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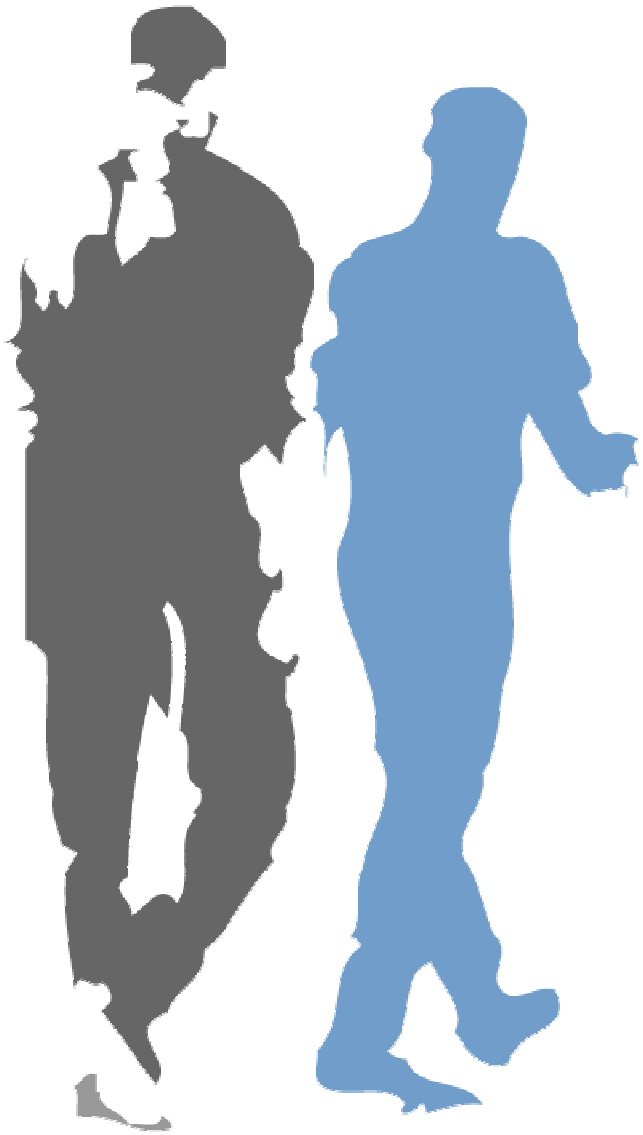
XProtect

Basis+ 6.0

Monitor & Viewer

User's Manual



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Target Audience for this Document

This document is aimed at users of the Milestone XProtect Basis+'s *Monitor* application, including users of the *Monitor* application's *Viewer*.

This document provides users with detailed descriptions of *Monitor* and *Viewer* features. It furthermore provides a number of targeted "how-to" examples, guiding users through completing common tasks.

Note: This document is only relevant if your Milestone XProtect Basis+ system's recording server has been installed as an application (the *Monitor* application). The recording server is a vital part of the surveillance system; recordings are only transferred to Milestone XProtect Basis+ while the recording server is running. The recording server may also be installed as a Windows service; running automatically in the background without any user interface as such. When this is the case, neither the *Monitor* nor the *Viewer* will be available. Consult your surveillance system administrator if in doubt.

Depending on your user rights and your role in your organization, some features in the *Monitor* and/or *Viewer* may not be available to you. Again, ask your surveillance system administrator if in doubt.

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Contents

INTRODUCTION 6

MONITOR 7

Accessing the Monitor 7

Monitor's Camera Layout 7

Image Bars 8

Hot Spot 8

Hot Spot with Carousel 9

Monitor's Control Panel 9

Button Overview 9

Monitoring Audio 12

Running Out of Disk Space! Alert 13

How to Use the PTZ Menu 13

PTZ Menu's Navigation Buttons 13

PTZ Menu's Zoom Buttons and Zoom Slider 14

PTZ Menu's Preset Position Buttons 14

Point-and-Click PTZ Control 14

PTZ On Event 14

VIEWER 15

Accessing the Viewer 15

Toolbar 15

Camera Layout 16

Setting up the Viewer's Camera Layout 16

Selecting Grid Size 16

Assigning Cameras 17

Image Bars 17

Browsing Recordings 18

Time & Date Selector 18

Timeline Browser 18

Browsing Recordings with the Timeline Browser 19

Playback Controls 19
Motion View 19
Browsing Motion Sequences with Motion View 19
Alarm Overview 20
Browsing Recordings with the Alarm Overview.....20
Digital Image Control and Optimization 20
De-Interlacing 20
Zoom Controls.....21
Smoothening and Scaling.....21
How to Store and Recall Views 21
Storing a View.....21
Recalling a View 22
Editing or Deleting a Stored View.....22
How to Print Evidence..... 22
How to Send Evidence via E-mail 22
How to Export Video and Audio Evidence..... 23
How to View Archived Images 24

GLOSSARY 25

INDEX 26

Introduction

If installed, Milestone XProtect Basis+'s *Monitor* application (often just called the *Monitor*) is used for recording and displaying recordings from connected cameras, with optional indications of registered activity.

Depending on user rights and configuration, the *Monitor* may also be used for controlling PTZ (Pan/Tilt/Zoom) cameras, for manually starting and stopping cameras, for manually triggering outputs, etc.

From the *Monitor*, you also have access to the *Viewer* (see page 15), with which you are able to browse and play back recordings, print images, send images via e-mail, and export entire video and audio sequences in a variety of formats.

