



VideoXpert v 3.7
Security Expert Integration
Installation and Operations Manual



VideoXpert™

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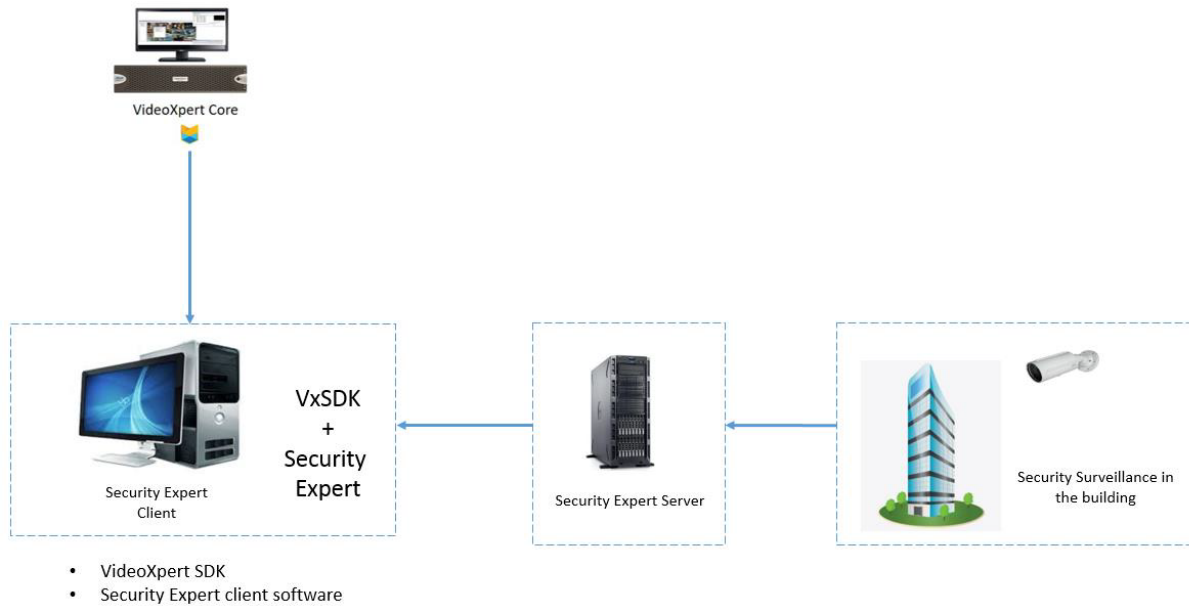
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Introduction

This document is the installation and operation manual for VideoXpert Integration with Security Expert. It provides information about the system usage, functions, configurations, and known issues.

System Overview

VideoXpert to Security Expert Integration enables the interaction between Security Expert and VideoXpert systems. This VideoXpert integration extends the Security Expert software Security surveillance capabilities using VideoXpert functionality including live and recorded streaming and PTZ. VideoXpert provides live streams from IP cameras that are installed at different locations in a building. This VideoXpert integration helps the end users to manage complete building security using Security Expert.



Installation the Software

Installing Prerequisites

Install the following prerequisites before installing the Security Expert Video Integration Installer.

- Security Expert v 4.3.270.8 or higher

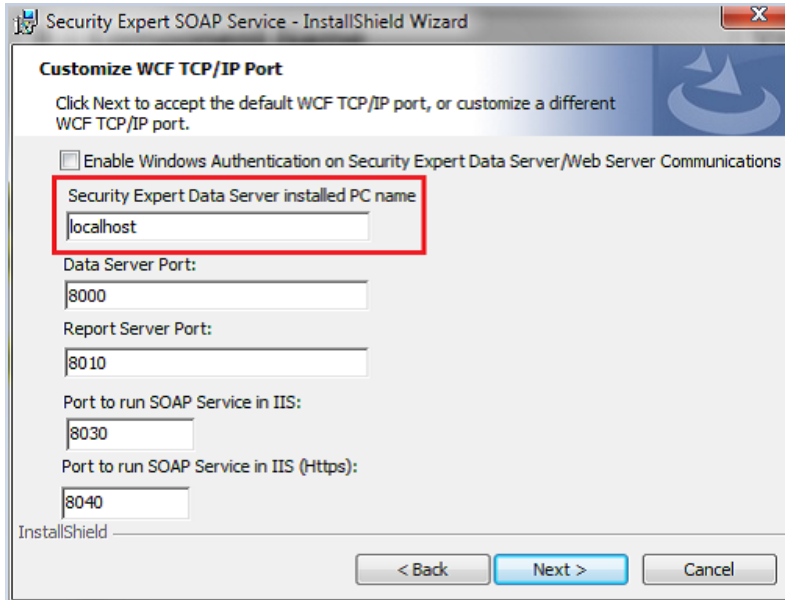
Install and license Security Expert software for the proper functioning of the integration.

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- Security Expert SOAP Service v 1.6.0.1 or higher

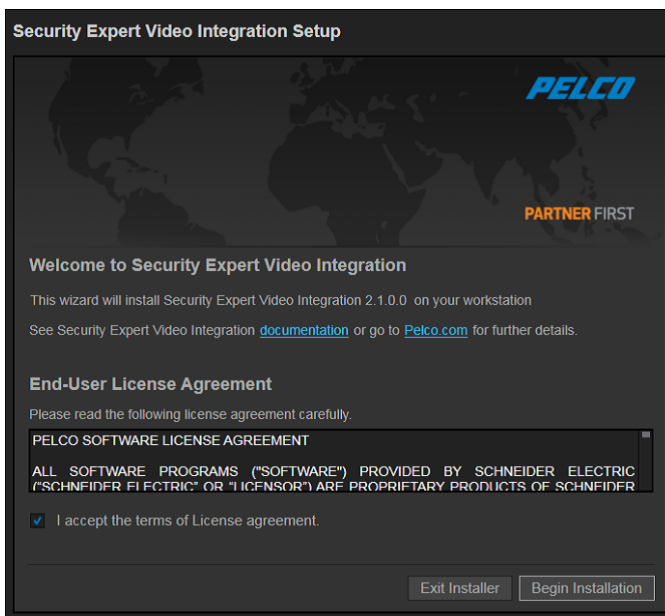


Note: The Security Expert SOAP Service must communicate with the Security Expert server machine. Install the Security Expert SOAP Service in the Security Expert server or provide the name of the server while configuring the service.

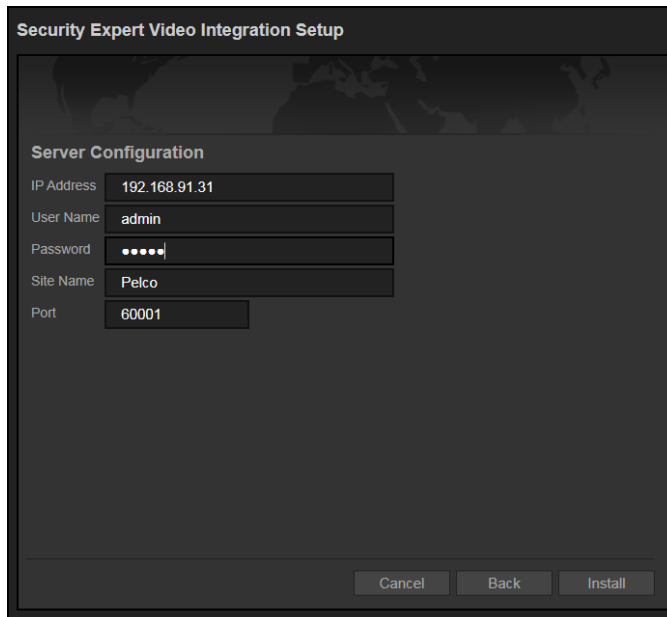


Installing Security Expert Video Integration

1. Right click on the **SecurityExpertVideoIntegrationInstaller-3.0.0-12.exe** file, and then click **Run as administrator**.
2. Click to select the checkbox to accept the terms of the End-User License Agreement, and then click **Begin Installation**.



3. Configure the Server by providing the following information:



Security Expert Video Integration Setup

Server Configuration

IP Address	192.168.91.31
User Name	admin
Password	•••••
Site Name	Pelco
Port	60001

Cancel Back Install

- a. IP Address of the Security Expert SOAP Service host.
 - b. Username of the Security Expert server,
 - c. Password of the Security Expert Server.
 - d. Name of the Site configured in the Security Server. Specify the Organization name mentioned while installing Security Expert Server.
 - e. Service port. By default, the service port will be '60001' and user can change the port if required. Set this service port number in DVR configuration window in Security Expert.
4. Click **Install**.
 5. Click **Close**.

Configuring and Operating the Software

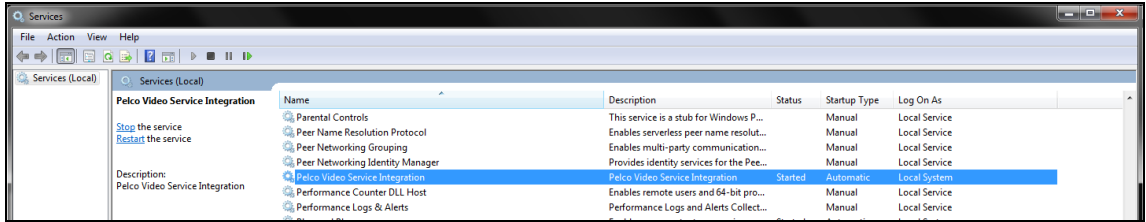
After the complete installation, add the VideoXpert in Security Expert and get camera list, live streaming, archive streaming, and PTZ operations as described in the following sections.

