

XX112-17-01

**Kollector Hybrid
Network Digital Video Recorder
Quick Manual**

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Software Quick Manual



Important Notice

This Manual is delivered subject to the following conditions and restrictions:

- This Quick Manual is intended as a reference guide for operators who have already undergone formal training. It is not intended to provide comprehensive detail. For more detailed information on using the Kollector refer to the *Kollector Software Manual*.
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About This Manual

This Quick Manual is a condensed version of the ViconNet® Kollector® Software Manual. It should be used by operators for concise instructions for working with the Kollector family of DVRs, including the Kollector Force and Kollector Strike.

The Quick Manual is comprised of the following chapters:

- **Chapter 1, Introducing ViconNet**, introduces the main concepts and system architecture of the ViconNet system.
- **Chapter 2, Getting Started with ViconNet**, introduces the main ViconNet application windows and their functionality.
- **Chapter 3, Viewing and Listening to Live Video/Audio**, describes the mandatory and optional tasks involved in viewing and listening to live video and audio.
- **Chapter 4, Playing Back Recorded Video/Audio**, describes the process for playing back recorded video and audio.
- **Chapter 5, Printing/Exporting Frames and Creating Video clips**, describes how to print out or export selected frames from playback and to create video files from selected playback segments.

This manual assumes that your system has been registered and configured and is now ready for operation. For more detailed instructions on working with and configuring the Kollector, refer to the complete *Kollector Hybrid Network Digital Video Recorder Software Manual XX112-39-0X*.

Table of Contents

CHAPTER 1 INTRODUCING VICONNET	1
What Is ViconNet?	1
How Does ViconNet Work?	1
System Components.....	1
System Architecture.....	2
CHAPTER 2 GETTING STARTED WITH VICONNET.....	3
Logging In	3
Main Window.....	4
Navigator Window	5
Logging Out, Exiting and Shutting Down	6
Logging Out	6
Exiting the Kollector	6
Shutting Down or Restarting.....	6
CHAPTER 3 VIEWING AND LISTENING TO LIVE VIDEO/AUDIO	7
Overview.....	7
Step 1: Selecting the Display Mode.....	8
Step 2: Selecting Cameras and Microphones	9
Step 3: Controlling the Picture.....	12
Step 4: Zooming the Video Display	12
Step 5: Operating a PTZ Camera	13
CHAPTER 4 PLAYING BACK RECORDED VIDEO/AUDIO.....	15
Overview.....	15
Playback Workflow.....	16
Step 1: Selecting Recorded Video/Audio.....	17
Step 2: Selecting the Playback Time Interval	18
Step 3: Selecting the Playback Start Time.....	19
Step 4: Displaying Recorded Video/Audio Content.....	20
Step 5: Playing Back from a Selected Camera/Microphone	21
Quick Playback	22
Museum Search	23
Creating Archives.....	25
CHAPTER 5 PRINTING/EXPORTING FRAMES AND CREATING VIDEO CLIPS.....	28
Printing Frames	28
Exporting Frames.....	29
Creating Video Clips	30

Chapter 1

Introducing ViconNet

This chapter introduces the ViconNet system and includes the following sections:

- **What Is ViconNet?**, page 1, provides a brief overview of the ViconNet system.
- **What Is the Kollektor?**, page 1, describes the Kollektor recorders.
- **System Architecture**, page 2, illustrates the ViconNet system architecture.

What Is ViconNet?

ViconNet is innovative open-platform video management software (ONVIF-conformant) that allows integration with IP cameras, encoders and IP edge devices, including megapixel cameras. Open platform cameras and edge devices from numerous industry-leading manufacturers are compatible with ViconNet software. Additionally, the ViconNet interface has integrated Events Management and ViconNet VI video intelligence and IQeye embedded analytics.

ViconNet is a fully scalable secure network solution for Windows® platform. It allows viewing and recording of video from any camera anywhere on the network and integrates seamlessly with Vicon's line of Kollektor DVRs and NVRs. ViconNet offers H.264 compression in addition to ViconNet's proprietary MPEG-4 optimized compression or JPEG compression. It is compatible with Vicon's Express series NVRs and DVRs and supports Vicon's Access Control System (VAX).

What Is the Kollektor?

The Kollektor is a family of 16-channel hybrid network digital video recorders powered by ViconNet software. This manual includes the Kollektor Strike and Kollektor Force, as well as Kollektor Elite, Pro and Lite that have been upgraded to version 8. All models of the Kollektor recorder have the ability to record video and audio from local analog inputs as well as video and audio streamed over the network from other recorders, encoders/decoders and IP cameras, providing outstanding flexibility. The Kollektor Force and Strike are H.264 ready.

Note: *In this manual, any features for the Kollektor Force are relevant to Kollektor Elite and Pro units upgraded to version 8 software; Kollektor Strike features pertain to Kollektor Lite units upgraded to version 8.*

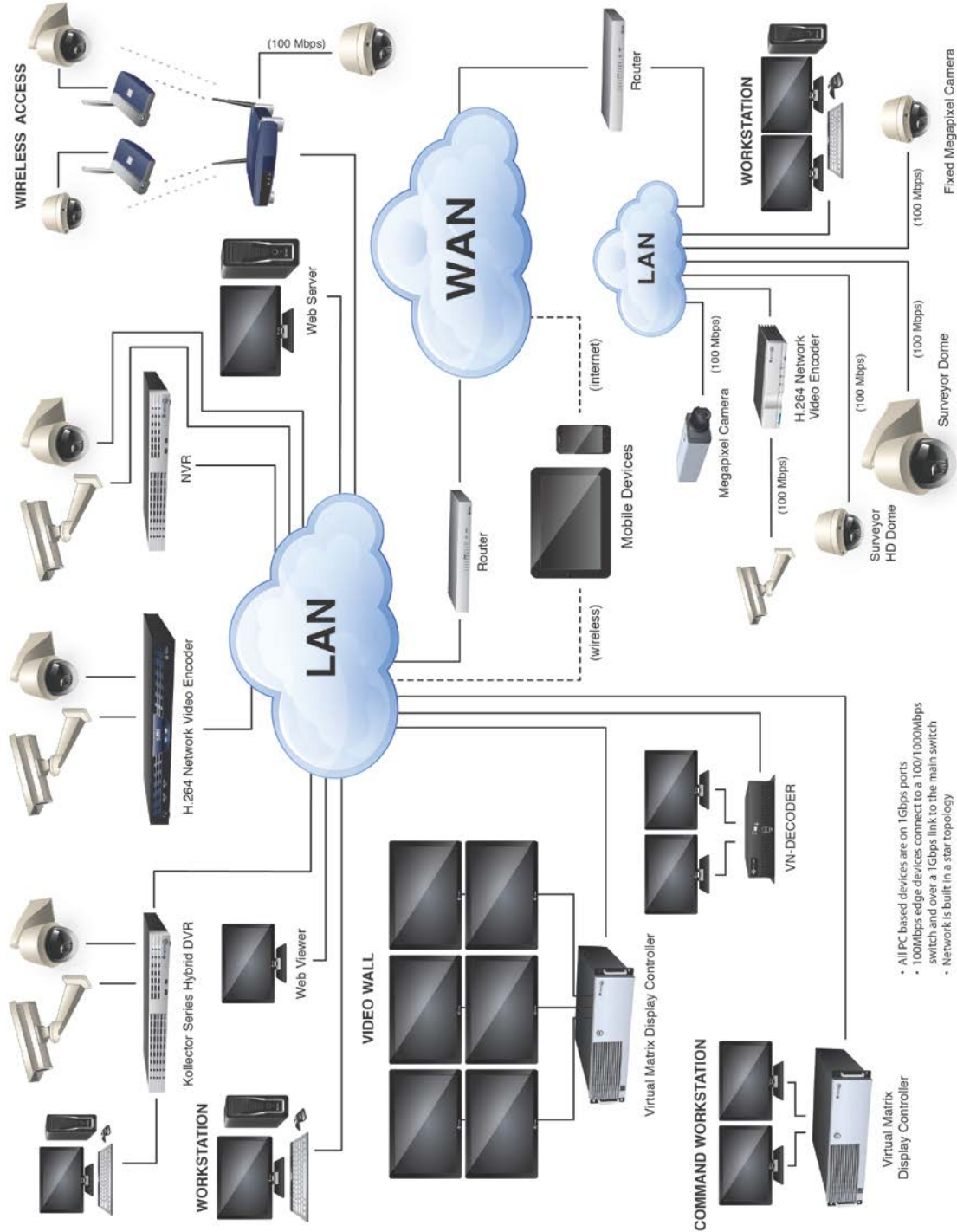
The Kollektor utilizes three different video compression methods, selectable based on the application's requirements:

- **Normal:** Optimized MPEG-4. A proprietary compression algorithm developed by Vicon that produces outstanding video quality and extended recording durations.
- **Full:** JPEG. Standard full-frame compression for use in situations that cannot use motion compensation compression.
- **H.264:** Video compression technology that provides superior video quality at substantially lower bit rates than previous standards, delivering MPEG-4 quality with a frame size up to four times greater.

The Kollektor distributes its own collected video to each client, or to another Workstation, upon request over a network. The Kollektor includes full 16-channel simultaneous record and playback, an integrated GUI for system configuration, playback and recording on a SVGA monitor, and support for NTSC/EIA and PAL/CCIR video cameras.

System Architecture

The diagram shown below illustrates a ViconNet system structure that incorporates various ViconNet components.



- All PC based devices are on 1Gbps ports
- 100Mbps edge devices connect to a 100/1000Mbps switch and over a 1Gbps link to the main switch
- Network is built in a star topology

Chapter 2

Getting Started with ViconNet

This chapter familiarizes you with the ViconNet application's components and functionality. This chapter contains the following sections:

- **Logging In**, page 3, describes how to log in to the ViconNet application.
- **Main Window**, page 4, introduces the basic elements in the ViconNet *Main* window.
- **Navigator Window**, page 5, introduces the playback elements in the ViconNet *Navigator* window.
- **Logging Out, Exiting or Shutting Down**, page 6, describes how to log out with or without closing the ViconNet application, and how exit to the operating system, or to shut down or restart the ViconNet unit.

Note: Some of the screens shown in this manual may be slightly different in appearance than those that are on your screen. There should be no difference in content or functionality.

Logging In

Logging in to the ViconNet application is performed using your assigned user name and password. The allowed system operations are dependent on your assigned authorization rights.

To log in to the ViconNet application:

1. At your Kollektor, double-click the ViconNet icon  on your Windows desktop,

-OR-

Select **Start→ViconNet**. The ViconNet *Login* window appears, displaying the name of the last logged in user.



