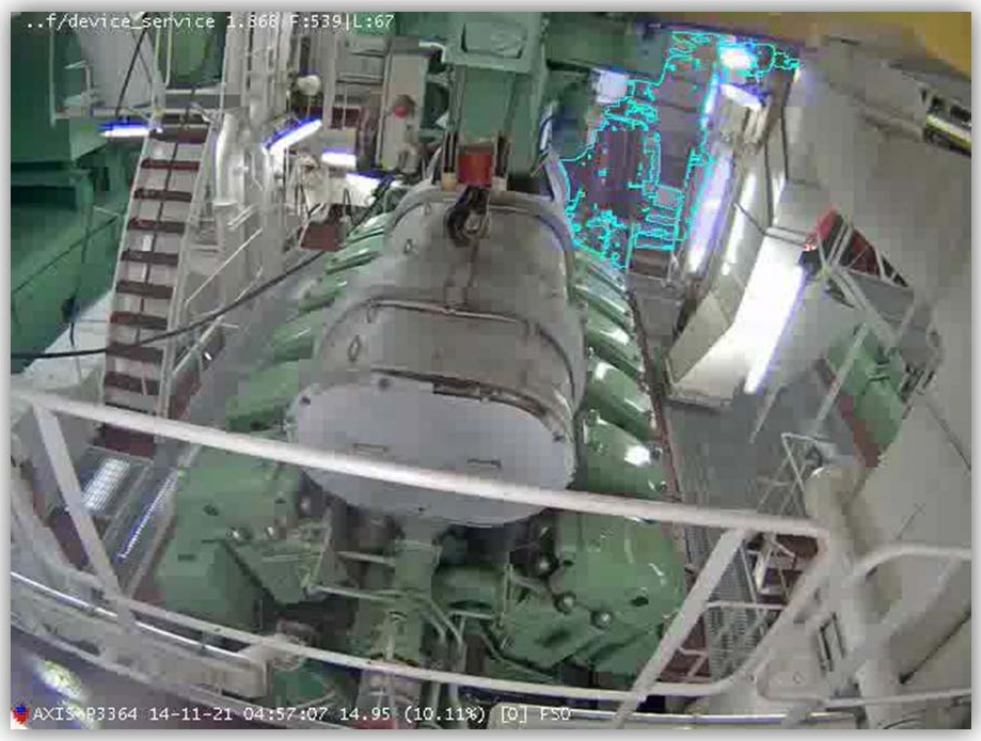
FIKE VIDEO ANALYTICS SETUP PROCEDURES FOR SHIPBOARD SERVER SYSTEMS



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Fike®
Video Analytics Corporation

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SETUP PROCEDURES FOR SHIPBOARD SERVER SYSTEMS

VIDEO ANALYTICS FOR ENGINE ROOMS

Fike Video Image Detection is primarily applied in engine room applications to detect early presence of visible, flammable vapors that can occur prior to flame or explosion. The presence of smoke, fuel oil mist/hydraulic spray, flame and reflection of flame may also be detected.

There are three, mutually independent analytics algorithms used; smoke, flame and reflected flame detection and are technology based on algorithms listed/approved by UL/FM and compliant with NFPA 72 (National Fire Protection Association). The smoke detection algorithm is used to detect smoke, oil/fuel mist or spray from a leak under pressure and oil vapor that is generated when fuel or oil leaks onto a hot surface.

Oil mist may form when high pressure fuel oil, lubricating oil, hydraulic oil, or other oil is sprayed through a narrow crack, or when leaked oil connects with a high temperature surface, vaporizes and comes in contact with low air temperature.

When the concentration of oil mist increases and reaches the lowest explosion level (LEL; 50 mg/ℓ, as defined by the IACS), explosion may occur when the mist contacts surfaces of over 200 °C (392 °F) or a spark.

SYSTEM SETUP OVERVIEW

Prior to installing a video analytics detection system, a hazard analysis is performed to identify areas for detection covering equipment involving flammable liquids as listed below. With these areas in mind, it is best if the camera is installed approximately 10 feet (3.05 m) from the equipment with a clear view across the top or sides. In addition, the camera angle should be adjusted so as to provide adequate room above head height in the camera image to insert smoke detect zones.

- Diesel Generators and Diesel Propulsion
- Engines
- Cylinder heads and exhaust manifolds
- Fuel supply and return line modules (general area coverage above the deck plates where flexible hoses/pipes and filters are located)
- Boilers Boiler front / burner
- Incinerator Room Burners and Silos
- Purifiers and fuel modules Purifiers and fuel modules – general coverage
- Emergency Diesel Generator and Auxiliary Emergency Diesel Generator if fitted
- Diesel Engine – general coverage

When the cameras are added to server software, the analytics settings can be modified to target specific areas for highest sensitivity with lowest false alarm rate. "Detect" (alarm) zones are configured for the smoke algorithm above or near the equipment so that alarm will occur inside the zone. The camera is “detecting” in the entire field of view, however will not alarm until detection reaches alarm zone. Areas with low potential for origination of smoke, mist or flame, such as the walkways will be excluded from the zones to avoid unwanted detections from personnel.

OPERATIONAL CONSIDERATIONS

The video analytics sensitivity is used for early detection of the slight vapor from atomized fuel or mist that can cause explosion. The alarm zones can be considered virtual 3D coverage situated above or near the hazard equipment. The hot oil mist is sustained and possibly under pressure, while effected by the high airflow present in the spaces, so will naturally rise or migrate quickly into the detect zones as proven during extensive shipboard testing and observation of installed systems.

We suggest procedures be implemented to avoid unwanted alarms. These procedures can include:

1. Training of machinery space personnel regarding the presence of the alarm zones and importance of minimizing unnecessary entry
2. Communication protocols and procedures for managers, maintenance personnel prior to working in the hazard areas.
3. Use of software interlocks (Maintenance Mode) in Fike video management system for disabling of smoke detection for each specific camera during maintenance. This can be accomplished with the “Maintenance Mode” setting that will disable smoke detection and automatically re-enable after specified number of minutes.

Notes:

1. System setup and configuration usually takes approximately two ship visits or ride of a few days to monitor activity. The first visit is to configure the “detect” alarm zones for the earliest detection and low false alarms based on guidelines provided below. The follow-up visits are to view alarms and adjust system as necessary to keep personnel detections low and assure adequate detection coverage.
2. Do not enable SpyderGuard in the engine control room for crew interface until the system has been configured with a trial period and proven stable.
3. System “detect” alarm zones are configured on and above equipment as well as above head height and away from where personnel work in day to day routine. Oil mist is under pressure and hot, therefore has energy that will cause it to rise. Additionally, there is airflow in the rooms that will move the smoke or mist to the alarm areas.
4. Include as many lights as possible in the alarm zones as they provide contrast that assists in detecting mist and smoke.
5. Flame and reflected fire light are initially enabled without zones so entire field of view is covered. If necessary, areas may be masked or zones can be configured if false flame alarms become an issue.

CHECKLIST PRIOR TO INSTALLATION

Coordinate the following with owner's representative, corporate personnel, shipboard electrical engineers and IT engineers.