The exact look and functionality of the *Monitor* depends on how the *Monitor* has been configured by the surveillance system administrator in Milestone XProtect Basis+'s *Administrator* application. Ask your surveillance system administrator if in doubt.

IMPORTANT:

When the *Monitor* application is installed, recordings are only transferred from cameras (and attached microphones) to Milestone XProtect Basis+ while the *Monitor* application is running.

The *Monitor* application **must** therefore run whenever you want to be able to record video and audio from cameras on your surveillance system. A running *Monitor* is also a prerequisite for viewing live recordings in remote access applications.

The *Monitor* application cannot run if the *Administrator* application is already running; close down the *Administrator* application before running the *Monitor* application. Once the *Monitor* application is running, you can run the *Administrator* application as required.

Monitor

Accessing the Monitor

You access the *Monitor* application by clicking the *Monitor* shortcut on the desktop of the server running Milestone XProtect Basis+:

Alternatively, you may access the *Monitor* from Window's *Start* menu, by selecting *All Programs* > *Milestone XProtect Basis+* > *Monitor*.

Depending on your organizations security settings, you may be required to specify a password in order to use the *Monitor*.

When you start the *Monitor*, all cameras scheduled to be online will start transferring images to *Milestone XProtect Basis+*. Scheduling is handled by the system administrator in the *Administrator* application.

However, even if a camera is not scheduled to be online, users with sufficient user rights can start a camera (i.e. make it transfer images to *Milestone XProtect Basis+*) from the *Monitor* by using the *Monitor*'s *Manual Mode* feature. See further information in the description of the *Monitor*'s control panel on page 9).

The *Monitor* application opens in full-screen view. This provides you with the best possible view of the camera images displayed.

The *Monitor* basically consists of two sections:

- A camera layout section, in which camera images are displayed
- A control panel with buttons for controlling the various features of the *Monitor*

Monitor's Camera Layout

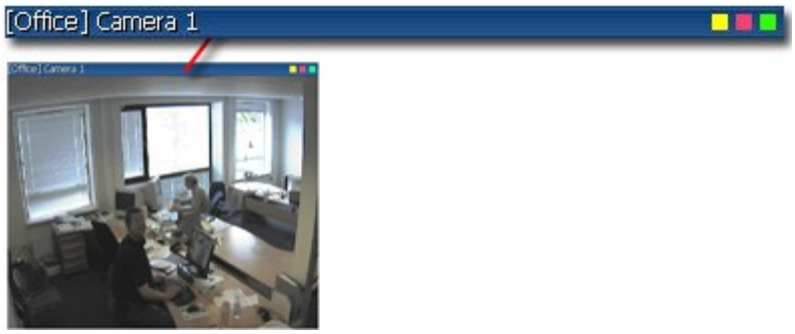
The *Monitor*'s camera layout section displays images from each camera specified by the system administrator.

Depending on the system administrator's settings in the *Administrator* application, the camera layout may contain images from up to 25 different cameras.

Note: A Milestone XProtect Basis+ server is capable of handling images from up to 25 cameras at a time; the *Monitor* can thus display images from a maximum of 25 cameras. However, a single Milestone XProtect Basis+ server may have an unlimited number of cameras *connected to it* even though a maximum of 25 of the connected cameras can be used for recording/live viewing simultaneously. This depends on how the *Monitor* has been configured by your surveillance system administrator in Milestone XProtect Basis+'s *Administrator* application. Ask your surveillance system administrator if in doubt.

Image Bars

Each camera, from which images are displayed in the camera layout, is identified by an image bar, located in the top of each camera image.



The image bar is blue. When you select a particular camera in the camera layout, the image bar of the selected camera image becomes a lighter blue.

The image bar displays the name of the camera as well as the name of the device to which the camera is connected. The device name is displayed first, in square brackets, followed by the camera name.

Each image bar also features three colored indicators:

- *Event indicator (the leftmost of the three indicators, solid yellow)*: Lights up when events specified in the *Administrator* application occur. Click anywhere inside the image to reset the event indicator.

  This indicator may appear black if event indication has not been specified for the camera in question, of if no specified events have occurred. Consult your surveillance system administrator if in doubt.

- *Motion indicator (the indicator in the middle, solid red)*: Lights up when motion is detected in the image. Click anywhere inside the image to reset the motion indicator.

- *Online indicator (the rightmost of the three indicators, blinking green)*: Changes state every time an image is received from the camera.

Hot Spot

If enabled in the *Administrator* application, a hot spot provides you with an enlarged view of images from a selected camera.

When enabled, the hot spot can either appear inside the camera layout, or as a separate floating window:

- If the hot spot is located inside the camera layout, simply click inside an image to select the camera from which you want to view images in the hot spot.

Example of hot spot located inside the camera layout; arrow indicates camera image featured in the hot spot

- If the hot spot runs in a separate floating window, you will see a *HotSpot* button in the *Monitor*'s control panel: When this is the case, simply click the *HotSpot* button to open the separate hot spot window. A hot spot in a separate floating window otherwise works just like a hot spot located inside the camera layout.

Tip: The hot spot may also be used for point-and-click operations on some PTZ (Pan/Tilt/Zoom) cameras. See the description of the *PTZ menu* on page 13 for more information.

Hot Spot with Carousel

Depending on hot spot configuration in the *Administrator* application, the hot spot may automatically display images from all cameras available in the camera layout; one after the other, with specified intervals. This is known as a carousel.