2. Click . The ViconNet *Main* window is displayed, as shown in the following section.

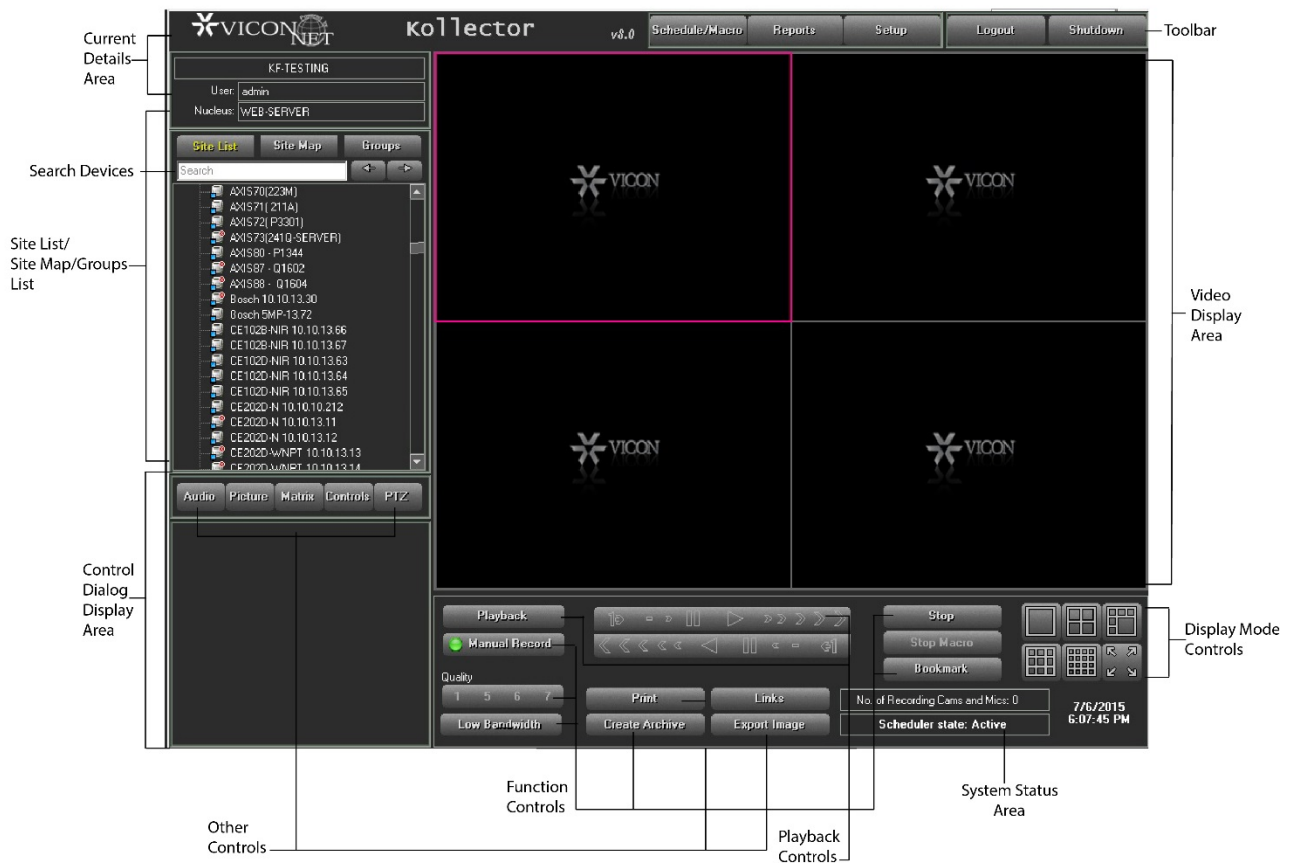
Main Window

After logging in to the ViconNet application, the *Main* window is displayed, as shown below, enabling you to:

- View and listen to live video and audio.
- Play back recorded video and audio.
- Print or export image frames.

A variety of other functions that can be performed, such as: configuring the ViconNet system, recording live video and audio and generating reports, are described in the *Kollector Software Manual*.

The following example illustrates the elements and options in the ViconNet *Main* window:



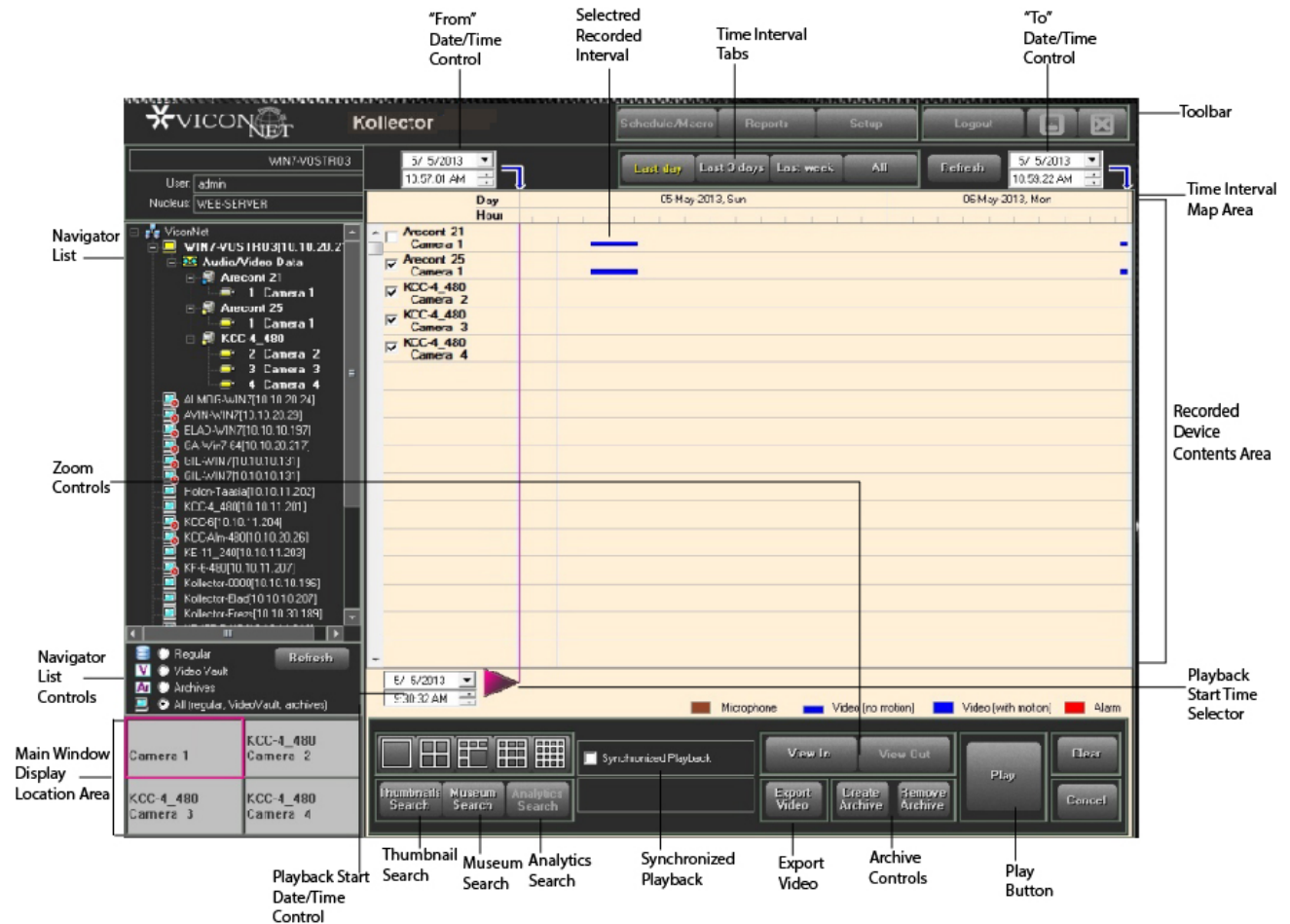
The window shown above provides access to all the basic functionality required to operate the system.

Navigator Window

The *Navigator* window, which is accessed by clicking the **Playback** button in the *ViconNet Main* window, displays a visual mapping of the storage location, enabling you to:

- Select and playback (in the *Main* window) recorded video and audio segments.
- Select the playback start time and time interval.
- Create or remove archives of recorded video and audio segments.
- Link related audio and video and synchronize multiple playback segments.
- Search for unique recorded segments.
- Create video files.

The following example illustrates the elements and options in the *Navigator* window, which provide access to all playback functionality:



To quickly locate a device in any of the device lists, there is a search feature. Type the name of the device into the Search field. The search result will highlight in the list. A next and previous button provides navigation in the list as needed. This search feature is in several places within ViconNet where there are device lists, for example Macro editor.

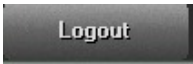
For more details about the features available for playing back recorded video and audio, refer to *Chapter 4, Playing Back Recorded Video/Audio*.

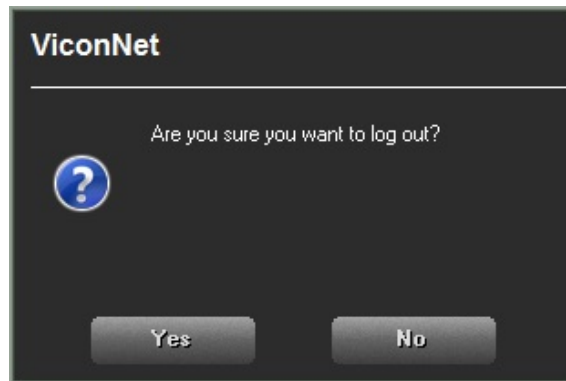
Logging Out, Exiting or Shutting Down

Logging Out

Logging out is performed when you want to exit from the ViconNet application, but need the application to remain open, for example, to log in as a different user.

To log out of the ViconNet application:

1. Click  in the Main window toolbar. The following message is displayed:




2. Click **Yes**. The ViconNet *Login* window is redisplayed, as described in *Logging In*, page 3.

NOTE: If the user is not authorized to logout, a **Change User** button replaces the **Logout** button. Once **Change User** has been pressed, the *Login* window appears, with the **Cancel** button enabled (in case the user regrets trying to log out).

Exiting the Kollektor


Exiting is performed when you want to exit the ViconNet application and close the application.

To close the ViconNet Kollektor and exit to the operating system:

- Click the  to display the *Setup Site Selection* window and click the **Exit to O.S.** button. (For details about this window, refer to the *Kollektor Software Manual*.)

Shutting Down or Restarting

Shutting down is performed when you want to exit the ViconNet application and shutdown the computer.

1. Click  in the Main window toolbar. A confirmation window is displayed.
2. In the confirmation window, click **Shutdown** to shut down the unit.

-OR-

Click **Restart** to restart the unit.

Chapter 3

Viewing and Listening to Live Video/Audio

This chapter includes the following sections:

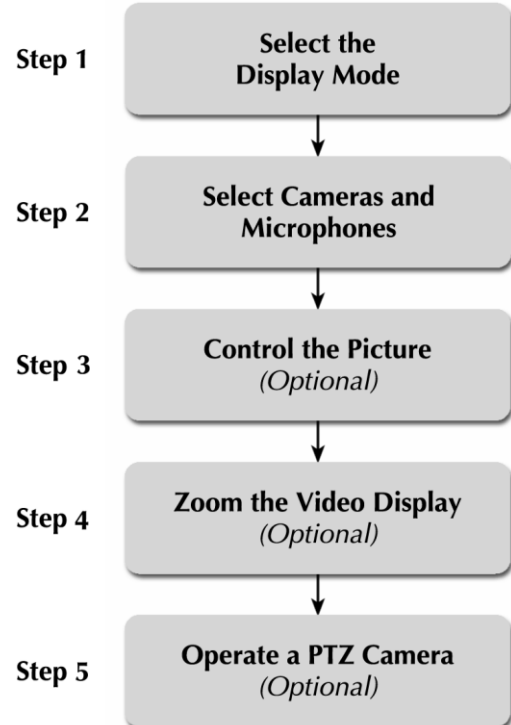
- **Overview**, page 7, provides an overview of the viewing and listening process, and illustrates the main steps for viewing and listening to live video and audio.
- **Step 1: Selecting the Display Mode**, page 8, describes how to select the required number of video display locations.
- **Step 2: Selecting Cameras and Microphones**, page 10, describes how to select and control devices in order to view and listen to their live video and audio.
- **Step 3: Controlling the Picture**, page 14, describes how to control the contrast and brightness of the live video display.
- **Step 4: Zooming the Video Display**, page 14, describes how to zoom in or out of a live video display.
- **Step 5: Operating a PTZ Camera**, page 15, describes how to view and listen to video from a PTZ camera.