1. Rack space and mounting hardware for new servers. Avoid excessive vibration where possible.
2. Verify an AC power source (outlet type can be two-prong European style or other), network port, cable and power backup (if required). Coordinate AC power feed to server with fleet administrator and ship's chief electrician.
3. IP addresses for new servers, workstation and IP relay (if provided).
4. Open/configure switch ports for new servers.
5. Identify cameras to monitor (must be ONVIF compatible, Fixed IP cameras, PTZ ok if locked position).
6. Assure cameras are focused with no vibration.
7. List of IP credentials (IP address, subnet mask and gateway) of cameras to be monitored. Determine camera name or machinery space name that can be added to the organizational tree configuration.
8. Password for existing cameras' user interface.
9. It is recommended that a representative from the original CCTV contractor, if different than Fike integrator, be onboard to assist with initial configuration of cameras, equipment time synchronization and during camera integration into SpyderGuard.
10. Camera view screen shots are required before installation to plan a detection strategy.
11. Have keyboard, monitor and mouse available if required to directly connect to Fike servers for system setup.
12. SpyderGuard VMS may be installed on the existing engine control room VMS client workstation or a Fike workstation. If SpyderGuard is to be installed on the existing engine control room work station, the Admin user name and password must be provided. It is recommended that prior to installing the software on board the ship it should be tested for compatibility with the engine control room VMS workstation. Coordinate trial install of the software with the VMS vendor.

    Once installed, SpyderGuard should not interfere with operation of the existing VMS. SpyderGuard will run minimized and will pop-up upon alarm. Pop-up is also intended to be replicated on a large screen monitor.
13. Verify there is a master time (NTP) server.

SYSTEM CONFIGURATION

The information in this document applies specifically to shipboard server systems; however, it can apply to any Fike Video Analytics Server system. These are suggested guidelines for initial system setup, and additional adjustments to the system may be necessary. Please refer to the Fike Video Analytics Server manual for more detailed information. Server configuration must be accomplished only by a factory trained representative.

1. Set the IP address of Fike workstation and Server(s) then connect to a camera LAN.

2. Synchronize the time of cameras, encoders, server and workstation(s) to the NTP time server. Recommend using the UTC time zone.

3. If new cameras are being used, configure each camera and/or encoder channels in their web interface one at a time so there is no conflict of IP Addresses on the network.

   a. Add Administrative Level user with user name: *xxxx* and password: xxxx (others may be used but must be same on camera and SpyderGuard). A second user name and password will need to be added to any Axis cameras to an ONVIF profile. This is for communication with the Fike Video Analytics system.

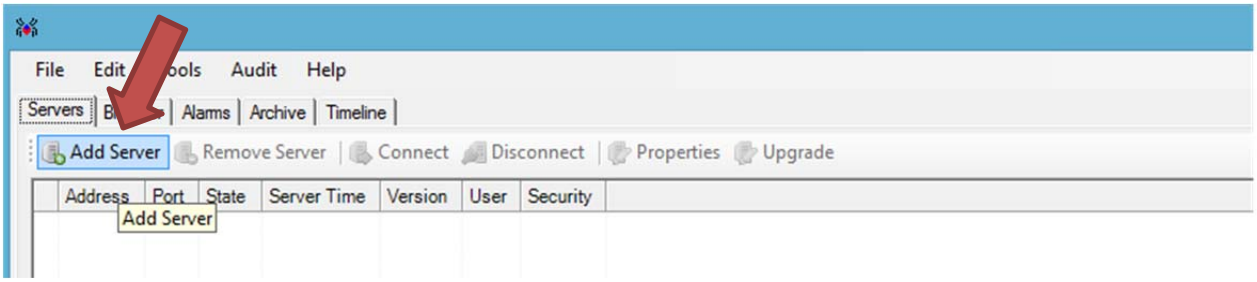
   b. Enable and configure ONVIF Options if necessary. Refer to the camera manufacturer's manual for ONVIF settings.

   c. Focus cameras and assure no vibration.

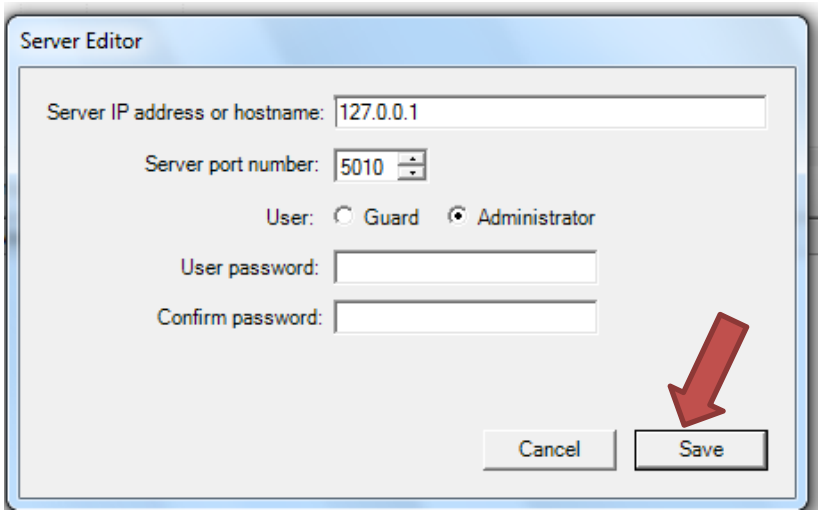
4. Install SpyderGuard on existing VMS workstation. This may require an administrator user name and password to access the workstation. A separate, dedicated workstation may be provided.

5. Open SpyderGuard, which will open with the ***Servers*** tab selected.

6. Click the ***Add Server*** button.

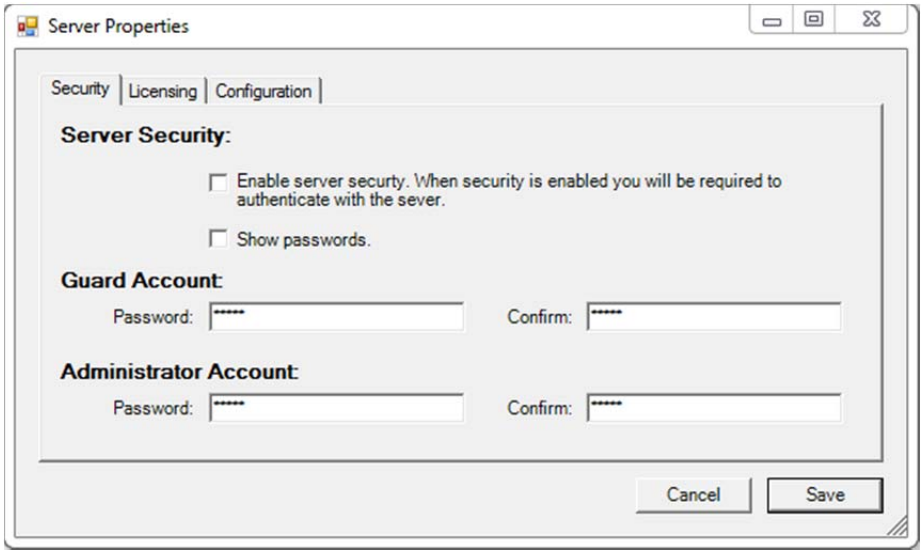


7. The ***Server Editor*** window will open. Type the server IP address then choose to login as an Administrator, and click the ***Save*** button. The server will be added to the servers list.



By default, all servers do not have password protection enabled. After the server is added, Fike recommends enabling server security which will require a password for both Administrator and Guard logins.

8. To enable server security, right-click on the server in the server list and select ***Properties*** from the sub-menu. The ***Server Properties*** dialog box will open.