Checking that the Integration Service is Running

1. Open the **Services** snap-in. To do so, go to the "Run" command, type `services.msc`, and then press **Enter**.
2. Scroll down to and locate **PelcoVideo Service Integration** service from **Services**.

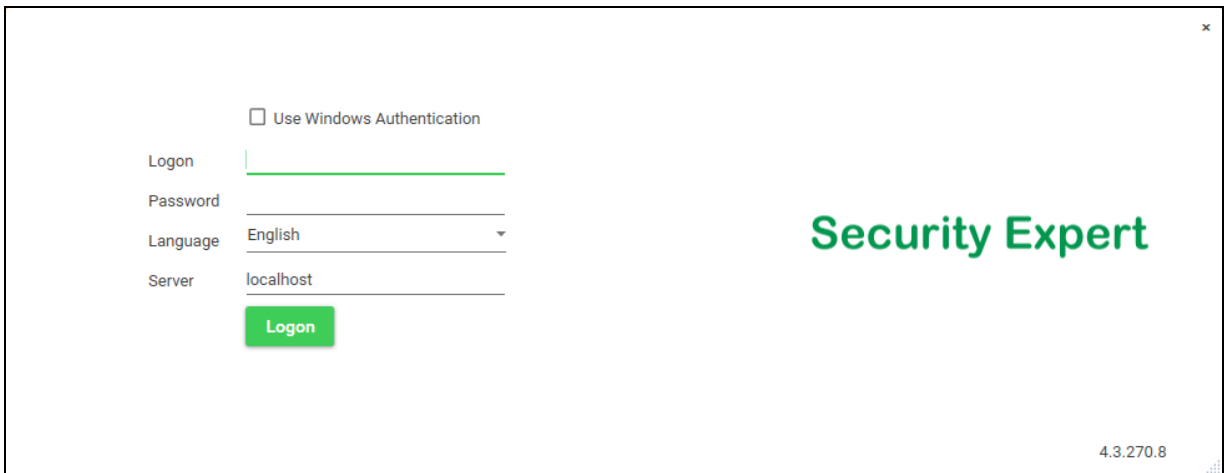
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3. Ensure that “Pelco Video Service Integration” has started automatically. If it has not, right-click the service, and then click **Start**.



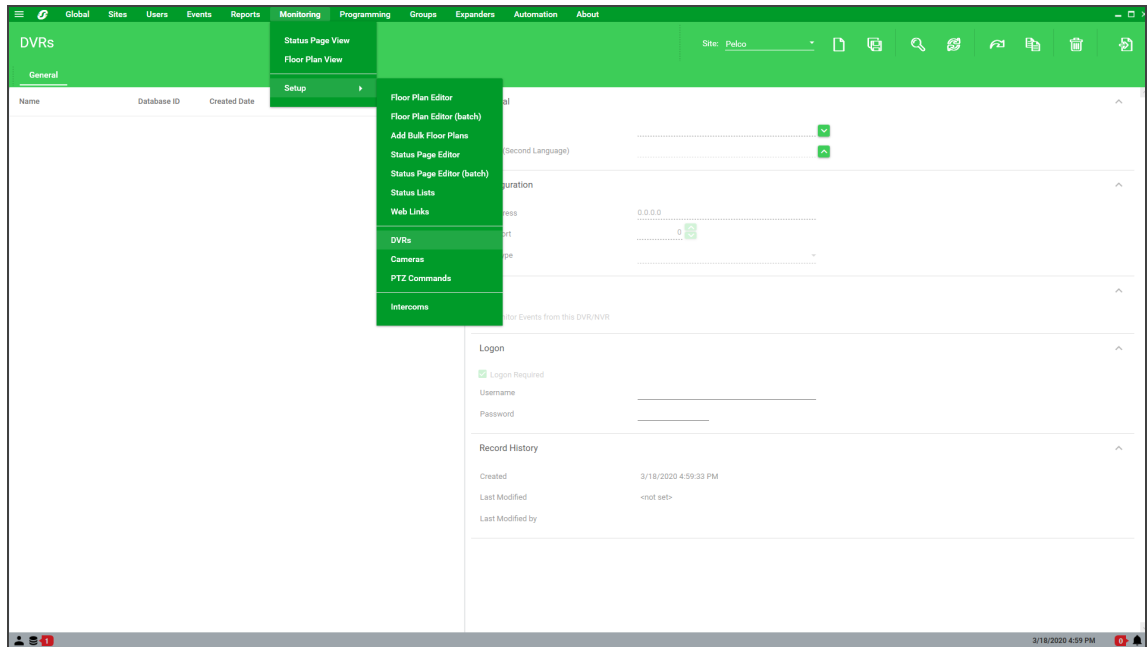
Logging In to the Security Expert Client

Log-in to security expert with the appropriate user credentials.

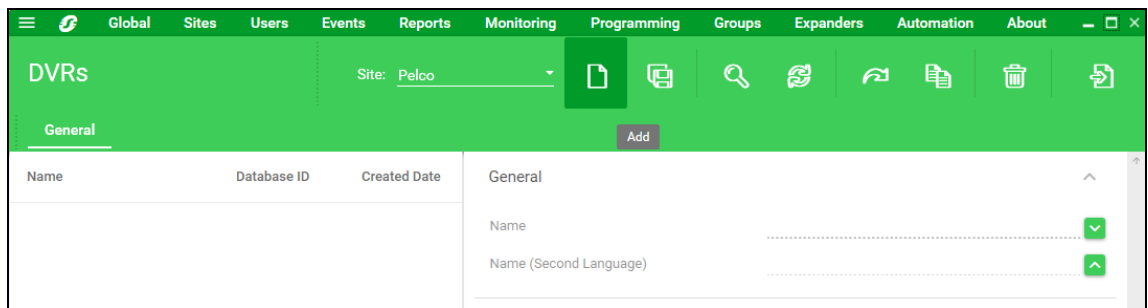


Configuring the Security Expert DVR

1. Configure DVR first. To do so, click **Monitoring**, then click **Setup**, and then click **DVR**.



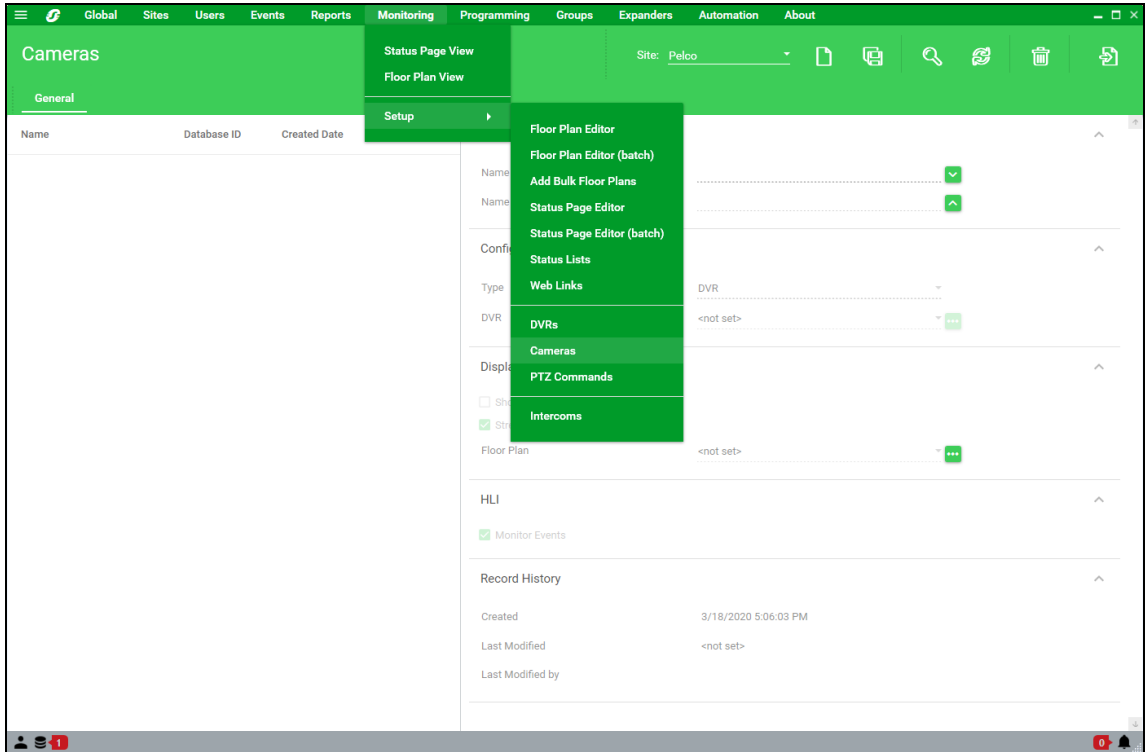
2. Click **ADD**, and then provide the DVR details.



