MAKE THE
WORLD SEE

Date: October 2021

User Guide

OnGuard OpenVideo Integration

milestone

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Document information

Project Name	Milestone XProtect to OnGuard Integration User Manual
Document Version	2.3

Document revision history

Revision Date	Author	Summary of changes	Changes marked
2011-10-17	SR	Initial version for OnGuard 6.3	1.0
2012-05-09	SR	Support for OG v6.4 and XPCO 5.0	1.1
2013-04-02	SR	Support for OG v6.5, v6.6	1.2
2013-05-27	SR	Support for XPCO 6.0, Expert	1.3
2014-12-03	JFM	Support for XPCO 2014, OnGuard 6.6, 7.0 Added support for Camera Import feature Added support for PTZ Preset import	1.4
2016-12-07	JFM	Support for XPCO 2016, OnGuard 7.1, 7.2, 7.3	1.5
2018-01-18	SRB	Support for: • XProtect Corporate 2017 R1/R2/R3 • XProtect Professional+ 2017 • XProtect Expert 2017 • XProtect Express+ 2017 Support for OnGuard 7.4	1.6
2018-11-30	MAE	Added support for: • XProtect 2018 R1/R2/R3 Support for OnGuard 7.5	1.7
2019-08-28	SRB	Removed MilestoneCfgGen command-line tool references. Added Version Compatibility section. Removed references to OnGuard versions prior to 7.1. New document template.	1.8
2019-09-24	SRB	Added support for XProtect Recording Servers Encryption (2019 R1 and up) Replaced Milestone 3.5 SDK with MIPSDK 2019R1	2.0
2020-02-06	SRB	Updated Version Compatibility section	2.0
2020-03-30	SRB	Added Failover support	2.1

2020-10-13	SRB	Added support for OnGuard 8.0 Added support for OnGuard web apps. New Installer	2.2
2021-06-04	MJT	Added several issues to Troubleshooting section. Expanded “Adding Recorder” sub-topic. Updated Supported Versions, Prerequisites, and Camera Tours.	2.3
2021-10-18	MJT	Added the ability to login to a specific virtual port when connecting XProtect to OnGuard. Changed the file location for XProtect plugins installed on OnGuard systems. Fixed memory bug when connecting multiple XProtect Recording Servers, among others.	2.4

Introduction

This document describes steps to integrate Milestone X-Protect Video Management System with OnGuard Access Control System.

The purpose of the integration is to enable users to view live and recorded Milestone video from inside the OnGuard user interface. The integration will allow users to view OnGuard data and Milestone video from a single integrated console instead of requiring two consoles, one to view OnGuard information and another to view Milestone video.

This integration will provide access to basic features of the Milestone VMS from inside OnGuard. To access the complete and extended features of the Milestone Video Management System, use the stand-alone Milestone Smart Client application.

OnGuard Version Compatibility

The Milestone XProtect® Integration with OnGuard has been tested according to the following table.

OnGuard	XProtect 2018	XProtect 2019			XProtect 2020			XProtect 2021
	R3	R1	R2	R3	R1	R2	R3	R1
7.3	S	S	S	S	S	T	S	S
7.4	S	S	S	S	S	T	T	T
7.5	S	S	S	S	S	S	S	T
7.6	S	S	S	S	S	T	T	T
8.0	T	S	T	S	S	T	T	T

T: [Tested]. Fully tested and supported.
S: [Supported] Tests were done to make sure the integration is compatible.

OnGuard and Oracle Database Compatibility

The Milestone XProtect® OpenVideo integration with OnGuard is not compatible with an OnGuard system that uses an Oracle database. The only compatible and supported database technology for use with this integration is Microsoft SQL Server.

Using an Oracle database with OnGuard in an option supported by LenelS2, however, the Milestone XProtect OpenVideo integration does not support OnGuard systems that use Oracle databases.

XProtect Version Support

Here is the XProtect version compatibility matrix between Milestone Yearly Release Versions and Milestone XProtect VMS Product Versions.

XProtect Version	XProtect Express+	XProtect Professional+	XProtect Expert	XProtect Corporate
XProtect 2018 R3	S	S	S	S
XProtect 2019 R1-R3	S	S	S	S
XProtect 2020 R1-R3	S	S	S	S
XProtect 2021 R1	S	S	S	S

S: [Supported]	XProtect is fully tested and supported in these versions
U: [Unsupported]	XProtect is not supported in these versions

Feature Matrix

Video feature	"X" indicates supported	Notes
Live Video	X	
Text Overlay	Not Supported	No plans to support this.
Pre-recorded Video Playback	X	
Status	X	
Export To AVI	Not Supported	MKV is supported. AVI is available with XProtect Smart Client.
Time Synchronization	X	
Record Start (On Demand)	Not Supported	
Frame Rate Adjustment	Not Supported	Needs setup in Milestone
Record Stop (On Demand)	Not Supported	Needs setup in Milestone
PTZ	X	
Video Alarms	X	See alarms table below.
Video Tour	X	OnGuard implements tours
Video View Up To 16 Cameras	X	
Presets & Patterns	X	Presets only
View Live & Recorded Video from multiple cameras	X	
PTZ Presets & Presets based on event, alarm input	X	
Replay Up To 4 Cameras for same Time Interval	X	
Toggle Video Window Size from 1x to 4x	X	

Display Up To 4 Live Video Windows based on Event	X	
Original Recorded Video Cannot be Altered	X	
Playback and Recorded Video in one window	X	
Bi-directional Actions	Not Supported	
Camera Import into OnGuard	X	Added in v1.4
Preset Import into OnGuard	X	Added in v1.4
XProtect Recording Server data encryption	X	Added in v2.0
OnGuard web apps	X	Added in v2.2
Connect XProtect server on a specific virtual port	X	Added in v 2.4

Supported alarms:

OnGuard alarm	Milestone Event Source
L_VIDEO_MOTION_DETECTED	MotionStarted
L_VIDEO_MOTION_DETECTED_RESTORED	MotionStopped
L_VIDEO_DISK_FULL	DatabaseDiskFullEvent
L_VIDEO_RECORDING_STOPPED	RecordingStopped
L_VIDEO_CAMERA_TAMPER	TamperingStart
L_VIDEO_CAMERA_TAMPER_RESTORE	TamperingEnd
L_VIDEO_FAILOVER_STARTED	FailoverStarted
L_VIDEO_FAILOVER_RESTORED	FailoverStopped
L_VIDEO_OVERFLOW_STARTED	FeedOverflowBegin
L_VIDEO_OVERFLOW_RESTORED	FeedOverflowStopped
L_VIDEO_STORAGE_UNAVAILABLE	ArchiveDiskUnavailable OR DatabaseDiskUnavailable
L_VIDEO_SOURCE_SIGNAL_LOST	VideoLoss
L_VIDEO_ON_CAMERA_TRIP_WIRE	Tripwire

Licensing

Milestone XProtect integration license required

One license file is required to be associated to each unique Milestone Xprotect Software License Code (SLC) used with the integrated XProtect VMS. Contact Milestone sales for more information.

XProtect Integration License Details:

Milestone License Name	Milestone Part Number	MSRP	Notes
OAAP Plugin License	XPCOOAAP	$1500.00*	One license per XProtect SLC

OnGuard Integration License Details:

OnGuard License Name	OnGuard Part Number	MSRP	Notes
Enable Video Channel	MIL-ONG-VIDINT	No Charge	

**This is the published MSRP as of July 2021. This amount is subject to change.*

Limitations

XProtect Recording server data encryption

The Recording server data encryption feature introduced with XProtect 2019 R1 is supported by the integration.

For live and playback to work when the Recording server data encryption feature is enabled in XProtect, the appropriate certificate must be installed and trusted on the client machines (where video is displayed). Please refer to the Milestone XProtect user manuals below for more details.

- Certificates Guide
- XProtect VMS Products - Hardening guide

Installation

Prerequisites

Prior to integration, verify that OnGuard server and OnGuard clients are configured and working normally. Also verify that the Milestone Management Server, Milestone Recording servers and cameras are installed, configured and working normally. Refer to the user manuals and documentation for OnGuard

and Milestone XProtect for a comprehensive description of the installation, configuration and features of the respective systems.

Installation Overview

All software components listed in the overview steps below are available at the Milestone download site:

[download.milestonesys.com/lenel]

Please visit this site to obtain the most updated versions of the required components. They are included in .ZIP files listed by the version of the OnGuard system used in the integration. The integration solution requires the following steps:

i. Microsoft .NET 4.7.2 installed on OnGuard server machines and OnGuard client machines where XProtect video will be viewed.
ii. Milestone MIPSDK 2021R1 redistributable installed on OnGuard server machines and OnGuard client machines where XProtect video will be viewed.
iii. OnGuard “Accessory Add-on for Milestone” from LenelS2 and installed on OnGuard server machines and OnGuard client machines where XProtect video will be viewed.
iv. Execute Milestone camera discovery process.
v. Setup and configure Video Recorder and Cameras in OnGuard System Administration application

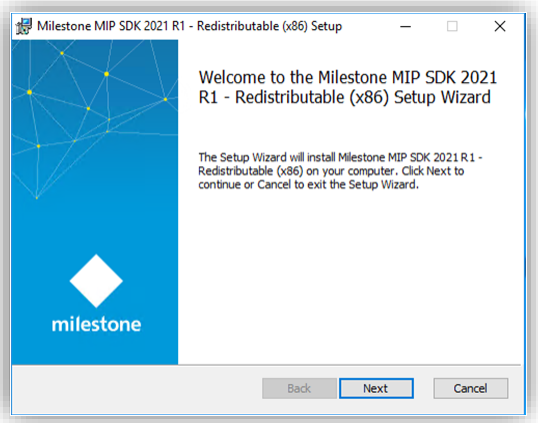
Installing .NET 4.7.2 Runtime

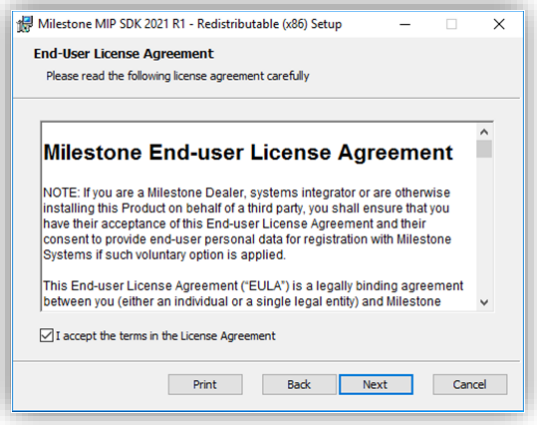
Download the .NET Framework 4.7.2. Install this on every OnGuard machine (LS Communication Server and video clients).

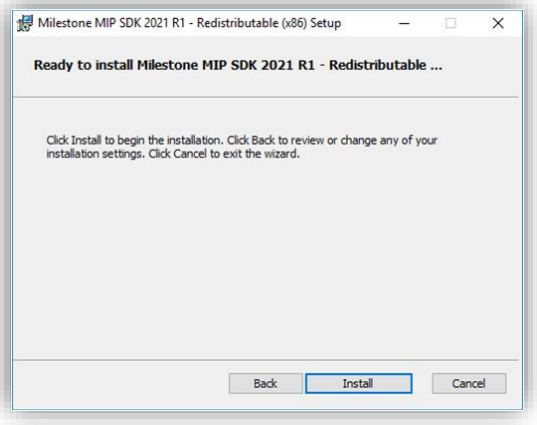
Milestone MIPSDK x86 Redistributable Install

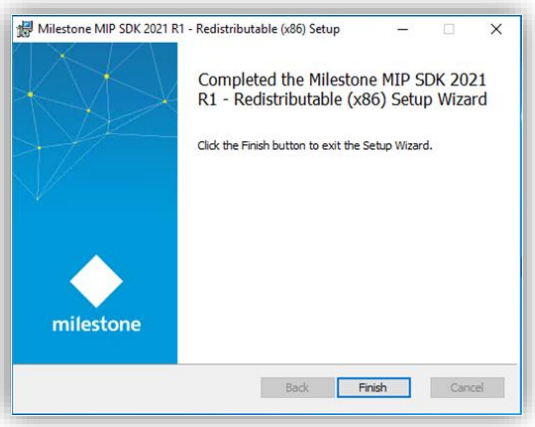
Milestone MIPSDK x86 redistributable is required to be installed on all OnGuard Client and Server machines that need access to Milestone video.