When this feature has been enabled, a *Carousel* button appears in the *Monitor*'s control panel. To toggle the carousel feature on and off, simply click the *Carousel* button.

Monitor's Control Panel

Button Overview

The *Monitor*'s control panel section contains a number of buttons for controlling the *Monitor*'s features:

Button	Description
Viewer	Opens the *Viewer* (see page 15), with which you are able to browse and play back recordings, print images, send images via e-mail, and export entire video and audio sequences in a variety of formats. **Note:** Use of the *Viewer* may require certain user rights. See the description of the *Admin Login* button.
HotSpot	Available only when use of a hot spot in a separate floating window has been set up by the system administrator. Opens the separate hot spot window.
Carousel	Available only when use of the hot spot's carousel feature has been enabled by the system administrator. Click to toggle the carousel feature on and off.
PTZ Menu	Opens the *PTZ menu*, with which you are able to control PTZ (Pan/Tilt/Zoom) cameras. The *PTZ menu* is only functional when the camera selected in the camera layout is a PTZ camera. See detailed description in *How to Use the PTZ* Menu on page 13. **Tip:** To hide the *PTZ menu*, simply click the *PTZ Menu* button again.

Manual Mode	Lets you toggle between scheduled mode (cameras transferring images to Milestone XProtect Basis+ according to a schedule defined in the *Administrator* application) and manual mode. With manual mode, you can start a camera (i.e. make it transfer images to Milestone XProtect Basis+) from the *Monitor*, even if the camera is not scheduled to be online. When manual mode is selected (*Manual Mode* button depressed), three buttons (the *Stop*/*Start* button, the *Start All* button, and the *Stop All* button) become available, enabling you to start and stop cameras manually. **Note:** When in manual mode, all scheduled camera activity for all cameras, including automatic reconnection, is disabled. Use of manual mode may require certain user rights. See the description of the *Admin Login* button.
Stop or **Start**	Available only when the *Manual Mode* button is depressed. Stops the camera selected in the camera layout. When stopped, no images are transferred from the camera to Milestone XProtect Basis+. **Tip:** In the camera layout, the selected camera is indicated by a light blue image bar. When the selected camera is stopped, the button becomes a *Start* button. Click the *Start* button to make the camera transfer images to Milestone XProtect Basis+ again.
Start All	Available only when the *Manual Mode* button is depressed. Starts all cameras, i.e. makes all cameras transfer images to Milestone XProtect Basis+.
Stop All	Available only when the *Manual Mode* button is depressed. Stops all cameras. When all cameras are stopped, no images are transferred to Milestone XProtect Basis+ from any of the cameras.
Output	Displays all available output buttons for the selected camera. Output buttons are used for manually triggering external output, for example for switching on lights, sirens, or similar. When *Output* is selected (*Output* button depressed), any output buttons for the selected camera will be displayed below the *Events* button:

	Simply click an output button to trigger the associated output. Up to eight output buttons can be displayed for each camera. Output buttons are defined in the *Administrator* application. Ask your surveillance system administrator if in doubt about using output buttons defined for use with cameras in your organization.
Events	Displays all available event buttons for the selected camera. Depending on configuration, event buttons can be used for a wide variety of purposes, including triggering combinations of actions. For example, the clicking of an event button could make a camera use a higher frame rate, trigger two different outputs, and send an e-mail alert to three different recipients. Event buttons can be global or tied to a particular camera: • Global: available for all cameras in the *Monitor* • Tied to a particular camera: only available when the camera is selected in the *Monitor* When *Events* is selected (*Events* button depressed), any global event buttons as well as any event buttons for the selected camera will be displayed below the *Events* button: Simply click an event button to trigger the associated event. Up to eight event buttons can be displayed for each camera. Event buttons are defined by the surveillance system administrator in the *Administrator* application. Ask your surveillance system administrator if in doubt about using event buttons defined for use with cameras in your organization.
Quick Browse	Available only when a hot spot is enabled. Lets you browse images from the selected camera in the hot spot. Use the *back* and *forward* buttons below the *Quick Browse* button to move backwards and forwards. **Tip:** The *Viewer* (see page 15) offers more advanced browsing features. **Note:** Use of the Quick Browse feature may require certain user rights. See the description of the *Admin Login* button.

Mute Audio	Lets you mute audio from cameras on which audio is enabled. Recording is not affected by muting audio in the *Monitor*.
Admin Login	For users without administrator rights, access to certain features in Milestone XProtect Basis+ may in some organizations have been restricted. Provided you know the administrator password, the *Admin Login* button lets you access such protected features. Clicking the *Admin Login* button opens the *Administrator Login* window, in which you are able to specify the administrator password and log in to Milestone XProtect Basis+ as an administrator. When you are logged in as an administrator, the *Admin Login* button changes to *Admin Logout*. Clicking the *Admin Logout* button will restore any restrictions.
Administrator	Lets you access Milestone XProtect Basis+'s *Administrator* application. The *Administrator* application is used for configuring Milestone XProtect Basis+ upon installation or whenever configuration adjustments are required, e.g. when adding new cameras to the system. **Note:** Accessing the *Administrator* application from the *Monitor* may require certain user rights. See the description of the *Admin Login* button. When you close the *Administrator* application and return to the *Monitor* application, the *Monitor* application will be restarted. Certain settings, notably settings for PTZ (Pan/Tilt/Zoom) cameras, are not configurable when the *Administrator* application is accessed from the *Monitor* application. To configure such settings, you must close the *Monitor* application and open the *Administrator* application separately.
Exit	Exits the *Monitor;* closing down the application, and thereby stopping the transfer of images from cameras to Milestone XProtect Basis+. You will be asked to confirm that you want to close down the application. **IMPORTANT:** Use with caution. Exiting the *Monitor* will stop recordings. Certain user rights may be required in order to be able to close down the *Monitor*.