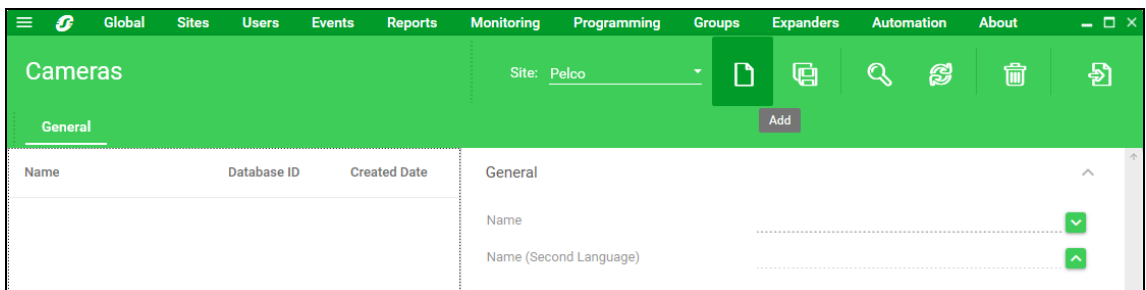
3. Select DVR type **custom**, and then enter the following information.
 - a. **IP Address**: IP Address of the VideoXpert System.
 - b. **DVR Port**: Port number of the VideoXpert System.
 - c. **Service Port**: Service port given during the Installation of Security Expert Integration Installer.
 - d. **Username**: User name of the VideoXpert System.
 - e. **Password**: password of the VideoXpert System.
4. Click **SAVE**.

Configuring a Camera

1. Click **Monitoring**, click **Setup**, and then click **Cameras**.

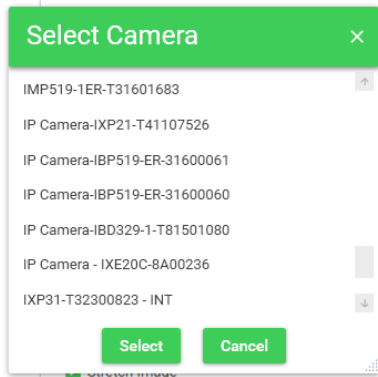


2. Click **ADD**, and then enter camera details.



3. Select the type **DVR**, and then click to select the DVR given in the previous step from the drop-down menu.
4. Click the button corresponding to the DVR camera name to populate the camera list in the DVR.

- Click to select the camera in the **Select Camera** list, and then click **Select**.

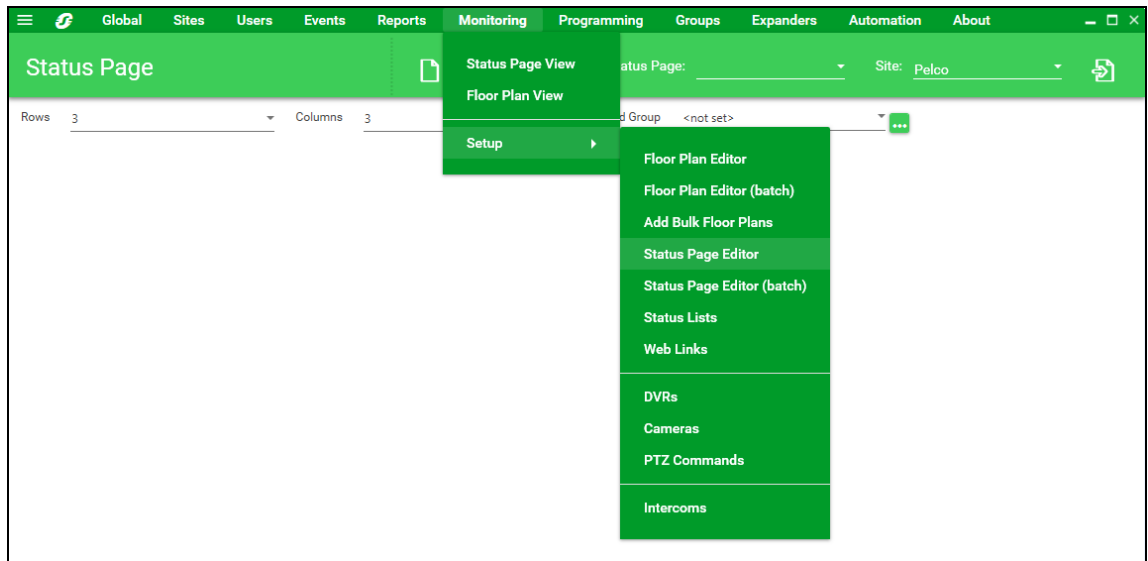


- Click **SAVE**.

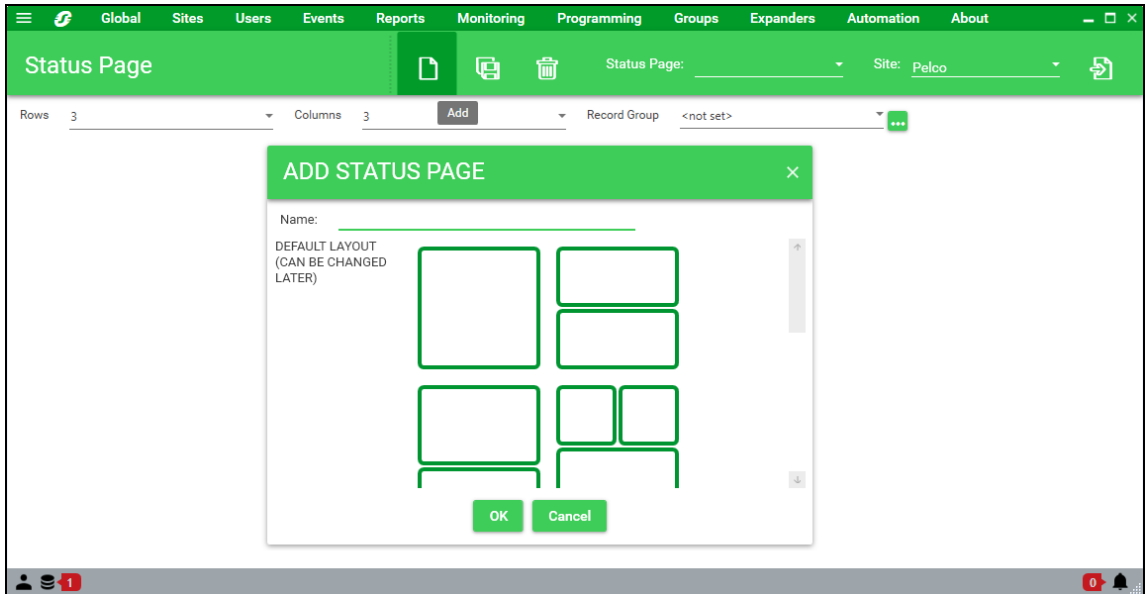
Configuring the Status Page Editor

Configure the status page in this section to display camera and event windows.


- Click **Monitoring**, click **Setup**, and then click **Status Page Editor**.

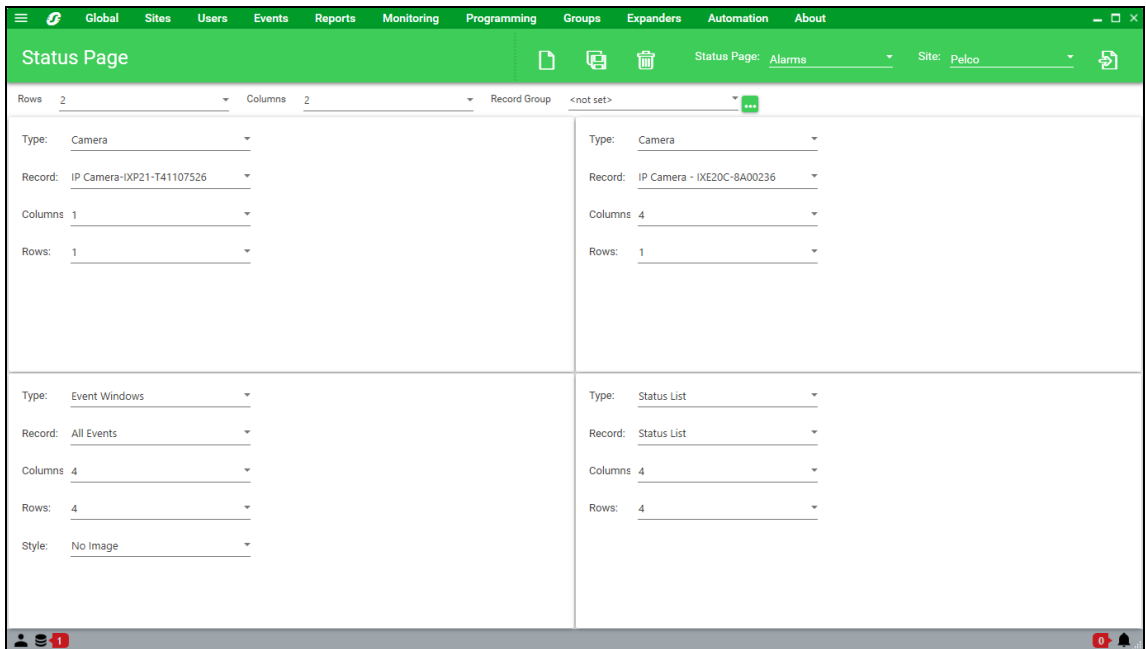


- Click **ADD**, enter the *Name* for the status page, and then click to select the status page layout.