Click “MIPSDK_Redist_Installer_x86_2021R1.msi” to start the installation. Press ‘Next’ as needed to complete the installation.


Milestone MIP SDK 2021 R1 - Redistributable (x86) Setup
Welcome to the Milestone MIP SDK 2021 R1 - Redistributable (x86) Setup Wizard
The Setup Wizard will install Milestone MIP SDK 2021 R1 - Redistributable (x86) on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
milestone
Back
Next
Cancel


Milestone MIP SDK 2021 R1 - Redistributable (x86) Setup
End-User License Agreement
Please read the following license agreement carefully
Milestone End-user License Agreement
NOTE: If you are a Milestone Dealer, systems integrator or are otherwise installing this Product on behalf of a third party, you shall ensure that you have their acceptance of this End-user License Agreement and their consent to provide end-user personal data for registration with Milestone Systems if such voluntary option is applied.
This End-user License Agreement ("EULA") is a legally binding agreement between you (either an individual or a single legal entity) and Milestone
I accept the terms in the License Agreement
Print
Back
Next
Cancel

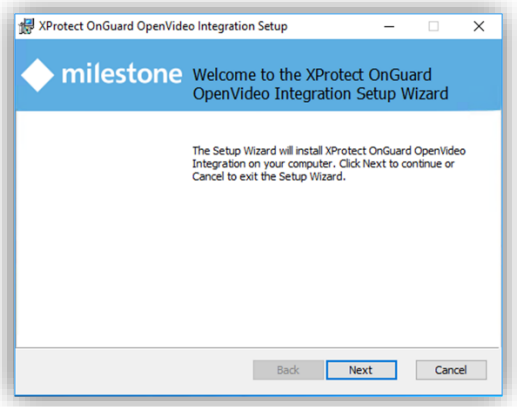

Milestone MIP SDK 2021 R1 - Redistributable (x86) Setup
Ready to install Milestone MIP SDK 2021 R1 - Redistributable ...
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel



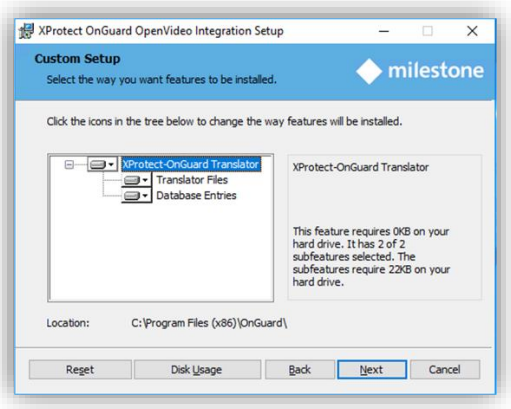
Click Finish to complete installation.

Installing Milestone-OnGuard Add-On

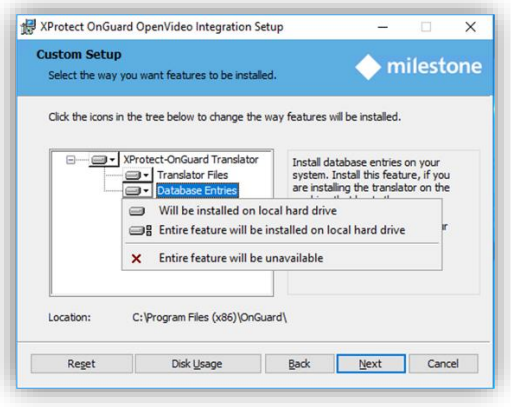
The add-on must be installed on OnGuard servers and every OnGuard workstation where XProtect video will be viewed. To start the installation, run “XProtectOnGuard.msi” as an Administrator. The installation wizard needs to find the C:\Program Files (x86)\OnGuard\ directory or it will not continue past the first step. Click Next to continue the wizard.



On the Custom Setup step there are two options. Here the wizard can be configured to perform two different actions; copy files to the OnGuard installation folder (Translator Files) and add/modify an entry in the OnGuard SQL database (Database Entries).

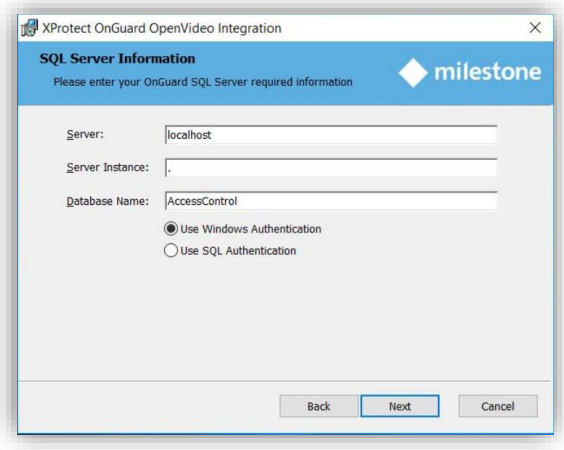


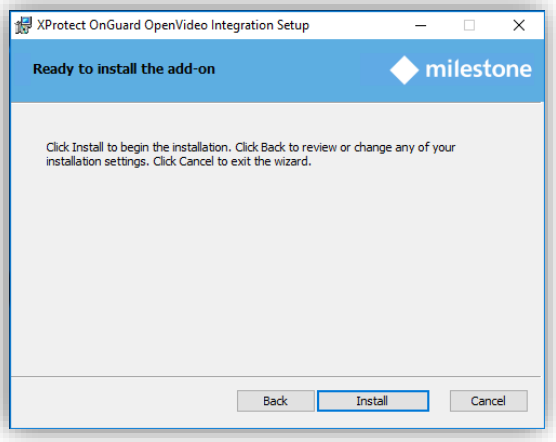
Translator Files should always be selected, unless the wizard is being executed in order to change or repair a SQL connection parameter. If the wizard is being run on an OnGuard server the Database Entries action should be selected. On an OnGuard workstation, the Database Entries option should not be selected. When the “Database Entries” option is expanded, the following dialog will be shown.



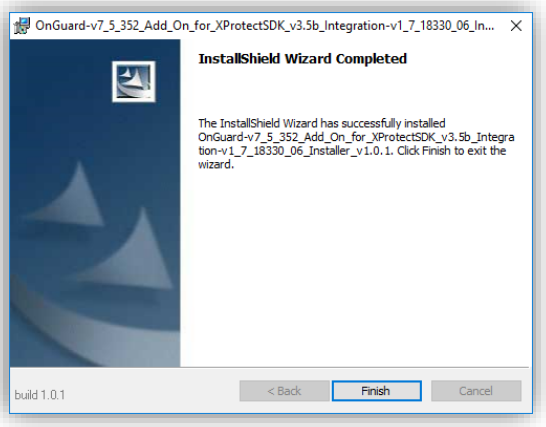
Select the “Entire feature will be unavailable” option with the red “X” when installing the Add-On on an OnGuard workstation.

On a server, when the default options have been selected and the Database Entries need to be configured, provide the required information to connect to the OnGuard database. If the SQL Server is installed on the same machine where the Add-On is being installed, leaving the default values for this dialog will work most of the time.





Once done, the add-on has successfully been installed:



Adding ONVIF Bridge and OnGuard Video Web Package

Installation of the ONVIF Bridge and the OnGuard Video Web Package is required if you plan to use the OnGuard Web Client running OnGuard v8.0 and up.

OnGuard: Installing Web Clients

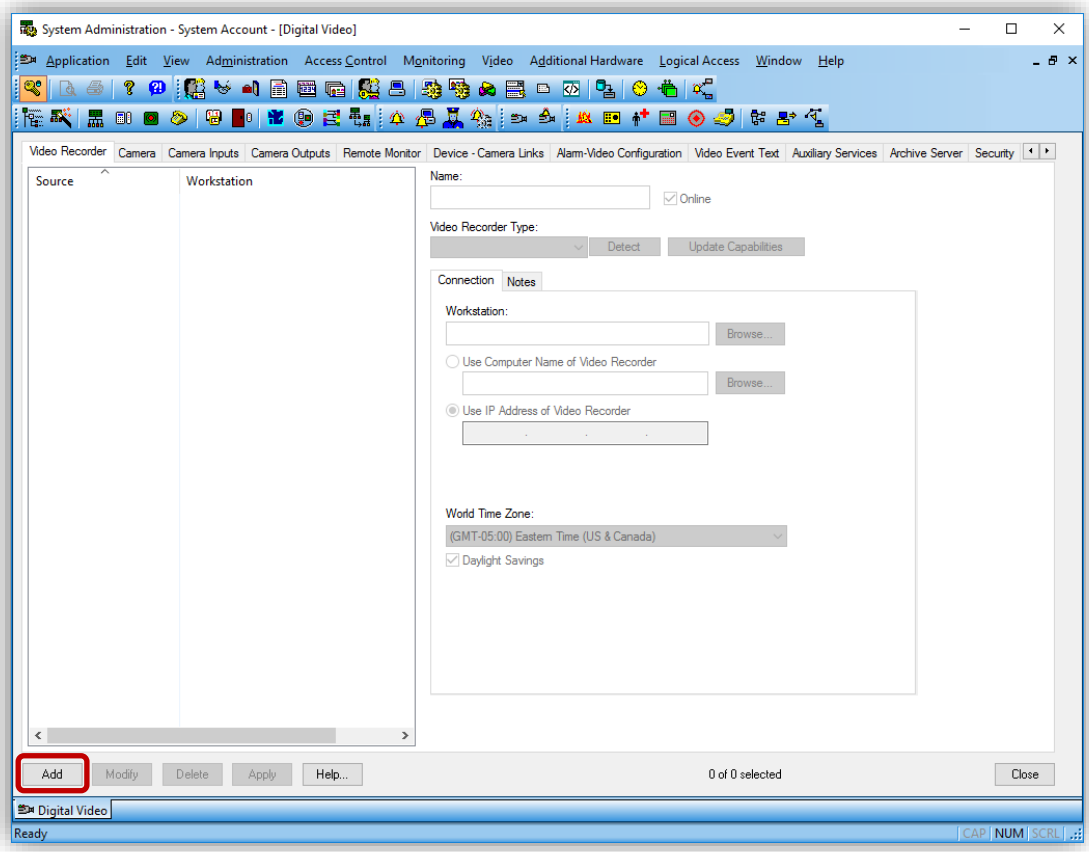
Contact Carrier for information on where to download the OnGuard Video Web Package. Ideally, the OnGuard Video Web Package should be installed with Milestone ONVIF Bridge on a separate, independent server (not on the OnGuard machine, XProtect Management Server, or XProtect Recording Server).

Milestone ONVIF Bridge: https://www.milestonesys.com/support/resources/download-software/?prod=1373&type=11&lang=27

Adding Recorder

Launch ”System Administration” in OnGuard and login. Select the Video menu and click on ”Digital Video ...” menu item.