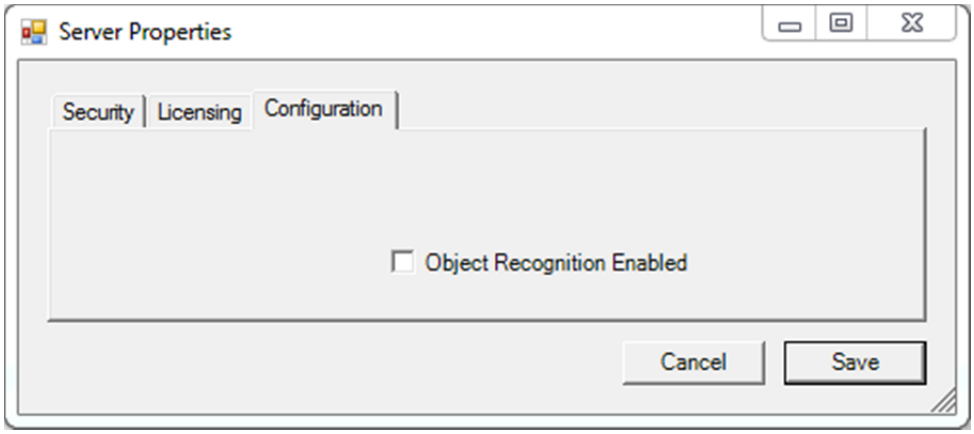


9. Click the **Enable server security** check box to require passwords to gain access to the system.

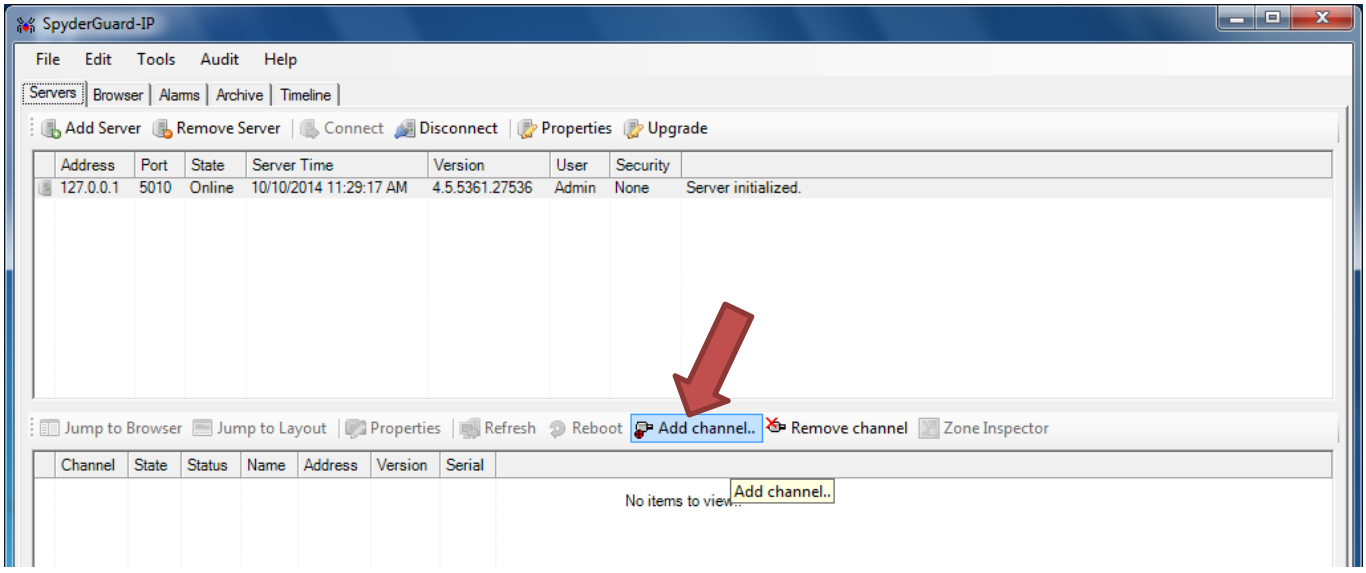
10. Here you can enter a password for both the *Guard* and *Administrator* accounts. Fike highly recommends using the default password (axonx) versus assigning a custom password. If the custom password is lost or forgotten, there is no means to override the password in order to gain access to the server.

11. While in this Properties window, open the ***Configuration*** tab and check the box for **Enable Object Recognition** if required then click **Save**. This will need to be enabled on each server in your configuration.

Note: Customer acknowledges and agrees that activation of the Video Management System (VMS) Object Recognition Feature is at the customer's sole discretion. Object recognition is optimal for smoke generated by smoldering fires. A rapid rise of concentrated, high volume smoke may result in delayed recognition of such a hazard by the VMS when the object recognition feature is in use.