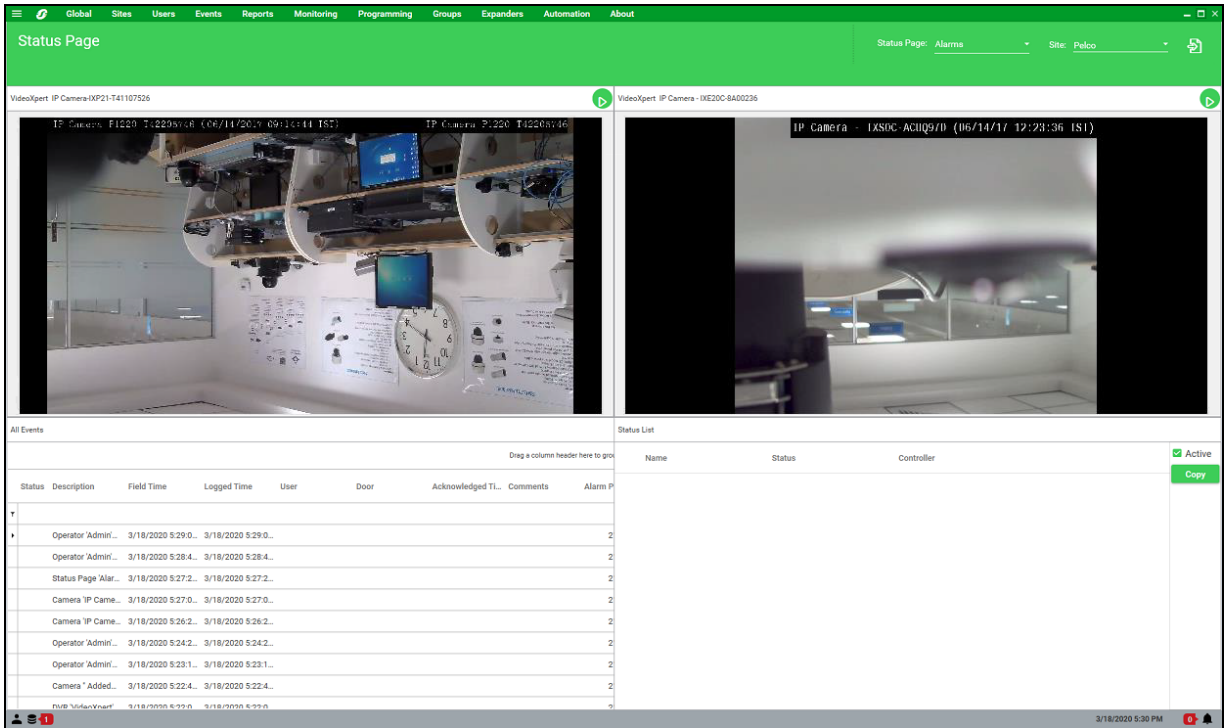
- Click **OK**.
- Click to select *Record*, *Columns*, and *Rows* from the drop-down menus, according to the *Type*, and then click **SAVE**.

 **Example:** For setting the camera stream in the First row and First column of the Status Page view, we have set Type as Camera, chosen camera in Record, set column as 1, and set Rows as 1.



Viewing the Status Page

To show the Camera Live stream and the event windows, configured in the previous section, click **Monitoring**, and then click **Status Page View**.



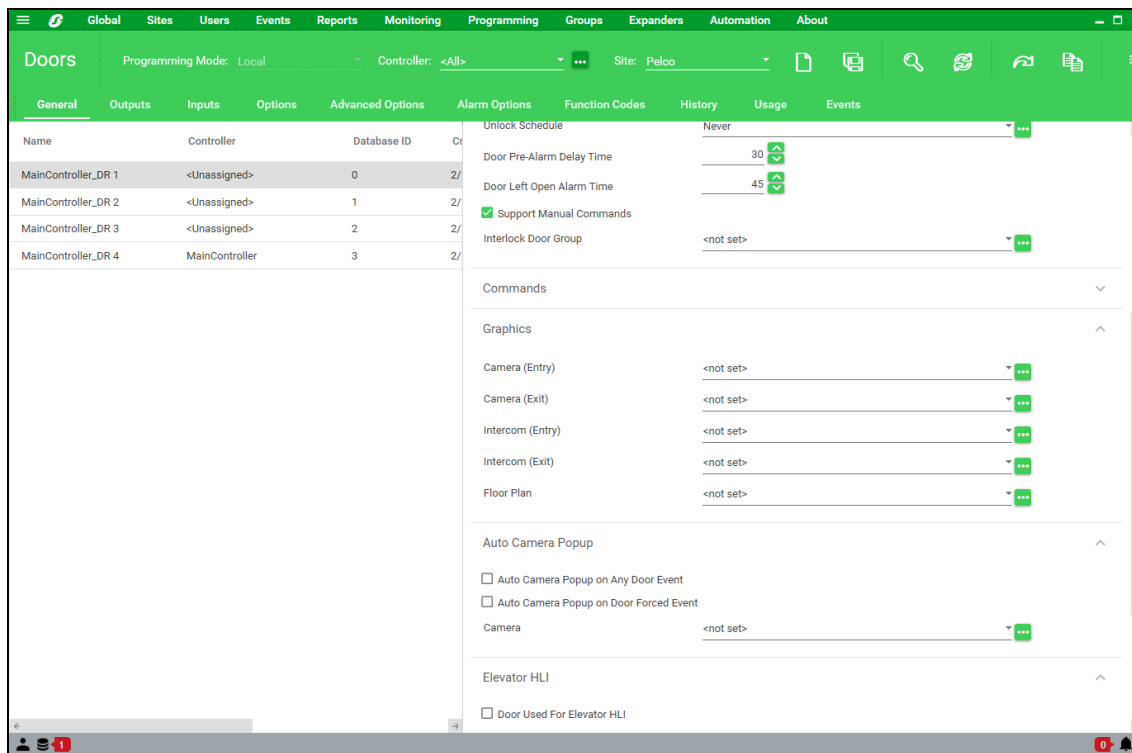
Using PTZ Controls

The small arrow at the top right of the camera stream window shows the PTZ controls. Perform Pan, Tilt and Zoom operations by clicking on the PTZ control buttons.



Setting-up Doors

1. Click **Programming**, and then click **Doors**.



2. Click **ADD**, and then enter door details.
3. Select a camera containing recordings as the *Camera (Entry)* or *Camera (Exit)* in the *Graphics* area.

Viewing Events in the Status Page

1. Click **Monitoring**, and then click **Status Page View**.

Completing the steps in the section titled [Setting-up Doors](#) added an event in the event window in the status page with a yellow camera icon.

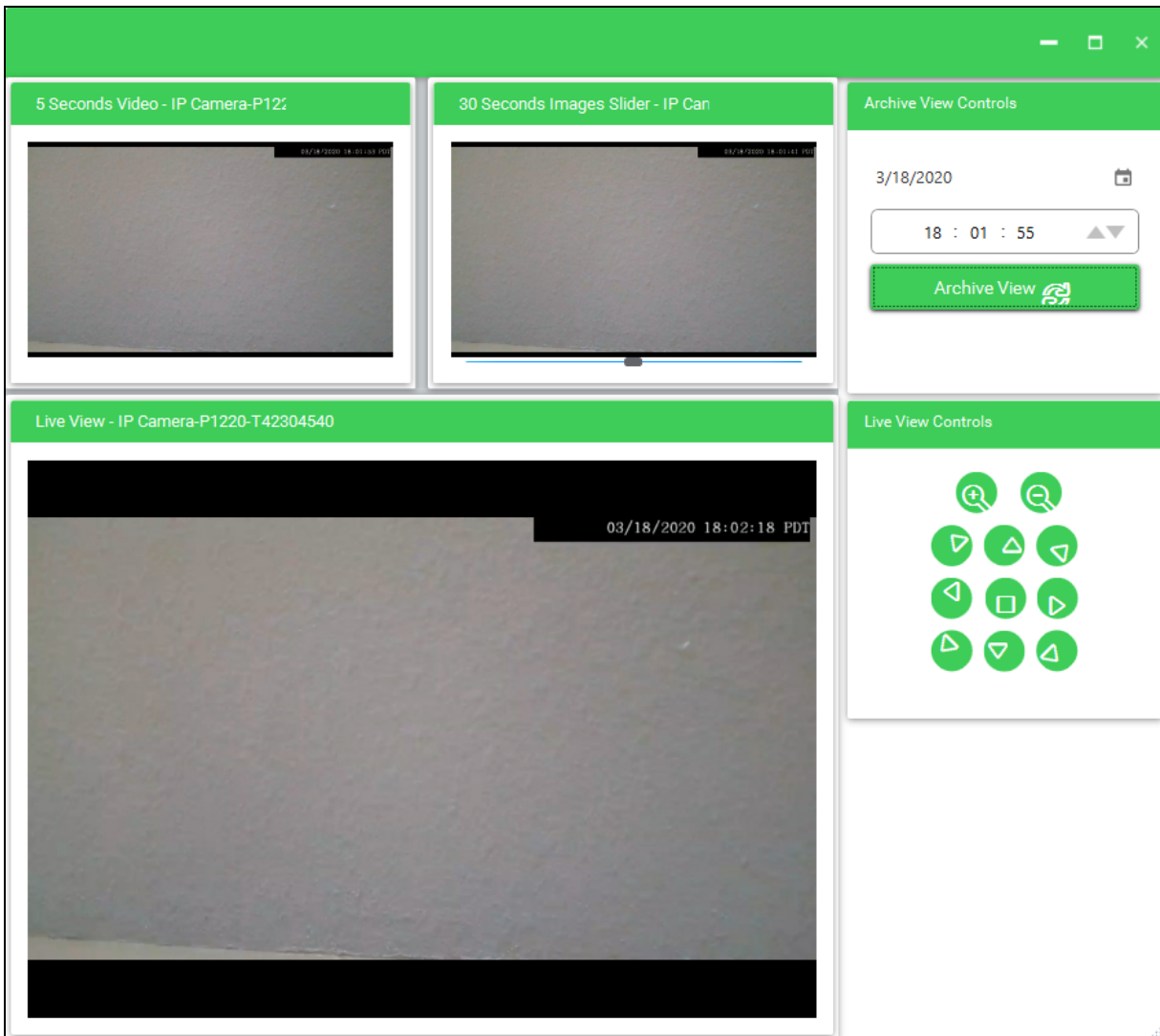


2. Right-click the event, and then click **Camera (Archived)**. This will show the archive window corresponding to the time of the event log.
3. Modify the date and time in *Archive View Controls*, and then click **Archive View** to show the *Archive* streaming.