Monitoring Audio

If the camera selected in the *Monitor*'s camera layout is recording audio, you are able to listen to live audio through speakers attached to the computer running Milestone XProtect Basis+.

If using a multi-port video server device, audio will always be attached to the first video input on the device.

To mute live audio, click the *Mute Audio* button in the *Monitor*'s control panel. Recording is not affected by muting audio in the *Monitor*.

Running Out of Disk Space! Alert

In order to warn you of an impending possibility of losing data, the *Monitor* will prominently display the message *Running out of disk space!* if available disk space on the Milestone XProtect Basis+ server goes below 150 MB plus 20 MB per camera. Example: For a system with ten cameras, the alert will show if the available disk space goes below 350 MB (150 MB plus 20 MB for each of the ten cameras).

How to Use the PTZ Menu

Note: The PTZ menu is only functional when the camera selected in the *Monitor*'s camera layout is a PTZ camera. Use of the *Monitor*'s *PTZ Menu* may require certain user rights.

Clicking the *PTZ Menu* button in the *Monitor*'s control panel gives you access to a menu for controlling a PTZ (Pan/Tilt/Zoom) camera selected in the *Monitor*'s camera layout.

PTZ Menu's Navigation Buttons

The *PTZ Menu*'s navigation buttons let you move the PTZ camera in steps:

Moves the PTZ camera up and to the left

Moves the PTZ camera up

Moves the PTZ camera up and to the right

Moves the PTZ camera to the left

Moves the PTZ camera to its home position

Moves the PTZ camera to the right

Moves the PTZ camera down and to the left

Moves the PTZ camera down

Moves the PTZ camera down and to the right

PTZ Menu's Zoom Buttons and Zoom Slider

With the *PTZ Menu*'s zoom buttons you are able to control the zoom level of the PTZ camera:

Zoom out (one zoom level per click)

Zoom in (one zoom level per click)

As an alternative to using the zoom buttons, use the slider, located below the two zoom buttons, to control the zoom level.

Note that the slider can be used only with absolute positioning PTZ cameras only.

PTZ Menu's Preset Position Buttons

If preset positions have been defined by your surveillance system administrator in Milestone XProtect Basis+'s *Administrator* application, you are able to move the PTZ camera to the stored preset positions by clicking the preset position buttons displayed in the lower part of the PTZ menu.

Preset position buttons are grouped into five preset banks (A-E) with up to five preset position buttons (1-5) in each.

To use preset positions, first click a preset bank button (A-E) to display the preset position buttons in the required bank, then click the required preset position button (1-5) to move the PTZ camera to the required preset position.

Tip: You may use the A-E and 1-5 keys on your keyboard to move the PTZ camera to preset positions.

Point-and-Click PTZ Control

Point-and-click control is supported for absolute positioning PTZ cameras as well as some relative positioning PTZ cameras, when a hot spot and the *PTZ Menu* are enabled.

If the mouse pointer changes to crosshairs when positioned in the hot spot, you are able to control the PTZ camera by clicking in the hot spot. The PTZ camera will center on the point you click. If you click and hold down the left mouse button, then move the mouse up or down, you will get access to a zoom slider. For some cameras, crosshairs surrounded by a square may be displayed. When this is the case, you are able to zoom in on an area by dragging a square around the required area in the hot spot. For such cameras, zoom level is controlled by holding down the SHIFT key on your keyboard while moving the mouse up or down; this will display a zoom level slider inside the hot spot.

PTZ On Event

PTZ cameras may be set up to move automatically when particular events occur (PTZ On Event). This is configured by the surveillance system administrator in Milestone XProtect Basis+'s *Administrator* application. With PTZ On Event, the PTZ camera will automatically move to a particular preset position when a particular event occurs. For example, the PTZ camera may move to a preset position covering a door area when a door is opened.

Note: PTZ On Event is stopped for all cameras as long as *Manual Mode* is used to allow cameras to be controlled manually.

Viewer

Note: The *Viewer* is only available from the *Monitor* when the surveillance system's recording server has been installed as an *application* (the *Monitor* application). If the recording server has been installed as a *service*, the features described in the following will not be available from the *Monitor* application. Consult your surveillance system administrator if in doubt.

The *Viewer* lets you browse and play back recordings from cameras available in the *Monitor* application (see page 7).The *Viewer* also lets you print images, send images via e-mail, and export entire video and audio sequences in a variety of formats.

Accessing the Viewer

You access the *Viewer* from the *Monitor* application, by clicking the *Viewer* button in the *Monitor*'s control panel (see page 9).

Note: Certain user rights may be required in order to use the *Viewer*; ask your surveillance system administrator if in doubt.

Toolbar

The *Viewer*'s toolbar lets you quickly switch between the *Viewer*'s different features. Icons in the toolbar serve as shortcuts to the features available from the *File* and *Tools* menus in the *Viewer*'s menu bar. When you select a feature in the toolbar, settings for the feature typically become available in the *Viewer*'s control panel, located in the lower part of the window, below the camera layout.