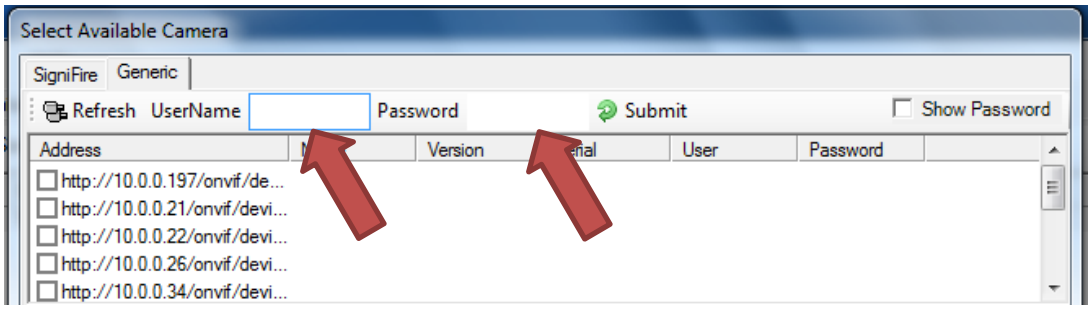


12. Click ***Add Channel*** to begin adding cameras to the server.

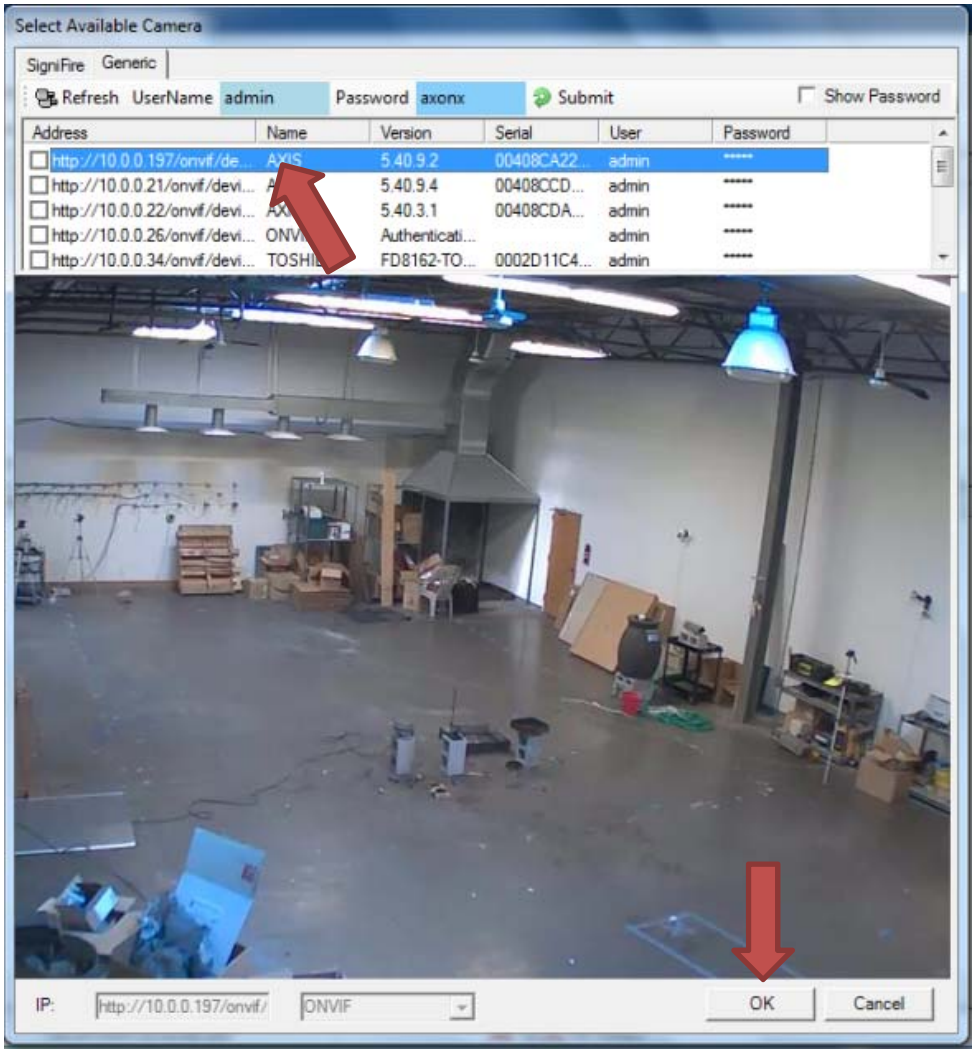


Note: Before adding ONVIF cameras to the server, the camera's ONVIF stream resolution must be adjusted to 640 x 480 maximum at 15 frames per second (FPS) to ensure system performance.

13. The ***Select Available Camera*** dialog box will be displayed. Select the ***Generic*** tab and enter UserName: xxxx and Password: xxxx and click ***Submit***.

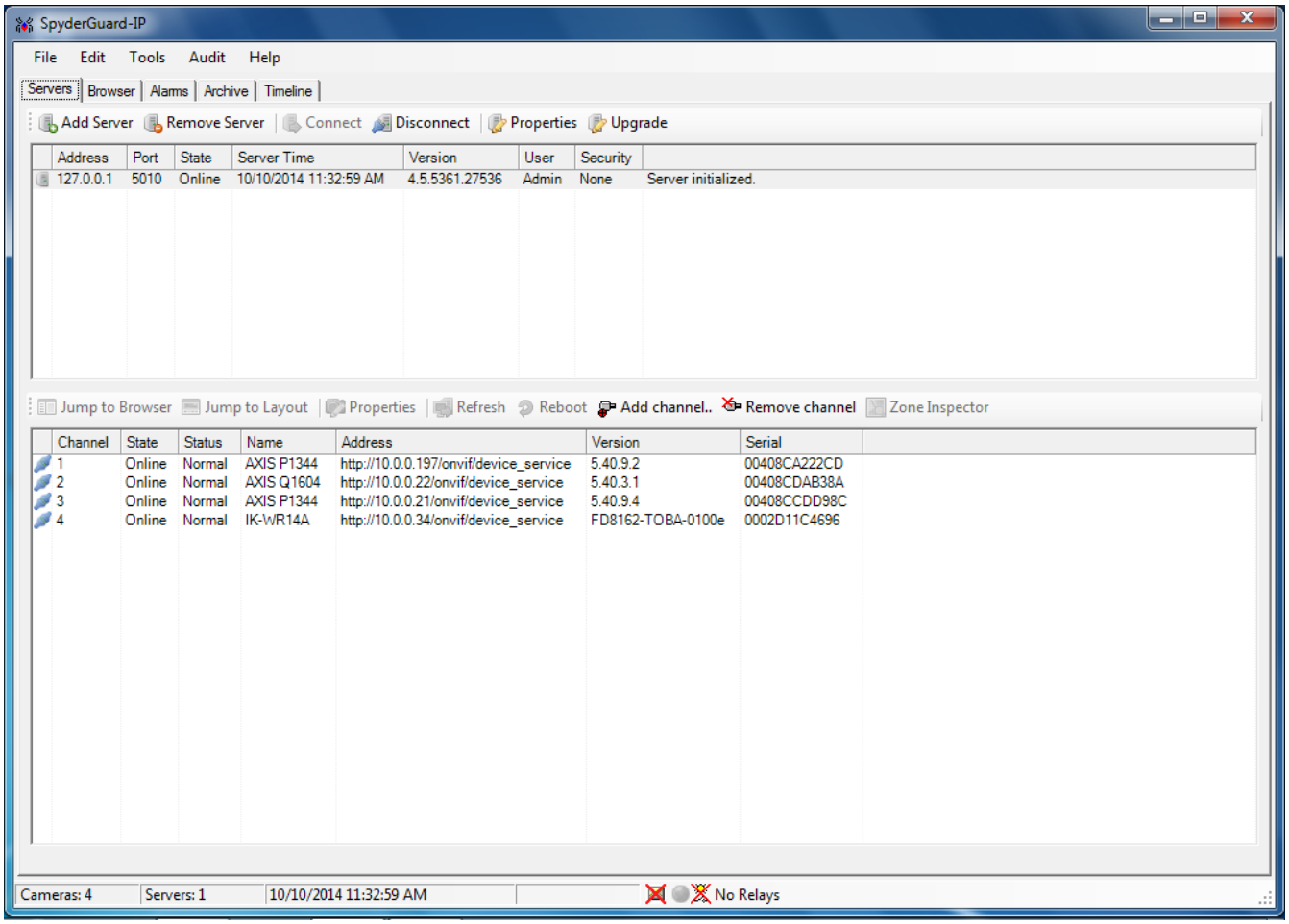


14. The cameras connected to the server should appear in the upper section of the dialog box. If the serial number and live video of a camera are visible when highlighted, then the camera has been authenticated. Choose one or more cameras and click ***OK*** to add. Once the camera(s) has been added, the software should return you to the ***Servers*** tab.



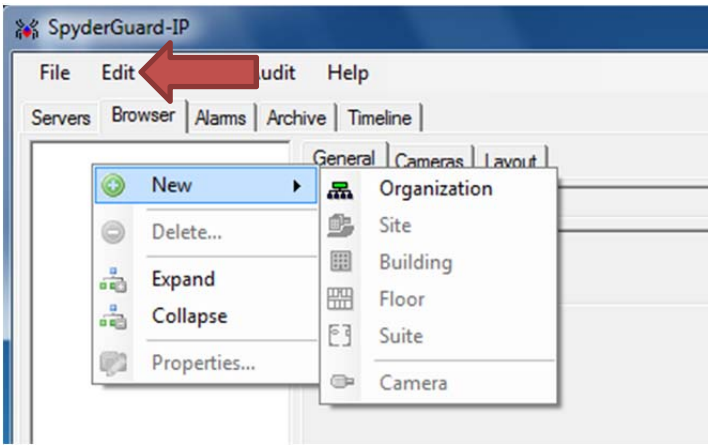
15. If the camera is not discovered automatically, select ONVIF and enter the camera's IP address in the IP Address field at the bottom of the Add Camera window.

16. Continue to add cameras until all are added to the server. Maximum camera capacity per server is up to 16 channels depending on the license. On the Servers tab you should now see the server added in the top half of the screen and cameras added in the bottom half.