Ensure Video Recorder tab is selected. Click Add button on the left-hand bottom side of the screen to add a new Video Recorder device.

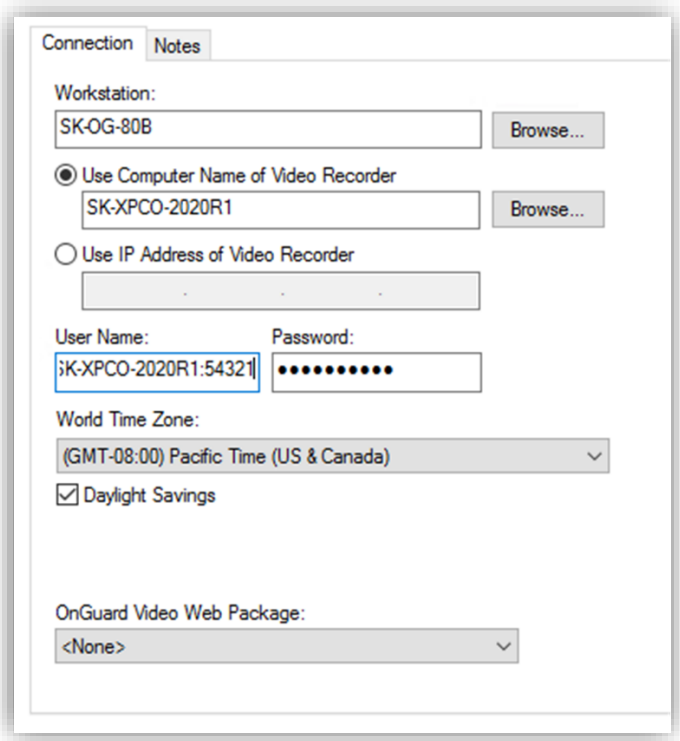


Fill the different fields described below:

- **Name:** Enter a unique name for this video recorder entry.
- **Video Recorder Type:** Select ”Milestone” from the dropdown menu.

- **Workstation:** Enter the workstation name where OnGuard LS Communication Server is installed.
- **Use Computer Name/Use IP Address of Video Recorder:** Enter the IP or host name of the XProtect Recording Server.
- **User Name:** Enter the Domain, the XProtect username, the Management Server hostname or IP, separated by an '@' and a port number for the IIS server if needed.
    - Ex: CUSTDEV.US\Administrator@SRB-XPRO2019:54321
    - Specifying a port number is not needed when using the default ports of 80 or 443
  - Domain – the first section of the User Name – everything that exists to the right of the backslash "\" is the Domain where the user exists.
  - User – the middle section of the User Name – everything in-between the backslash "\" and the at sign "@" - the XProtect system username.
  - Hostname – the last section of the User Name – everything after the at sign "@" – the Hostname of the server where the Management Server is installed.
    - Standalone Workgroup scenarios: If both the OnGuard system and the XProtect system are installed on the same machine in a non-domain environment integration will require a redundant protocol that looks similar to this:
      - Workstation1\User1@Workstation1:80
  - Port number – After the hostname of the Management Server the port for streaming video, which is defined in IIS on the Management Server, can be added to the User Name field. After the hostname add a colon and the port number.
- **Password:** Enter the associated XProtect password.

Make sure you type the password even if the field already contains something. The OnGuard UI is misleading because it usually opens this dialog with all the fields pre-filled with the content of the previously selected recording server, except for the password. Because the password field contains dots, one might think the value was pre-filled like the other fields, but this is not the case and the password must be typed again or the integration won't work.



Click OK to create the Video Recorder device. Repeat process to set up multiple Recording servers.

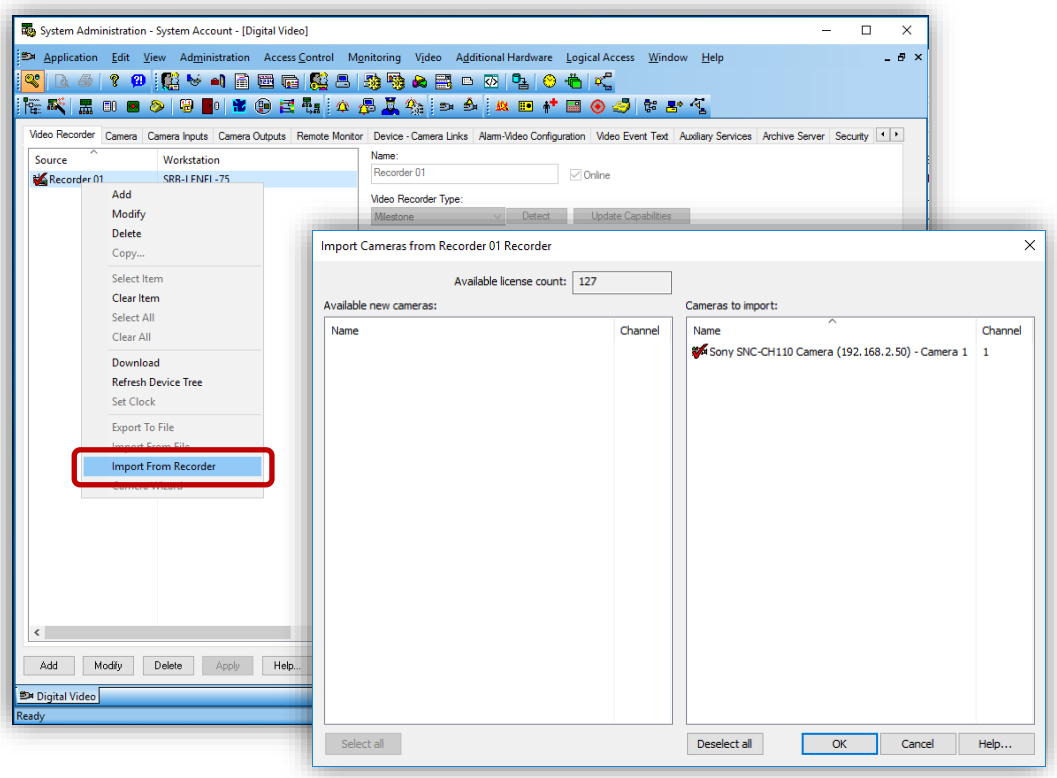
IMPORTANT:

- **TO connect to XProtect, the Add-On needs information about the XProtect Management Server (hostname:port + credentials). Due to limitations in the OnGuard SDK and UI, the Management server hostname must be provided through the *Username* field.**
- **Please, make sure the username and the Management Server hostname:port are both provided in the *Username* field, separated by the @ sign, as described above.**
- **Changing the properties of the Username field for an already existing Recording Server, such as changing the port number. Will require closing and reopening the OnGuard client applications (Alarm Monitoring or VideoViewer) before video will begin streaming.**

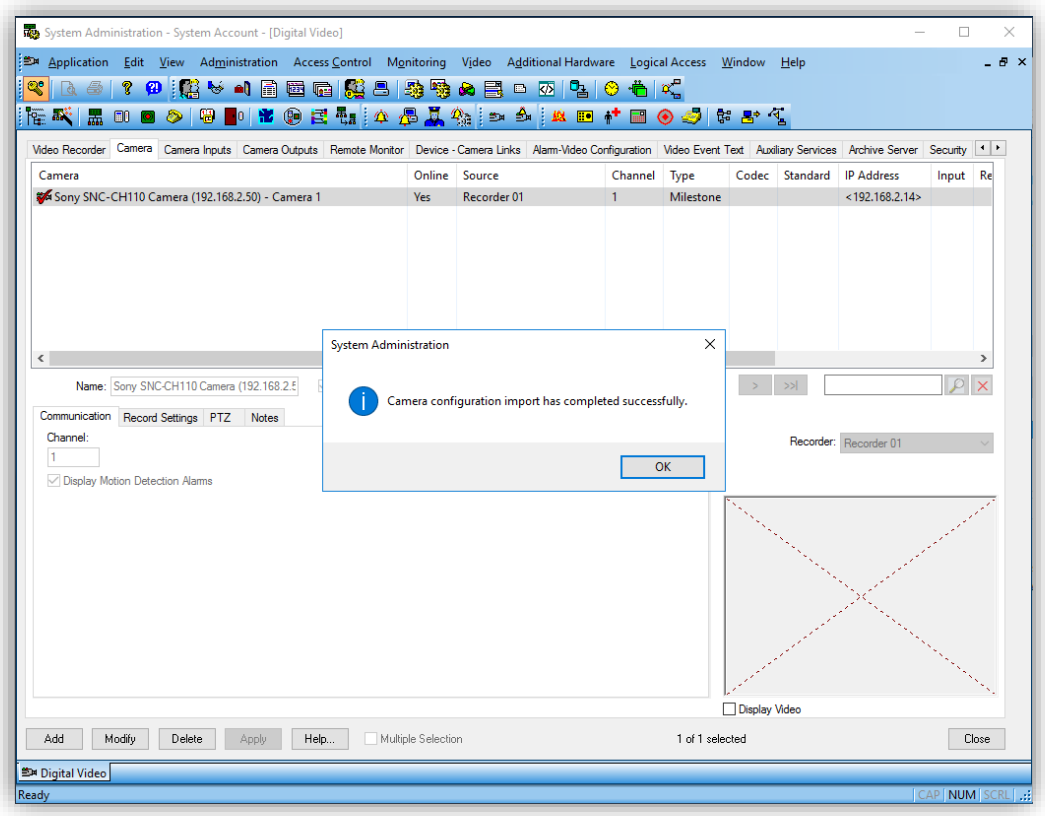
Adding Cameras

To automatically import cameras from Milestone into OnGuard, right click on the video recorder entry and select “Import from Recorder”.

The import from recorder dialog will display the list of cameras in the specified recorder, you can then select the ones you want to import into OnGuard by clicking them in the left pane, they will then transfer to the right pane. Once all desired cameras are selected for import, press OK.



The selected cameras appear in the camera view and are ready for use.



Upgrading from a previous version of the Add-On

IMPORTANT:

- **If you are upgrading from a version of the add-on prior to 2.0, you must first upgrade to 2.0 and make sure everything works correctly before attempting to upgrade to any newer version (post 2.0).**
- **The supported upgrade paths are as follow:**
  - **1.X → 2.0**
  - **2.0 → 2.X**

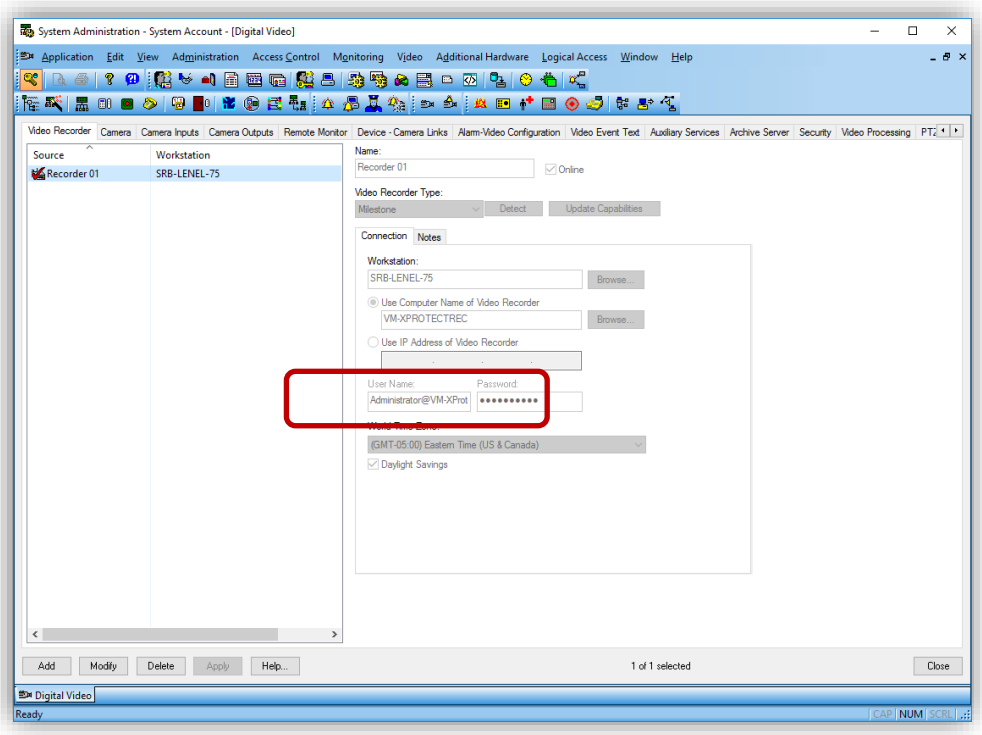
In versions of the Add-On prior to 1.8, the Management Server hostname, credentials and the list of cameras in XProtect were stored in an XML config file on disk using the MilestoneCfgGen.exe command-line tool (now retired). When upgrading the Add-On to version 1.8 or greater, this tool and the XML config file are no longer needed, and all the connection parameters must now be provided directly in the OnGuard UI (see Adding Recorder section).

