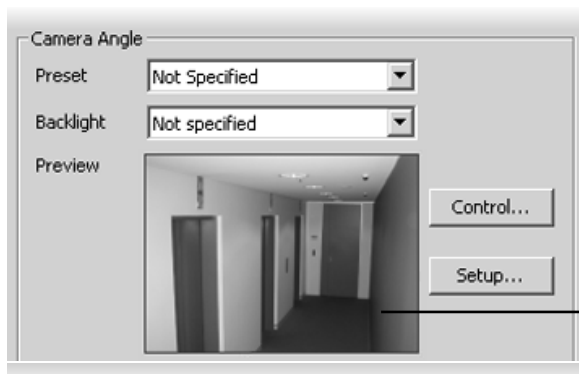


1 Tick **Record on this sensor** to enable recording when a sensor is triggered.

In the **Priority** field:

2 **Priority** - select the priority for the event to be generated for this motion from a menu of five options, ranging from **1. Highest** to **5. Lowest**. Priorities are color-coded as events in the Timeline in the Viewing Screen.

Step 3: Specify a camera angle when the sensor is triggered



In **Camera Angle**, select a preset camera angle from the **Preset** drop-down menu. When the sensor is triggered, the camera will be changed to this position.

If you select **Not specified**, the camera will not be moved.

The camera angle can also be changed by moving your mouse pointer in the **Preview** area to display controls and clicking to pan, tilt and zoom (→ P. 64).

After the camera has been controlled, the **Preset** will be set to **Custom**.



Note

If you set a preset position using the digital zoom of the VB-C300, the viewing angle may be misaligned.



Tip

- Click the **Backlight** drop-down menu and select **On** to compensate for camera views with strong backlighting. The setting will be used when the sensor is triggered. This is useful, for example, if a camera angle would change from an indoor view to an outdoor view when the sensor is triggered.
- If you are using a normal close type sensor, you need to set the presets with the **Add Camera Server** screen. Refer to “Configure External Device Input” (→ P. 62) for the details.

Step 4: Set the Night Mode (VB-C300, VB-C50i/VB-C50iR, VB-C50FSi, and VB-C50Fi)




Select the **Night Mode** (→ P. 89) from the drop-down menu. You can select from **Disabled**, **Enabled**, or **Not specified**.

Step 5: Set Additional Options (VB-C300)

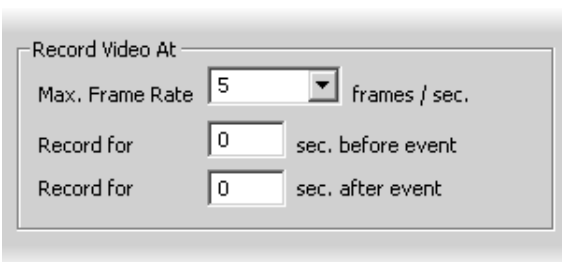


To use the exposure, white balance, and/or focus settings on the **Camera Control Panel**, tick the corresponding check box.

 **Note**


- VB-C300 only allows these options to be used.
- If Exposure is set, the Backlight compensation option is set to Not Specified.

Step 6: Set frame rate and pre and post event recording duration



In the **Record Video At** field:

- 1 Max. Frame Rate** - select a maximum frame rate for recorded video from the drop-down menu, or enter a value from the keyboard. Choose from 0.1 to 30 frames per second (5 is the default).

 **Note**

The frame rate specified is the frame rate that the Storage Server will attempt to record, and may not be the actual frame rate used for recording video. Factors such as the number of Viewers, the number of Camera Servers used, network traffic and load on the Camera Server and the Storage Server may reduce the actual frame rate recorded.

- 2** **Record for before event** - enter a number of seconds for the amount of recording time before the event occurs (up to 30 seconds).



Note

- If **Continuous Recording** is also set, **Record for before event** is not available.
- If **Record for before event** is set to one second or longer, it may take approximately 10 seconds after event occurrence until its display.

- 3** **Record for after event** - enter a number of seconds for the amount of recording time after the event has transpired (up to 999 seconds).

Click **OK** to save the new settings and close the dialog.

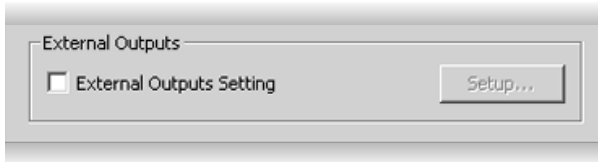
Click **Cancel** to discard the new settings.



Note

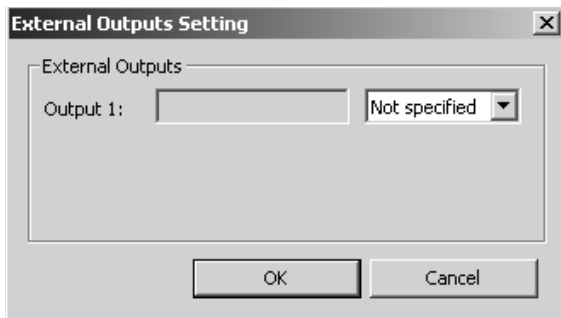
- If the **before** and **after event** fields are set to 0 seconds, video will still be recorded while the sensor is activated.
- Longer pre-event recording will increase memory usage. Longer pre-event recording with insufficient memory may greatly reduce performance when the disk-based virtual memory runs short.
- If **Continuous** and **Motion Detection** recordings are both set, the pre-event recording is not available.
- Even when **Record for after event** is enabled, the frame rate, frame size and network delays may have an effect on when the last frame is recorded and thus the full requested duration of post event recording may not be available.

Step 7: Set the External Outputs



1 Click **External Outputs Setting** to control any external devices that may be connected to your Camera Server.

2 Click **Settings ...** to change the details of external outputs. Otherwise the default settings will be used.



3 If **Setup...** is clicked, click the drop-down menu for the target external device and set **External Outputs** to **On** or **Not Specified** on the **External Outputs Setting** dialog.



Note

Available external outputs depend on the Camera Server.



Note

- Higher frame rates for “Max. Frame Rate” result in larger disk usage. Make sure you have enough disk space.
- Camera Servers have certain features to allow image capture operations based on sensor input or schedule. If settings are enabled on the Camera Server, they take precedence over any settings made in VK-64/VK-16. This may cause some confusion if your VK-64/VK-16 recording schedules fail to record with the correct camera preset. You should disable such Camera Server features if you wish VK-64/VK-16 settings to take precedence.

Setting the Preset Tour

Recording Schedule - Preset Tour Settings

Use the preset tour function to move among multiple preset positions sequentially.

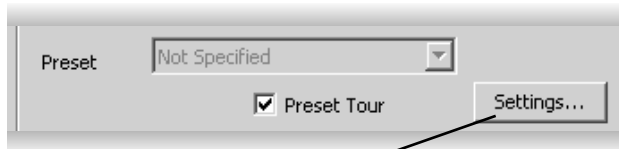
In the **Add/Edit Schedule Item** dialog, there are two options available for setting the preset tour function. To set the preset tour function:



Note

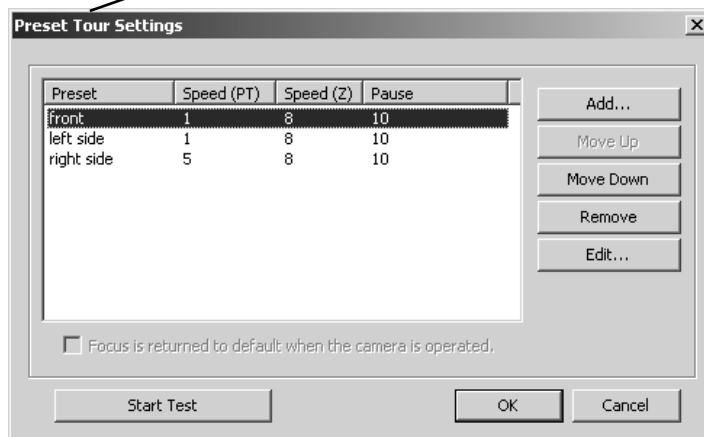
- The durability of camera Pan/Tilt mechanism may be affected depending on the Preset Tour setting (→ P. 97).
- In the preset tour, the camera position returns to the first preset after the last preset.
- When the preset tour is used, the Motion Detection recording, backlight compensation, and additional options are not available.
- Presets used for Preset Tour are set on the Camera Server. Please refer to the Camera Server's User's Manual for details on setting camera presets.

Setting the Preset Tour



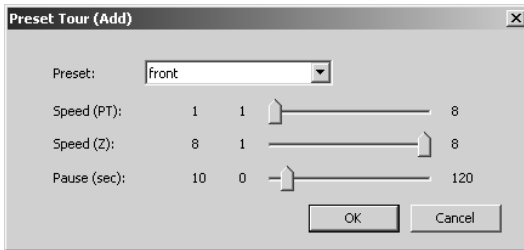
Ticking the **Preset Tour** enables the preset tour function. Default settings are then enabled.