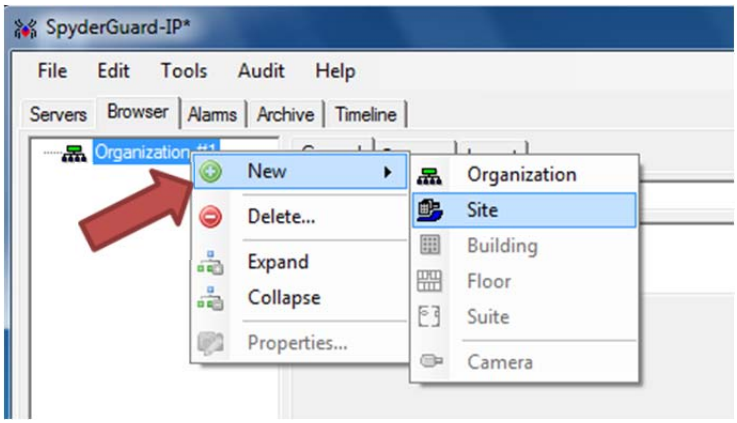


Once all cameras have been added to the server, you can begin to customize the SpyderGuard User Interface.

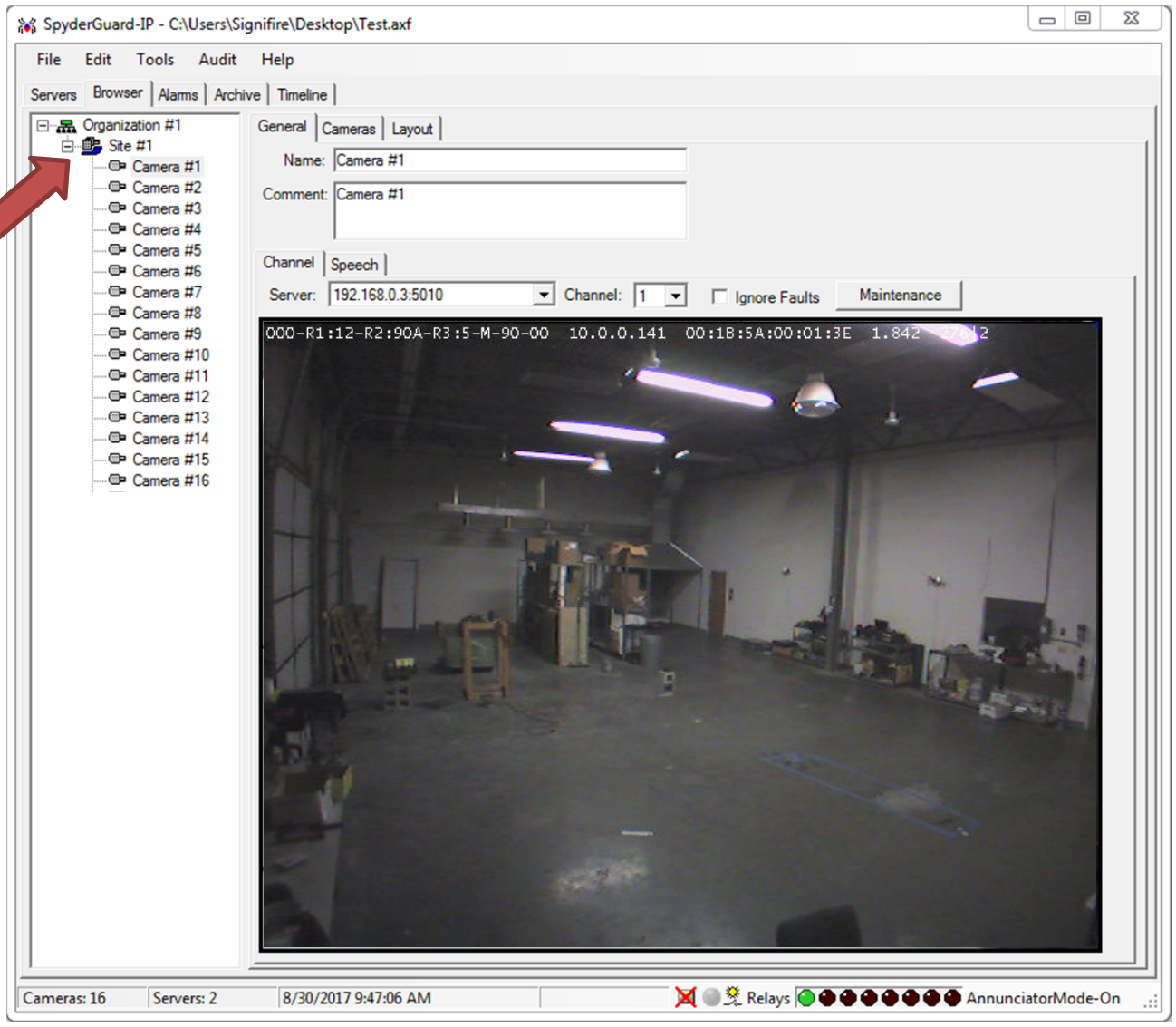
17. Go to the ***Browser*** tab and create a hierarchy by clicking ***Edit > New > Organization***. A new organization will be added to the hierarchy window as shown in Step 18.



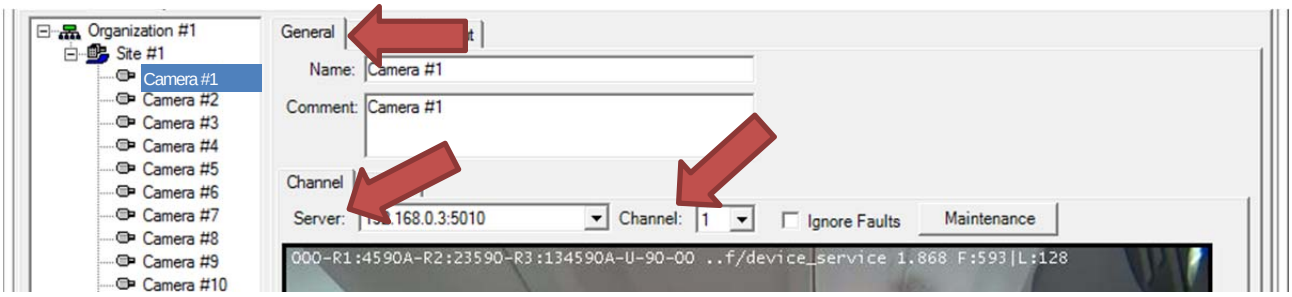
18. Right click on Organization then click ***New > Site***. A new site will be added to the hierarchy window as shown in Step 19.