While the Add-On will still work right after upgrading from a previous version (because there is a backward compatibility provision in the code that still reads the XML Config file when the required information cannot be found in OnGuard), it is recommended to perform the two steps below to completely remove the dependency on the XML file.

Upgrading from 2.0 to a newer version also require the second step to be performed (Force OnGuard UI to update camera and recorder IDs in OnGuard database). Performing this step is extremely important for setups where the XProtect recorder is part of a Failover group. To prevent disruptions of the integration during failover (video and events), the recorder ID must be persisted in OnGuard database.

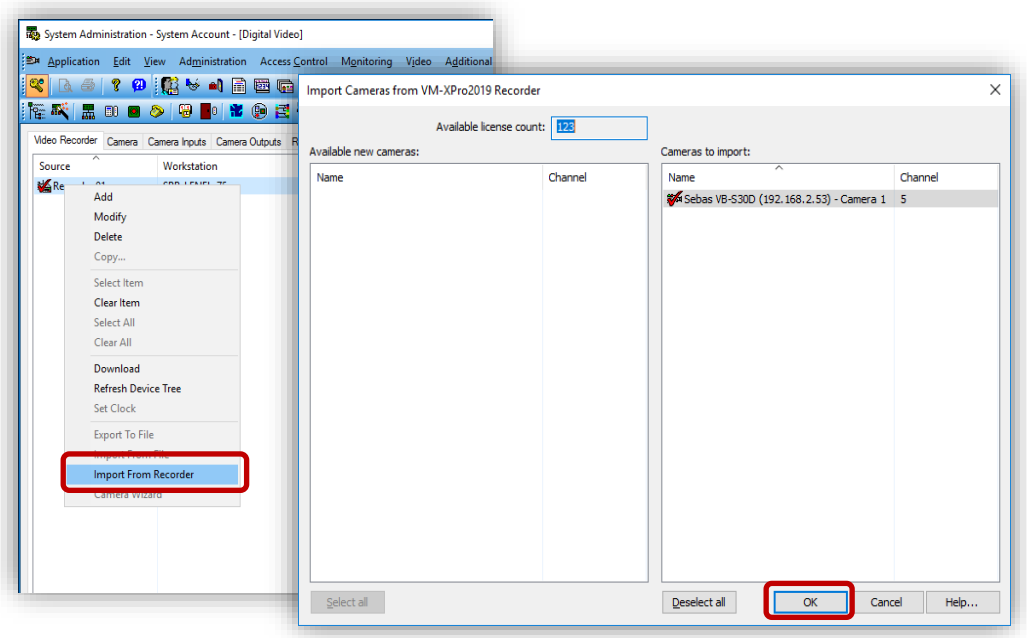
Fill missing connection information in OnGuard UI

Select each configured recording server in System Administration, click Modify and fill the username and password fields (using the XProtect username and the Management Server hostname or IP separated by an '@' character for the username field, as described in the "Adding Recorder" section above), then click OK.



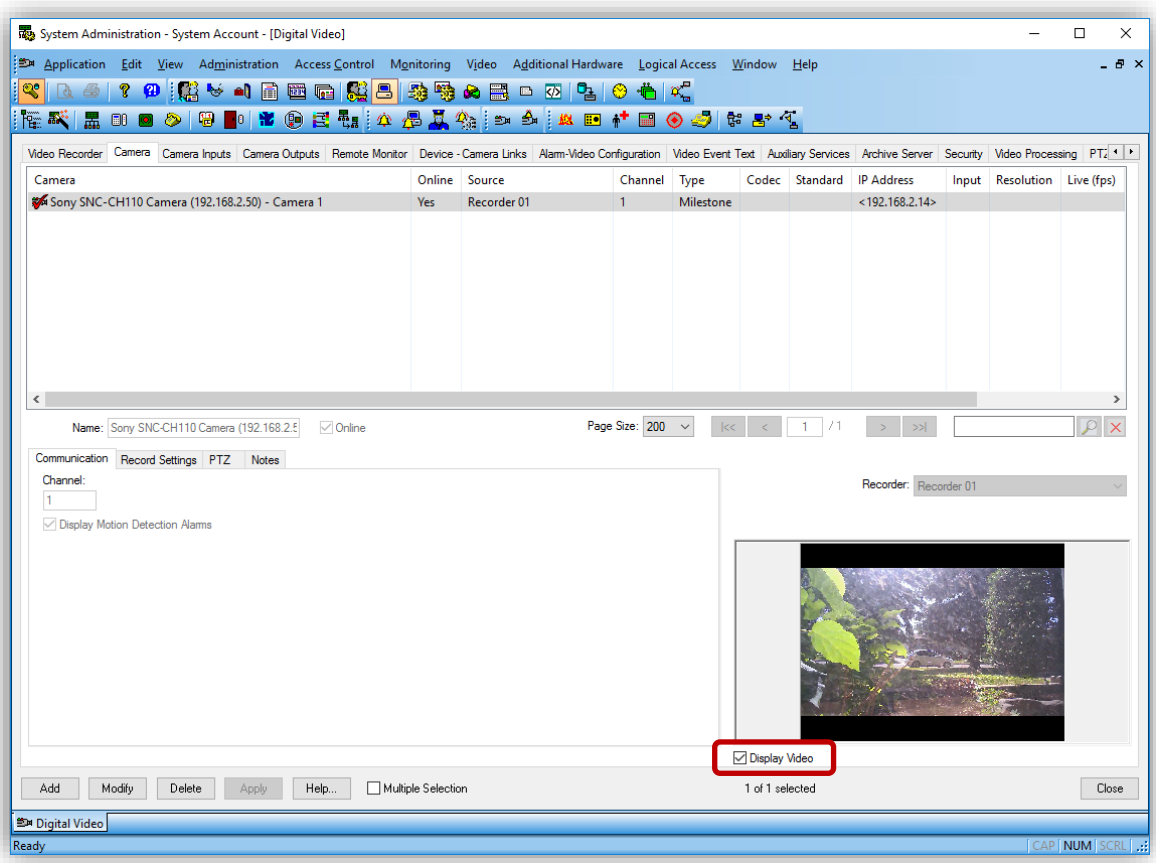
Force OnGuard UI to update camera and recorder IDs in OnGuard database

For each configured recording server in System Administration, right-click and select "Import From Recorder," then click OK. This will force OnGuard to refresh its internal camera and recorder mapping.



Video in System Administration

To view live video from the newly configured cameras in the System Administration tool, select the required camera from the list of cameras in the Camera tab and check “Display Video” check box (bottom middle section of the screen).

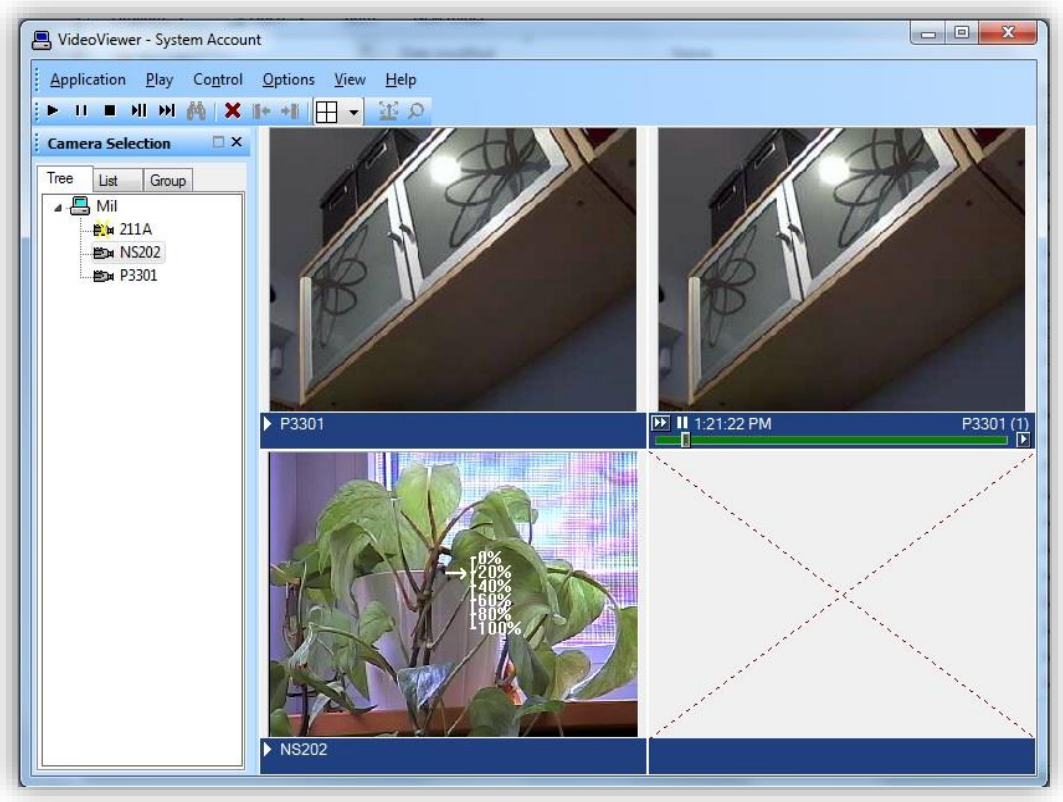


Video in OnGuard VideoViewer

Live Video and PTZ

Launch VideoViewer application in OnGuard to view live video from Milestone cameras. Select a suitable tile configuration for displaying video. Drag and drop required camera from the tree control on the left to any tile on the right to view live video from that camera.