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The archive window shows three stream windows:

- *5 Seconds Video* (looping)
- *30 Seconds Images Slider*
- *Live View*



Configuring Security Expert Event Injection

Configuring the Service Port

Ensure that **Security Expert SOAP Service** is installed on the Server.

By default, the Security Expert SOAP Service port is 8030. If you change the Security Expert SOAP Service port during installation, update the port in the client endpoint address in the C:\Program Files (x86)\Pelco\Security Expert Integration\PelcoVideoComponent.exe.config file.

```
<client>
  <endpoint address="http://10.1.31.39:8030/SecurityExpertSOAPService/Service.svc" binding="basicHttpBinding"
    "BasicHttpBinding_IService1" />
  <endpoint address="net.pipe://localhost/LoggingService" binding="netNamedPipeBinding" bindingConfiguration=
    "NetNamedPipeBinding_ILoggingService">
    <identity>
      <servicePrincipalName value="host/localhost" />
    </identity>
  </endpoint>
</client>
```

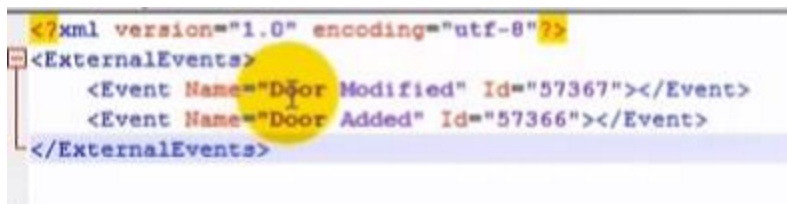
Mapping External Events

Beginning with version 3.0.0.9, certain access events are automatically mapped to VX events.

- system/access_door_opened
- system/access_door_closed
- system/access_door_faulted
- system/access_door_forced
- system/access_door_propped
- system/access_door_locked
- system/access_door_unlocked
- system/access_denied
- system/access_granted

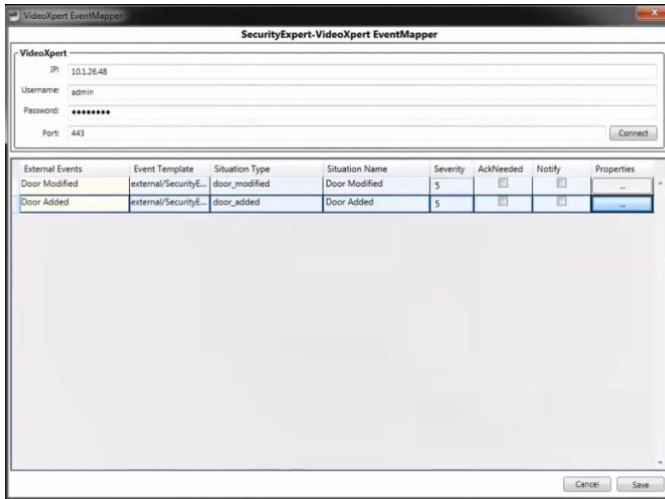
Optionally, these events may also be mapped to external events.

1. Open C:\Program Files (x86)\Pelco\Security Expert Integration\ExternalEvents.xml file.

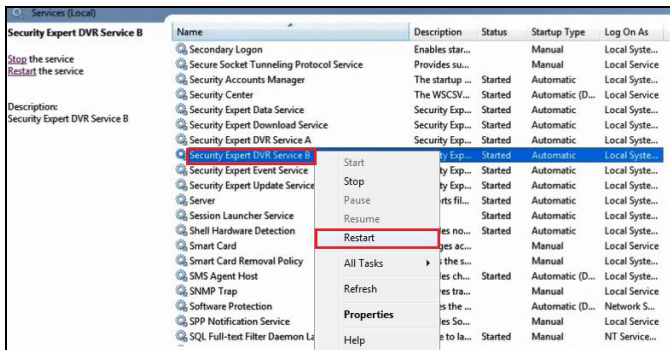


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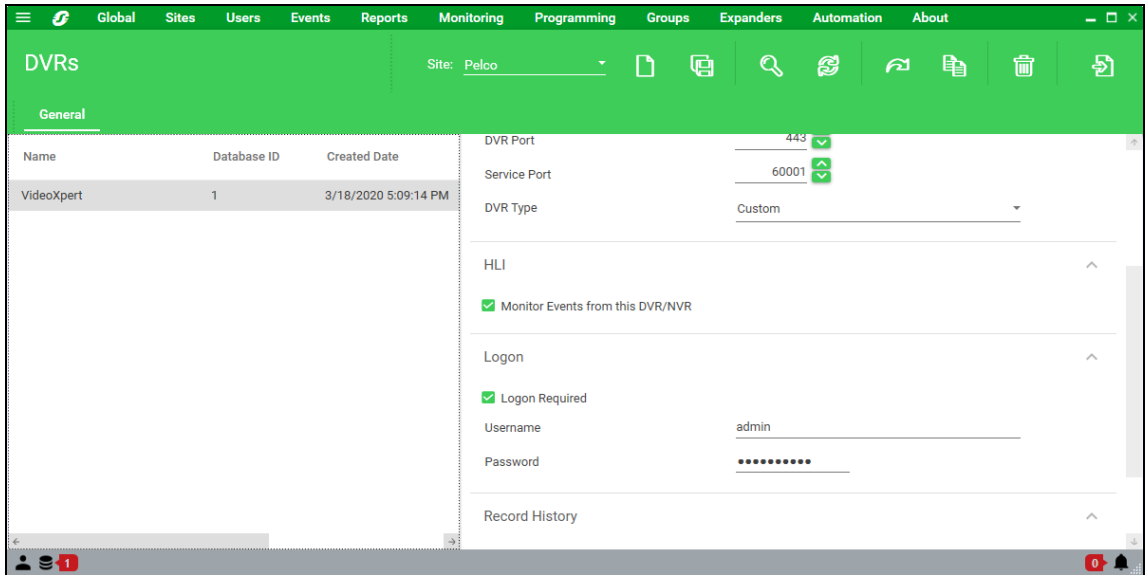
2. Add external events to the **ExternalEvents.xml** file using the name and event id as mentioned in the 'Security Expert Events List.xlsx' document.



3. Open **Event Mapper** from the Desktop shortcut (on the Security Expert Server Machine).
 - a. Click **Connect** to connect with **VideoXpert** and create situations.
 - b. Click **Properties** and change the **Situation** properties, if any.
 - c. Click **Save**.
4. **Restart** the *Pelco Video Service Integration* service.



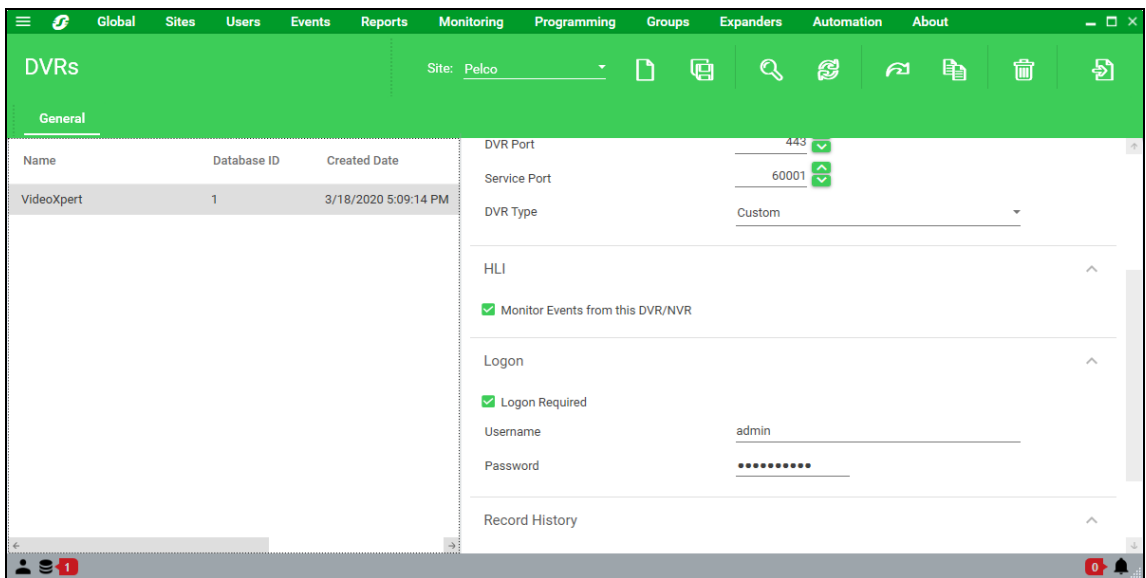
- Click to select the checkbox for *Monitor Events from this DVR/NVR* during configuring DVR to subscribe to events.