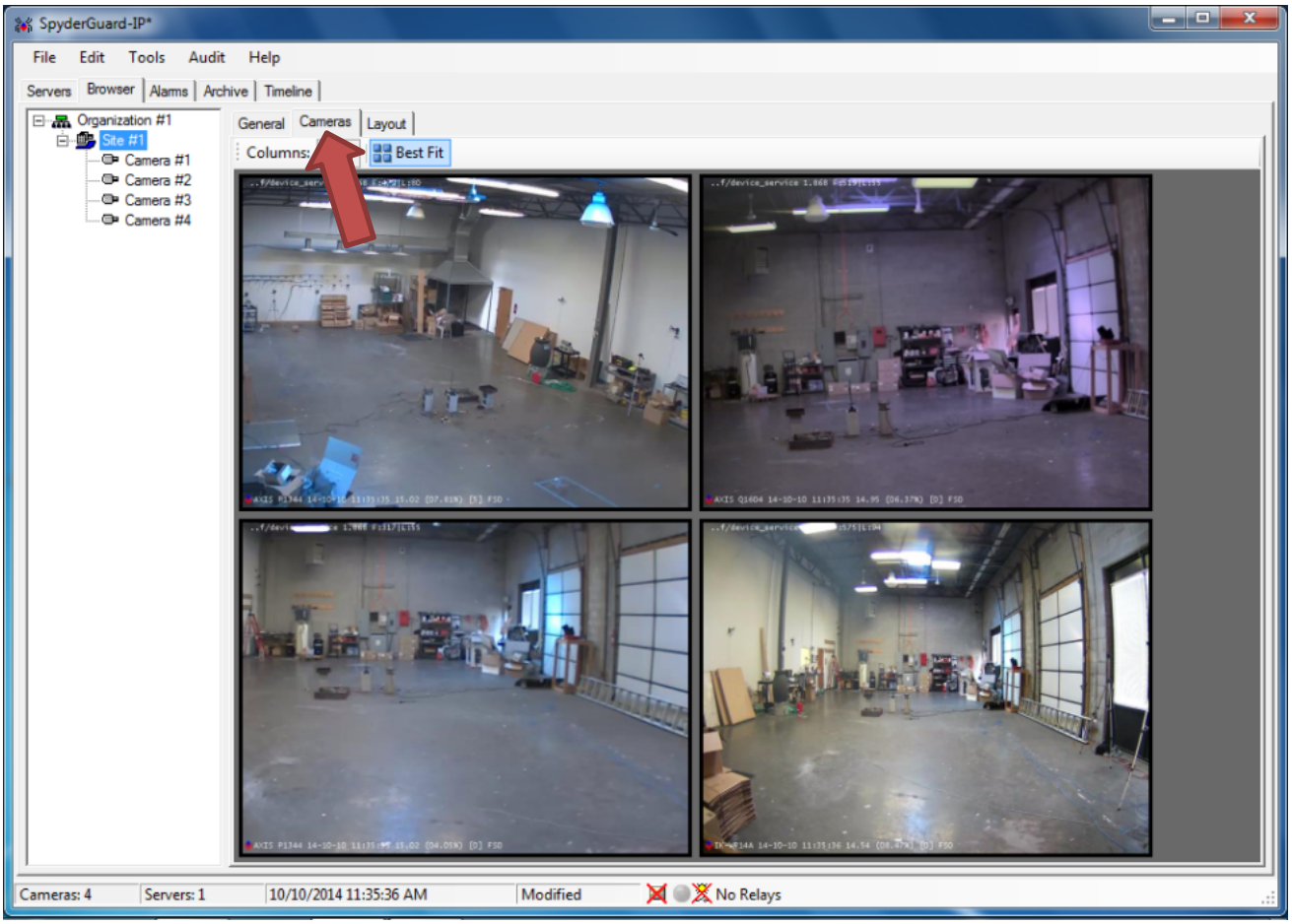
19. Right click on Site and add cameras in the amount desired.



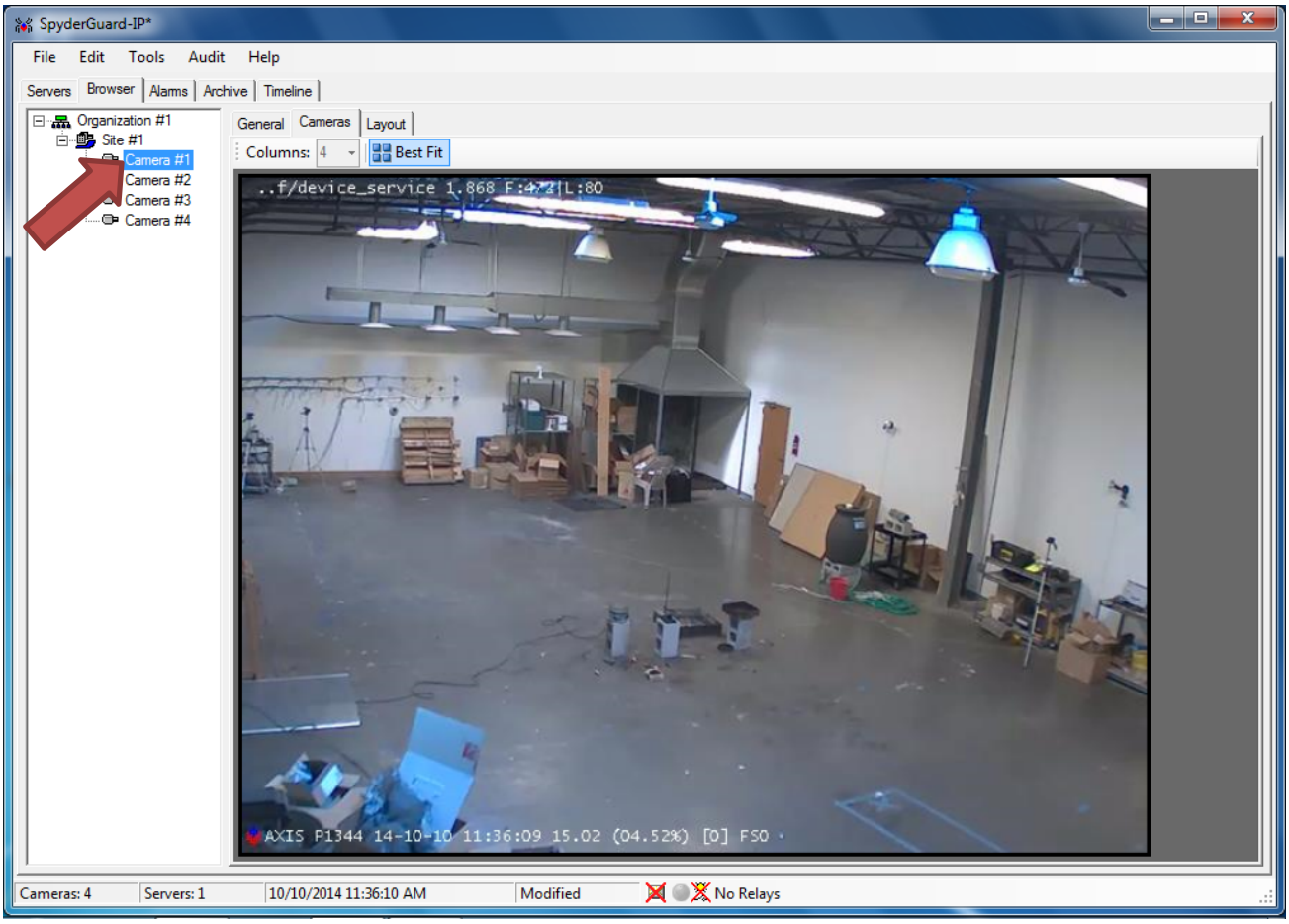
20. Highlight the first camera in the hierarchy window; then click the ***General*** tab to the right. Assign a server and channel to the camera. Click the next camera in the camera list to auto populate with the next channel for the same server. Repeat for each camera below; however, camera can be customized for any channel or server.



21. In the hierarchy window, click the ***Cameras*** tab; then highlight ***Organization*** to view all cameras video feed or click ***Site*** to view all cameras in this particular area only. Click ***Best Fit*** to arrange all camera video feeds in the window.