Note: Depending on your rights, not all of the following toolbar icons may be available to you.

***Settings*:** Opens the *Viewer*'s *Settings* control panel, in which you are able to specify settings for the camera layout, and specify the time span for use in the timeline. See also *Setting Up the Camera Layout* on page 16.

***Single View*:** Switches to a single, enlarged view of images from the camera selected in the camera layout. You may also simply double-click a camera in the camera layout to switch between single view and multi-view.

***Multi View*:** Switches to multi-view, displaying all cameras in the selected camera layout view. You may also simply double-click a camera in the camera layout to switch between single view and multi-view.

***Database Information*:** Opens the *Database Information* control panel, in which you select cameras for display in the camera layout. See also *Assigning Cameras* on page 17.

***Motion View*:** Opens the *Motion View* control panel, in which you are able to view a graph displaying sequences with motion. The graph is draggable, allowing you to browse the sequences. See also the description of *Motion View* on page 19.

***Alarm Overview*:** Opens the *Alarm Overview* control panel, in which you are able to view a list of generated motion and event alarms. By clicking alarms in the list, you are able to browse recordings from around the time at which the alarms were generated. See also the description of *Alarm Overview* on page 20.

***Image Controls*:** Opens the *Image Controls* control panel, in which you have access to digital zoom and de-interlacing settings. See also *Digital Image Controls and Optimization* on page 20.

***Export*:** Opens the *Export* control panel, with which you are able to export entire video and audio sequences in different formats. See also *How to Export Video and Audio Evidence* on page 23.

***Print*:** Opens the *Print* control panel, from which you are able to print images from the camera selected in the camera layout. See also *How to Print Evidence* on page 22.

***Send E-mail Report*:** Opens the *Send E-mail Report* control panel, from which you are able to send evidence via e-mail. See also *How to send Evidence via E-mail* on page 22.

***Transact*:** Opens the *Transact* control panel, from which you are able to specify settings for the Milestone XProtect Transact add-on product for handling loss prevention through video evidence combined with time-linked POS or ATM transaction data.

Note: The Transact toolbar icon is only available if the Milestone XProtect Transact add-on product is used with your surveillance system. For more information about using Milestone XProtect Transact in the *Viewer*, see separate Milestone XProtect Transact documentation.

***Help*:** Lets you view the Viewer's built-in help.

Camera Layout

The camera layout is the area of the *Viewer* in which you view images. The camera layout section may display images from up to 16 different cameras at a time.

Setting up the Viewer's Camera Layout

You can configure the camera layout to suit your exact needs: First specify the camera layout's grid size (i.e. how many camera slots you want the camera layout to contain), then specify which camera to use in each camera slot.

Selecting Grid Size

To specify how many camera slots you want in the camera layout, do the following:

1. Click the *Settings* icon in the *Viewer*'s toolbar. This will open the *Settings* control panel.

2. In the *Settings* control panel's *Layout* list, select the required camera layout grid: 1×1, 2×2, 3×3 or 4×4. With a 4×4 grid, you will be able to display images from 16 cameras simultaneously in the camera layout.

3. Assign cameras to the camera layout's camera slots, as described in the following.

Assigning Cameras

Having specified the required grid size for the camera layout, assign cameras to the camera layout's camera slots the following way:

1. Click the *Database Information* icon in the *Viewer*'s toolbar. This will open the *Database Information* control panel.

2. Select a camera slot in the camera layout by clicking the required slot.

3. In the *Database Information* control panel's *Video Feed*, select the camera you want to assign to the selected slot.

   An image from the selected camera will show up in the selected slot (unless the selected time happens to be before the first recorded image from the camera).

   Tip: Your cameras may not all transfer images in a size that exactly matches the size of the camera layout's slots. This may result in black bars around images from some cameras when displayed in the camera layout. If you want to adjust the images from all cameras to fit the camera layout's camera slots, select the *Stretch Images To Fit* check box in the *Settings* control panel. This may distort some images slightly, but will help you avoid any black bars around images.

4. If audio is enabled, you may also select a microphone from the *Audio Feed* list, in which case recordings from the selected microphone will be coupled with recordings from the selected camera.

5. Repeat for all cameras you want displayed in the camera layout.

Image Bars

Each camera slot in the camera layout is identified by an image bar, located in the top of each camera slot.

The image bar is blue. When you select a particular camera in the camera layout, the image bar of the selected camera image becomes a lighter blue.

The image bar displays the name of the camera as well as the name of the device to which the camera is connected. The device name is displayed first, in square brackets, followed by the camera name.

Each image bar also features two colored indicators:

- *Motion indicator (the left indicator, red)*: Lights up during periods of motion.
- Online indicator (the right indicator, green): Lights up during periods with recordings.

You are able to save particular configurations of the camera layout as so-called views, and switch between them using the *Views* menu in the *Viewer*'s menu bar.

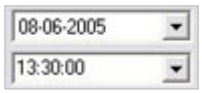
For example, you may store one view displaying images from 16 cameras and another view displaying images from eight other cameras.

See *How to Store and Recall Views* on page 21.

Browsing Recordings

With the *Viewer*, you are able to browse recordings in five different ways. Each is described in the following:

Time & Date Selector



Using the time & date selector, it is possible to jump straight to recordings from a specific point in time.