Overview

The ViconNet system enables you to monitor live video and audio using the cameras and microphones configured in the ViconNet system. The devices send the live video pictures and audio segments to the Kollector via the network.

In order to view live video and audio, you must select the display mode (the number of display locations in the ViconNet application that is sufficient for the number of cameras that you want to monitor). Then you can select the devices using the **Site List**, the **Site Map** or **Groups List**, and additional picture settings that determine how the live video and audio is displayed on the Kollector.

The ViconNet system also provides some optional functions that can be used when viewing and listening to live video and audio. These include the ability to zoom in on a specific video display to view it in more detail and to use a PTZ camera.



Step 1: Selecting the Display Mode

Selecting the display mode enables you to determine the maximum number of video display locations for viewing and listening to live video and audio at one time in the **Video Display** area of the *Main* window.

Various display modes are provided to accommodate your viewing and listening requirements, and you can change the display mode after beginning to view and listen to the live video and audio, without affecting the video and audio to which you are currently viewing and listening.


You can choose the display mode from either the *Main* window or the *Navigator* window.

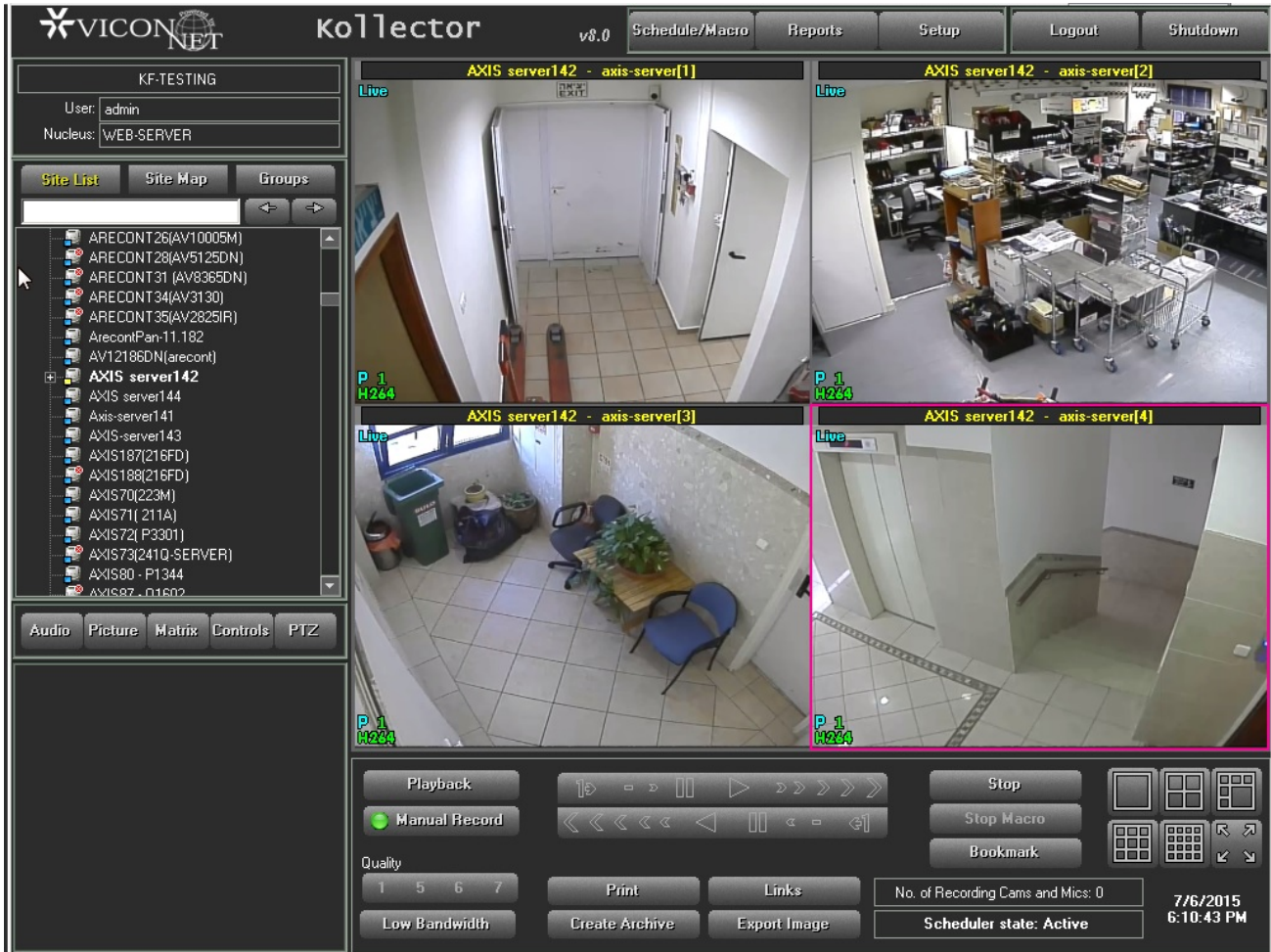
To select the display mode from the Navigator window:

- In the *Navigator* window, select the required **Display Mode** icon (located below the *Navigator* window *Recorded Device Contents* area).



Thereafter, when the **Play** button is selected, the devices in the *Main* window **Display Location** area are displayed in their respective locations in the *Main* window, ready for viewing and playing back.

The following example shows the **Video Display** area after the **Quad**  display mode has been selected.



The screenshot displays the VICON NET kollector v8.0 interface. The top navigation bar includes 'Schedule/Macro', 'Reports', 'Setup', 'Logout', and 'Shutdown'. The left sidebar shows a 'Site List' with a tree view of camera locations, including 'ARECONT' and 'AXIS server142' cameras. The main area is a 2x2 grid of live video feeds, each labeled 'AXIS server142 - axis-server[1]' through [4]. The bottom control panel features playback controls, a 'Manual Record' button, quality settings (1-7), and a 'Scheduler state: Active' indicator. The date and time '7/6/2015 6:10:43 PM' are shown in the bottom right corner.

TIP: You can maximize an individual video display location in the **Video Display** area by double-clicking the required location. Double-clicking again reverts back to the previous view.

Step 2: Selecting Cameras and Microphones

After launching the ViconNet system, in order to view live video and audio in the **Video Display** area, you must first select the device (camera or microphone) that transmits the required data.

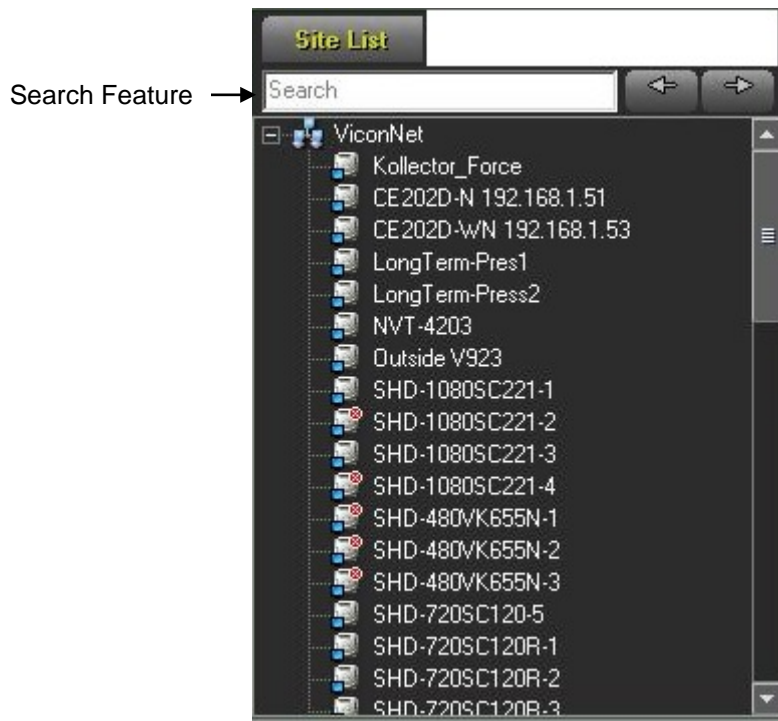
Use the *Site List*, *Site Map* or *Groups List* to select devices for viewing and listening to live video and audio by navigating through the list and selecting the required devices.

Selecting a device from the list automatically begins the device operation (video and audio transmission) in the selected video display location in the *Main* window.

As transmission begins, the appropriate controls for the specific type of device that you selected become active in the **Control Dialog Display** area, which enables you to modify the live video and audio.

To select a device using the Site List:

1. In the *Main* window, select the appropriate display mode, as described in the previous section.
2. Expand the required transmitter to display a list of the currently connected cameras and microphones.



NOTES:

The cameras and microphones that appear in the Site List are automatically detected by the system during startup. If a camera is disconnected while it is active (meaning being displayed or recorded), a red X icon (✘) is displayed next to the relevant camera in the Site List.

3. Select the required device from the *Site List* in one of the following ways:
 - Select a video display location and then the required camera. The live video transmission is displayed automatically in the selected location, and the camera or microphone icon appears highlighted.
 - Select ALL devices from a single transmitter by dragging and dropping the transmitter anywhere in the Video Display area.

The following example shows four live video transmissions displayed in the Video Display area. The name of each camera is located in the top of each video display location.

The screenshot displays the VICON NET collector software interface. At the top, the logo 'VICON NET' and 'collector v8.0' are visible, along with menu options: 'Schedule/Macro', 'Reports', 'Setup', 'Logout', and 'Shutdown'. On the left side, there is a control panel with the following elements:

- Site Name: KF-TESTING
- User: admin
- Nucleus: WEB-SERVER
- Navigation: Site List, Site Map, Groups
- Camera List (under 'AXIS server142'):
 - ARECONT 26(AV10005M)
 - ARECONT 28(AV5125DN)
 - ARECONT 31 (AV8365DN)
 - ARECONT 34(AV3130)
 - ARECONT 35(AV2825IR)
 - ArecontPan-11.182
 - AV12186DN(arecont)
 - AXIS server142
 - AXIS server144
 - Axis-server141
 - AXIS-server143
 - AXIS187(216FD)
 - AXIS188(216FD)
 - AXIS70(223M)
 - AXIS71(211A)
 - AXIS72(P3301)
 - AXIS73(241Q-SERVER)
 - AXIS80 - P1344
 - AXIS87 - 01602
- Buttons: Audio, Picture, Matrix, Controls, PTZ

The main display area shows four live video feeds arranged in a 2x2 grid, each labeled 'Live' and 'P 1 H264':

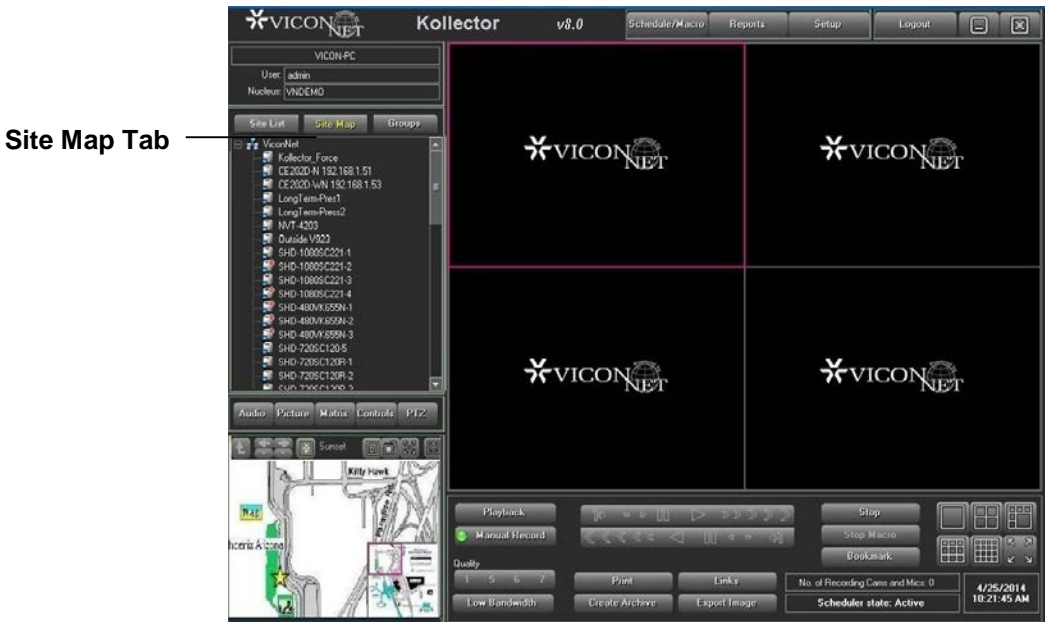
- Top-left: 'AXIS server142 - axis-server[1]' showing a hallway.
- Top-right: 'AXIS server142 - axis-server[2]' showing a laboratory or office.
- Bottom-left: 'AXIS server142 - axis-server[3]' showing a waiting area with chairs.
- Bottom-right: 'AXIS server142 - axis-server[4]' showing a hallway.