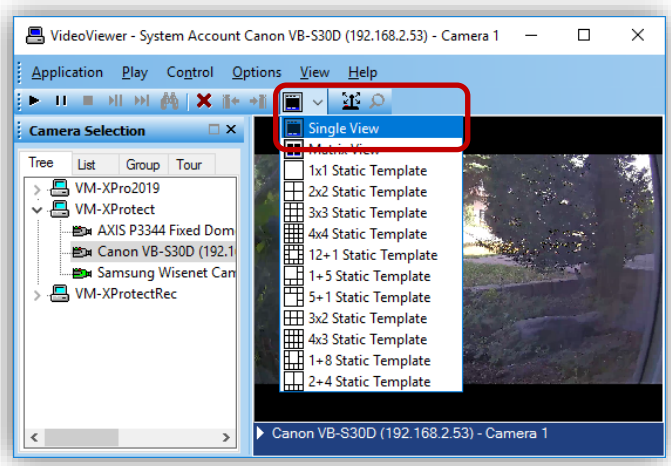
PTZ controls are handled as an overlay on the video control. If a set of cross hairs is displayed when placing mouse pointer over the image from a PTZ camera, “Point and Click” PTZ control is supported for the camera. Click on the screen to pan/tilt and zoom on the video. For some cameras, cross hairs surrounded by a square may be displayed. In this case, zoom level can be controlled by holding down SHIFT key in the keyboard while moving the mouse up or down. Zoom area can also be selected by holding down the left mouse button, drawing a square around the required area in the image and releasing the left mouse button. The scroll wheel on the mouse may also be used to zoom in/out.

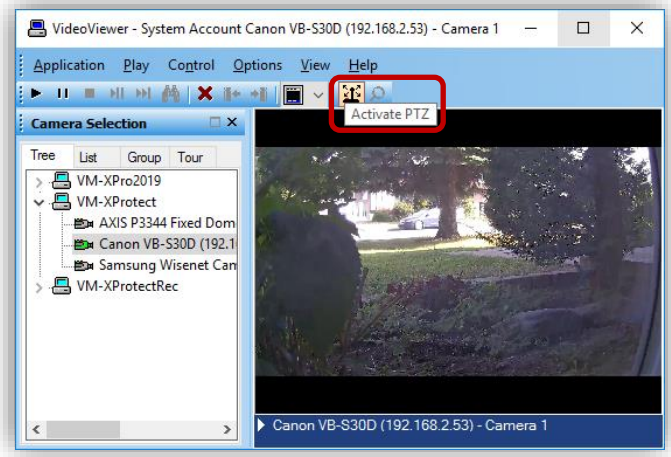


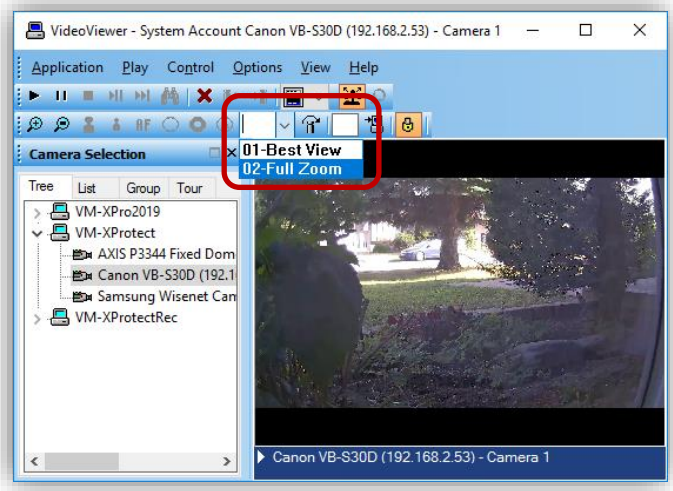
Note: Integrated Milestone video from selected camera can also be viewed from Alarm Monitoring application by selecting the required camera and clicking “Launch Video” in the context menu.

Presets

In order to use the presets defined in XProtect, live video must be displayed in a single tile (Single View) and PTZ must be activated. The list of presets will then appear in a dropdown, as shown in the screenshots below.

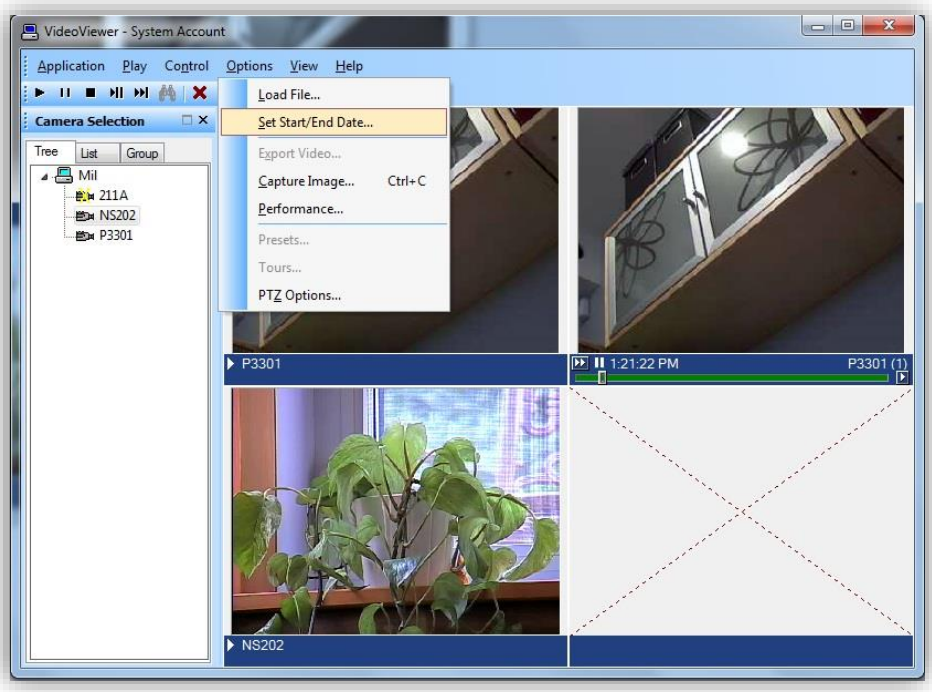

VideoViewer - System Account Canon VB-S30D (192.168.2.53) - Camera 1
Application Play Control Options View Help
Camera Selection
Tree List Group Tour
VM-XPro2019
VM-XProtect
AXIS P3344 Fixed Dom
Canon VB-S30D (192.1
Samsung Wisenet Can
VM-XProtectRec
Single View
1x1 Static Template
2x2 Static Template
3x3 Static Template
4x4 Static Template
12+1 Static Template
1+5 Static Template
5+1 Static Template
3x2 Static Template
4x3 Static Template
1+8 Static Template
2+4 Static Template
Canon VB-S30D (192.168.2.53) - Camera 1


VideoViewer - System Account Canon VB-S30D (192.168.2.53) - Camera 1
Application Play Control Options View Help
Activate PTZ
Camera Selection
Tree List Group Tour
VM-XPro2019
VM-XProtect
AXIS P3344 Fixed Dom
Canon VB-S30D (192.1
Samsung Wisenet Can
VM-XProtectRec
Canon VB-S30D (192.168.2.53) - Camera 1


VideoViewer - System Account Canon VB-S30D (192.168.2.53) - Camera 1
Application Play Control Options View Help
Camera Selection
01-Best View
02-Full Zoom
Tree List Group Tour
VM-XPro2019
VM-XProtect
AXIS P3344 Fixed Dom
Canon VB-S30D (192.1
Samsung Wisenet Can
VM-XProtectRec
Canon VB-S30D (192.168.2.53) - Camera 1

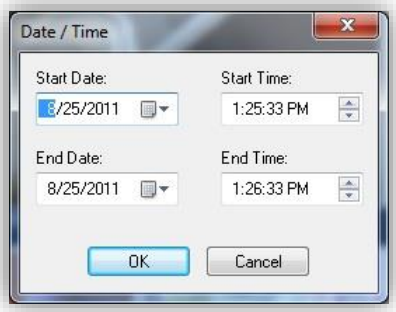
Recorded Video

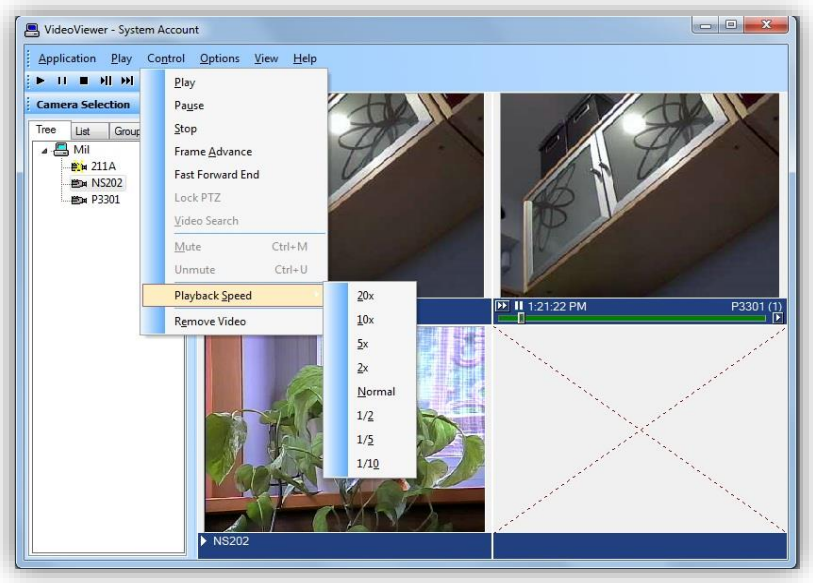
Launch VideoViewer application in OnGuard to view recorded video from Milestone cameras. Select a suitable tile configuration for displaying video. Drag and drop required cameras from the tree control on the left to any tile on the right which will stream live video from those cameras. To playback recorded video from all cameras in the display tiles starting from a selected time, right click on Options Menu and select Set Start/End Date … menu item. To playback recorded video from a single camera, right click on the required camera name at the bottom of the tile and select Set Start/End Date …



Note: Integrated Milestone Recorded video from selected camera can also be viewed from Alarm Monitoring application by selecting the required camera and clicking “Launch Recorded Video” in the context menu.

Set the start and end date and time of the recorded video to play back. Click OK to start playback.

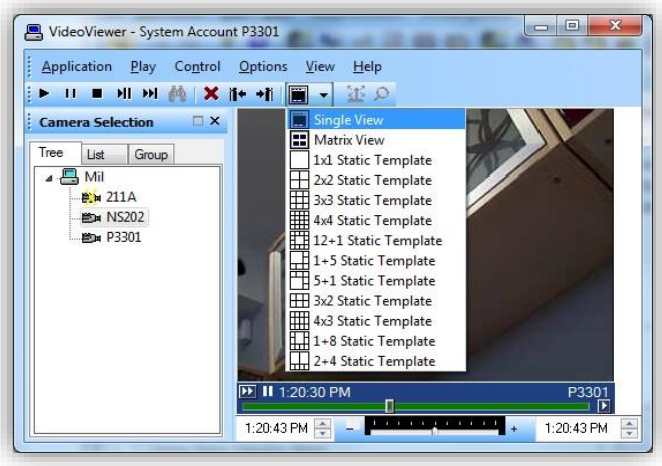




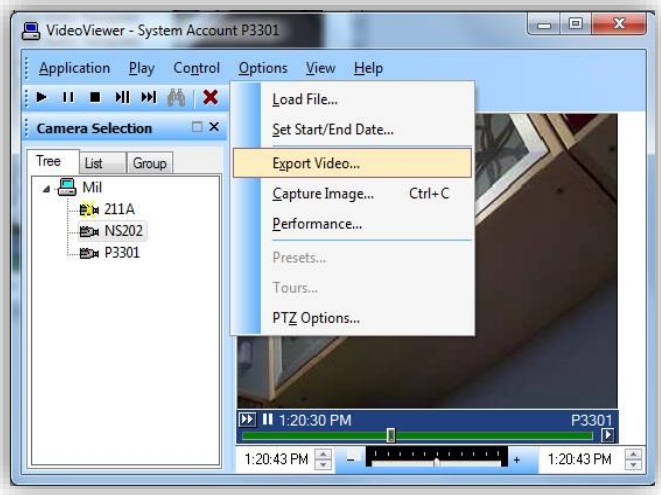
- Click “Play” control to stream video for the selected timespan.
- Click “Pause” control to pause streaming video. Click Play to continue.
- Click “Stop” control to stop streaming and go back to beginning of selected timespan.
- Click “Frame Advance” control to advance one frame and pause. Click Play to continue.
- Click anywhere in the video slider control to “Go to” video at that point. Click Play to continue.
- Set playback speed for individual camera by clicking on the appropriate position of the playback speed slider control.
- Change date/time of start and end of playback in the date/time control. Click Play to start streaming video for the new timespan.
- Adjust playback speed for all cameras in the view by selecting Playback Speed menu item from Control Menu.