Simply select the required date in the date field, and the required time in the time field.

Tip: You are able to overwrite the fields' date and time values.

Having used the data & time selector to jump to recordings from a specific point in time, you are able to use e.g. the timeline browser or the playback controls to browse through recordings from around the specified point in time.

Timeline Browser

The timeline browser displays an overview of periods with recordings from all cameras displayed in your current camera layout.

The number of timelines displayed in the timeline browser reflects the number of cameras displayed in the camera layout you are viewing. The timeline of the camera selected in the camera layout is highlighted.

The timeline browser uses the following colors:

Red (●): Recordings with motion

Green (●): Recordings without motion

Black (●): Periods without recordings

Yellow (●): Audio recordings

The timeline browser's white horizontal line indicates the point in time from which recordings are being displayed in the camera layout. The area between the timeline browser's two blue horizontal lines is a magnification of the 30 seconds preceding and following the point in time from which recordings are being displayed in the camera layout.

You are able to specify which time span (1 hour, 2 hours or 12 hours) should be used in the timeline, and whether the newest recordings should be indicated at the top or at the bottom of the timeline. You specify this in the *Settings* control panel.

Tip: Use 1-hour or 2-hour time spans for the best possible overview of recordings.

Browsing Recordings with the Timeline Browser

To browse recordings using the timeline browser, click inside the timeline browser, and move your mouse up or down without releasing the mouse button. Browsing is fast when clicking outside the magnification area, and slow when clicking inside the magnification area.

Playback Controls

The *Viewer*'s playback controls are used for browsing and playing recordings, just like on a video recorder

Click or to browse to the oldest or the most recent recordings from the selected camera.

Click or to browse to the previous or next motion sequence from the selected camera.

Click or to browse to the previous or next image from the selected camera.

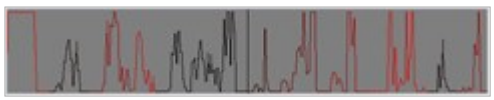
Use to start and stop playback. When playback is started, all cameras in the camera layout will play back recordings.

Use

to control the playback speed. When the slider is in its middle position, playback is real-time, regardless of the recorded frame rates.

Motion View

Motion view lets you view a graph displaying sequences of recordings from the selected camera. The motion levels indicated in the graph can be used as an indication of what has been recorded.



The graph is draggable, allowing you to browse the sequences.

To use motion view, click the *Motion View* icon in the toolbar to open the *Motion View* control panel, in which the draggable graph is displayed.

A change in the color of the graph indicates the start of a new motion sequence.

The black vertical line at the center of the graph indicates the point in time from which recordings are being displayed in the camera layout.

Browsing Motion Sequences with Motion View

To browse recordings using motion view, click inside the graph area, and move your mouse sideways to browse recordings.

Images are updated when you release the mouse button.

Alarm Overview

Alarm overview lets you view a list of sequences with detected motion or events for a selected camera.
Listed motion sequences or events are clickable, allowing you to quickly jump to the time at which motion was detected or an event occurred.

To use the alarm overview, click the *Alarm Overview* icon in the toolbar to open the *Alarm Overview* control panel, in which the list is displayed.

By default, the list shows motion sequences from the most recent database for the selected camera.

If you want to view a list of sequences from archived databases as well, click the *Alarm Overview* control panel's *Get All* button.

In addition to listing motion sequences, the *Alarm Overview* control panel can also display a list of occurred events (the camera's event log).

To toggle between viewing a list of motion sequences and a list of occurred events, click the *Alarm Overview* control panel's *Sequences* and *Events* buttons.

Browsing Recordings with the Alarm Overview

To view recordings from the time at which motion was detected, or an event occurred, select the required sequence/event in the list.

When you select a sequence/event in the list, the camera layout will display images matching the exact time of the motion detection or event.

To view what took place prior to and after the motion detection or event, use the timeline browser or playback controls to browse recordings from around the time of the motion detection or event.

Digital Image Control and Optimization

With the *Viewer*'s *Image Controls* control panel, you are able to adjust the image selected in the camera layout.

The *Image Controls* control panel also lets you view areas of the selected image in greater magnification.

To access the *Image Controls* control panel, click the *Image Controls* icon in the toolbar.

De-Interlacing

Interlacing is a method determining how an image is refreshed when shown on a screen.

With interlacing, the image is refreshed by first scanning every other line in the image, then scanning every opposite line, and so forth. Interlacing thus allows for a faster refresh rate because less information must be processed during each scan. However, in some situations, interlacing may cause flickering, or the changes in only half of the image's lines for each scan may be noticeable.

If images from the selected camera are interlaced, you are able to de-interlace the image by viewing only odd or even lines in the image.

Zoom Controls

With the zoom controls, you are able to view areas of the selected image in greater magnification.

Use the large *zoom in* and *zoom out* buttons to find the required zoom level.

When you have zoomed in on an area of an image, you are able to move around within the zoomed image by clicking the arrow buttons.

To quickly return to normal view of the selected image (i.e. without zoom), click the *H* (i.e. home) button.

Tip: To move around within the zoomed image, you may also simply click and drag the image in the required direction.

Smoothening and Scaling

To digitally smoothen images from the camera, select the *Smooth Images* check box.

To display images from the selected camera in the resolution they were recorded in, select the *Scale 1 : 1* check box.

If images are larger than the resolution available in the camera layout's camera slot, they will be reduced in size to fit the camera slot.