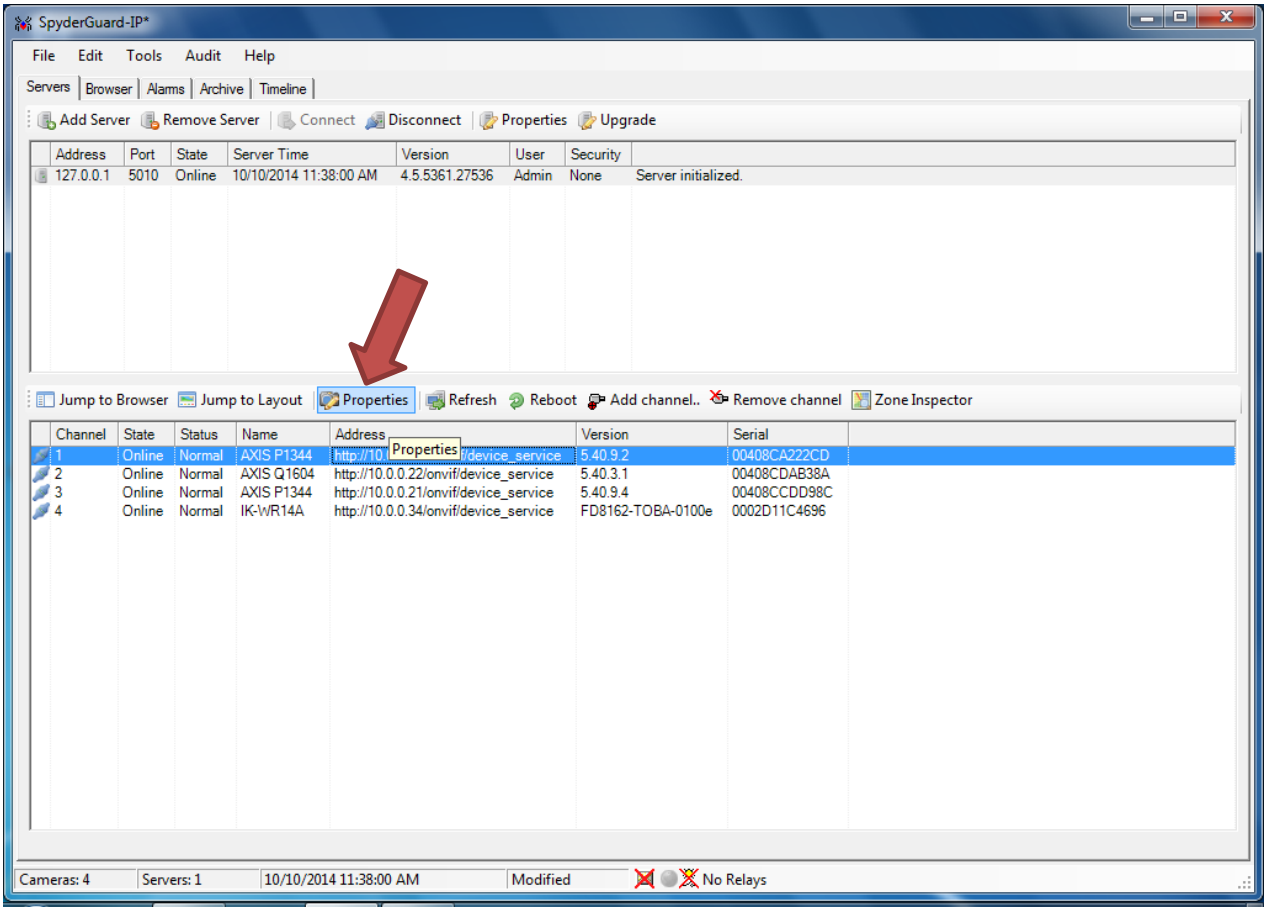
22. For a single camera view, simply select a camera.



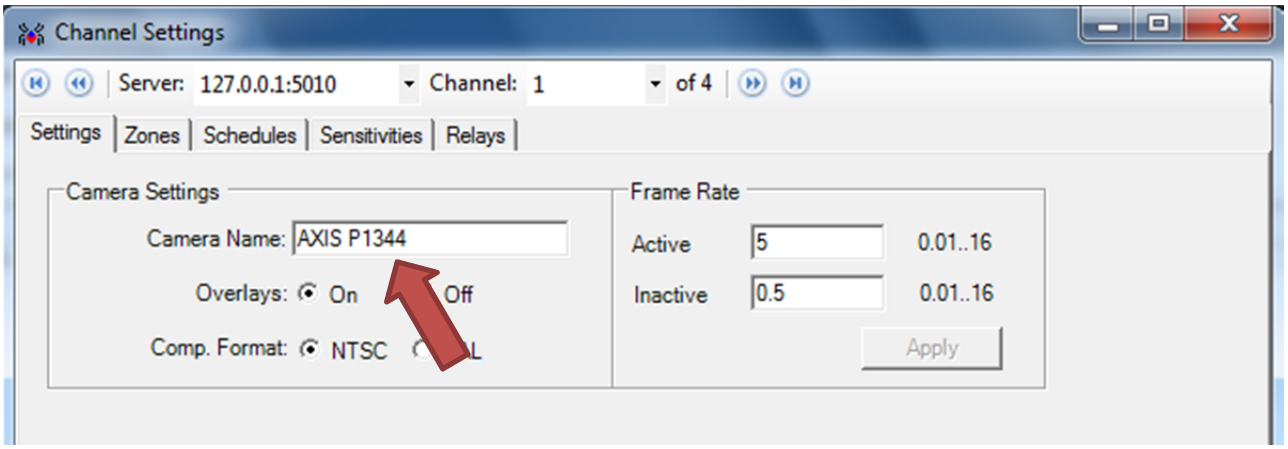
23. Repeat steps 6 through 21 for each server.

CAMERA SETTINGS CONFIGURATION

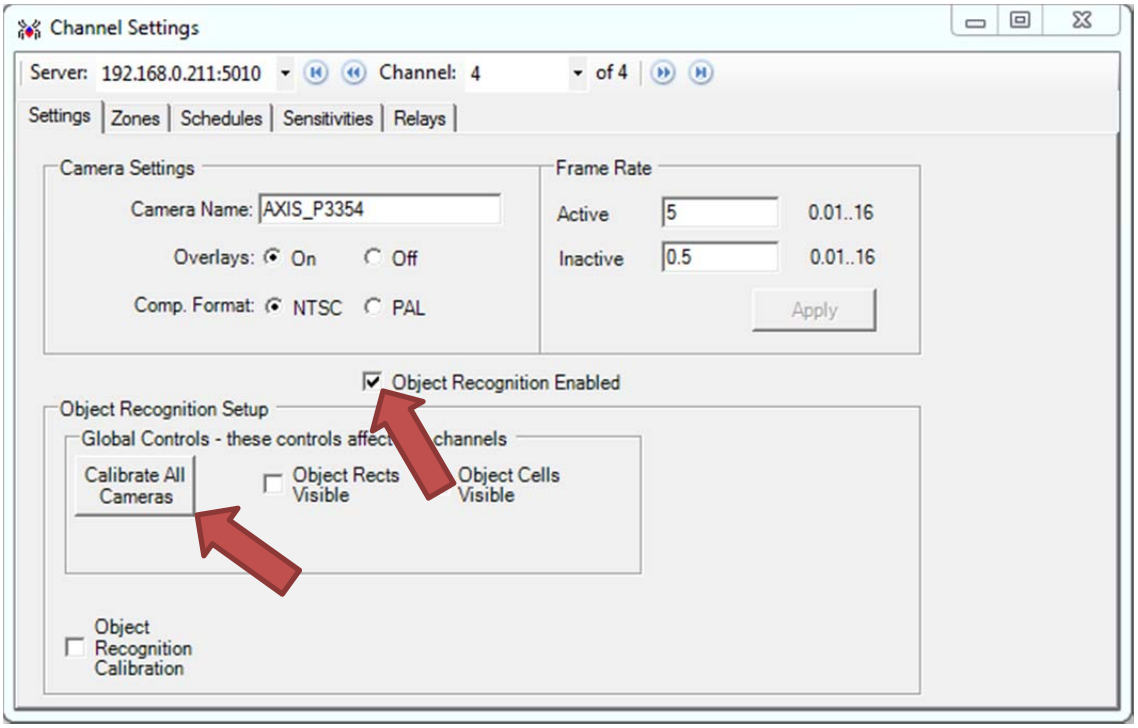
1. Right click on Camera 1 and click ***Properties*** (can also be accomplished in the ***Browser*** tab).