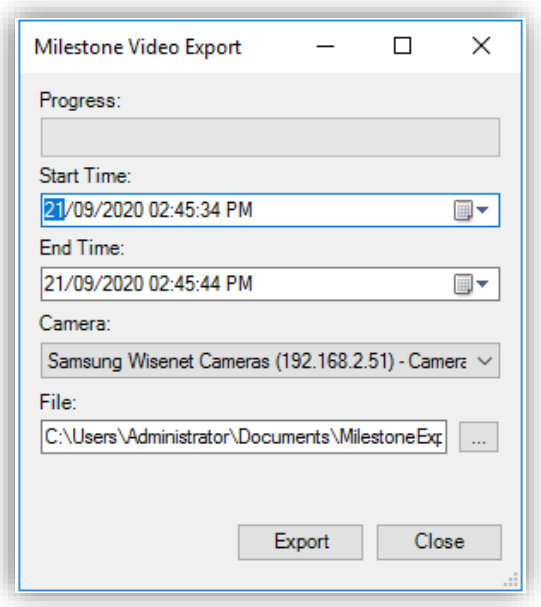
Export Video

Launch VideoViewer application in OnGuard. Drag and drop required camera into the tile on the right hand side. Right click on camera name in bottom portion of the video and click on “Recorded” to set display to playback mode. Play menu may also be clicked and “Recorded” selected to set display to playback mode. Click on tile selection icon and select “Single View”.



Click on Options Menu and click on “Export Video …” menu item to bring up the Export screen.





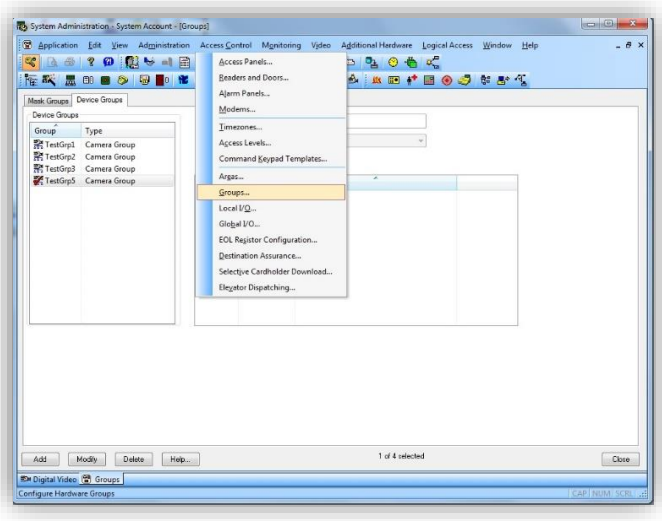
Select required values for Start Time, End Time, Camera and File to export to. Click “Export” to export the video for selected duration to the specified file. It is not possible to export into an AVI file. MKV is the only supported video format for exports.

Camera Tours

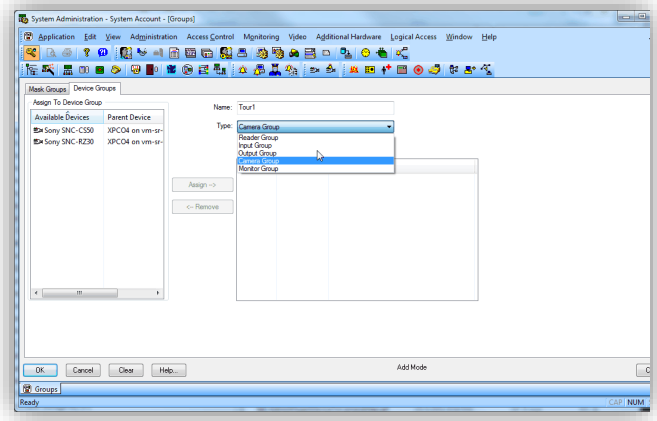
Configure Camera groups (Tours) in “System Administration” and view the Tours in “Alarm Monitoring” application.

Creating a Tour

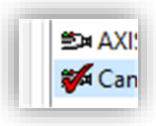
Launch “System Administration” in OnGuard. Click on “Access Control” menu and click on “Groups …” menu item.



Select “Device Groups” tab on the upper left portion of the screen. Click the Add button on bottom left portion of the screen.

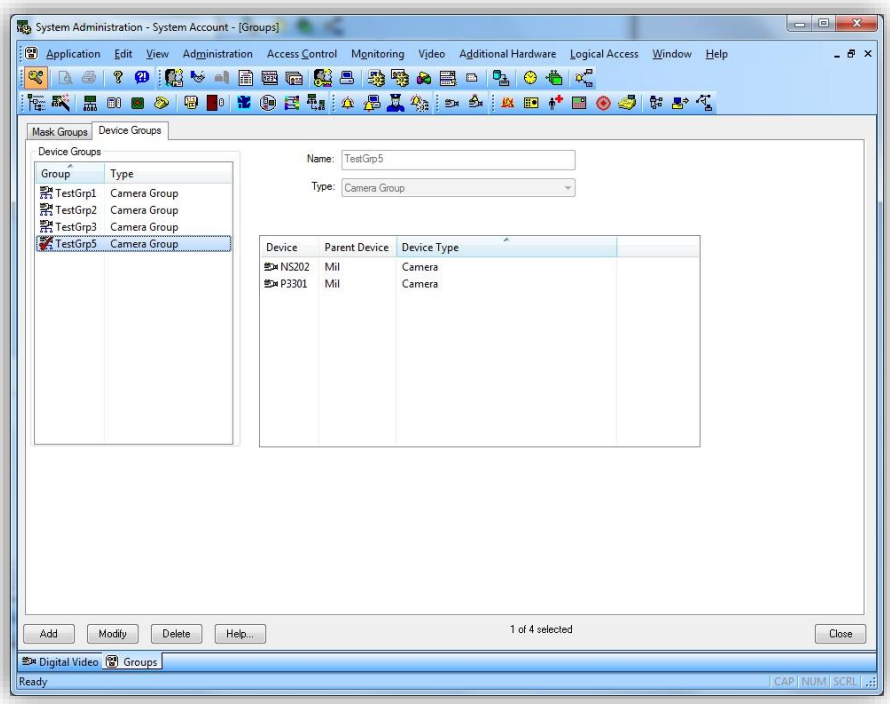


- For Name, enter the name for the new group.
- For Type, select Camera Group from the Type list.
- Cameras available for assigning to the group will be displayed under “Available Devices” in the left-hand side of the screen.



Click on the icon of any camera which is to be added to the group. The “Assign” button gets enabled. Click on “Assign” button to add the camera to the group.

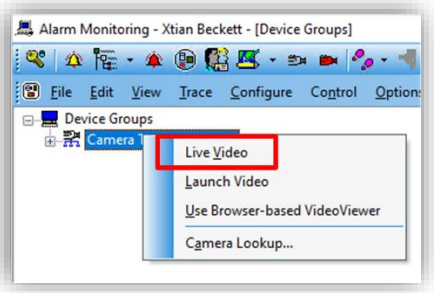
Repeat the process to add all required cameras to the group. Click OK to save the settings.


System Administration - System Account - [Groups]
Application Edit View Administration Access Control Monitoring Video Additional Hardware Logical Access Window Help
Mask Groups
Device Groups
Device Groups
Group
Type
TestGrp1 Camera Group
TestGrp2 Camera Group
TestGrp3 Camera Group
TestGrp5 Camera Group
Name: TestGrp5
Type: Camera Group
Device
Parent Device
Device Type
NS202 Mil Camera
P3301 Mil Camera
Add
Modify
Delete
Help...
1 of 4 selected
Close
Digital Video
Groups
Ready
CAP NUM SCRL

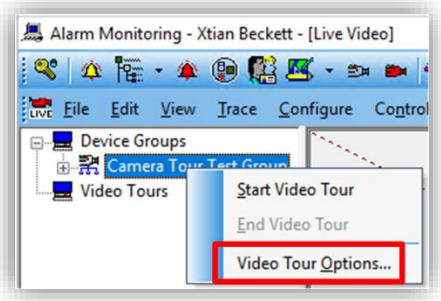
Viewing Tour

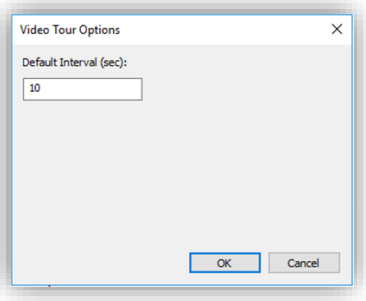
Launch “Alarm Monitoring” application in OnGuard.

Click on “View” menu and click on “Device Groups” menu item. Expand the root node of the Device Groups directory, right click on the camera group, and select “Live Video” from the shortcut menu to launch the Live Video tab or window.

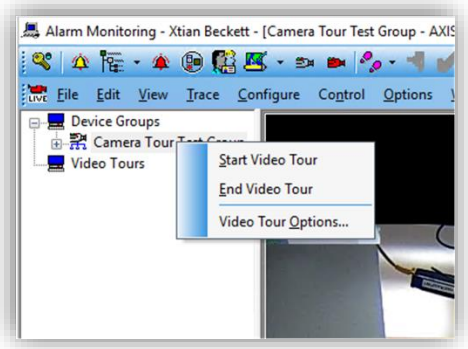


Expand the Device Groups directory in the Live Video tab or window, select the group, right click, and select “Video Tour Options…” from the shortcut menu. Set the “Default Interval (sec)” or dwell time between streams for each camera in the group. Press OK to save settings.





To start a tour, right click on the camera group and select “Start Video Tour”. Live video from each the cameras in the group will be displayed in the screen sequentially streaming video from each camera for the dwell time before switching to the next camera.



Select “End Video Tour” from the shortcut menu to stop the tour.