At the bottom of the interface is a control bar with the following elements:

- Playback controls: Play, Stop, Previous, Next, Full Screen, etc.
- Manual Record button (with a green indicator).
- Quality settings: 1, 5, 6, 7.
- Buttons: Low Bandwidth, Print, Create Archive, Links, Export Image.
- Stop, Stop Macro, and Bookmark buttons.
- Status: No. of Recording Cams and Mics: 0, Scheduler state: Active.
- Timestamp: 7/6/2015 6:10:43 PM.

NOTE: You can manually stop the transmission at any time by clicking **STOP**.

Use the Site Map to select cameras from a drawing, map or set of maps without having to know to which transmitter it is connected. The Site Map can be navigated in a similar way to Site List. However, the devices in the *Site Map* list are organized by maps, meaning by physical location of devices as opposed to by device name.



To select a device using the Site Map:


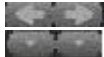





1. In the *Main* window, select the **Site Map** tab.
2. Select a camera by clicking it in the *Site Map* tab. The lower-left panel changes according to the object selected in the site map. The picture can be dragged to the middle of the editing space, and then expanded or navigated. The video is displayed in the display location indicated by the pink border.

-OR-

Drag and drop a camera in the required display location.

Note: If your Kollektor Force is setup as a dual monitor system, the Site Map expands to full screen on the second monitor.

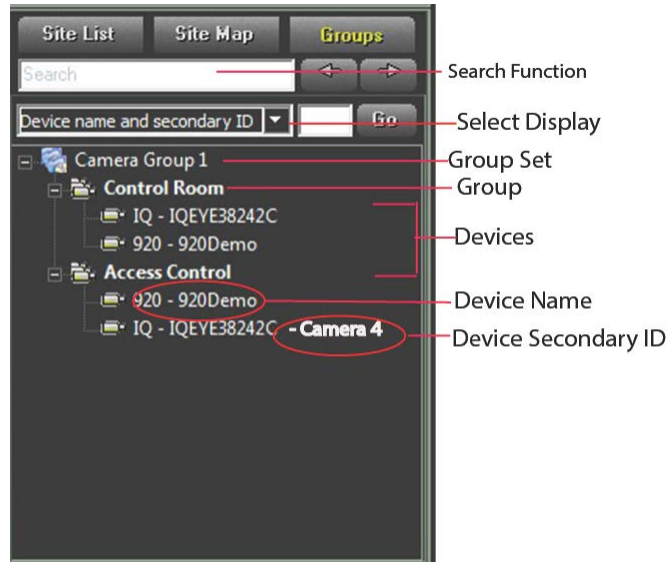
The following options are available for working with the selected map in the map set:

Option	Description
	Enables you to navigate to the parent map.
	Enables you to navigate to other maps in the map set.
	Enables you to remove text labels from the map.
	Enables you to expand the map.
	Enables you to return the map to its previous state (expansion).
	Enables you to maximize the map to fit the entire screen.
	Enables you to close the map image and redisplay the Site List tab.

Devices (cameras, encoders, and so on) can be added to a site map by dragging them directly to where they are located on the map of the physical location.

Groups

The ViconNet **Groups** list is a hierarchical tree like the **Site List**, which displays the transmitters and devices connected to your ViconNet system. The devices in the **Groups** list are organized by logical groups and group sets, where each group can consist of cameras and microphones from multiple distinct transmitters.

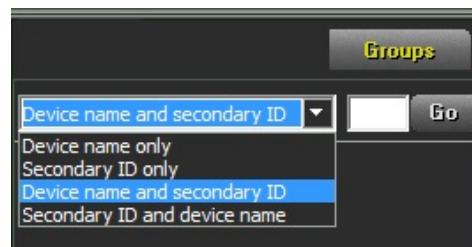


You can define your groups and group sets by selecting *Devices Group Sets* from the *System Settings* window. Groups are loaded in to the system using the **Add New Group** utility.

In the **Groups** list, you can select to list the devices by name, secondary ID (as configured in the *Groups Sets Management* window) or both.

To select whether to display device name, secondary ID or both:

- In the **Groups** list select the required option from the dropdown list and click **Go**.




To view a camera or hear a microphone from the Groups list:

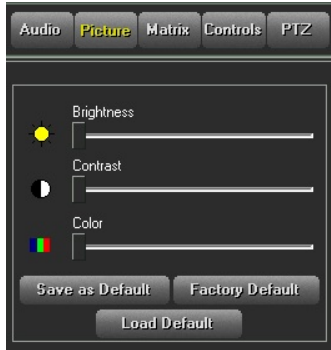
- Select a camera/microphone in the **Group** list **or** drag and drop it from the list to the **Video Display** area **or** enter the device's secondary ID in the **Go** box and click **Go**.
 - The icon appears highlighted in yellow. The live video transmission/audio transmission begins; video is displayed in the selected location in the **Video Display** area. The pink border in the **Video Display** area automatically moves to the next available display location.




Step 3: Controlling the Picture

The ViconNet system enables you to control and change the settings of the current live pictures displayed in the *Main* window, such as the brightness and contrast. Any changes that you make to the picture settings affect the data that is currently being viewed or recorded on all connected Workstations and recorders displays.

To control the picture brightness, contrast and color:

1. Click . The picture controls are displayed in the **Control Dialog Display** area.




Option	Description
 Brightness	Adjusts the light level on the display screen.
 Contrast	Adjusts the difference between the lightest and darkest areas on the display screen.
 Color	Adjusts the color intensity (amount of white contained in the basic colors) on the display screen.

2. Move the sliders to adjust the picture.

To control the live picture quality:

In order to improve transmission speed, the maximum quality of live images is set automatically according to the selected display mode. The Single mode is assigned the highest available resolution, while other modes



are assigned lesser resolutions, in proportion to their number of views. When the  buttons in the *Main* window **Function Controls** area are enabled, you can manually override the display mode-determined live picture quality for the currently selected camera.

For more information about controlling picture quality, refer to the *Kollector Software Manual*.

Step 4: Zooming the Video Display

Zooming in or out of a specific video display location in the *Main* window consists of selecting the required video display location with the left mouse button and then using the mouse roller to increase or decrease the degree of zoom. When the video display is zoomed, one click on the mouse roller returns the display to its original size.

The zoom function can be used on all types of video (live, recorded, and playback).

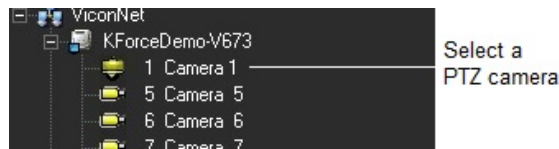
Option	Description
	Zooms in on the selected segment in order to fine-tune the selection capability and simultaneously updates the <i>Time Interval Map</i> accordingly.
	Zooms out of the selected segment. The Time Interval Map area returns to its previous display status.


Step 5: Operating a PTZ Camera

From the ViconNet *Main* window you can easily operate and control any PTZ camera configured in your system. All PTZ functions are performed and are available only for one selected PTZ camera at a time.

To operate a PTZ camera:


1. Ensure that the PTZ camera has been configured in the system.
2. Select the required PTZ camera from the *Site List* or **Video Display** area.




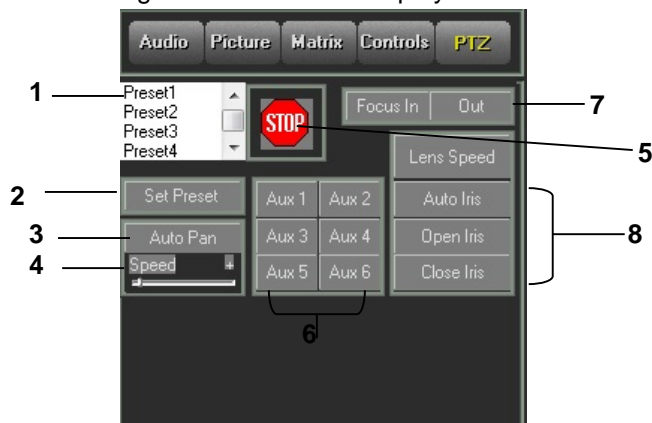
3. Click the  button. The live video from the selected camera is displayed in the **Video Display** area with a red zoom control box and yellow direction arrows.

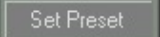
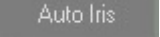




4. Use the PTZ controls in the video display location, as follows:

Option	Description
Yellow Direction Arrows	These arrows serve only as direction markers. Clicking anywhere in the video display will cause the camera to move in that direction. If you move the mouse (while still holding down the mouse button), the camera will follow the mouse. When using the mouse, the closer the mouse is to the center, the slower the camera movement. The farther away the mouse is from the center, the faster the camera movement.
Optical Zoom	To zoom in or out from the center of the displayed video, click the plus (+) or minus (-) symbols of the  icon.