Click **Settings...** to change the defaults. The **Preset Tour Settings** dialog is displayed.



Add a Preset

- 1 Click **Add** on the **Preset Tour Settings** dialog.
The **Preset Tour (Add)** dialog appears.



- 2 Select a preset to add from the **Preset** drop-down menu.
- 3 For the selected preset, configure the **Speed (PT)**, **Speed (Z)**, and **Pause (sec)** settings.
Drag the slide bar for each item to set the value.
- 4 Check the settings and click **OK**.
This returns to the **Preset Tour Settings** dialog.

Test the Preset Tour

- 1 Click **Start Test**.
Clicking **Start Test** executes the preset tour once and you can check the operation.

Change the Preset Settings

- 1 Select a preset to change from the list and click **Edit...**
The **Preset Tour (Edit)** dialog appears.
- 2 For the selected preset, change the **Speed (PT)**, **Speed (Z)**, and/or **Pause (sec)** settings.
Drag the slide bar for each item to set the value.
- 3 Check the settings and click **OK**.
This returns to the **Preset Tour Settings** dialog.



Tip

For VB-C300, you can return the focus to the default setting by ticking the “Focus is returned to default when the camera is operated.” option.

Change the Preset Order

Select a preset to change the order from the list, and click **Move Up** or **Move Down**.

Delete a Preset

1 Select a preset to delete from the list and click **Remove**.

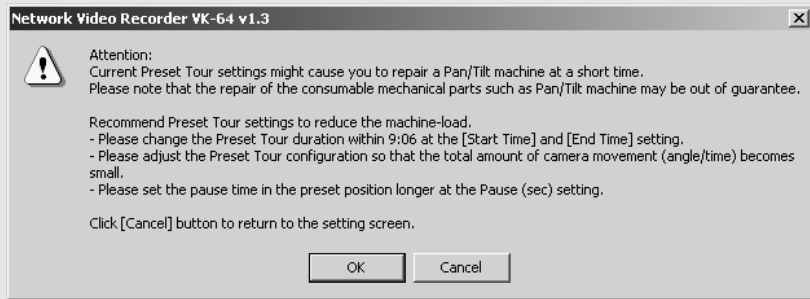
2 Click **OK**.
This returns to the **Preset Tour Settings** dialog.



Note

If the following warning appears, please consider changing the settings according to the tables below.

Warning example



* The tour time shown depends on the settings.

Click Cancel to return to the setting screen.
 Click OK to save the current settings.
 (If you are using the Preset Setting Tool, click Save on the setting page of the tool)

Endurance of the pan/tilt mechanism is approximately 100,000 round trips at the full range. The total tour time depends on the combination of the movement rate, movement range, and still time. Refer to the following tables.

Total tour time for 100,000 round trips in the pan direction (estimated).

Movement rate (PT) is 1.

Still time (sec.)	Movement range in the pan direction (angle)		
	± 50	± 100	± 150
0	3872	3825	3809
10	5666	4722	4407
20	7555	5666	5037
30	9444	6611	5666

(Unit: Time)

Movement rate (PT) is 2.

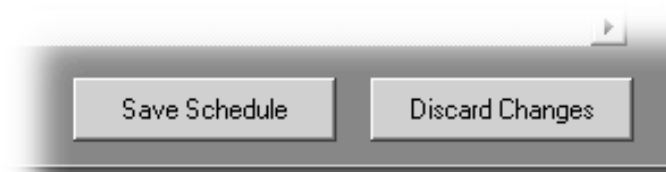
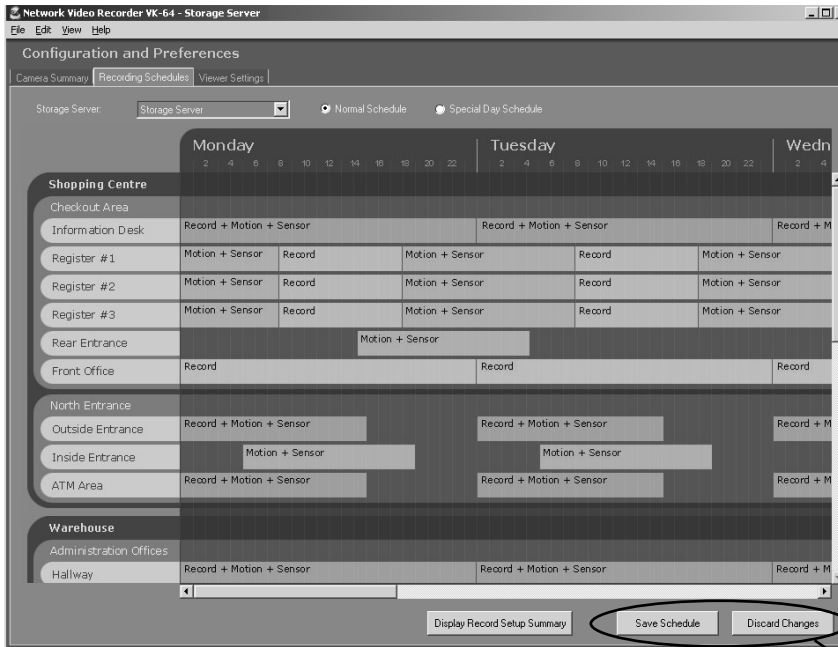
Still time (sec.)	Movement range in the pan direction (angle)		
	± 50	± 100	± 150
0	1983	1936	1920
10	3777	2833	2518
20	5666	3777	3148
30	7555	4722	3777

(Unit: Time)

Example: If the movement rate (PT) is 1, still time is 30 seconds, and movement range (angle) in the pan direction is 50 degrees, it takes approximately 9,444 hours for 100,000 round trips in the pan direction.

Saving Normal Recording Changes

When you have finished Normal Recording configuration...



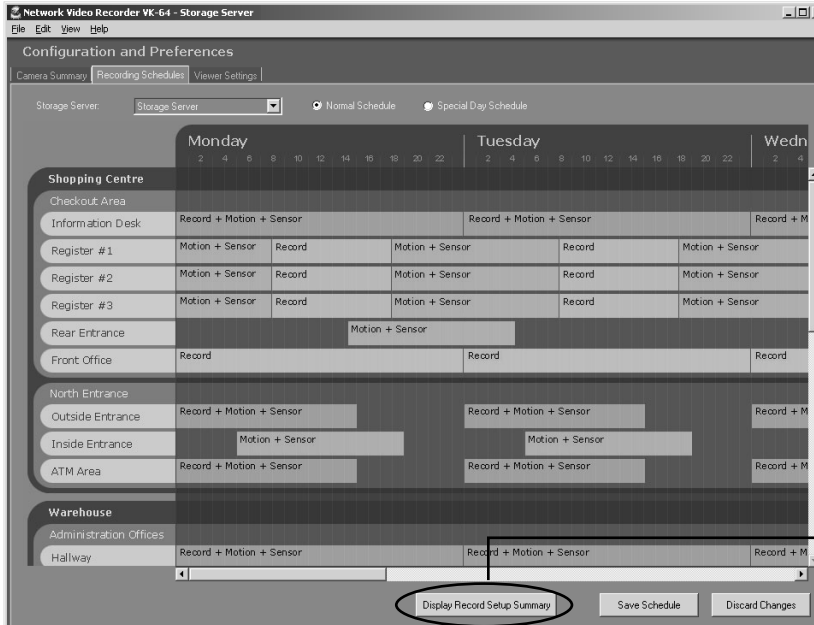
The bottom right-hand corner of the **Recording Schedule** window consists of two buttons, **Save Schedule** and **Discard Changes**.

- Click **Save Schedule** to keep all your settings. The settings are then saved to the Storage Server.
- Click **Discard Changes** to cancel any modifications you have made.

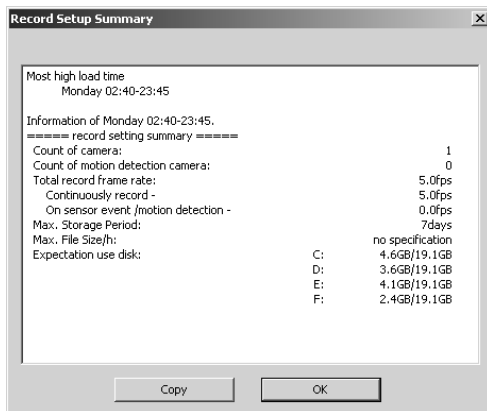
If you wish to return to the Viewer, select **View > Viewing Screen** from the menu bar.

Display the Recording Setting Summary

Display the summary information of the set recording schedule.



Display Record Setup Summary is located at the center-bottom of the **Normal Schedule** window.