- Restart *Security Expert DVR B service in services.msc* and wait for one minute before starting the Security Expert application.

Configuring Event Injection from VideoXpert to Security Expert

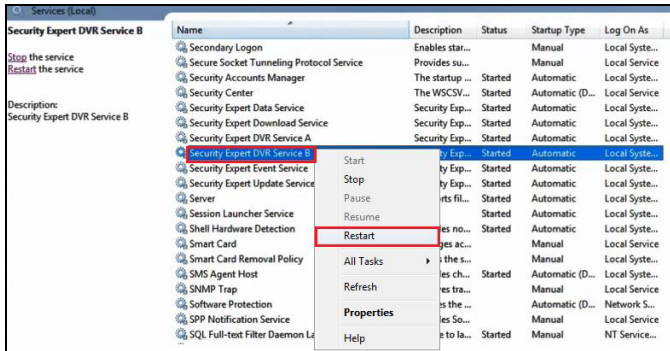
- Verify that **Security Expert v4.3.270.8 or higher** is installed on server and client machines.
- Verify that **SecurityExpertVideoIntegrationInstaller** is installed on the server machine.
- Click to select the checkbox for *Monitor Events from this DVR/NVR* during configuring DVR to subscribe to events.



- Restart *Pelco Video Service Integration* in services.msc.

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- Restart *Security Expert DVR Service B* in services.msc and wait for one minute before starting the Security Expert application.



- View the Events logged from VideoXpert in the client. Security Expert Event types and VideoXpert situations are listed in [Table 1: Security Expert Event types and VideoXpert situations](#).

Status	Description	Field Time	Logged Time	User	Door	Acknowledged TL...	Co
	Operator 'Admin' Logged Out	2/20/2020 1:19:31 PM	2/20/2020 1:19:31 PM				
	Operator 'Admin' Logged In	2/20/2020 1:18:41 PM	2/20/2020 1:18:41 PM				
	Operator 'Admin' Logged Out	2/20/2020 1:17:21 PM	2/20/2020 1:17:21 PM				
	Operator 'Admin' Logged In	2/20/2020 1:09:42 PM	2/20/2020 1:09:42 PM				
	Operator 'Admin' Logged Out	2/20/2020 1:05:58 PM	2/20/2020 1:05:58 PM				
	Operator 'Admin' Logged In	2/20/2020 1:05:25 PM	2/20/2020 1:05:25 PM				
	Operator 'Admin' Logged Out	2/20/2020 1:03:48 PM	2/20/2020 1:03:48 PM				
	Operator 'Admin' Logged In	2/20/2020 1:03:23 PM	2/20/2020 1:03:23 PM				
	Operator 'Admin' Logged Out	2/19/2020 8:51:16 PM	2/19/2020 8:51:16 PM				
!	Camera Motion Detected On Camera 'ake camera#1'(CM3) On DVR/NVR 'VxPro 3.7'	2/19/2020 8:50:39 PM	2/19/2020 8:50:39 PM			2/20/2020 1:18:5...	
!	Camera Motion Detected On Camera 'ake camera#1'(CM3) On DVR/NVR 'VxPro 3.7'	2/19/2020 8:50:39 PM	2/19/2020 8:50:39 PM			2/20/2020 1:18:5...	
!	Camera Motion Detected On Camera 'ake camera#1'(CM3) On DVR/NVR 'VxPro 3.7'	2/19/2020 8:50:39 PM	2/19/2020 8:50:39 PM			2/20/2020 1:18:5...	
!	Camera Motion Detected On Camera 'ake camera#1'(CM3) On DVR/NVR 'VxPro 3.7'	2/19/2020 8:50:39 PM	2/19/2020 8:50:39 PM			2/20/2020 1:18:5...	
!	Camera Motion Ceased On Camera 'ake camera#1'(CM3) On DVR/NVR 'VxPro 3.7'	2/19/2020 8:50:36 PM	2/19/2020 8:50:36 PM			2/20/2020 1:18:5...	
!	Camera Motion Ceased On Camera 'ake camera#1'(CM3) On DVR/NVR 'VxPro 3.7'	2/19/2020 8:50:36 PM	2/19/2020 8:50:36 PM			2/20/2020 1:18:5...	

Table 1: Security Expert Event types and VideoXpert situations

Security Expert Event Types	VideoXpert Situations
Online Event	system/data_source_online system/device_online
Offline Event	system/data_source_offline system/device_offline
Motion Detected Event	analytic/motion
Motion Ceased Event	analytic/no_motion
Camera Input Activated	system/alarm_active

Security Expert Event Types	VideoXpert Situations
Temperature Event	hardware/temperature
Storage Event	hardware/volume_full
Diagnostic Event	system/stream_loss system/stream_restored
Physical Offline Event	hardware/input_loss
Physical Online Event	hardware/input_restored
Property Changed Event	admin/device_modified admin/device_decommissioned admin/device_commissioned admin/device_assigned admin/device_unassigned
Video Analytics Event	All analytic events except motion and no motion

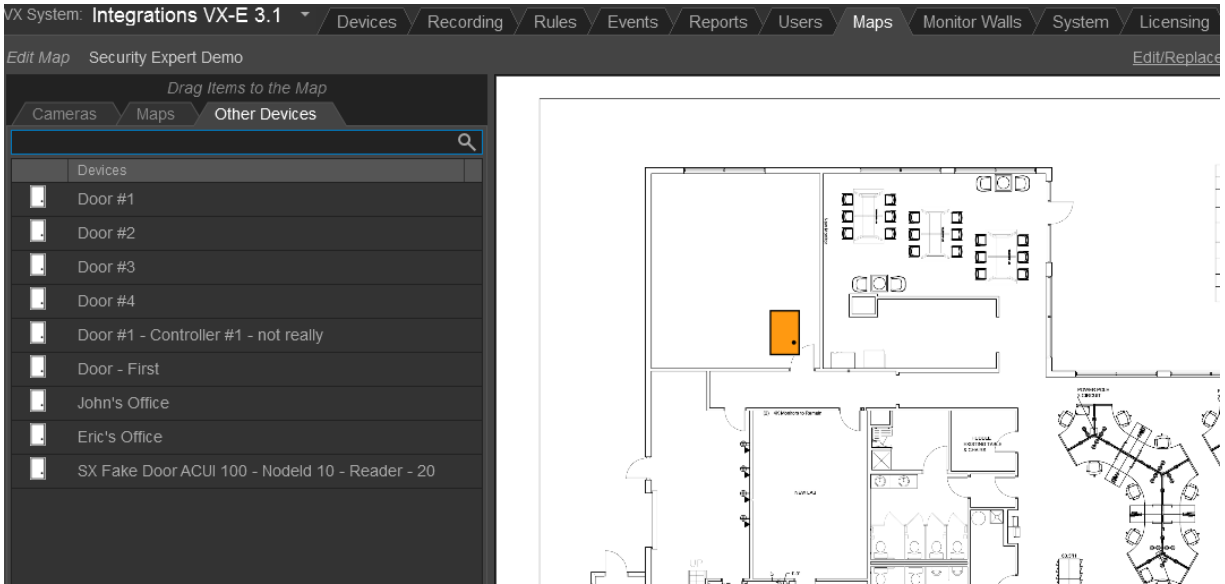
 **Note:** If you make any changes to the DVR List, restart *Pelco Video Service Integration* first and then restart *Security Expert DVR Service B* on the server.

Using VxMaps with Security Expert

Beginning with version 3.0.0.9 of the Security Expert Integration, you can add access points to maps.

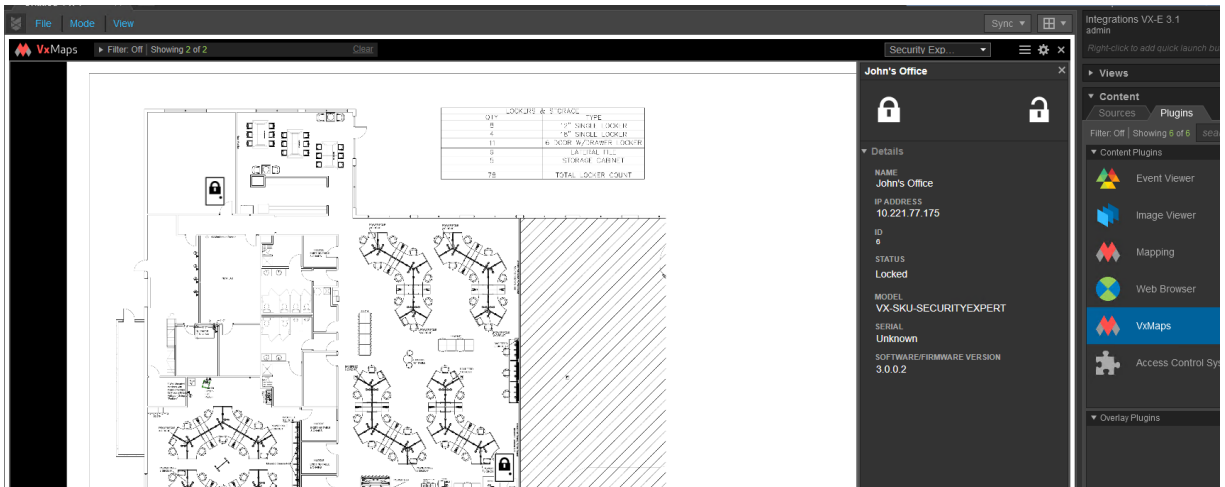
Setting-up Maps Using VxToolbox

1. In VxToolbox, click the **Maps** tab.
2. Open a map to edit.
3. Click the **Other Devices** tab to view the access points available for the map.
4. Drag and drop the access point(s) to the map.