5. Click the  icon. The following PTZ controls are displayed in the **Control Dialog Display** area:



Option	Description
1	<p>The Preset options in the scroll list represent fixed points in the video display. When a preset is clicked, the view automatically focuses on the associated view area.</p> <p>You can define (or reassign) a preset, as follows:</p> <p>Select the required preset from the scroll list.</p> <p>Move to the required specific area/zoom using the window navigation functions.</p> <p>Click  to lock the selected preset to the current location/zoom.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>NOTE: Up to 99 presets (depending on the camera's model) may be defined. <i>ViconNet</i> recommend that users define a maximum of 80 presets in order to prevent conflict with some cameras advanced functions.</p> </div>
2	Locks the selected preset to the current location/zoom.
3	Sets the PTZ camera to automatically rotate around 360° while displaying the video.
4	Determines the speed of the auto pan.
5	Stops uncontrolled directional movement of the video display.
6	Configures Vicon PTZ settings.
7	Adjusts the focus.
8	<p>Controls the amount of light entering behind the PTZ lens. This affects your ability to observe the proximity of objects to one another in the video display location, as follows:</p> <p> Automatically adjusts the light to the displayed video.</p> <p> Adds more light to the displayed video.</p> <p> Reduces the light in the displayed video.</p>

Chapter 4

Playing Back Recorded Video/Audio

This chapter includes the following sections:

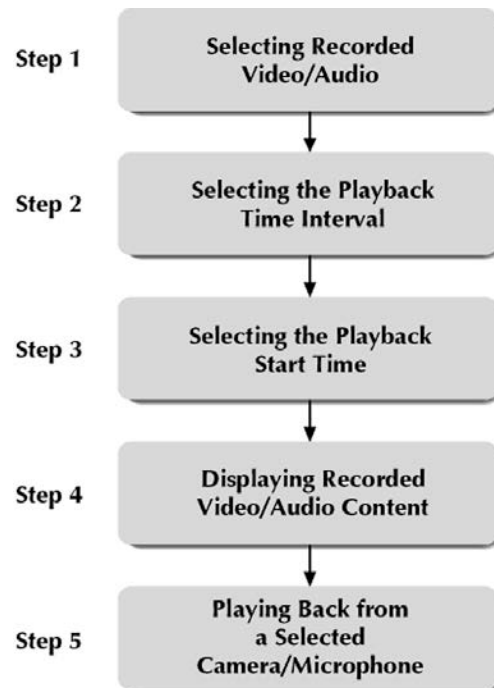
- **Overview**, page 17, provides a general overview of the playback process.
- **Playback Workflow**, page 18, illustrates the main steps for playing back recorded video and audio segments.
- **Step 1: Selecting Recorded Video/Audio**, page 19, describes how to select the initial parameters in the *Navigator* window for the recorded video and audio that you want to play back.
- **Step 2: Selecting the Playback Time Interval**, page 20, describes how to select the start and end playback time for the recorded video and audio segment.
- **Step 3: Selecting the Playback Start Time**, page 20, describes how to select a specific point in a recorded video and audio segment at which playback will begin.
- **Step 4: Displaying Recorded Video/Audio Content**, page 22, describes how to view a recorded video and audio segment in the *Main* window.
- **Step 5: Playing Back from a Selected Camera/Microphone**, page 23, describes how to play back recorded segments from cameras and microphones.
- **Museum Search**, page 25, describes how to search for a specific camera's data within a defined region of the database.
- **Video Analytics**, page 29, describes how to view a specific camera's detected suspicious activity collected from a specific time period.
- **Creating Archives**, page 30, describes how to create archive databases that contain specific recorded data for use at a later time.

Overview

The ViconNet system enables you to select and play back recorded video and audio segments that have been stored in defined storage locations. You can play back data that has been recorded either on your local Collector or on other remote Workstations or recorders in your ViconNet system. In addition, you can play back data that was recorded manually or that was recorded automatically as a result of an alarm event or a preconfigured schedule. You can playback recorded video and audio either using the *Navigator* window or using the **Quick Playback** option in the *Main* window.

Playback Workflow

The following workflow illustrates how to play back recorded video and audio segments from the ViconNet *Navigator* window. Each step is described in the sections that follow.

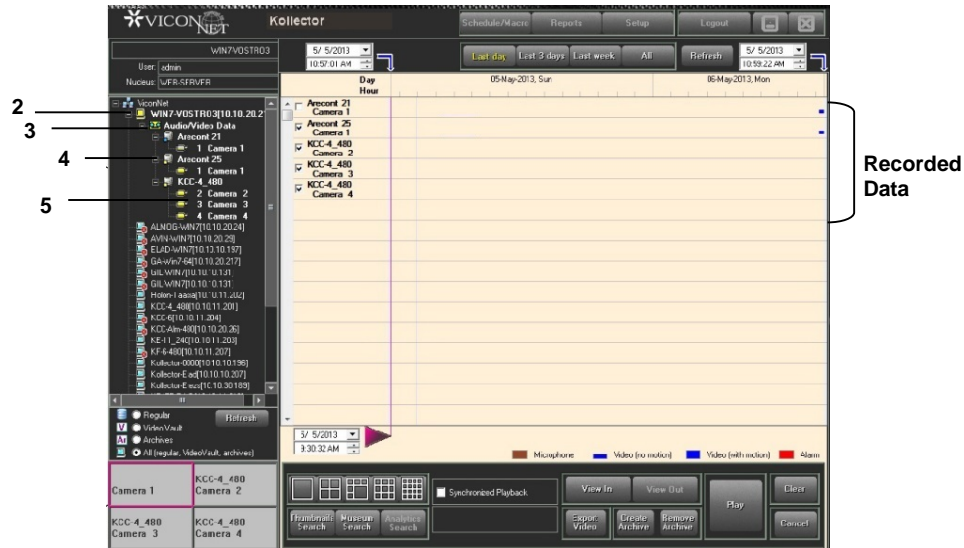


Step 1: Selecting Recorded Video/Audio

The first step for playing back recorded video and audio is selecting the recorded video/audio segment to be played back.

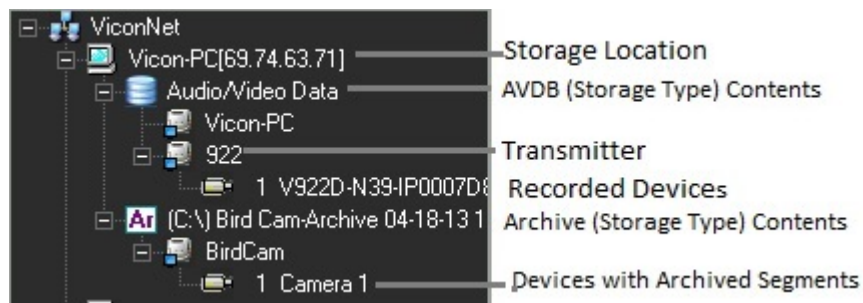
To select recorded video/audio:

1. From the *Main* window, click  The *Navigator* window is displayed, as follows:



2. Expand the *Navigator* list to display a list of the system's available storage locations and archives, if any.
3. Expand a storage location or archive to display the list of connected transmitters.
4. Expand the required transmitter to display the list of recorded cameras and microphones.


Note: You can select (optional) the required viewing option from the *Navigator* List Controls (**Regular**, **Archives**, or **Both**). The *Navigator* list is updated depending on your selection.




5. Select a camera/microphone either from the *Navigator* list or by using standard drag and drop functionality. (A microphone is selected by clicking its list icon.) When you select a device for viewing and playback, a scan of that storage location is performed for that device's recorded data, which is then displayed graphically.

6. To select additional recorded cameras or a microphone, repeat step 5, as required. Each device you select appears in both the **Recorded Device Contents** area and in the **Main Window Display Location** area.

NOTES:

The  button clears the current Navigator window settings.

The  button closes the Navigator window and reinstates the Main window.

Step 2: Selecting the Playback Time Interval

The playback time interval is the range of time for the recorded video and audio segment you want to view and play back.



You can select a specific time period, defined by its start and end time, for the recorded segment(s) by:

- Using one of the time interval tabs, which enable you to select a range of time.
- OR
- Using the time interval controls, which enable you to specify an exact date and time.

If required, repeat the time interval selection with a shorter time interval to zoom in further on the selected recorded segment.

For detailed instructions on how to select the playback time interval, refer to the *Kollector Software Manual*.

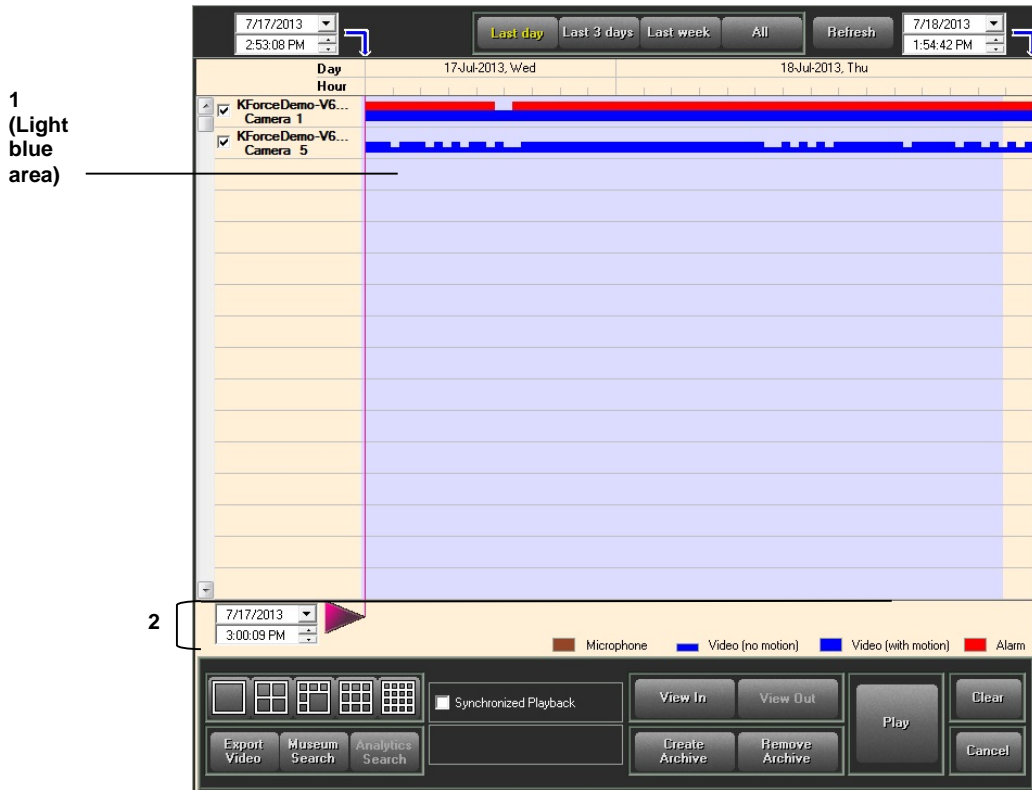
Step 3: Selecting the Playback Start Time

The ViconNet system provides an option to select the playback start time by either zooming in on a specific recorded segment or by selecting the exact playback point in the recorded segment, including hour, minute, and second, if required.

This option enables you to play back only the required portion of the recorded segment instead of having to play the entire segment.


To select the playback start time:

1. (Optional) Zoom in on a specific recorded segment, as follows:
 - In the **Recorded Device Contents** area, position the mouse pointer to the left or right of the recorded segment of which you want to zoom in.
 - Mark the recorded segment by holding down the left mouse button and dragging the mouse pointer over the recorded segment until the blue shading covers the entire recorded segment, as follows:

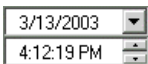


- Click **View In** to zoom in on the marked recorded segment.
- Repeat the previous two sub-steps (mark and zoom) to zoom in further on the selected recorded segment, if required.

NOTE: If you have selected more than one device in the Recorded Device Contents area, all recorded segments for all devices in the marked (shaded) area will be zoomed in on simultaneously.

2. Select the playback start time by using the mouse pointer to click and slide the  pink arrow to the exact location (including the hour, minute, and second) in the recorded segment.

OR

You can also set the playback start time by using the time interval controls  on the bottom-left side of the window.

NOTE: When you click on the pink arrow, a tooltip appears, displaying the date and time of its current location in the recorded segment(s). This enables you to pinpoint the exact playback start time.

Step 4: Displaying Recorded Video/Audio Content

The next step after selecting all the parameters for the recorded video and audio segments of the required cameras and microphones is to view the actual recorded segments in the *Main* window. Each recorded video segment is displayed in a video display location according to the parameters that you selected in the previous steps.

To display recorded video/audio content:

1. In the *Navigator* window, ensure that the pink arrow is positioned at the required playback start time for the selected cameras, as described in the previous step.


NOTE: If you do not need to play back from a specific start time, ensure that the pink arrow is to the far left of the **Recorded Device Contents** area.