Click **Display Record Setup Summary** to display the **Record Setup Summary** dialog.

The **Recording Setup Summary** dialog shows the following information for the time period where the highest load is expected when the schedule is performed.

- Number of Camera Servers
- Number of Camera Servers with Motion Detection
- Total Recording Frame Rate
 - Total Recording Frame Rate (Continuous Recording)
 - Total Recording Frame Rate (Sensor/Motion Detection Recording)
- Maximum Retained History
- Maximum File Size/Duration
- Disk Space Used

Click **OK** to close the **Recording Setup Summary** dialog.

Saving Normal Recording Changes



Note

If the load is too high, adjust the recording schedule again.



Tip

Click Copy to copy the contents of the Recording Setting Summary dialog to the Clipboard.

Configure Special Day Recording

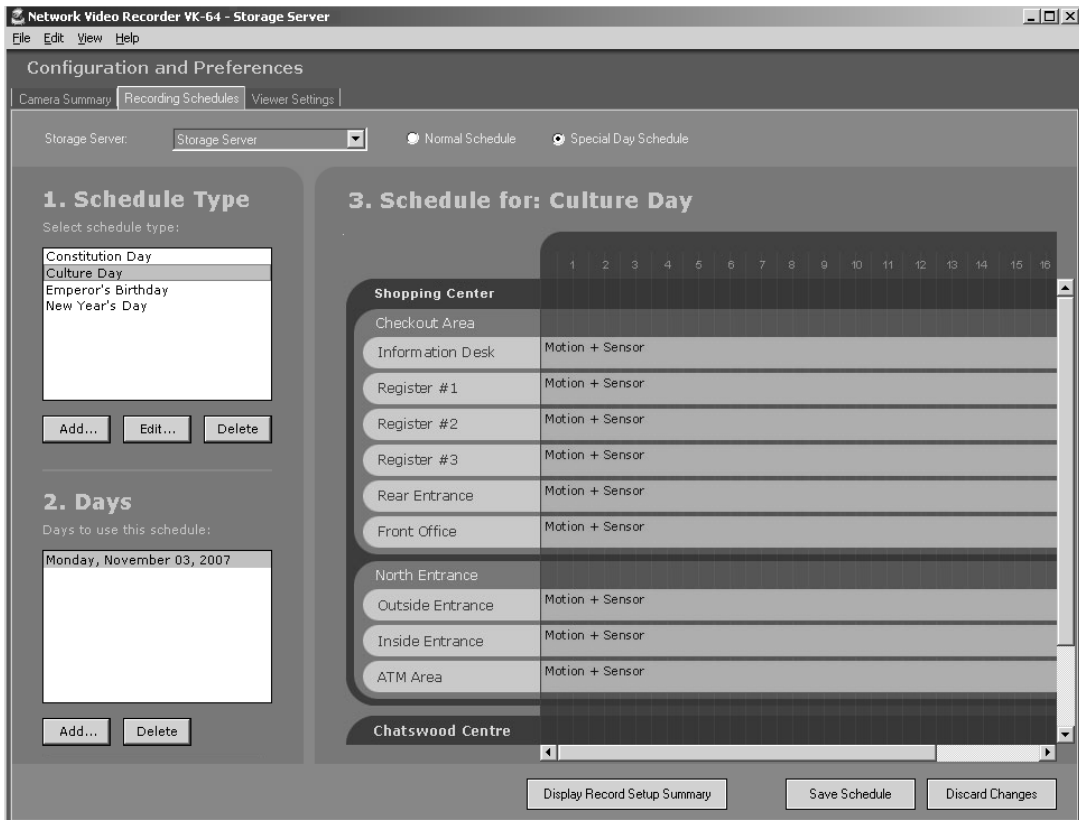
About Special Day Recording

The **Special Day Schedule** window is used for configuring particular days such as public holidays. When **Special Day Schedules** are set, **Normal Schedules** that conflict with the **Special Day Schedules** are disabled.



In the **Configuration and Preferences** Screen, click the **Recording Schedules** tab and ensure the **Special Day Schedule** is selected. The **Special Day Schedule** consists of:

- **Storage Server** - Select a Storage Server from the list to add/edit schedules for that server. Associated Locations and Zones are displayed in the Schedule Area.
- **Schedule Type selector** - Allows you to select a schedule type. These are user-defined schedules such as Public Holidays and Long Weekends.
- **Days selector** - Allows you to choose a day to use this schedule.
- **Schedule Area** - Covers a single day, 24 hours. Overrides a Normal day schedule.



Configure Special Day Recording

Storage Server selector Single day schedule area (24 hours)

1. Schedule Type
Select schedule type:

- Constitution Day
- Culture Day
- Emperor's Birthday
- New Year's Day

Add... Edit... Delete

2. Days
Days to use this schedule:

Monday, November 03, 2007

3. Schedule for: Culture Day

Location	Sensor
Shopping Center	
Checkout Area	
Information Desk	Motion + Sensor
Register #1	Motion + Sensor
Register #2	Motion + Sensor
Register #3	Motion + Sensor
Rear Entrance	Motion + Sensor
Front Office	Motion + Sensor
North Entrance	
Outside Entrance	Motion + Sensor

Day selector

Schedule Type selector

Location

Zone representing camera areas in the Location

Click and drag the scroll-bar(s) to view more schedules if necessary.

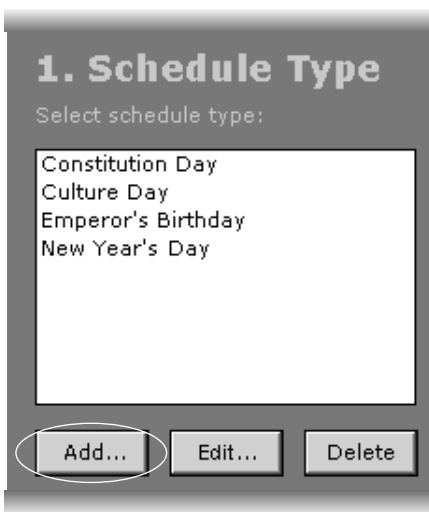
- Note**
- The scheduling area functions the same as the Normal Recording Schedule but only covers a single day (from 00:00 hrs. to 24:00 hrs). To have a special day schedule run over a long weekend (Fri, Sat & Sun), all dates of three days must be added to the list of days to use the schedule.
 - When Special Day Schedules are running, Normal Schedules are disabled. If an invalid schedule exists, the following warning message will be displayed. "There is a camera with no recording schedule. Are you sure to save the settings?"

Add, Edit and Delete a Schedule Type

The **Add Schedule Type** dialog allows you to create a name for a new schedule type, for example, a public holiday. You must create a schedule type first before you can associate days with it. There is no limit to the number of schedule type that can be added.

To launch the dialog and add a schedule type:

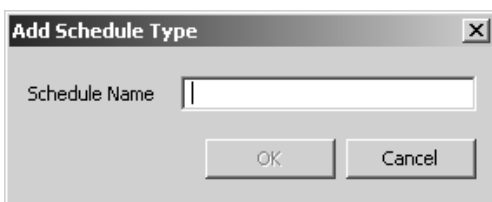
Step 1: Click Add... below the Schedule Type list



Click **Add...**

The **Add Schedule Type** dialog is displayed.

Step 2: Enter a name



1 Enter a name in the **Schedule Name** area, for example 'Company Holidays' (You can use up to 20 characters).

2 Click **OK**.
The schedule type is added and the dialog closes.

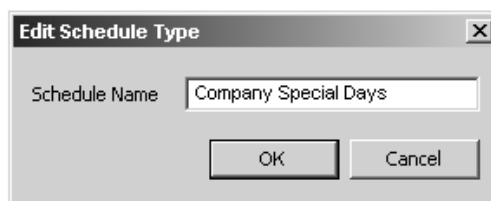
The new name will appear in the **Schedule Type** list.

Edit a Schedule Type



1 In the **Special Day Schedule** window, click a schedule type in the **Schedule Type** list to select it.

2 Click **Edit...**
This will bring up the **Edit Schedule Type** dialog.



Overwrite the existing name. For example, you may wish to change the name “Company Holidays” to “Company Special Days”.

Click **OK**.

The new settings are saved and the dialog closes.

Delete a Schedule Type



1 In the **Special Day Schedule** window, click a schedule type in the **Schedule Type** list to select it.

2 Click **Delete**.
The schedule type is deleted.



Note

If you delete a schedule type where there are dates associated with that schedule, a warning will appear. Delete the associated dates before deleting the schedule type.