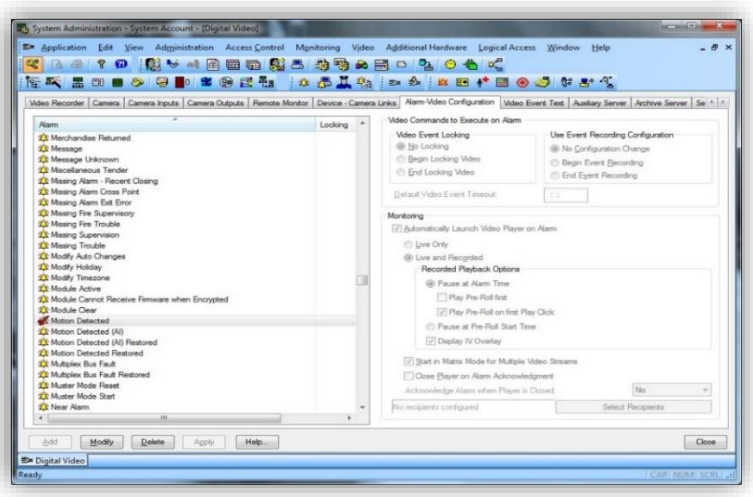
Viewing Video linked to alarms

Event Video (Live and/or playback)

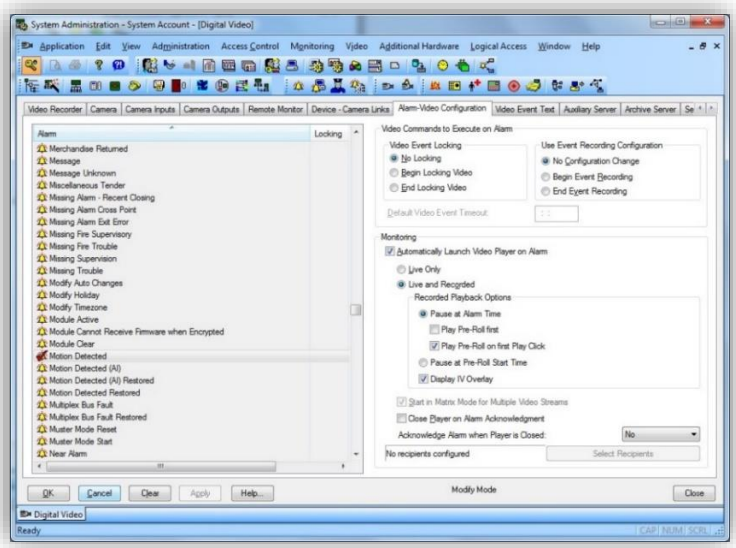
Configure the link between Alarms and Video in “System Administration” and view the Video when alarm occurs in “Alarm Monitoring” application. OnGuard can be configured to display live and or playback of one or multiple cameras when alarm is triggered. The following example shows how to configure OnGuard to automatically display video when Motion is detected.

Alarm-Video Configuration

Launch “System Administration” application in OnGuard. Click on “Video” menu. Click on “Digital Video …” menu item. Select “Alarm-Video Configuration” tab.



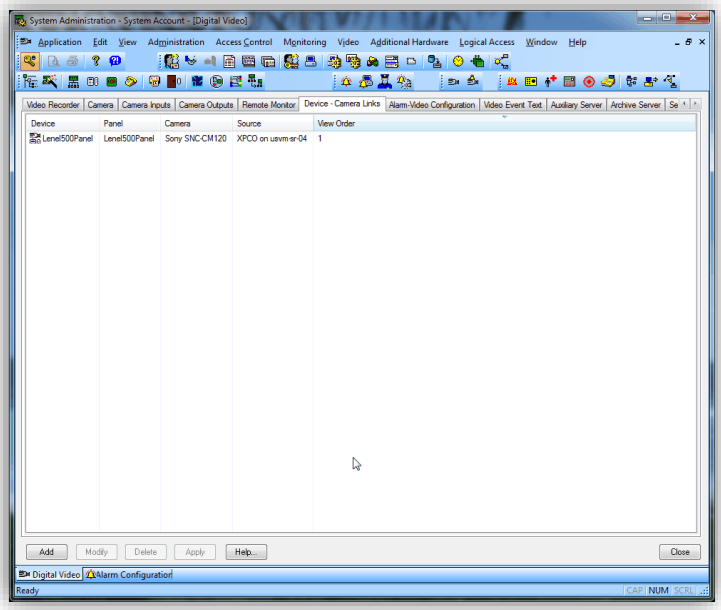
Select the required alarm that will be linked to video. In this case, select “Motion Detected”. Click Modify to modify the existing response to the alarm.



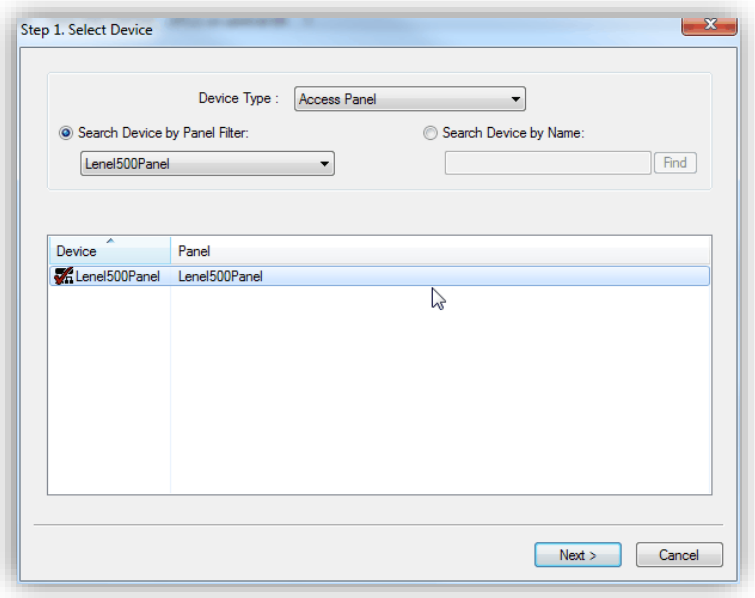
Check the “Automatically Launch Video Player on Alarm” checkbox and select “Live Only” or “Live and Recorded options”. Click OK to save the configuration.

Device-Camera Links Configuration

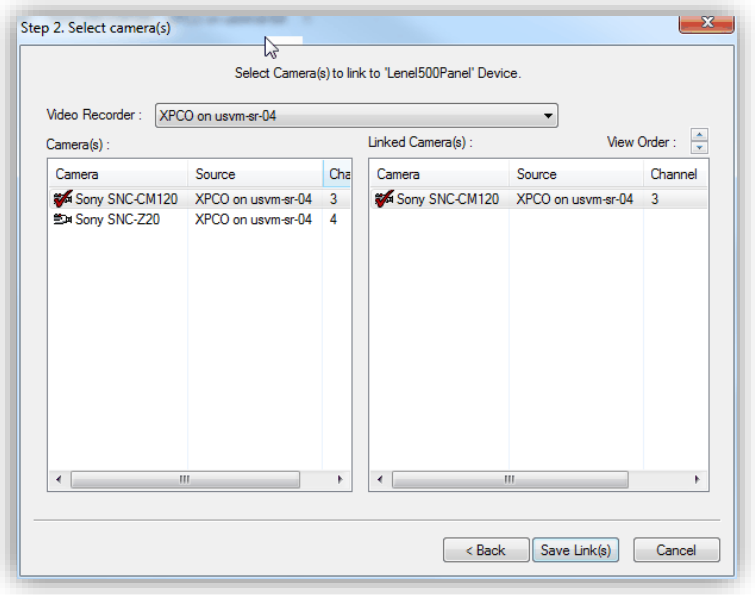
Launch “System Administration” application in OnGuard. Click on “Video” menu. Click on “Digital Video …” menu item. Select “Device-Camera Links Configuration” tab.



Click Add to start the process of linking a camera to a device.



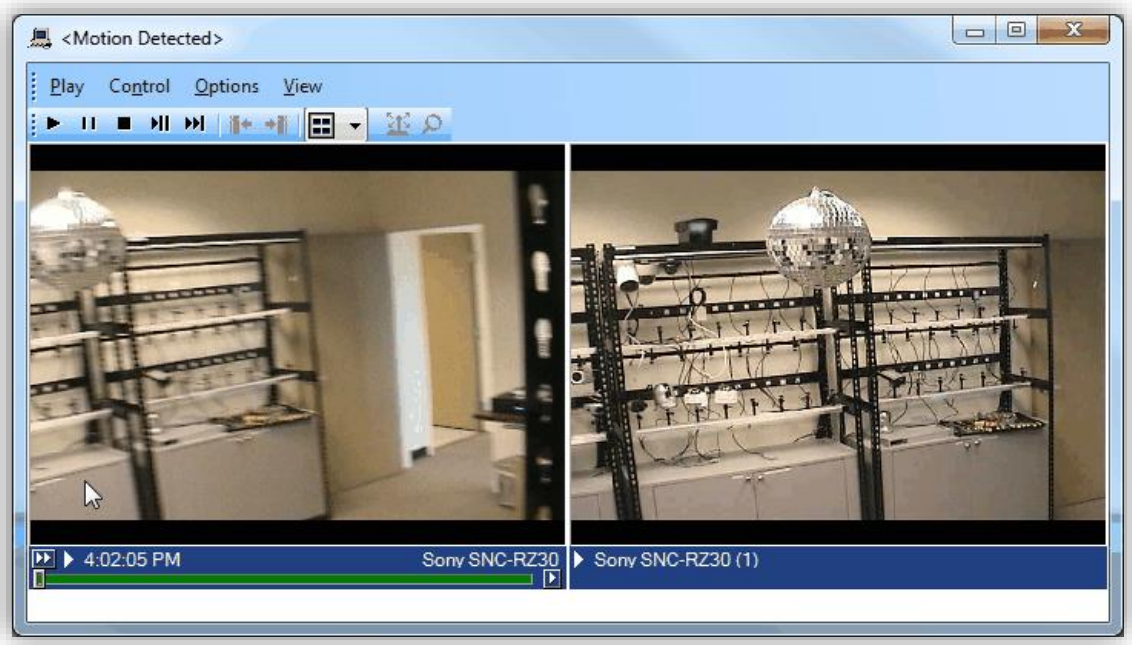
Choose “Device Type” from the dropdown and select the required device. Click Next to select the camera to be linked.



Choose the Video Recorder from the dropdown and select the required camera. Click on Save Links to save the linking.

Video display on alarm

Launch “Alarm Monitoring” application in OnGuard. When Motion is detected, a VideoViewer window will be launched displaying either live video or live and recorded video as configured, from the camera which detected motion.



Logging

By default, the logs are enabled on both the OnGuard workstation side and the OnGuard server side, but they are in reduced information mode (Info). They can be increased for diagnostics purposes to Debug but be aware that this change causes more information to be logged using more disk space and possibly slowing down operations on busy servers. **DO NOT LEAVE logging at Debug levels** for extended periods of time for performance reasons. It should only be used for diagnostics purposes and put back to Info afterwards.

Gathering the logs

OnGuard workstation

1. On each machine running the OnGuard workstation that uses the integration goto **x:\ProgramData\MilestoneTrans**, where X: is the drive where Windows is installed
2. Create a zip file of the contents of that whole folder, name it MilestoneTrans-{MachineName}.zip where {MachineName} is the name of the machine where the integration is installed.

OnGuard server

3. On each machine running the OnGuard LS Communication Server goto **X:\ProgramData\MilestoneTrans**, where X: is the drive where windows is installed
4. Create a zip file of the contents of that whole folder name it MilestoneTransSvr-{MachineName}.zip where {MachineName} is the name of the machine where the integration is installed.
5. On clustered OnGuard servers, make sure that you capture the logs on all the machines that are part of the cluster, especially the active one.

Changing logging level

Sometimes for diagnostics purposes, it is necessary to obtain more information about the running state of the integration. The logging information can be increased by changing what we call the logging level. The logging level can be set at any of the following values in increasing amount of information recorded to file (Off, Fatal, Error, Warn, Info, Debug, Trace). Off writing no information to file and Trace writing the most information to file. The default setting is Info. The logs auto-delete after 10 days, so they do not take up too much disk space. Here is the procedure to change the log levels in the different modules of the integration:

OnGuard workstation

1. On each machine running the OnGuard workstation goto x:\ProgramData\MilestoneTrans, where X: is the drive where Windows is installed
2. Find a file named "**MilestoneTrans-NLog.xml**", open it with a text editor like notepad
3. The second to last line in the file is like this **"<logger name="*" minlevel="Info" writeTo="mainlog" />**"
4. Change the "**Info**" to "**Debug**" in that line and save the file.
5. Depending on the OS you are running you may have to save the file to the desktop and copy it back to that folder because windows permissions will not let you save a file there directly.