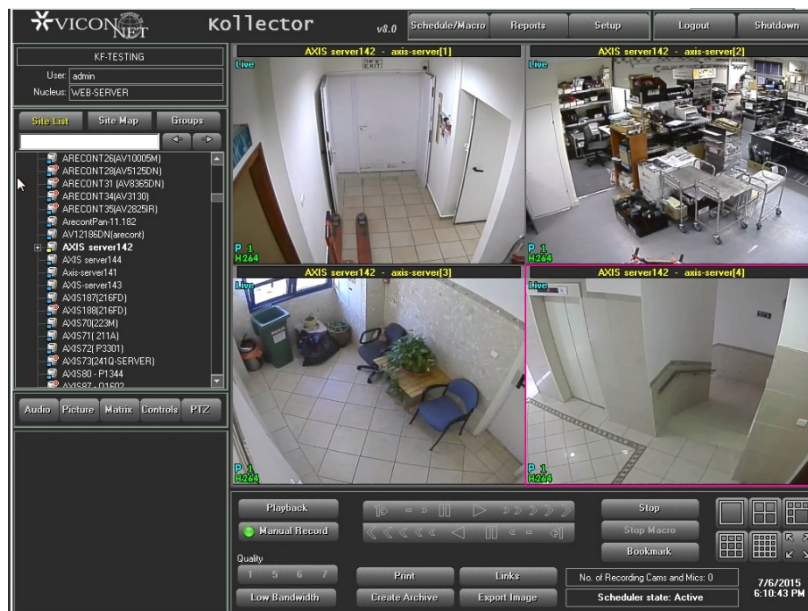
2. (Optional) If you want to play the recorded segments for **all** the selected devices **simultaneously**, select the Synchronized Playback checkbox.

If this option is not selected, then the playback controls will apply to only one selected camera or microphone at a time. That device is selected by clicking its block in the **Main Window Display Location** area. (The selected block has a pink border.) The *Main* window playback controls then apply only to the selected camera/microphone.

NOTE: The **Synchronized Playback** checkbox is selected automatically whenever a microphone is selected.



3. Click . The *Navigator* window closes, and the first frame of the recorded segment(s) for each selected camera and microphone is displayed in the *Main* window in its selected display location, as shown below:




Each recorded segment appears in its selected display location with its camera source information (date, time, and camera name). The segments are paused and the playback controls are now enabled.

Step 5: Playing Back from a Selected Camera/Microphone

The ViconNet system enables you to simultaneously play back recorded video and audio segments in the *Main* window from either a single or all currently displayed recorded cameras or microphones, depending on the selection you made in *Step 4: Displaying Recorded Video/Audio Content*, page 22.

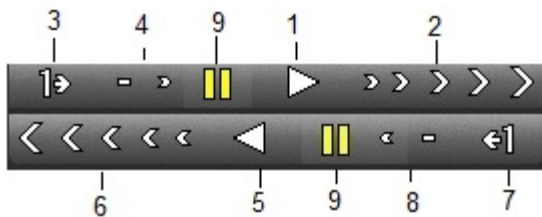
To play back from a selected camera/microphone:

1. In the *Main* window, select the video display location that contains the recorded segment that you want to play back.

2. Click the **Forward** button . The selected recorded segment plays, and the camera source details change accordingly.

If you selected the **Synchronized Playback** checkbox, all the video and audio segments for the displayed cameras/microphone play simultaneously.

3. (Optional) Use the playback buttons to navigate through the recorded segment(s) during playback, as required.

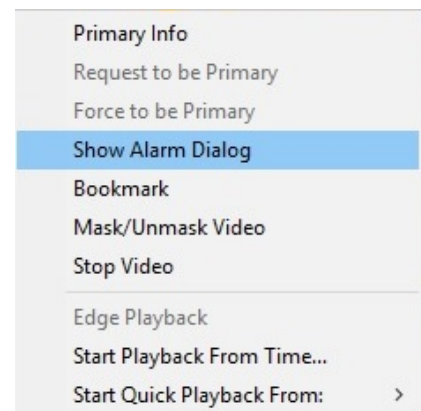


Option	Description
1	Play Forward
2	Forward x2, x5, x10, x50, x100
3	Forward – frame by frame
4	Forward x $\frac{1}{4}$, x $\frac{1}{2}$
5	Play Reverse
6	Reverse x2, x5, x10, x50, x100
7	Reverse – frame by frame
8	Reverse x $\frac{1}{4}$, x $\frac{1}{2}$
9	Pause

Quick Playback

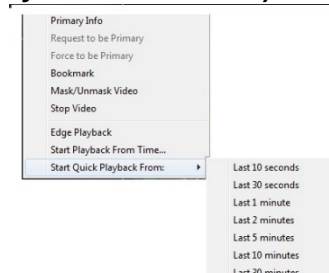
The following options are available for quick playback of videos:

- Start Playback From Time
- Start Quick Playback From
- Edge Playback
- Move Playback To Time
- Cancel Playback



To perform quick playback (Start Quick Playback From, Start Playback From Time):

1. In the *Main* window, right-click in the required camera display location.
2. Select **Start Quick Playback From**, and the number of seconds from the current moment from which you want to play back.



OR

Select **Start Playback From Time**, and a calendar is displayed to select the date to playback the video.

The playback is shown in the adjacent video display location.

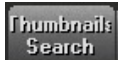
3. Select **Edge Playback** and, if the device allows it, playback will display directly from the device interface.

If no recording is associated with the selected time (for example, the current recording started more recently than one minute ago, or the most updated video is 30 minutes old), a warning is displayed.

To change the play back time or to stop quick playback

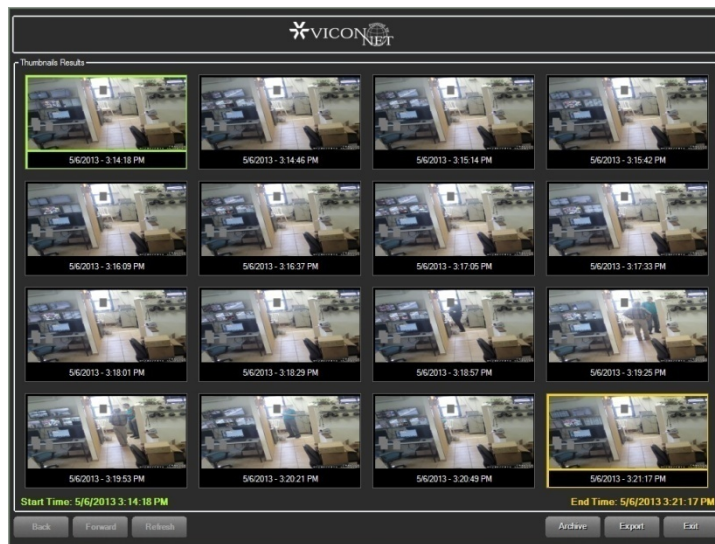
- To playback currently playing video at another time, select **Move Playback To Time**, and a calendar is displayed to select the date to playback the video.
- To stop the quick playback, click the **Stop** button or right-click the camera icon in the site list or the display area and select **Cancel Playback**.

Thumbnails Search

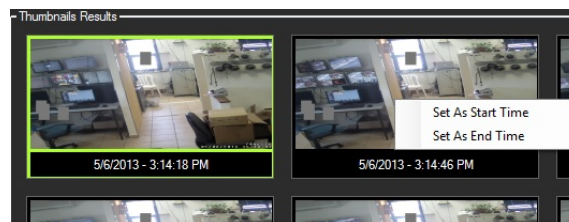


The **Thumbnail Search** button enables you to search a selected video segment on open standard cameras for the exact video required.

4. From the Navigator screen, select a camera and the time interval you want to search. Then click Thumbnail Search. The following screen displays.

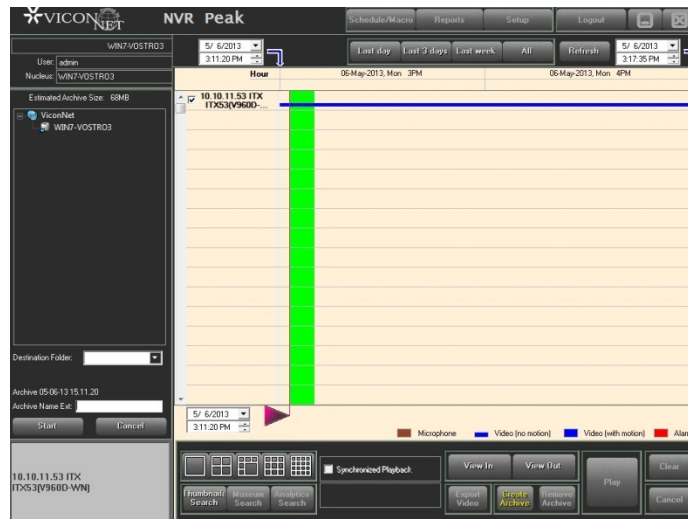


5. This screen displays 16 frames of video from the first display in the time interval selected, outlined in green, to the last, outlined in yellow; the time interval is divided into 16 equal segments of the time interval.
6. The search can be narrowed down by changing the start and end times. Right click on the thumbnail that is to be the new start time. Select *Set As Start Time*; that thumbnail will now be outlined in green. Repeat the procedure for the thumbnail that is to be the new end time and select *Set As End Time*; that thumbnail is not outlined in yellow. Additionally, the end time thumbnail can be selected by holding the Control key on the keyboard and clicking the desired thumbnail. Click the *Refresh* button to distribute this new time interval across the 16 frames. To go back to the previous settings, click the *Back* button; to return to the newer time interval, click the *Forward* button.



- 7.
8. When the time interval has been fine tuned to the exact times required, the video can be archived or exported.

- To archive the video, select the Archive button. The screen will return to the Navigator screen with the time interval shown in green and the Create Archive button highlighted. Select the storage location from the left list and the archive process will start. Refer to the section on the Archive Wizard for details.



Museum Search

The **Museum Search** option enables you to search for activity in a specific camera's data within a defined region of the database. You can locate all the video segments that include a specific difference, for example, a main door opening, or a car being moved.

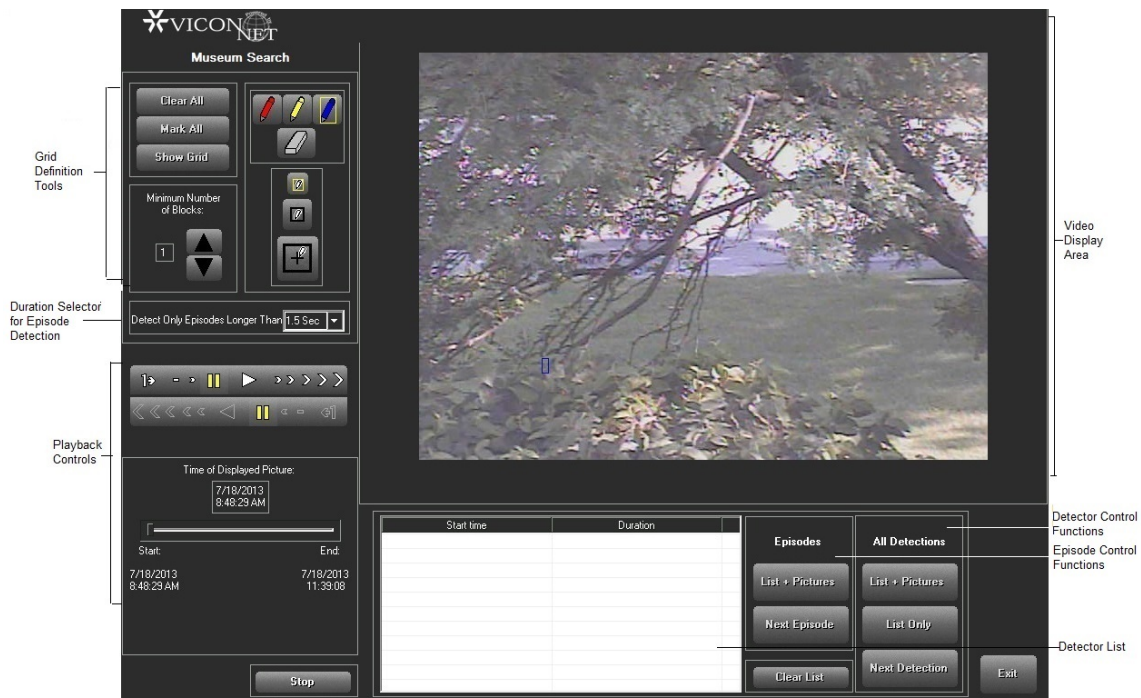
The **Museum Search** option enables you to locate the following types change entities:

- Detections:** Specific frames where significant changes occurred.
- Episodes:** Sets of consecutive frames in which significant changes that determine a unique event are detected.