Seeing Access Control using VxMaps Plugin in OpsCenter

In VX OpsCenter, drag **VxMaps** from the plugins section to a cell. Access control points are visible if the map contains any.



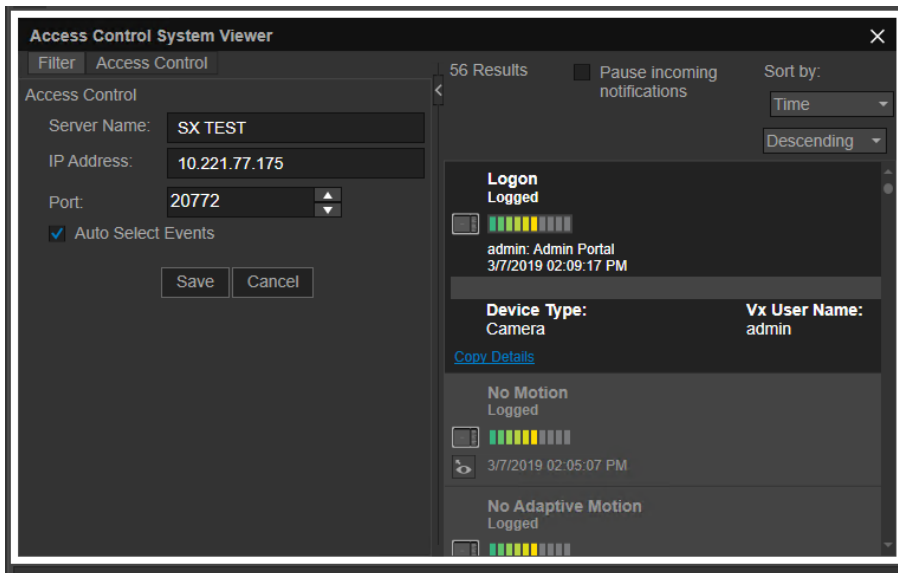
For more information, see the VideoXpert Operations Manuals.

Using the Access Control System Viewer

The Access Control System Viewer is a VxOpsCenter plugin available on partnerfirst.pelco.com. It is specifically designed to work with access control systems, including Security Expert. You need at least version 3.0.0.9 of the Security Expert integration for support of the Access Control System Viewer.

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1. To set up the Access Control System Viewer, click the icon that looks like a gear.
2. Enter a **Server Name** that is any text string that helps you identify this server.



3. Enter the **IP Address** of the machine on which you installed the Security Expert integration. The port must be 20772.

Using the Rules Engine with Security Expert

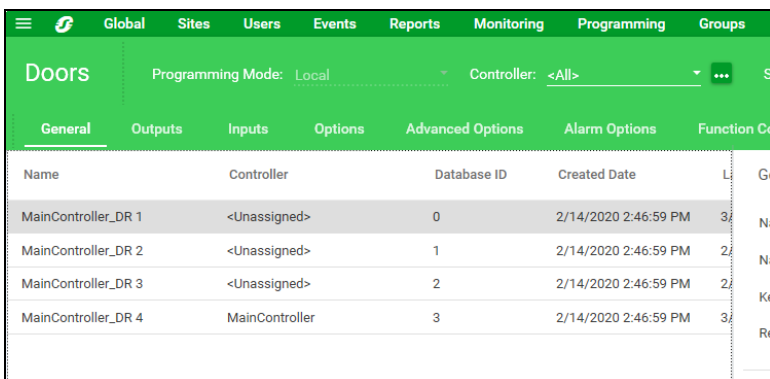
Using the rules engine in VideoXpert, you can add more activities to a Security Expert, such as moving a PTZ to a preset, bookmarking a recording, or activating a relay. See the *VideoXpert Toolbox Operations Manual* for more information about adding a rule into VideoXpert using VxToolbox.

To use the rules engine with a specific door, use the event properties “device_id” for an external event or “Access Point Id” for system events. Below are the details of a **System/Access Door Locked** event. In this case, the **Access Point Id** is “6”. Retrieve the event properties in the Event Viewer in VxOpsCenter by clicking **Copy all to clipboard** on an event.



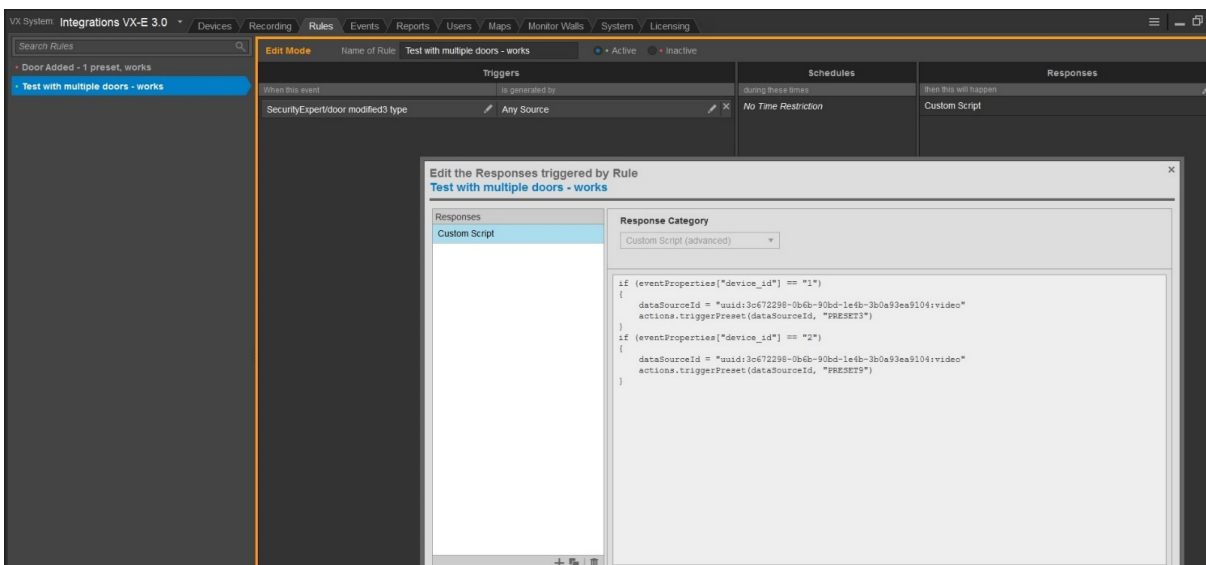
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The door number will match what was previously configured (click **Programming**, and then click **Doors**) in Security Expert in the *DataBase ID* column, as shown below.



Name	Controller	Database ID	Created Date	Location	Generated
MainController_DR 1	<Unassigned>	0	2/14/2020 2:46:59 PM	3	Na
MainController_DR 2	<Unassigned>	1	2/14/2020 2:46:59 PM	2	Na
MainController_DR 3	<Unassigned>	2	2/14/2020 2:46:59 PM	2	Ke
MainController_DR 4	MainController	3	2/14/2020 2:46:59 PM	3	Re

The following screen capture demonstrates how to move two different cameras to specific presets based on which door was unlocked.

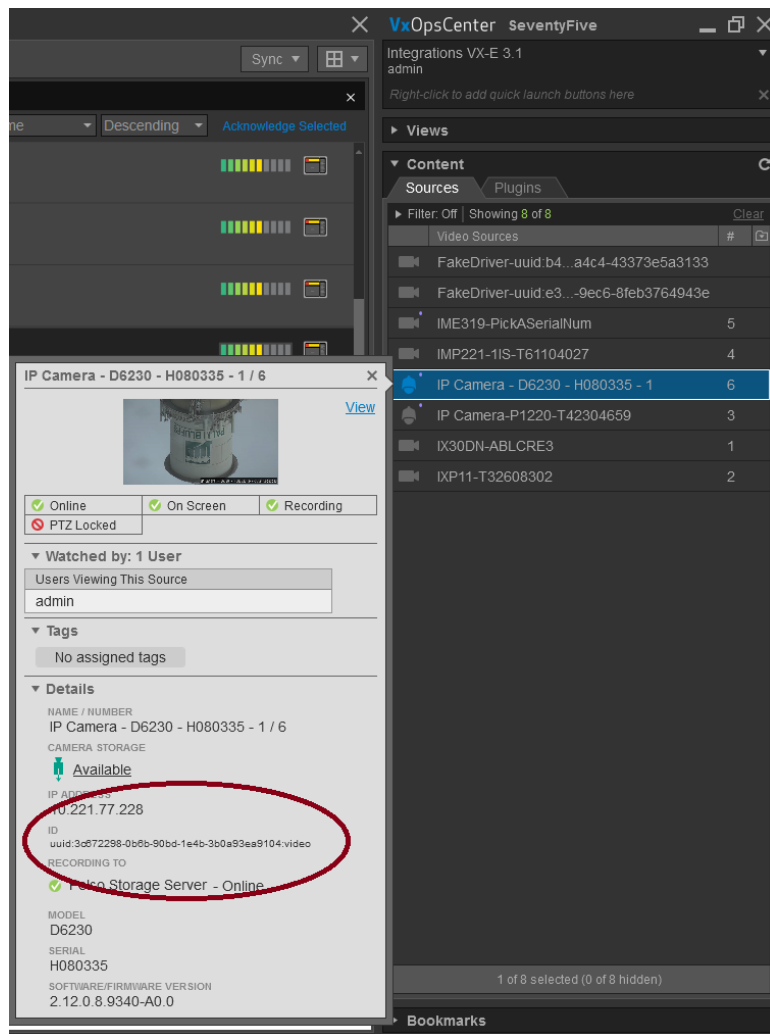


```
if (eventProperties["Access_Point_Id"] == "6")
{
  dataSourceId = "uuid:3c672298-0b6b-90bd-1e4b-3b0a93ea9104:video"
  actions.triggerPreset(dataSourceId, "PRESET9")
}
if (eventProperties["Access_Point_Id"] == "7")
{
  dataSourceId = "uuid:3c672298-0b6b-90bd-1e4b-3b0a93ea9104:video"
  actions.triggerPreset(dataSourceId, "PRESET3")
}
```