The correct aspect ratio will be maintained when reducing size this way.

How to Store and Recall Views

You are able to save particular configurations of the camera layout as so-called views, and switch between them using the *Views* menu in the *Viewer*'s menu bar.

For example, you may store one view displaying images from 16 cameras and another view displaying images from eight other cameras.

Storing a View

To store your current camera layout as a view, do the following:

1. In the *Viewer*'s menu bar, select the *Views* menu.
2. In the *Views* menu, select the *Add to Views...* command. This will open the *Name of View* window:

3. In the *Name of View* window, specify a name for the view, and click *OK*.

4. The view will now be selectable in the *Views* menu.

   If storing several different configurations of the camera layout as views, you will thus be able to switch between them using the *Views* menu.

Recalling a View

To recall a stored view, simply select the required view in the *Views* menu.

Editing or Deleting a Stored View

To edit or delete stored views, select *Organize Views...* in the *Views* menu.

This will open the *Views* control panel, in which you are able to rename views, change the sequence in which stored views appear in the menu, and delete views.

How to Print Evidence

To print evidence from the *Viewer*, use the following procedure:

1. Select the required camera in the camera layout (see page 16), and browse to the image you want to print.

2. Click the *Print* icon:

   This will open the *Print* control panel:

3. Fill in the *Operator's Note*, *Company*, and *Operator* fields.

4. Click the *Print* button to print the evidence on your default Windows printer.

   The printed surveillance report will contain the selected image, information about camera name, image capture time and report print time as well as the specified operator's name and operator's note.

How to Send Evidence via E-mail

Note: The e-mail feature must be set up by the surveillance system administrator before you can use it. Consult your system administrator if in doubt.

To send evidence from the *Viewer* via e-mail, use the following procedure:

1. Select the required camera in the camera layout (see page 16), and browse to the image you want to send via e-mail.

2. Click the *Send E-mail Report* icon:

   This will open the *E-mail Report* control panel:

3. Type the e-mail address of the recipient.

   If sending to several recipients, separate e-mail addresses with a semicolon (example: aa@aa.aa;bb@bb.bb).

4. Type a subject text for the e-mail.

5. Verify that the *Image* field lists the camera you require.

6. Type a message, typically a description of the recorded incident.

7. Click the *Send* button.

How to Export Video and Audio Evidence

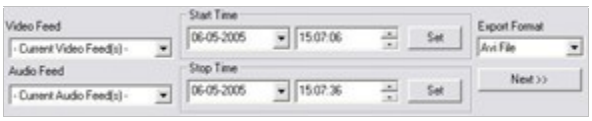
You are able to export entire video and audio sequences in different formats:

- AVI file (movie clip)
- JPG/WAV files (image/audio clip)

To export evidence from the *Viewer*, use the following procedure:

1. Click the *Export* icon:

   This will open the *Export* control panel.

2. In the *Export* control panel's *Video Feed* and *Audio Feed* lists, select the camera and—if required—microphone you want to export.

   Tip: With the options *Current Video Feed(s)* and *Current Audio Feed(s)* you can batch export all cameras and microphones in your current view.

3. Browse to the required start time for the export, and click the *Start Time* section's *Set* button.

4. Browse to the required stop time of the export, and click the *Stop Time* section's *Set* button.

5. Select required *Export Format*, click the *Next* button, and follow **one** of the procedures described in the following. Note that procedures vary depending on the selected export format.

Export format: AVI File

a. Select required *Export Path* (if you keep the default setting, the files will be exported to an *Exported Images* folder on your desktop).

b. Select required frame rate.

   Full will export all images to the AVI file. *Half* will reduce the size of the AVI file by only exporting every second image, yet still play back in real-time speed.

c. Select whether timestamps from the surveillance system should be added to the AVI file.

d. In the *Codec* list, select the video codec (compression/decompression technology) you want to use for generating the AVI file.

   The *Codec* list only lists codecs supporting the resolution of the camera.

   Tip: If available, the codec *Indeo® Video 5.10* is recommended.

e. Click *Next* to start the export.

Export format: JPG/WAV files

a. Select required *Export Path* (if you keep the default setting, the files will be exported to an *Exported Images* folder on your desktop).

b. Select whether timestamps from the surveillance system should be added to the exported JPGs.

c. Click *Next* to start the export.

How to View Archived Images

With Milestone XProtect Basis+'s archiving feature (configured by the surveillance system administrator in Milestone XProtect Basis+'s *Administrator* application), it is possible to keep recordings for as long as required, limited only by the available hardware storage capacity.

Archived recordings can be viewed using the *Viewer*, allowing you to use all of the *Viewer*'s features for image browsing for archived recordings as well. The way in which you find the archived images to view varies slightly depending on how the archives are stored.

For archived images stored locally on the computer running Milestone XProtect Basis+, you simply use the *Viewer*'s image browsing features, for example the timeline or the playback controls, for finding and viewing the required images; just like you would with images stored in a camera's regular database.

For exported archives, e.g. archives stored on a CD, you click the *browse* button in the *Viewer*'s *Database Information* control panel to browse for the archive you want to view. Once you have specified the required archive this way, you can use all of the *Viewer*'s image browsing features for navigating the images in the archive.

Glossary

A

ATM: Abbreviation for Automatic Teller Machine, i.e. a cash dispenser.

AVI: A popular file format for video. Files in this format carry the .avi file extension.