Add and Delete a Day

The **Select Date** calendar allows you to select a day that can be used for the schedule type. To add a day:

● Add a Day



1 In the **Special Day Schedule** window, click a schedule type in the **Schedule Type** list, for example, 'Company Holidays' (created on P. 103) and then in the **Days** list click **Add...**

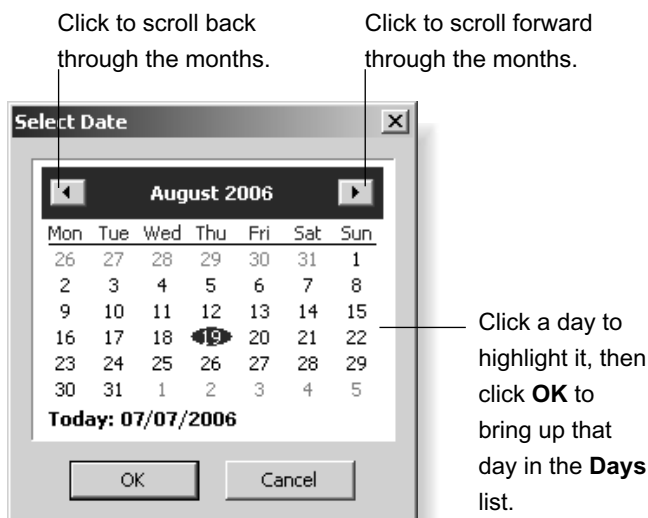
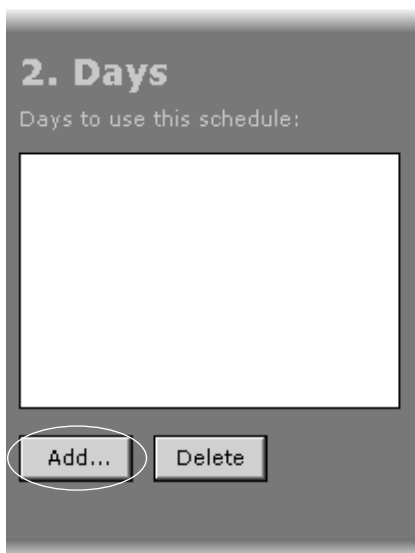
This will bring up the **Select Date** calendar (see below).

2 Click to select a day in the calendar, then click **OK**.

Click **Add...** again to add another day to the same schedule type if you wish.

Added days are shown in the **Days** list (see example on next page).

Other calendar selection methods are shown on the next page.

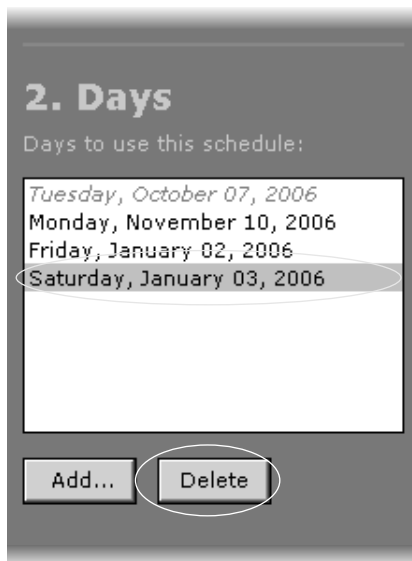


Alternatively, click the current month and a month selector will appear.



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

Delete a Day



1 In the **Special Day schedule** window, click a schedule type in the **Schedule Type** list, for example, "Company Holidays" and then in the **Days** list click one of the days associated with the schedule type.

2 Click **Delete** in the **Days** list. The day is deleted from the schedule type.

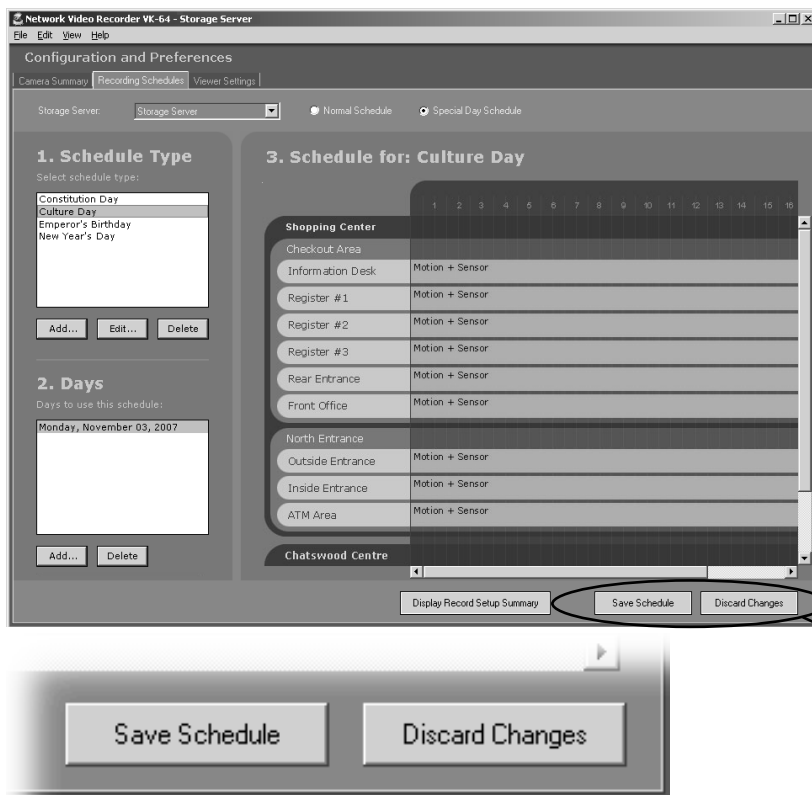


Note

- If you attempt to associate the same day with different schedule type, you will be given a warning and asked to delete the other entry before creating a new one.
- Expired days are listed in italics.

Saving Special Day Changes

When you have finished Special Day configuration...



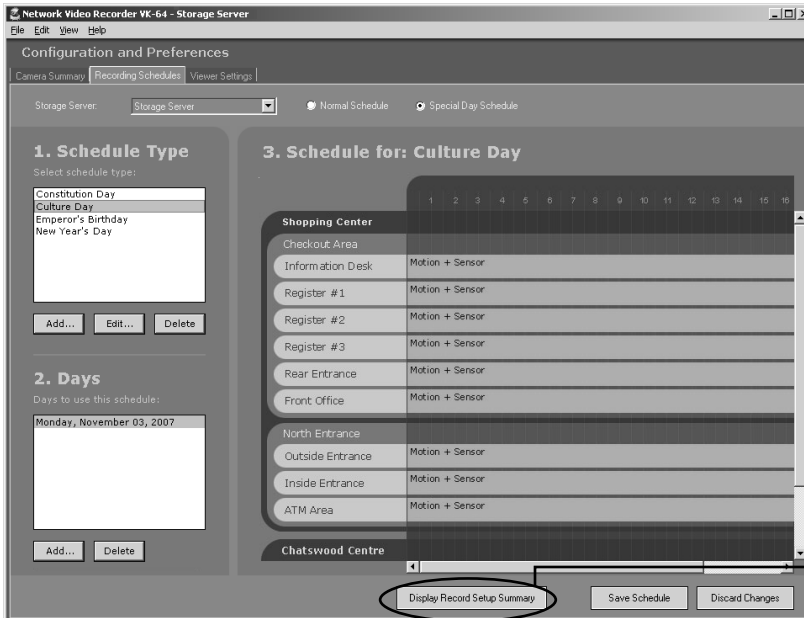
The bottom right-hand corner of the **Recording Schedule** window consists of two buttons, **Save Schedule** and **Discard Changes**.

- Click **Save Schedule** to keep all your settings.
The settings are then saved to the Storage Server.
- Click **Discard Changes** to cancel any modifications you have made.

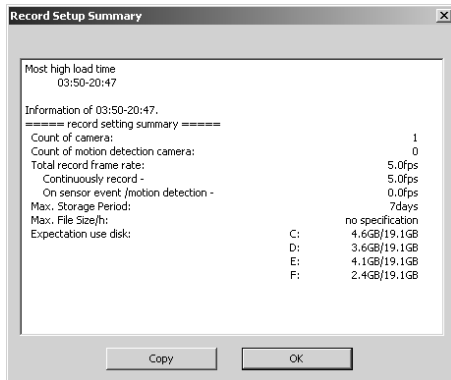
If you wish to return to the Viewer, select **View > Viewing Screen** from the menu bar.

Display the Recording Setting Summary

Display the summary information of the set recording schedule.



Display Record Setup Summary is located at the center-bottom of the **Special Day Schedule** window.



Click **Display Record Setup Summary** to display the **Record Setup Summary** dialog.

The **Record Setup Summary** dialog shows the following information for the time period where the highest load is expected when the schedule is performed.

- Number of Camera Servers
- Number of Camera Servers with Motion Detection
- Total Recording Frame Rate
 - Total Recording Frame Rate (Continuous Recording)
 - Total Recording Frame Rate (Sensor/Motion Detection Recording)
- Maximum Retained History
- Maximum File Size/Duration
- Disk Space Used

Click OK to close the **Record Setup** dialog.