OnGuard server

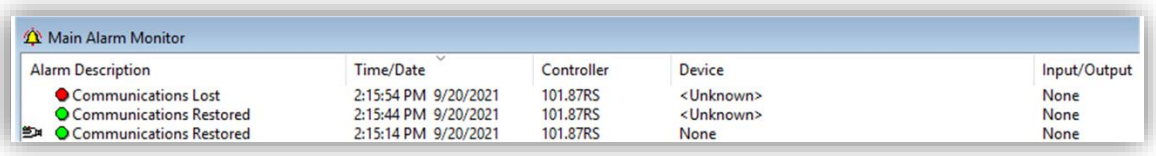
1. On each OnGuard machine running the OnGuard LS Communication Server, go to x:\ProgramData\MilestoneTrans\. X: would be the drive where windows is installed.
    a. Find a file named "**MilestoneTrans-NLog.xml**", open it with a text editor like notepad
    b. The second to last line in the file is like this **"<logger name="*" minlevel="Info" writeTo="mainlog" />**"
    c. Change the "**Info**" to "**Debug**" in that line and save the file.
    d. Depending on the OS you are running you may have to save the file to the desktop and copy it back to that folder because windows permissions will not let you save a file there directly.

Troubleshooting

Communications Alarms from <Unknown> devices.

Every time the Recording Server restarts the integration should display a communications lost alarm in OnGuard, and a communications restored alarm. Both alarms (comms lost/comms restored) are received from each individual device. This means all cameras attached to the Recording Server will send these alarms. This is expected behavior.

Cameras attached to the Recording Server in XProtect, which are not used in the OnGuard integration, will also send alarms. These alarms will appear in OnGuard as <Unknown> devices attached to the restarted Recording Server.



There is no method to eliminate these alarms from the <unknown> devices, without bringing all XProtect devices into OnGuard.

Upgrading OnGuard Breaks the Integration – ONLY for v2.3 or earlier.

Upgrading the OnGuard system with a service pack release has been observed to remove the required XProtect components for the integration. No video will be available from configured devices and no integrated functionality will be available until this is fixed.

The files that are deleted are located by default in this location:

C:\Program Files (x86)\OnGuard\

IMPORTANT:

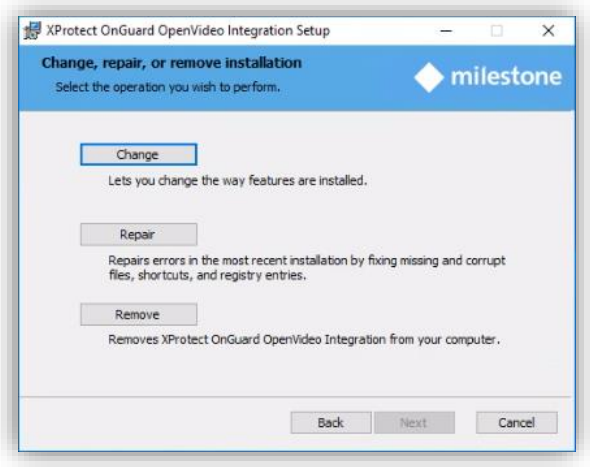
- In version 2.4 of the integration the location of the installed files has been changed and this issue should no longer exist.
- The new location is: C:\Program Files (x86)\Milestone OnGuard Translator\

There are three files which are deleted:

1. MilestoneTrans.dll
2. MilestoneTrans.Managed.dll

3. MilestoneTrans.Managed.dll.config

There are a lot of files in this folder. Search for them to confirm that they do or do not exist. If they do not exist. This can be fixed by downloading the plugin installation wizard and performing the Change operation.



Download the files from this location: https://download.milestonesys.com/lenel make sure to download the file that corresponds to the major version release of the OnGuard system that was upgraded.

Complete the wizard using the "Change" option without changing any of the default options. This can be performed on an OnGuard server or workstation. After the re-installation is complete it is recommended to reboot the OnGuard workstation or to restart the LS Communications Server service on an OnGuard server. This should return the integration to full functionality.

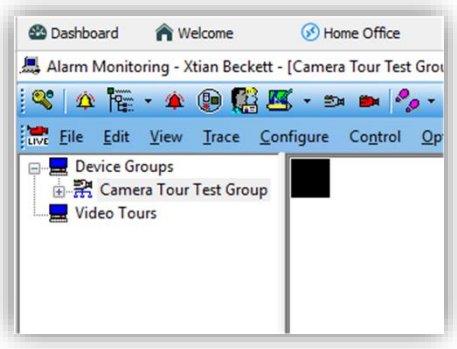
Adding Cameras Resets Existing Camera Settings

When an XProtect system is already connected to OnGuard, if a new video device is added to the integration this process will reset each of the previously integrated camera's settings which are stored in the OnGuard system. This impacts all existing versions of the OpenVideo integration, and all existing versions of OnGuard and XProtect. The only device setting that is not impacted by the reset operation is the device name. There is currently no workaround or fix for this issue. Milestone and LenelS2 are both working to fix this issue, and it will be addressed in an upcoming release from LenelS2. Until that time, the only fix is to reconfigure each device after adding a new device.

Video Tour Bugs

There is a known bug which causes a brief interruption between camera streams while viewing a camera tour in the Alarm Monitoring application. This bug appears as a small black box in the upper left corner

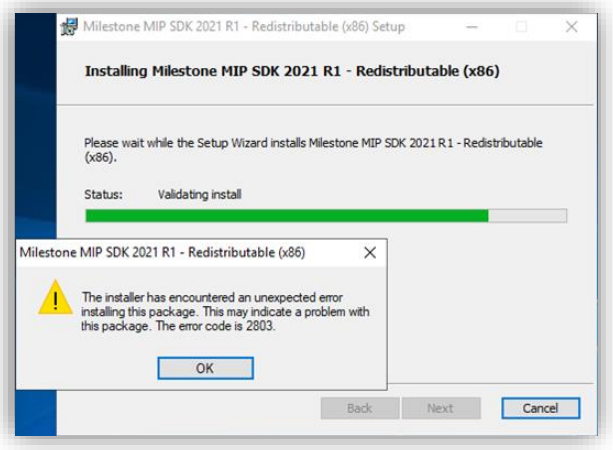
of the Live Video tab or window in the Alarm Monitoring application. This appears at the start of each camera tour and re-appears while switching between each video stream.



Currently there is no fix available for this issue. It does not impact the performance of the tour, or cause any other issues.

MIPSDK Upgrade Error 2803

When upgrading the integration from an older version to a newer version, one of the components that is required to upgrade is the Milestone MIPSDK. During the upgrade process, the MIPSDK installation wizard can create an error if services or applications are still running which are using the MIPSDK files which are being upgraded.



It is recommended to continue the upgrade process, and simply restart all services and applications afterward to ensure they are using the newest versions of the required MIPSDK files. Please refer to the Milestone Knowledgebase troubleshooting article for more information.

Ports Required for Milestone Video.

In many instances, troubles connecting to XProtect Recording Servers, connecting to cameras, viewing video, and receiving status updates from a Milestone XProtect system, can all be interrupted if the

required ports are not opened. There is a list of all the ports required to authenticate with, view video from, and receive status or event updates from a Milestone VMS at the following link:

https://supportcommunity.milestonesys.com/s/article/TCPIP-ports-used-in-XProtect-Advanced-VMS-products?language=en_US

The above link contains a complete listing of all the ports required to communicate with a Milestone VMS. Here is a list of ports which are known to impact communication for this integration:

Port	Protocol	Direction / Service(s)	Usage
80	HTTP	In & Out-bound / Management Server & Clients	Authentication
443	HTTPS	In & Out-bound / Management Server & Clients	Authentication
7563	TCP	In-bound / Clients	Video, Audio & PTZ
22331	TCP	In-bound / Clients	Alarms & Events

Cannot Discover Cameras connected to XProtect Recording Servers

After connecting to the XProtect VMS, the OnGuard system cannot connect to any cameras that XProtect is managing. Follow these steps to troubleshoot the issue:

- Make sure the OnGuard LS Communication Server service is running.
- Make sure the credentials used to connect and Management Server hostname address provided are valid.
- Check the credentials and hostname work using the XProtect Smart Client.
- Log completely out of OnGuard System Administration application and log back in.

Live or Playback Video Does Not Work

It is possible for live and recorded video to stop displaying in the OnGuard system. If this happens, follow these steps to troubleshoot the issue:

- Make sure the installed version of the MIPSDK is at least version 2020 R2 or newer. The v2.4 installation files include the MIPSDK 2021 R1.
- If the problem is with video only (black tiles) and Recording server data encryption is enabled in XProtect, verify that the appropriate certificate is installed and trusted on every OnGuard client machine where video is displayed (see Limitations section for more details).

Offline Camera Status

Individual camera status in OnGuard may appear offline with a red cross-mark. Although video can be viewed in the OnGuard system. If this happens, check to ensure the OnGuard LS Communication Server service is running.

Launching Video results in error message

“Error communicating with Video Recorder” message appears in OnGuard Alarm Monitor when clicking “Launch Video” on selected Milestone camera. However, video can be successfully viewed in VideoViewer and System Admin apps.

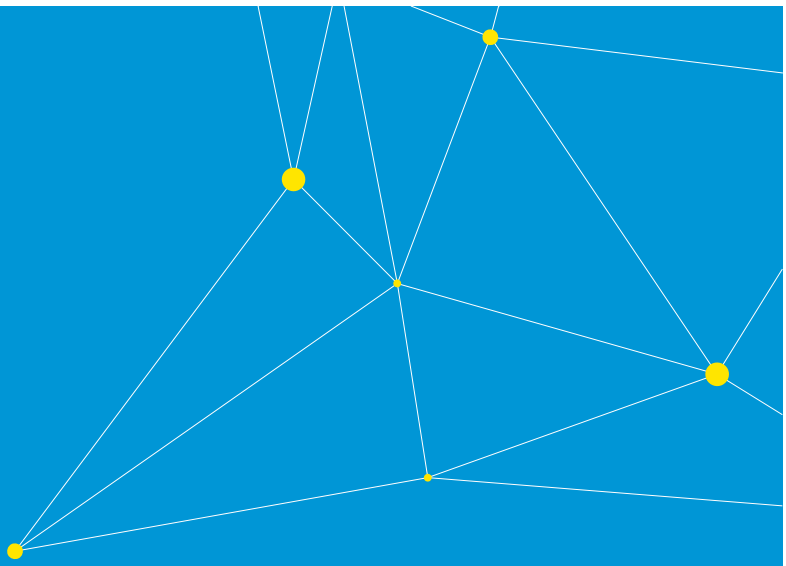
Close the Alarm Monitoring application and stop the OnGuard LS Communication Server service. Navigate to the following file:

- C://ProgramFiles(x86)/OnGuard/LnlSkyPointBaseServerTranslatoru.dll

Rename the file to:

- “LnlSkyPointBaseServerTranslatoru_bak.dll”

Restart the OnGuard LS Communication Server service and the Alarm Monitoring application. Ensure the Milestone XProtect servers and OnGuard servers are online and connected to network.



Milestone Systems is a leading provider of open platform video management software; technology that helps the world see how to ensure safety, protect assets and increase business efficiency. Milestone enables an open platform community that drives collaboration and innovation in the development and use of network video technology, with reliable and scalable solutions that are proven in more than 150,000 sites worldwide. Founded in 1998, Milestone is a stand-alone company in the Canon Group.