Text of the rule is presented below for clarity:

```
if (eventProperties["Access_Point_Id"] == "6")
{
  dataSourceId = "uuid:3c672298-0b6b-90bd-1e4b-3b0a93ea9104:video"
  actions.triggerPreset(dataSourceId, "PRESET9")
}
if (eventProperties["Access_Point_Id"] == "7")
{
  dataSourceId = "uuid:3c672298-0b6b-90bd-1e4b-3b0a93ea9104:video"
  actions.triggerPreset(dataSourceId, "PRESET3")
}
```

The “dataSourceId” can be found in VxToolbox, or in VxOpsCenter.



Troubleshooting

If any crash is occurring in the PelcoVideoComponent.exe , restart **Pelco Video Service Integration** first and then restart **Security Expert DVR Service B**.

Logging

Log files are located at: C:\ProgramData\Pelco\SecurityExpertIntegration\Logs. When diagnosing an issue, change the logging level to 'trace'. To do so, modify the following config file:

C:\Program Files (x86)\Pelco\Security Expert Integration\PelcoVideoComponent.exe.config

There are two log settings located in the *Pelco.SecurityExpert.VideoComponent.Properties.Settings* section of the config file:

- **LogLevel:** Sets the logging level for the Security Expert Integration Service.
- **VxLogLevel:** Sets the logging level for the VideoXpert SDK used by the Security Expert Integration Service.

The log levels for both settings, in descending order, are as follows and are case sensitive.

Level	Description
none	Disable all logging.
fatal	Designates very severe error events that will presumably lead the application to abort.
error	Designates error events that might still allow the application to continue running.
warn	Designates potentially harmful situations.
Info	Designates informational messages that highlight the progress of the application.
debug	Designates fine-grained informational events that are most useful to debug an application.
trace	Designates finer-grained informational events than the debug.



Note: The changes will not take effect until *Pelco Video Service Integration* is restarted.

Changing Default Streaming Settings

To change the default settings used for streaming, modify the following config file:

C:\Program Files (x86)\Pelco\Security Expert Integration\PelcoVideoComponent.exe.config

The following settings can be configured in the *Pelco.SecurityExpert.VideoComponent.Properties.Settings* section of the config file:

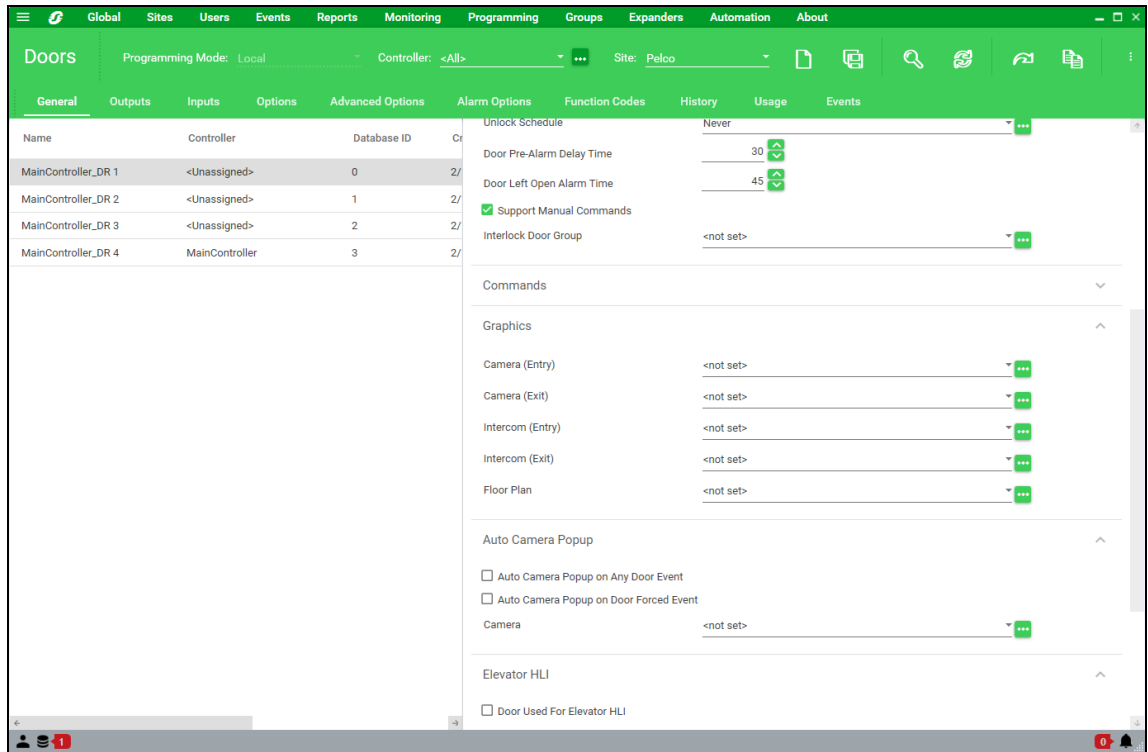
- **DefaultProtocol:** This allows adjusting the default streaming protocol for the integration. This can be set to either *RTSP* or *MJPEG*. The default is *RTSP*.
- **DefaultTransmission:** This allows adjusting the default transmission mode for the integration. This can be set to either *unicast* or *multicast*. The default is *unicast*.



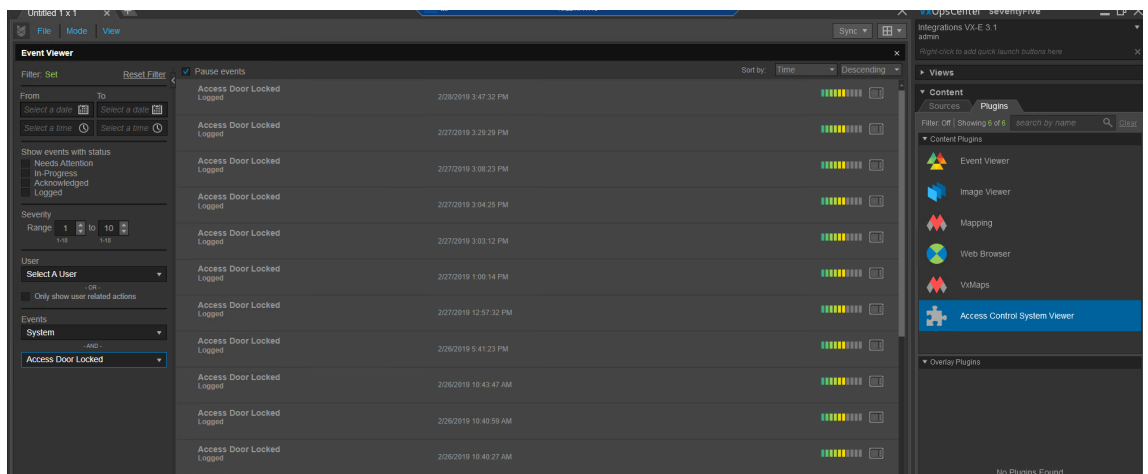
Note: The changes will not take effect until the *Pelco Video Service Integration* service is restarted.

Testing External Events


1. Open **Door Programming** and modify the **Door**.



2. In VxOpsCenter, open the **Status Page View** and verify the door modified event.



3. In the VxOpsCenter Event Viewer or the Access Control System Viewer, view the events from Security Expert.

 **Note:** If you make any changes to the DVR List, restart *Pelco Video Service Integration* first, and then restart *Security Expert DVR Service B* on the server.

Pelco Troubleshooting Contact Information

For further assistance, contact Pelco Product Support at 1-800-289-9100 (USA and Canada) or +1-559-292-1981 (international).

Abbreviations

Abbreviation	Definition
PTZ	Pan Tilt Zoom
VMS	Video Management System
VX	VideoXpert
VxSDK	VideoXpert Software Development Kit

Version Information

Integration Component Version

#	Component Name	Version	Description
1.	Security Expert Video Integration	3.0.0-12	

Security Expert Version

#	Component Name	Version	Description
1.	Security Expert	4.3.270.8	



Pelco, Inc.
625 W. Alluvial, Fresno, California 93711 United States
(800) 289-9100 Tel
(800) 289-9150 Fax
+1 (559) 292-1981 International Tel
+1 (559) 348-1120 International Fax
www.pelco.com

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