Note

If the load is too high, adjust the recording schedule again.



Tip

Click Copy to copy the contents of the Recording Setting Summary dialog to the Clipboard.

Checking Recording Status

Check the Recording Status

If you save the Normal or Special Day schedule settings, the Camera Server starts or prepares for recording.

The recording status can be checked on the **Edit Camera Server** dialog in the **Storage and Camera Server Summary** screen.

Check the Storage and Camera Summary windows

- 1 Start the Viewer.
Refer to Chapter 3 for how to start the Viewer.
- 2 In the Menu Bar, select **View - Configuration**.
The **Configuration and Preferences** screen appears.
- 3 Click the **Camera Summary** tab.
The **Storage and Camera Summary** windows appear.
- 4 In the **Camera Server** list, check the **Record Mode**, **Status**, **Resolution**, **f/spec**, and **Quality**.



Tip

In the Status area, the following information is shown.

- **Not Connected:** A communication or connection error has occurred. The error number is also displayed.
- **Idle:** Connection is established but no video is being received.
- **Monitoring:** Video is being received but not recorded (This status indicates that a schedule which enables the pre-event recording and Motion Detection recording by the Storage Server is running but the video is currently not being recorded).
- **Recording:** Video is being received and recorded. The bit rate for receiving video is also shown.
- **Error:** An error has occurred. Errors such as file write error or invalid drive error are also shown.
- **Disabled:** The camera is invalid. If the Camera Server is set to Do not record, this field is blank.

Check the Edit Camera Server Dialog

- 1** Select the desired Camera Server from the **Camera Server** list, and click **Edit**.
The **Edit Camera Server** dialog appears.
- 2** Click **Connect**.
This establishes connection with the Camera Server.
- 3** Select the desired camera from the **Camera Settings** tab in the right-hand area of the screen.
The **Camera Settings** tab opens.
- 4** Check the **Preset Angle** and **Backlight compensation** settings.



Chapter 7

Configure Viewer Settings

This chapter outlines how to configure settings that are specific to the Viewer.



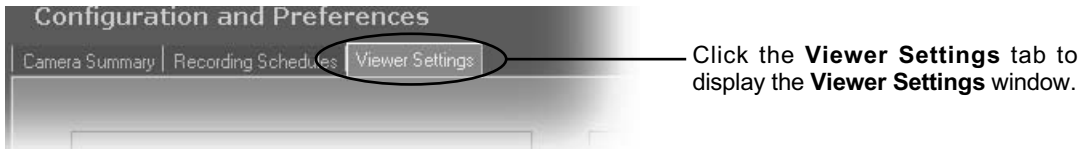
Note

After configuring the Viewer, make sure to perform tests under actual conditions.

Configure Viewer Settings

About the Viewer Settings window

The **Viewer Settings** window is used for configuring settings such as notification priorities and the live video viewing frame rate. Settings are stored on the Viewer PC, not on the Master Storage Server.

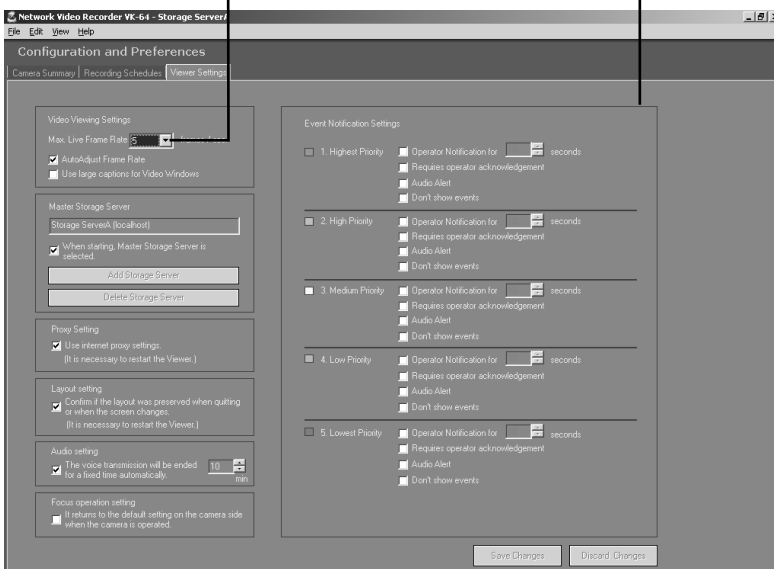


This window consists of:

- **Video Viewing Settings** - Select the maximum viewing frame rate for live videos.
- **Master Storage Server** - The current Storage Server is indicated.
You can switch to display or not to display the Master Storage Server option window (connect menu) on start-up, and also add/delete Master Storage Server into/from the connect menu.
- **Proxy Setting** - Use this option to make an access to Storage Server via proxy server.
- **Layout setting** - Confirm if the layout was preserved when quitting or when the screen changes.
- **Event Notification Settings** - Set operator notification and adjust duration in seconds, set operator acknowledgement (recognition) of an event, set an audio alert, and suppress event display.
- **Audio Setting** - Set automatic termination of audio transmission after a specified period of time.
- **Focus Operation Setting** - Set the focus position to return to the default setting of the camera when operating the camera.

Maximum frame rate for live viewing

Event Notification Settings area



Select a frame rate from the drop-down list.

Adjust frame rates automatically. Refer to “Administrator’s Manual” for details.

Enable larger Video Window captions in the Viewer.

The current Master Storage Server is indicated here.

You can select the Master Storage Server when launching the Viewer (→ P. 36).

Add the current Storage Server into connect menu.

Delete the current Storage Server from connect menu.

Note If a high maximum frame rate is specified, the load on the computer CPU will be high and Viewer operations may take longer. When AutoAdjust Frame Rate is ticked, frame rate is automatically reduced when CPU load becomes high.

Set up notifications by priority from 1 (highest) to 5 (lowest). Priorities are color-coded as follows.

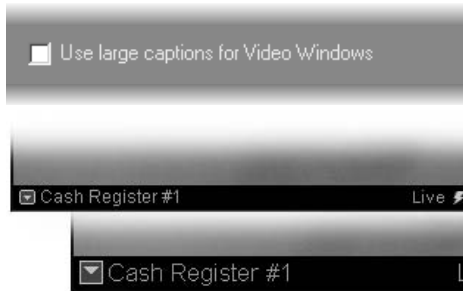
Color	Priority
Red	Highest
Orange	High
Yellow	Medium
Light Green	Low
Dark Green	Lowest

Lower priority items can have less notification settings associated with them.

When ticked even if an event occurs, it is not displayed in the **Live Events Log** in the Viewing Screen.

Set duration of alert.

Viewer Settings window - Use large captions for Video Windows



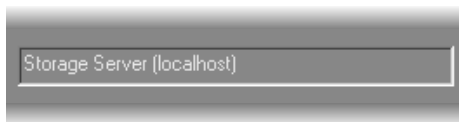
Tick **Use large captions for Video Windows** to enable easier-to-read Video Window captions in the Viewer.

Standard caption in Video Window.

Large caption in Video Window.

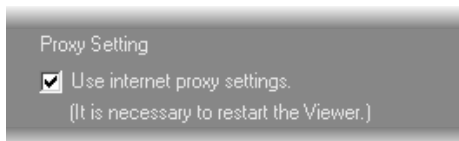
Viewer Settings window - Identify the Master Storage Server

A Master Storage Server maintains settings for Camera Servers and Layouts.



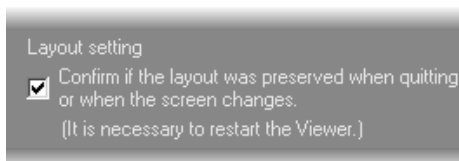
The selected Master Storage Server is indicated in the **Viewer Settings** window.

Viewer Settings window - Configure the proxy server



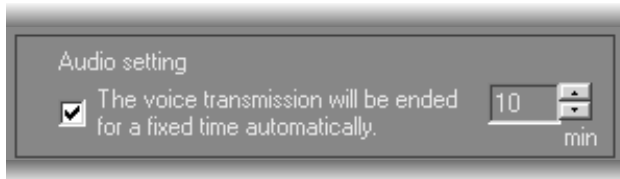
When you wish to access the Storage Server using the proxy server set in the Internet Option, tick **Use internet proxy settings** and restart the Viewer.

Viewer Settings window - Configure layout in the Viewing Screen



If you wish to confirm whether the layout information has already been saved when finishing the Viewer or when switching to the Viewing Screen, tick the **Confirm if the layout was preserved when quitting or when the screen changes** check box and restart the Viewer. If not ticked, the layout information will not be saved.

Viewer Settings window - Configure Audio Transmission Settings



The camera which is sending or receiving audio to a Viewer cannot interact with other Admin or NC Viewers. You can automatically terminate audio transmission after a specified period of time even if you forget to terminate it.