To perform a museum search:






- In the *Navigator* window, ensure that the required camera and time interval are selected.

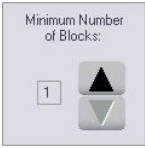
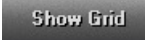

- Click the  button. The *Museum Search* window is displayed.






The **Video Display** area shows the first frame of the selected time interval. (The **Time Range** area shows the selected time interval start and end times.) When the *Museum Search* window is opened, blue-colored grid blocks cover the entire frame in the **Video Display** area, indicating that the change detection mechanism currently applies to the entire frame area.

- If required, navigate to a relevant frame in the segment using the playback controls.
- Define the ROIs relevant for the current search procedures. This is done using the following grid definition tools.


Option	Description
	This button clears all the current colored grid blocks in the view. You can then use the Pencil tool to define grid blocks for specific ROIs within the display view surface.
NOTE: Change detection does not function unless ROIs are identified by colored grid blocks.	
	This button marks colored grid blocks over the entire window surface, meaning that change detection will apply to the entire camera view. You can then use the Eraser tool to remove specific grid blocks.
	Use the Pencil tool to define ROIs by clicking and dragging over the required view area segments, thereby drawing arrays of colored grid blocks.
	Use the eraser tool to erase ROI segments by clicking and dragging over selected grid blocks.
	Use the Tool Size Selectors to select the Pencil/Eraser tool size. According to the selected size, the cursor draws/erases a small (single block), medium (4-block) or large (16-block) width of surface blocks per sweep.

Option	Description
	Use the Minimum Number of Blocks selector to define how many blocks of the colored grid arrays must be simultaneously involved in the change, compared to the reference frame, for a detection to be recognized (most sensitive = 1, least sensitive = 16).
 	Use the Show/ Grid button to apply a gray planning grid to the areas of the window where no ROIs are defined. This grid is for viewing purposes only and does not affect the change-detection process. When selected, the button changes into a Hide Grid button.

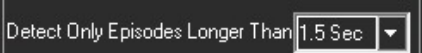
- To find specific frames where changes occurred in already defined ROIs, use the **Detector Control** functions, as follows:

Option	Description
	Starts a search, from the current frame forward, for any frames in which significant differences in ROIs (based on the Minimum Number of Blocks selection) are detected. As each difference frame is detected, the frame image is displayed in the Video Display area.
	Performs the same actions as the List + Pictures button, but does not display the frame images.
	Searches for and display each next frame (one frame each time the button is clicked) in which there is an applicable difference.

You can view selected frames by clicking their start times in the Detection List. The detected differences in the frame are indicated by light blue blocks.



You can clear the Detection list by clicking the  button.

- If you want to find "episodes" (sets of consecutive frames in which a significant difference in ROIs is detected), do the following:

- From the  dropdown list, select the length of time over which changes must continuously occur.

NOTE: The default duration is 1.5 seconds. Values from 0.1 seconds to 5.0 seconds can be selected. In general, the shorter the duration, the more easily episodes will be detected.

- Use the **Episode Control** functions, as follows:

Option	Description
	This button starts a search for episodes, from the current frame forward. As each episode is detected, its first frame image is displayed in the Video Display area.
	This button is used to search for each next episode (one episode each time the button is clicked).

You can run the frames of an episode by clicking on its entry in the Detection List. Light blue blocks indicate the detected differences in the frame.

Video Analytics

The **Analytics Search** option enables you to view a specific camera's detected suspicious activity collected from a specific time period (ViconNet VI must be part of the system). This search button does NOT work with Vicon IQeye embedded analytics.

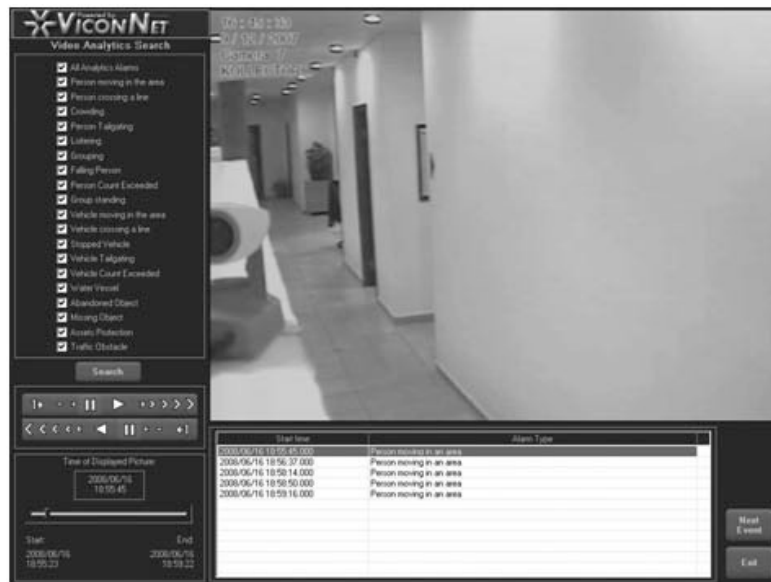
1. In the *Navigator* window, ensure that the required camera is selected. (Only one camera can be selected at a time.)
2. In the **Recorded Devices Content** area, select the required time interval by clicking and dragging.

Day	17-Jun-2008, Tue	18-Jun-2008, Wed
Hour		
<input checked="" type="checkbox"/> KP-240_IFT-RAID Camera 6	[Selected Time Interval]	
<input type="checkbox"/> KP-240_IFT-RAID Camera 4		

Blue shading indicates selected Time Interval



3. Click the **Analytics Search** button. The *Analytics Search* window is displayed.




4. From the list provided, select which behaviors are to be searched for (All Analytics will automatically check all behaviors).
5. Click the **Search** (Search) button. A list of behavior violations will display at the bottom of the screen.
6. Click the event you want to display. A slider visually represents at what point in the selected time span each behavior violation occurred. Click **Next Event** to view the next violation in the list or select another one from the list. **Playback Controls** are displayed and can be used as needed.
7. Click **Exit** to exit the screen.

Note: Video Analytics Engine must be set for this utility to function.

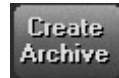
Creating Archives

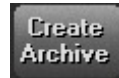
The ViconNet system enables you to create archives, which contain selected recorded data from a video

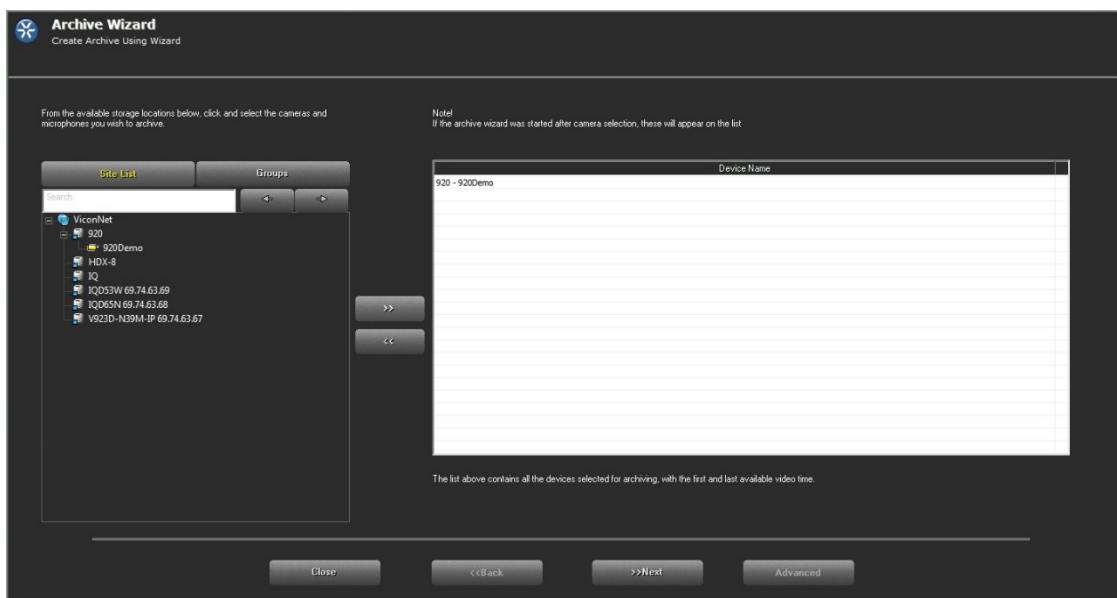


database. Archives can be created simply from the *Main* screen using the  to open the Archive Wizard and selecting the camera's video you want to archive. Archives can also be created from the Navigation list. This consists of selecting the specific devices, the specific recorded data, and the destination location for where you want to save the data. You can then view it at a later time, for example, on another user's Kollektor. Refer to the Kollektor Software manual for complete instructions for this method.

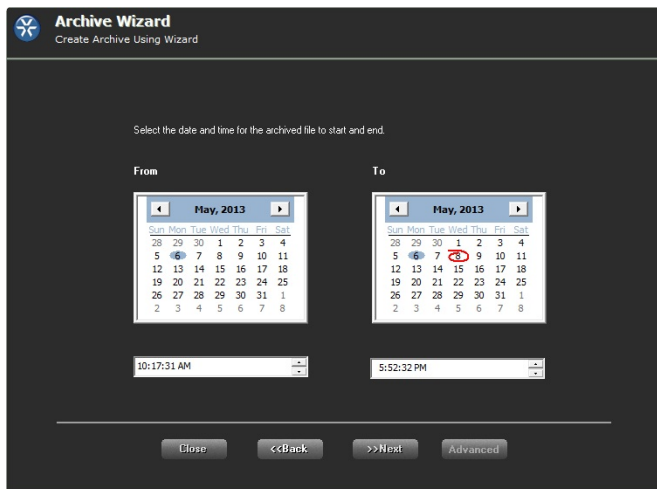
To create an archive from the Main screen:



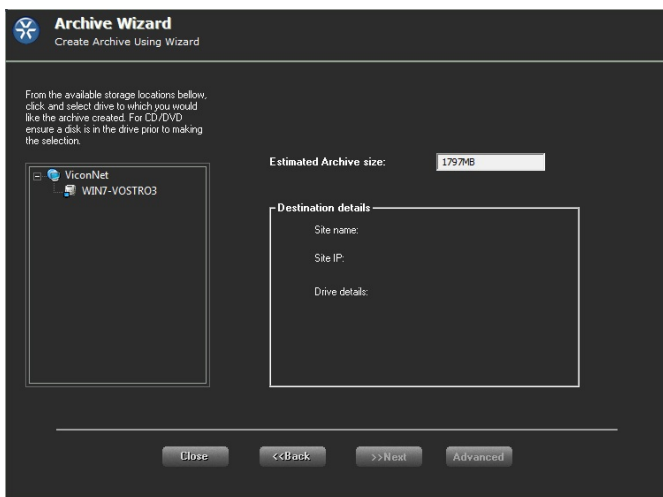
1. To create an archive from the *Main* screen, click . The Archive Wizard screen will display. ViconNet allows you to directly select the camera from which you want to archive video.