B

Browser: Occasionally used when referring to the *Monitor* application's *Viewer* feature, as the feature was formerly known under the name "Browser."

C

Carousel: Feature for displaying images from several cameras, one after the other, in a single camera slot. The required cameras as well as the intervals between changes are specified by the surveillance system administrator. If configured, the carousel feature is available in the *Monitor* application.

Codec: A technology for compressing and decompressing audio and video data, for example in an exported AVI file. MPEG and Indeo are examples of frequently used codecs.

H

Hot Spot: A particular position in for viewing enlarged camera images in the *Monitor* application.

J

JPEG: An image compression technology, named after the Joint Photographic Experts Group. Files created with JPEG compression usually carry the .jpg file extension.

P

POS: Also PoS. Abbreviation for Point of Sale.

PTZ: Pan/Tilt/Zoom; a highly movable and flexible type of camera.

R

Recording: In IP video surveillance systems, the term *recording* means *saving video and, if applicable, audio from a camera in the camera's database on the surveillance system*. In many IP video surveillance systems, all video/audio received from cameras is not necessarily saved. Saving of video and audio in a camera's database—recording—is in many cases started only when there is a reason to do so, for example when motion is detected, when an event occurs, or when a specific period of time begins. Recording is then stopped after a specified amount of time, when motion is no longer detected, when an event occurs, when a time period ends, or similar. The term originates from the analog world, where video and audio was not taped until the record button was pressed.

T

Transact: Product available as an add-on to Milestone XProtect Basis+. Transact handles loss prevention through video evidence combined with time-linked POS or ATM transaction data.

Index

—A—
Absolute Positioning 14
Admin Login 12
Administrator Application 6, 7, 8, 10, 11, **12**
Administrator Application, Accessing from Monitor 12
A-E (Preset Bank Buttons) 14
Alarm Overview Control Panel, Viewer's 16, **20**
Archived Images, How to View in Viewer 24
Archiving 24
Audio 12, **17**, 18, **23**
AVI **23**, 24, 25
—B—
Browser 25
—C—
Camera Layout, Monitor's 7
Camera Layout, Viewer's 16
Cameras, Starting in Monitor 10
Cameras, Stopping in Monitor 10
Carousel 9, 25
Codec 24, 25
Crosshairs 14
—D—
Database 20
Database Export 23
Database Information Control Panel, Viewer's 15, 17, 24
De-Interlacing 20
Disk Space, Running Out of 13
—E—
E-mail 16, **22**
E-mailing Evidence 22
Event Buttons **11**
Event, PTZ On 14
Events 11, 16, 20
Events Button, in Viewer's Alarm Overview 20
Evidence, Exporting Video and Audio 23
Evidence, Printing 22
Evidence, Sending via E-mail 22
Exit 12
Export 16, **23**

Export Control Panel, Viewer's 16, 23
Export, Database 23
—F—
Frame Rate 19, 24
—G—
Get All Button 20
Glossary 25
Graph 19
—H—
Hot Spot 8, 9, 25
—I—
Image Bars, Monitor's 8
Image Bars, Viewer's 17
Image Controls Control Panel, Viewer's 16, 20
—J—
JPG **23**, 24, 25
—L—
Layout Size, Viewer's 16
Logging In 7
Logging In, Administrator 12
—M—
Manual Mode 10
Milestone Offices 30
Motion View Control Panel, Viewer's 16, **19**
Multi View, Viewer 15
Mute Audio 12
—N—
Navigation Buttons, PTZ 13
—O—
Output 10
Output Buttons **10**
—P—
Pan/Tilt/Zoom 9, 12, **13**, 25
Password 7, 12
Playback Controls, Viewer's 19
Playback Speed 19
Point-and-Click PTZ Control 14
Preset Bank Buttons 14
Preset Positions 14
Print Control Panel, Viewer's 16, **22**
Printing Evidence 22
PTZ 9, 12, **13**, 25
PTZ Menu 9, **13**
PTZ Navigation Buttons 13

PTZ On Event 14
PTZ Patrolling 14
PTZ Point-and-Click 14
PTZ Preset Position Buttons 14
PTZ Zoom Controls 14
—Q—
Quick Browse 11
—R—
Recalling View in Viewer 21
Relative Positioning 14
Running Out of Disk Space! 13
—S—
Scale One-to-One 21
Send E-mail Report Control Panel, Viewer's 16, **23**
Sending Evidence via E-mail 22
Sequences Button, in Viewer's Alarm Overview 20
Settings Control Panel, Viewer's 15, **16**, 18
Single View, Viewer 15
Smooth Images 21
Start All 10
Start Button, Monitor's 10
Starting Cameras in Monitor 10
Stop All 10
Stop Button, Monitor's 10
Stopping Cameras in Monitor 10
Storing View in Viewer 21
Stretch Images to Fit 17
—T—
Target Audience 2
Time & Date Selector, Viewer's 18
Timeline Browser, Viewer's 18
Toolbar, Viewer's 15
Transact 16, 25
—V—
Video Server 12
Viewer Button, Monitor's 9
Viewer, How to Export Video and Audio in 23
Viewer, How to Print Evidence in 22
Viewer, How to Send Evidence via E-mail in 22
Viewer, How to View Archived Images in 24
Views, How to Store and Recall in Viewer 21
—W—
WAV 23, 24

—Z—

Zoom Controls, PTZ 14
Zoom Controls, Viewer's 21

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