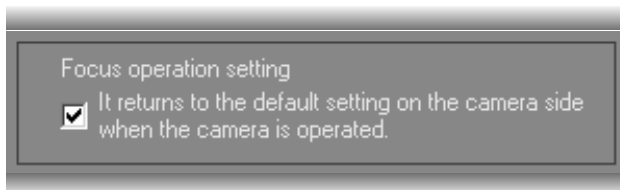
When using this option, tick the **The voice transmission will be ended for a fixed time automatically** check box, and specify the period within the range from 1 to 60 minutes (default is 10 minutes). When the specified period of time passes during audio transmission, it will be terminated automatically.



Tip

Automatic termination works even if the servers are communicating with each other. Switching to another Video Window resets the time.

Viewer Settings window - Configure Focus Settings



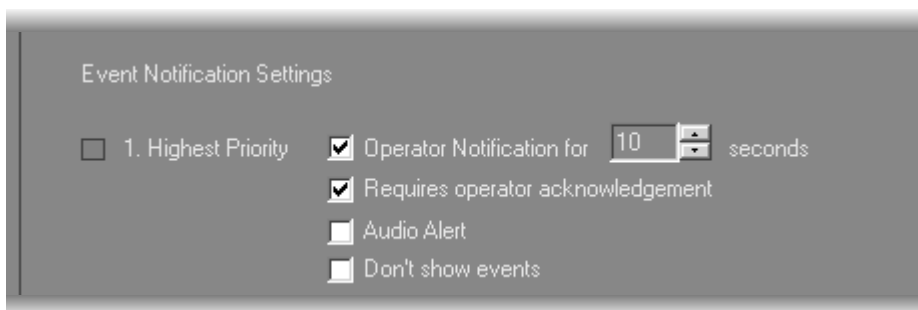
You can set the camera to return its focus mode to the default setting when the camera orientation is changed. The focus mode returns to default if it has been changed to Manual after any focus operation using a preset with focus setting defined or via Cameral Control Panel.

It returns to the default setting on the Camera side when the Camera is operated.

Viewer Settings window - Edit Event Notifications

When an event occurs, it is indicated in the **Live Events Log** in the Viewer. In the **Viewer Settings** window, **Event Notification Settings** area, you can set up actions based on events according to the priority of the event. To set the event notifications:

Set priority alerts from Highest to Lowest



In the Priority area, you configure the following settings:

- 1 Tick the **Operator Notification** for box to enable a notification period when an event occurs. Select a notification period in seconds from the Seconds drop-down menu or enter it from the keyboard (0 - 99). When a event occurs, the event flashes in the **Live Event Log** window for the period of time specified using this option, and a color bar indicating the event's priority light on the top of a live Video Window for one minute.

If you specify 0 second, an event which has occurred will not flash and a color bar will light for one minute.
- 2 Tick the **Requires operator acknowledgement** box for the event. When an event occurs it will flash in the **Live Events Log** and the audio alert will sound (if specified) until the operator double-clicks on the event (That is, the notification time will not apply to the event in the event log).
- 3 Tick the **Audio Alert** box to have an audio alert play during the event notification period.

The Windows system sound "Exclamation" is used for audio alerts (For a PC with no sound board installed, a beep sound is used). This sound repeats for the duration of the **Operator Notification**. If **Operator Notification** is not set, the audio alert is played once.
- 4 Tick the **Don't show events** to have the event not displayed on the Timeline of the Viewing screen or on the **Live Events Log** window even if the event occurs.



Note

Refer to the Viewer Manual for the information about the Live Events Log window.

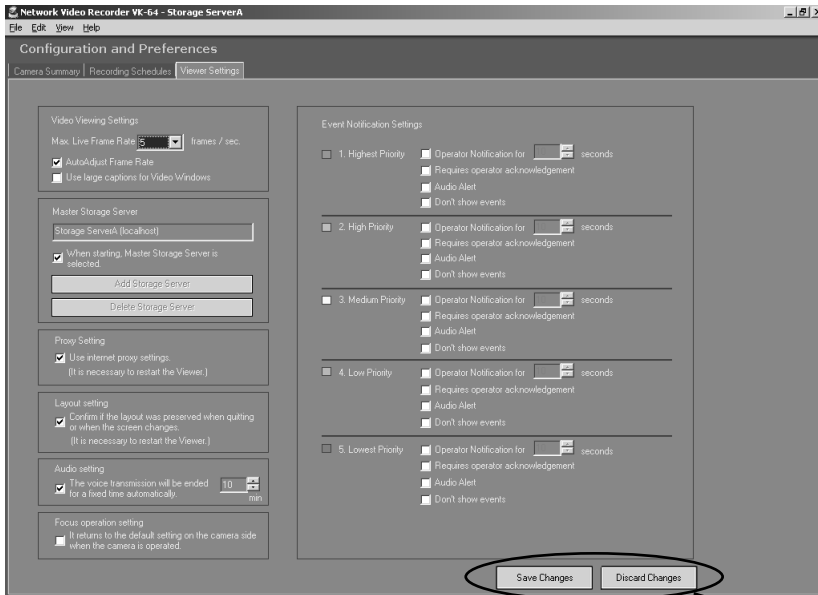


Tip

Even if Don't show event is ticked, events are shown in the Search Results in the Event Search dialog.

Saving Viewer Settings

When you have finished configuring Viewer settings...



The bottom right-hand corner of the **Viewer Settings** window consists of two buttons, **Save Changes** and **Discard Changes**.

- Click **Save Changes** to keep all your settings. The Viewer settings are then saved to the local disk.
 - Click **Discard Changes** to cancel any modifications you have made.
- If you wish to return to the Viewer, select **View > Viewing Screen** from the menu bar.



Chapter 8

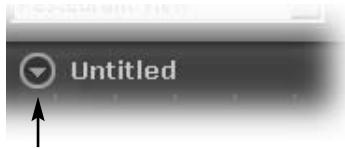
Arranging and Saving Layout

This chapter details how to create and save Video Window Layouts and Layout Sequences.

Managing Video Layouts

About the Layout menu

The **Layout** menu allows you to save particular Video Window layouts for easy monitoring.



The name of the currently-displayed layout can be found in the top-left corner of the Viewing Area, next to the Layout button. You can create a new layout, save a layout or open and rename a previously-saved layout.

Click the Layout button to open the Layout menu. You can also right-click anywhere in the Viewing Area to display the Layout menu.

Optional Layout Menu

Shared Layout List

Personal Layout List

Layout Grids

New Layout

New Layout Sequence...

Save

Save As...

Organize...

Default Shared Layout

Tower Complex

Headquarters

Spy Center

Rocket Base Complex

Default Personal Layout

Tower Complex

Shared Layouts:
All the users can available these layouts. You need Administrator privilege to create a layout. Normal users cannot modify these layouts.

Personal Layouts:
Lists layouts created by the current user. These are shown under the Shared Layouts list to distinguish the different types of layouts. Other users cannot use them.



Tip

The layout displayed when launching the Viewer is the first layout listed in the Personal Layouts (or in the Shared Layouts if there is no Personal Layouts).

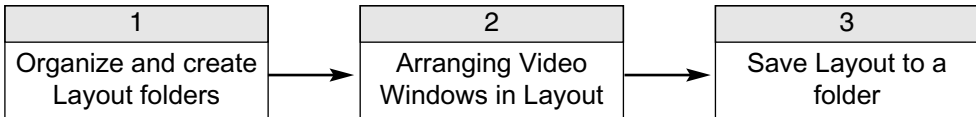
● **To create a new layout (a previously-saved layout is displayed):**



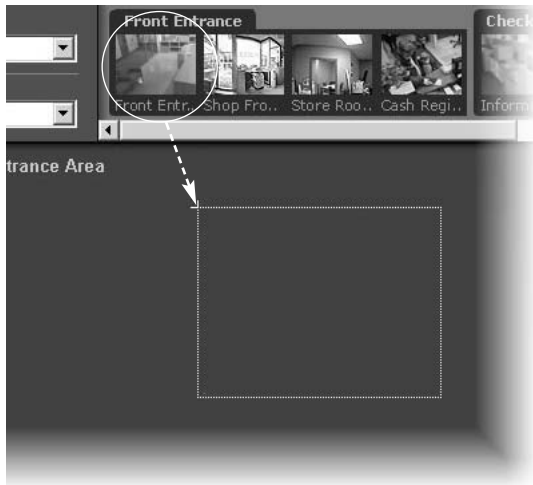
Click the Layout button to open the menu, and then select **New Layout**.

The Viewing Area will become blank and the default layout name “Untitled” will be displayed.

The process of creating folders and saving a layout could be done in the following order:



Drag the Camera Server’s thumbnails onto the Viewing Area to create the layout.