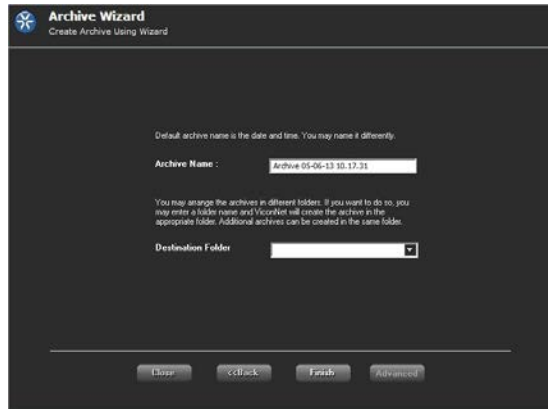
2. Select the devices from the storage list and click  to move them to the list; devices can be removed from the list using the . Click **Next**. The following screen will display.



3. Select the time and date for the archive file to begin and end. Click **Next**. The system will retrieve the data and the following screen will display.

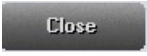


4. Select a storage location for the archive. The estimated file size and detail will display. Click **Next**. The following screen will display.



Name the archive and, if required, a destination folder within the storage location. Click **Finish**. An **Advanced** button is enabled only if archiving to a CD/DVD or thumb drive is selected as the storage location. When Advanced is selected, the following screen will display.



5. Check a box as required for the Archive Player functionality. Select to use autologin or require a user to login to play the archive. Click **Next**.
6. The screen will return to the Main Viconet screen and show the progress of the archiving.
7. When the **Archive completed successfully** message is displayed, as shown, click .



NOTE: After creating an archive, you can perform all playback functions on the archived data in the same way that you can with regular recorded data, as described beginning from the *Selecting Recorded Video/Audio* section, page 19.

To remove an archive:

1. From the *Navigator* list, select the required archive.



2. Click **Remove Archive**. A confirmation prompt is displayed.
3. Click **Yes** to confirm the action. The archive is deleted from the database.

Archive Player

If an archive is saved to a CD or DVD, it can be run like on a player. All the ViconNet files necessary to do this are saved to the CD with the archive.

1. The CD is formatted to autorun. When it displays, the following login screen will display:

A login screen with a dark background. At the top left is a blue circular icon with a white star-like symbol. To its right is the word "Login" in white, followed by the instruction "Enter a user name and password". Below this is a horizontal line. Underneath the line are two input fields: "User Name:" followed by a text box containing "admin", and "Password:" followed by an empty text box. At the bottom, there are three buttons: "Login", "Guest", and "Exit", all in a dark grey color with white text.

Notes:

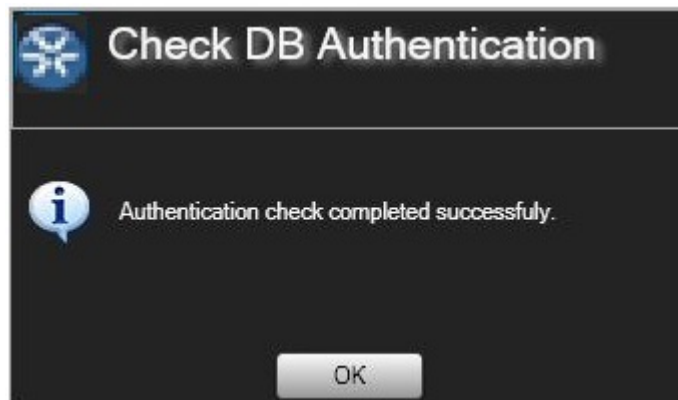
If the login user was unauthorized to playback in the system that the archive was taken from, playing back the archive will be denied.

Login of a user who belongs to another ViconNet network (different Nucleus) will fail.

2. Enter the **User Name** and **Password** and select **Login**. The following screen will display about Authentication.



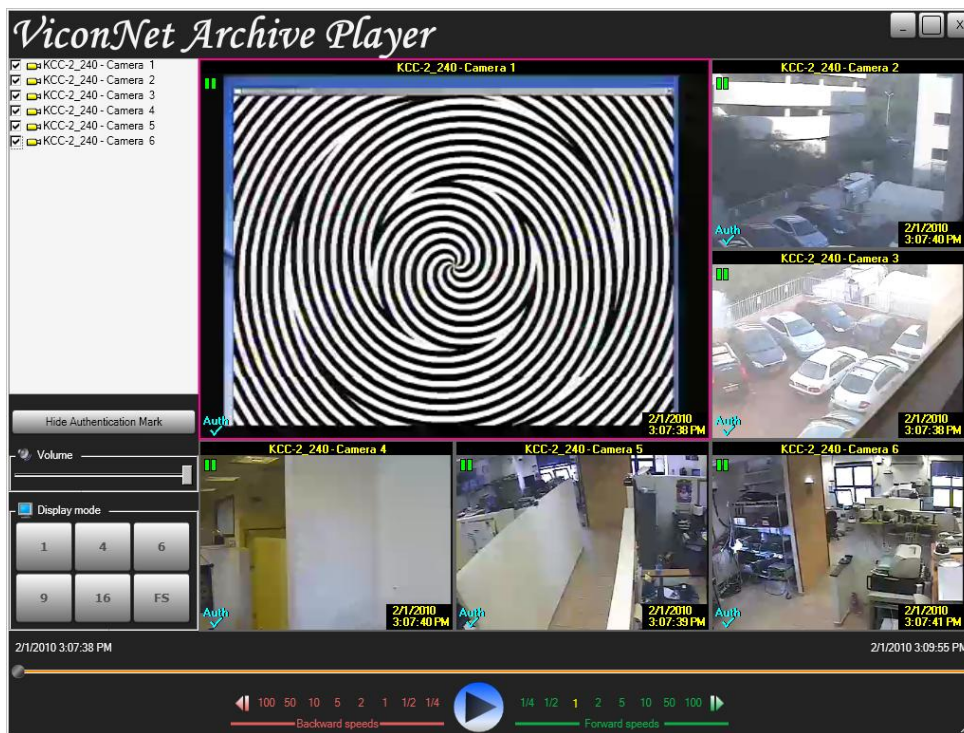
3. If you click **Yes**, the following screens will display:



4. Select **OK**. The Archive Player *Main* screen displays:



5. Select a **Display mode** of 1, 4, 6, 9, 16 or Full Screen (FS). Then check the box next to the camera name for each camera's archive video to display. When the camera(s) is selected, it will display as below and the Forward and Backward play bar will become active.



You can select to hide the authentication symbol by selecting the **Hide Authentication Mark** button. The authentication symbol will be removed from the display and the button will change to **Show Authentication Mark**.



6. Using the play bar, select the speed to play back the video, in forward and reverse.

Chapter 5

Printing/Exporting Frames and Creating Video Clips


Digital recording continuously writes video and audio data to different types of temporary storage. After this temporary storage fills up, the oldest data is overwritten. This chapter describes the methods offered by ViconNet for permanently storing old recorded video and audio data before it is overwritten.

- **Printing Frames**, page 36, describes how to print any frame being viewed in the *Main* window (live or playback).
- **Exporting Frames**, page 37, describes how to save a selected single frame or group of consecutive frames being viewed in playback to any network destination as JPEG images.
- **Creating Video Clips**, page 38, describes how to create a video file from a selected playback segment, which can then be viewed using any standard video viewer.

Printing Frames

You can print out the *Main* window **Video Display** area panel, showing the frames currently being displayed in Live or Playback mode.


To print a selected frame:

1. Display live video (as described in *Chapter 3, Viewing and Listening to Live Video/Audio*) and/or playback the required cameras (as described in *Chapter 4, Playing Back Recorded Video/Audio*).
2. If you require a specific frame from a Playback camera, navigate to the required frame using the playback controls and freeze the view on that frame using the **Stop/Pause** button.
3. Click the  button. A standard *Print* window is displayed.
4. Select the printer and settings.
5. Click **OK** to print out the **Video Display** area panel with its current contents.

Exporting Frames

You can save selected single frames or groups of consecutive frames being viewed in playback to any network destination as JPEG images.

To export a selected frame:

1. Play back the required camera, as described in *Chapter 4, Playing Back Recorded Video/Audio*.
2. In the ViconNet *Main* window, navigate to the required frame using the playback controls and freeze the view on that frame using the **Stop/Pause** button.
3. Click the  button. The *Export Pictures* window is displayed.



4. Enter the required destination path on your network.
5. Specify the number of consecutive frames, including the current frame, from which JPEG images should be created (up to 9999).
6. Enter a base file name in the **File Name** field. (Do not include the file extension. The requested files are automatically named using the base name plus a suffix to denote the applicable frame number.)
7. Click **Save** to save the requested images to the selected location.

NOTE: If **Cancel** is clicked while the *Export* is in process, the frames that were already exported up to that point will not be removed from the destination folder.


Creating Video Clips

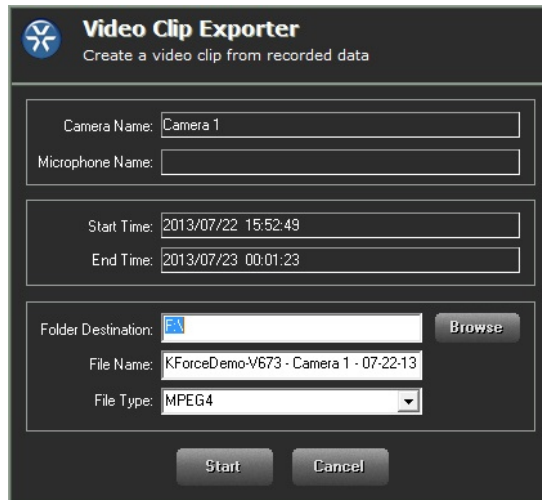
You can create short videos using various video formats from selected playback segments, which can then be viewed using Windows Media Player. The video screen converter utility allows conversion of any video/audio data into a standard/common format, enabling you to view/listen to the data with standard video/audio tools.

Note: This should not be used if you require the ability to authenticate your video in a court of law.

To create a video clip:

1. In the *Navigator* window, select a **single** camera and/or microphone and the required playback time interval, as described in the workflow steps of *Chapter 4, Playing Back Recorded Video/Audio*. (Only one camera in the **Recorded Device Contents** area should have a checkmark.)
2. In the **Recorded Device Contents** area, highlight the recorded segments that you want to create a video clip for by holding down the left mouse button and dragging the mouse pointer over the required segments.

3. Click the  button. The *Video Clip Exporter* window is displayed. Your camera, microphone and time interval selections are shown in read-only fields.



Video Clip Exporter
Create a video clip from recorded data

Camera Name: Camera 1
Microphone Name:

Start Time: 2013/07/22 15:52:49
End Time: 2013/07/23 00:01:23

Folder Destination:

File Name: KForceDemo-V673 - Camera 1 - 07-22-13
File Type: MPEG4

4. Enter the required destination path on your network and a base file name in the **File Name** field. (Do not include the file extension.)
5. Select the File Type from the dropdown list: AVI, MPEG-4, DivX (requires codec installation) or xVid.
Note: Video recorded in MPEG-4 and H.264 compression can only be exported to MPEG-4 or Xvid. Video created from ViconNet compression or a JPEG recording (i.e., open standard cameras) can also create AVI files as well as MPEG-4 or Xvid.
6. Click **Start** to create the video clip at the selected location.

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