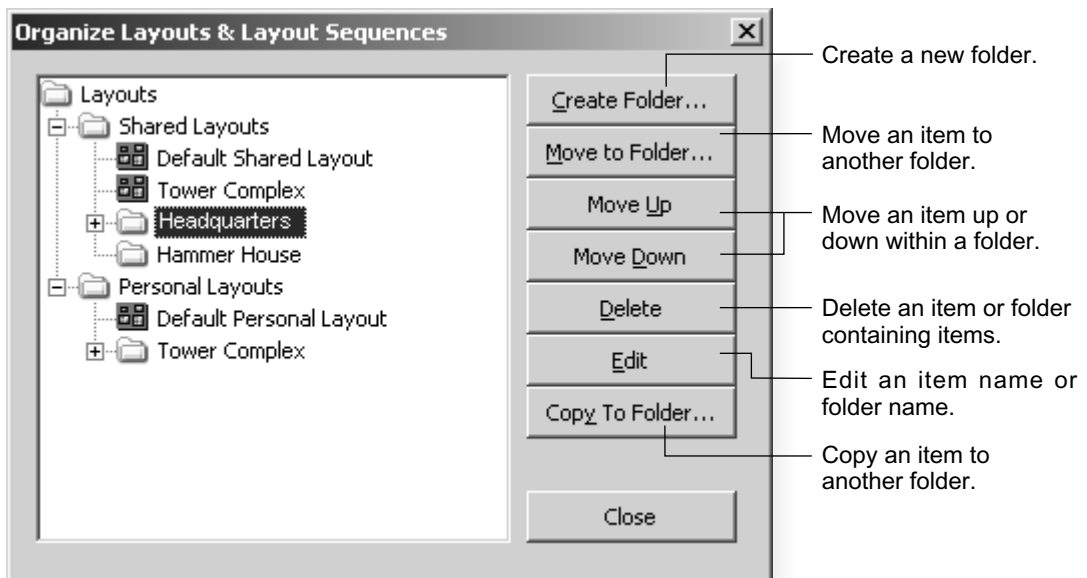


Organizing Layouts and Layout Sequences

The **Organize Layouts & Layout Sequences** dialog allows you to create folders and sub-folders in which to save item (layouts and layout sequences) (→ P. 126). To display the dialog:

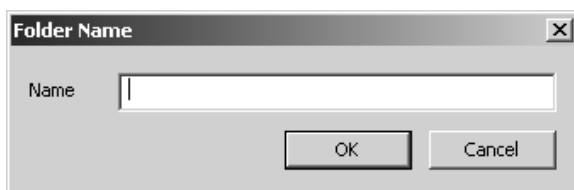
● Open the Layout menu and select **Organize...**

The **Organize Layouts & Layout Sequences** dialog opens (Administrator version shown). The **Shared Layouts** folder will not display if you have logged in as an Operator.



● Create a new folder...

1 In the **Organize Layouts & Layout Sequences** dialog, click on a shared or personal folder and then click **Create Folder....** The Folder Name dialog appears.



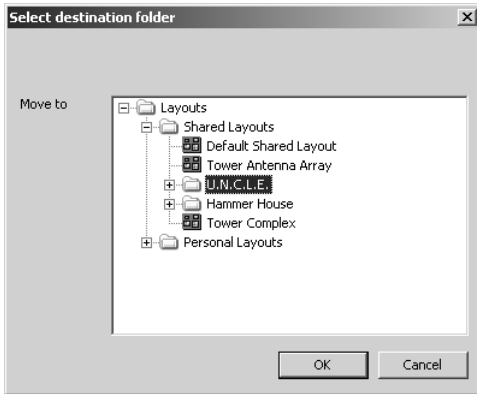
2 Enter a name up to 50 characters and click **OK**.

The new folder will appear in the **Organize Layouts & Layout Sequences** dialog.

Move or Copy a layout or layout Sequence to another folder...

1 In the **Organize Layouts & Layout Sequences** dialog, click an item to highlight it, then click **Move to Folder...**

The Select destination folder dialog opens showing a list of created folders.



2 Click to select the target folder in the list and click **OK**.

The item will be moved into that folder.

If you selected **Copy to Folder...**, you can copy items in the same manner.


Move an entry up or down...

Click an item or folder to highlight it, then click **Move Up** or **Move Down**. The item will move up or down within a folder.

Edit or delete a layout or folder...

Click an item or folder to highlight it, then click **Edit**. The respective **Layout Name** or **Folder Name** dialog will appear for you to overwrite a new name.

Click an item or folder to highlight it, then click **Delete**. If you have Operator status, you will not be able to delete a shared layout or layout sequence.

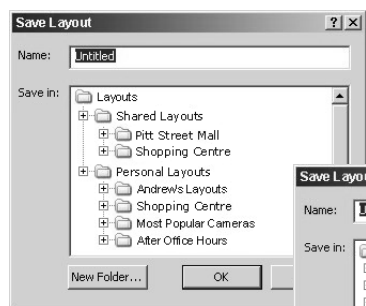
 **Note**

- You cannot change the parent folder names, Shared Layouts or Personal Layouts.
- You need Administrator privilege to manage shared folders (→ P. 33).

Saving a Layout or Layout Sequence

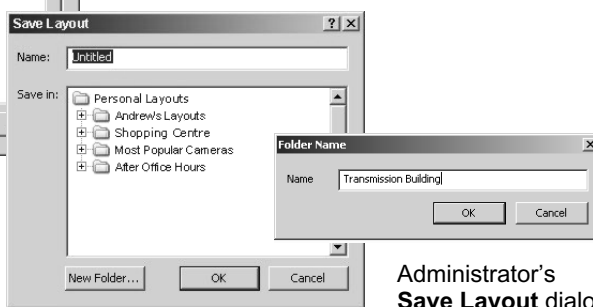
Administrators and Operators can save layouts and layout sequences to an existing folder or a new folder via the **Save Layout** dialog.

Step 1: Open the Layout menu and select Save or Save As...



Operator's
Save Layout dialog

The **Save Layout** dialog opens. A **New Folder** button and **Name** field is also available for you to create a new name and location for the copied layout or layout sequence.

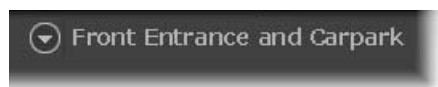


Administrator's
Save Layout dialog

Step 2: Create a name for the layout or layout sequence

- 1 Change “**Untitled**” or an existing layout name to save the item with a new name.
- 2 Click a location in the list. Click to select the folder to save the layout and click **OK**. The item is saved to that folder.

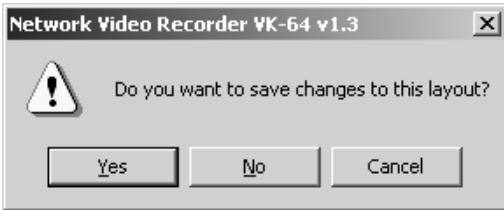
Alternatively, click **New Folder** to create a new folder (→ P. 124) and save the item in there. For example, if you wish to save an Administrator-shared layout to a personal folder.



Once you have saved an item, the name will appear next to the Layout button in the Viewing Area.

● Opening a previously-saved layout...

Click the Layout button to open the menu and then click a layout or layout sequence in the list. The item will be loaded onto the Viewing Area.



If you select another item without saving the current item, a dialog will appear prompting you to save the current layout or layout sequence (if the **Layout setting** (→ P. 116) in the **Viewer Settings** window is ticked).

Arranging Layout Sequences

You can set up an automated sequence of shared and personal layouts to display in the Viewing Area at set intervals.

- 1 From the Layout menu, select **New Layout Sequence....** The **Add Layout Sequence** dialog displays.
- 2 Enter a sequence name for the new layout sequence and choose a **Type:** of layout sequence from the menu, **Personal Layout Sequence** or **Shared Layout Sequence** (you can switch between the two as you add layouts).
- 3 Use the **Add Layout >** button to add layouts to the new sequence. Click **Up** and **Down** to change the display sequence of layouts. Click **Delete** to delete the layout.
- 4 In the **Duration:** menu, select a set duration of display time for each layout or enter a custom time, overwriting the existing time.

The screenshot shows the 'Add Layout Sequence' dialog box. It has a title bar with a close button. The 'Sequence Name' field contains 'Training'. The 'Type' dropdown is set to 'Personal Layout Sequence'. On the left, the 'Available Layouts' tree shows 'Layouts' > 'Personal Layouts' > 'Tower Complex 1' selected. In the center, there are buttons for 'Add Layout >', 'Move Up', 'Move Down', and 'Remove Layout'. On the right, the 'Sequence Layouts' list contains 'Phantom Agents', 'Default Shared Layout', and 'Tower Complex 1'. At the bottom, the 'Duration' is set to '10' seconds. 'OK' and 'Cancel' buttons are at the bottom right.

Annotations:


- Enter a new name. (points to Sequence Name field)
- Select a layout sequence type. (points to Type dropdown)
- Click on a layout to select it. (points to Tower Complex 1 in Available Layouts)
- Click **Add Layout** to add a selected layout from the left-hand column. (points to Add Layout > button)
- Select or enter the time. You can set the time within the range from 1 to 9999. (points to Duration field)
- Click **OK** to bring up the Select **destination folder** dialog. (points to OK button)

Layout Sequence:

All the users can share these layouts. You need Administrator privilege to create a layout sequence. Normal users cannot modify these layouts.

User Layout Sequence:

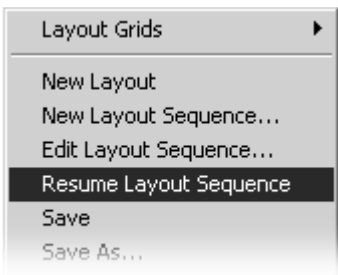
Lists layouts created by the current user. Other users cannot use them.

 **Note**

- You can only save layouts as a layout sequence.
- VB101 cannot be used for layout sequence.

Opening and running a layout sequence...

To start the layout sequence, select it from the Layout menu.

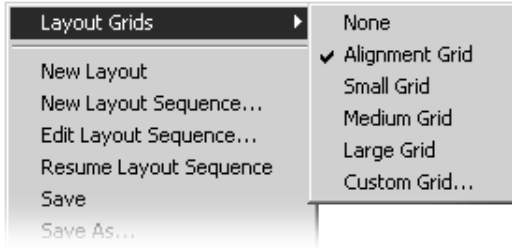


When a layout sequence is running, further options are available in the Layout menu.

- Click **Edit Layout Sequence** to change settings in the currently-running layout sequence. The current sequence will be indicated as **Paused**.
- Click **Resume Layout Sequence** to play the current layout sequence.

Working with Layout Grids

You can customize your layouts by applying one of the following grids:



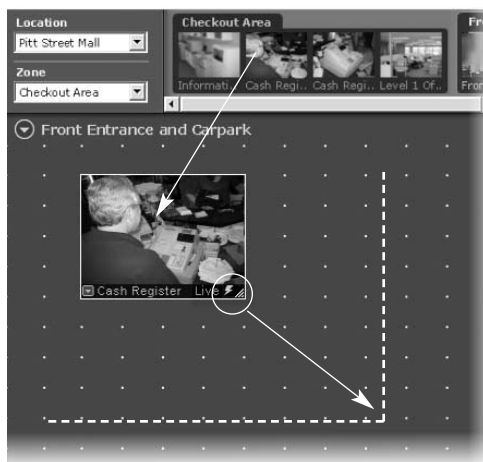
- **None** - You can arrange Video Windows freely.
- **Alignment Grid** - creates a grid of dots in the Viewing Area. You can re-size Video Windows using the grid.

- **Small Grid, Medium Grid and Large Grid** - creates a small (160x120), medium (320x240) or large (640x480) grid where you can place Video Windows in a tile-like manner.
- **Custom Grid** - You can set the grid size.

Working with the Alignment Grid

Select the **Alignment Grid** from the **Layout Grids** sub-menu. The Viewing Area displays a grid of dots. When you place a Video Window, it “snaps” to the grid boundaries.

● Drag, drop and re-size a Video Window



- 1 In the Camera Selection Area, click a thumbnail image and drag its selection boundary onto the Viewing Area grid. The boundary will re-size.
- 2 Release the mouse button. The selection will become a Video Window, and “snap” into alignment along the grid closest to it.

To re-size the Video Window, click any corner and drag the image outwards to snap to a larger grid area. Release the mouse button. The selection boundary will become a Video Window and “snap” into alignment along the grid closest to it.



● Create and align more Video Windows

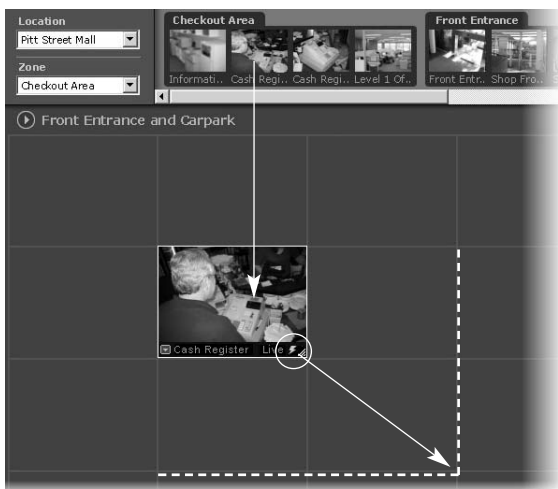
Click and drag other camera thumbnails onto the Viewing Area to create Video Windows for monitoring, and resize the window. A layout example is shown to the right.



Working with Small, Medium and Large Grids

When you select **Small Grid**, **Medium Grid** or **Large Grid** from the **Layout Grids** sub-menu, the Viewing Area displays “cells” for Video Windows. These are boundaries indicating a uniform size which is used to display Video Windows in a tile-like manner.

Drag a camera thumbnail image into a blank tile



1 In the Camera Selection Area, click a thumbnail image and drag its selection boundary onto the Viewing Area grid. The boundary will re-size.

2 Release the mouse button. The selection boundary will become a Video Window and “snap” into alignment along the grid closest to it.

To re-size the Video Window, click any corner and drag the image outwards to ‘snap’ to a larger grid area. Release the mouse button. The selection boundary will become a Video Window and “snap” into alignment along the grid closest to it.



Tip

- The Layout menu is also available by right-clicking anywhere in the Viewing Area.
- A Video Window can be increased in size to take up a number of tiles, (for example 4 tiles, 9 tiles etc) so that Video Windows of different sizes/priorities can be viewed.

The Viewing Area with a **Small Grid** could look like this:



The Viewing Area with a **Medium Grid** could look like this:



Note

Although you can add more, the number of Video Windows you can display simultaneously will depend on your video card, the speed of your computer, the maximum frame rate (→P. 115) configured with Viewer setting, the video size and video quality coming from the Camera Server and the size of each Video Window displayed. A maximum of 16 cameras is recommended in the Layout Area.

The Viewing Area with a **Large Grid** could look like this:



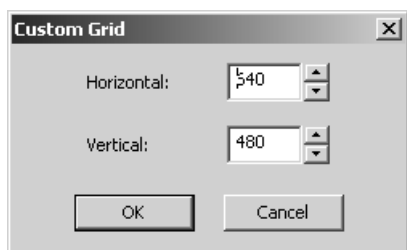
In this example, the Camera Selection Area and Timeline are hidden.

Working with the Custom Grid

The Custom Grid feature allows you to set a custom-size for displaying Video Windows.

● Set a custom grid

- 1 Select **Custom Grid** from the **Layout Grids** sub-menu. The **Custom Grid** dialog appears. Values are given in pixels.



- 2 In the **Horizontal** or **Vertical** field, overwrite the existing value with a custom value, or use the up/down arrows to select a value. When you adjust the value in one field, you'll notice the value change in the other field. This is because the proportions of the re-sized Video Window are constrained and the dimensions are scaled accordingly.

- 3 Click **OK** to close the dialog. The grid will re-size to your new settings.



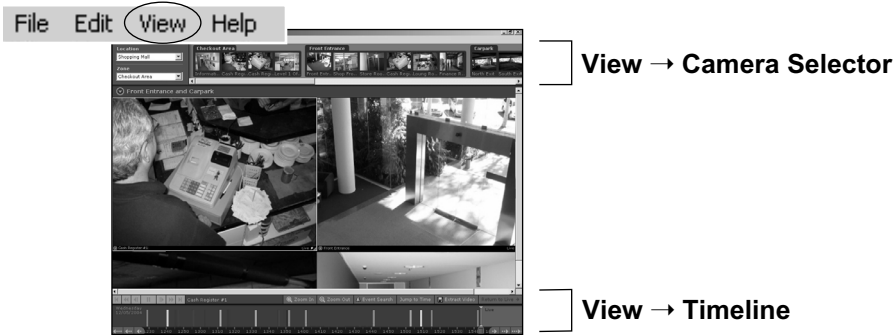
Using Custom Grid may cause high CPU load.

Note

Hiding and Showing Task Areas

The **View** menu allows you to show/hide task areas and other display elements in the Viewer. When you unselect **Camera Selector** and **Timeline** and then select **Fullscreen**, the result is a large area in the Viewer for displaying more Video Windows as shown below in the Large Grid example. Pressing the Esc key returns the menu bar. You can also select to hide Video Window **Captions**, the **Camera Control** and **Live Events**.

The number of Video Windows in the display achieved is dependent on the display resolution. A higher resolution will result in more Video Windows displayed.



View → Full-Screen (Large grid, 1280x1024). The Windows task bar is also hidden. Pressing the **ESC** key displays the task bar.





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

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