2. ***Channel Settings*** dialog box will open. By default, the ***Camera Name*** field is auto-filled. You can assign a unique name to the camera; however, if you change the camera name you must use underscores instead of spaces for the name change to occur. All other camera settings fields should remain unchanged unless Object Recognition features has been enabled on the server.



3. The bottom half of the ***Channel Settings*** page will show Object Recognition settings if the feature has been enabled on the server. By default, all ONVIF cameras are NOT enabled to utilize Object Recognition. Click on the *Object Recognition Enabled* box to set this camera to use the Object Recognition feature.

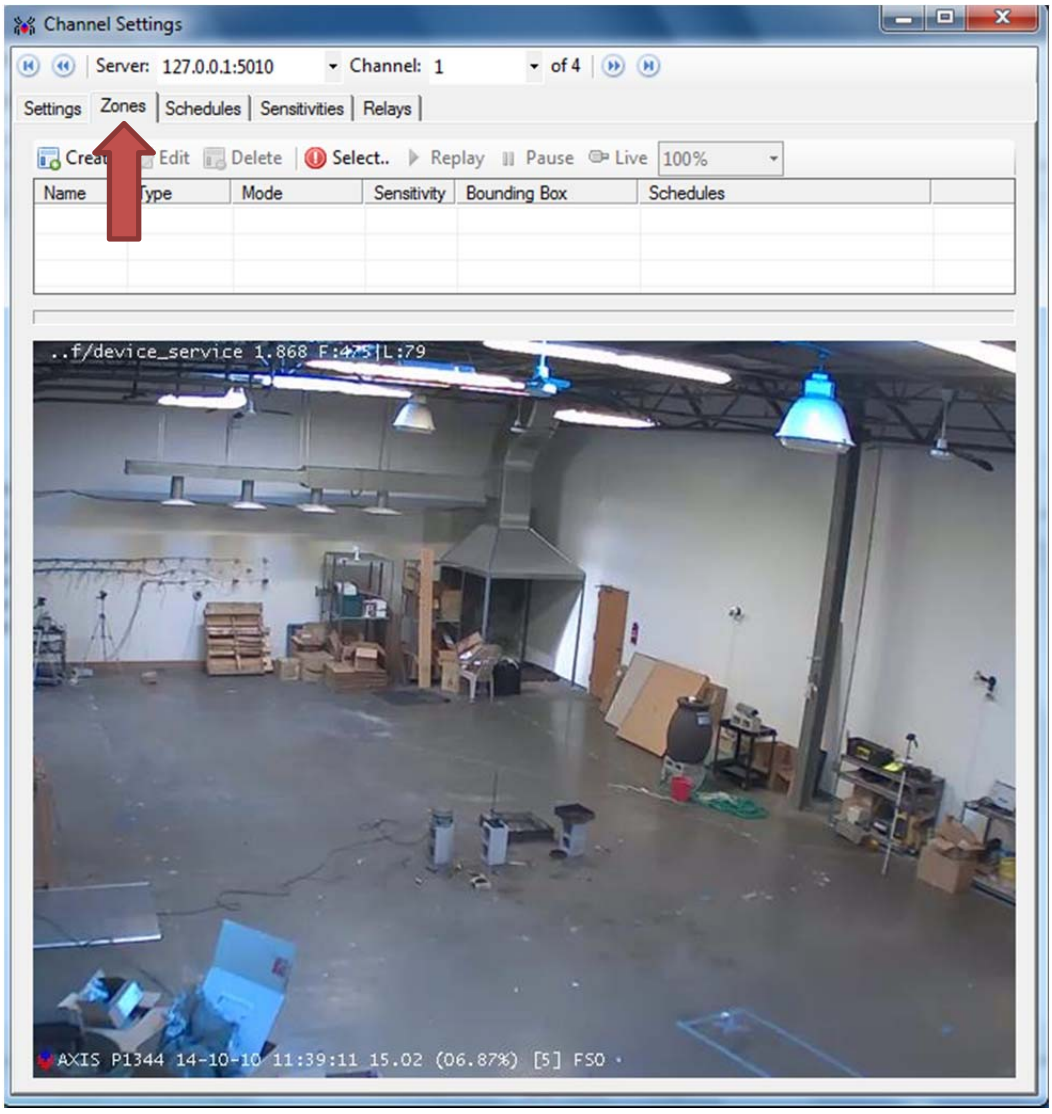


4. After the selected cameras are enabled for object recognition, the cameras must be calibrated. Click the ***Calibrate All Cameras*** button to initiate the Object Recognition calibration process on the cameras currently connected to the selected server. In the Organizational Tree, the software will indicate that the camera calibration process is active by flashing the calibration icon on the cameras that are being calibrated. Once the calibration process is complete, the normal camera icon will be displayed. It is recommended to run calibration with no personnel in the camera views. Calibration can take up to 30 minutes.

Note: Manual calibration must be performed on all cameras at time of install for the Object Recognition algorithm to operate correctly. In addition, if a camera view changes, a manual calibration should be performed. It's recommended that manual calibration be performed with no personnel present in the area served by the camera.

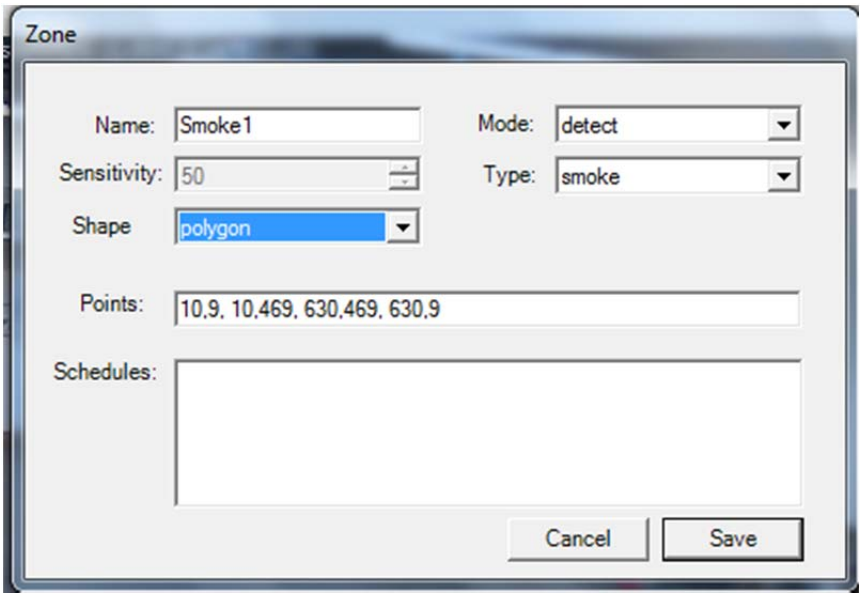
Note: By default, the Video Management Software regularly performs the camera calibration process on all cameras connected to the server. This process is known as Auto Calibration. Auto calibration takes place with no interaction from the user and is always adjusting the system to the camera view.

5. By factory default, no zones are set up in the camera(s). Cameras will detect and record all flame, offsite and smoke events across the entire camera image. In most applications smoke zones are created to avoid nuisance detections that can be caused by personnel. To create a smoke zone click the ***Zones*** tab.



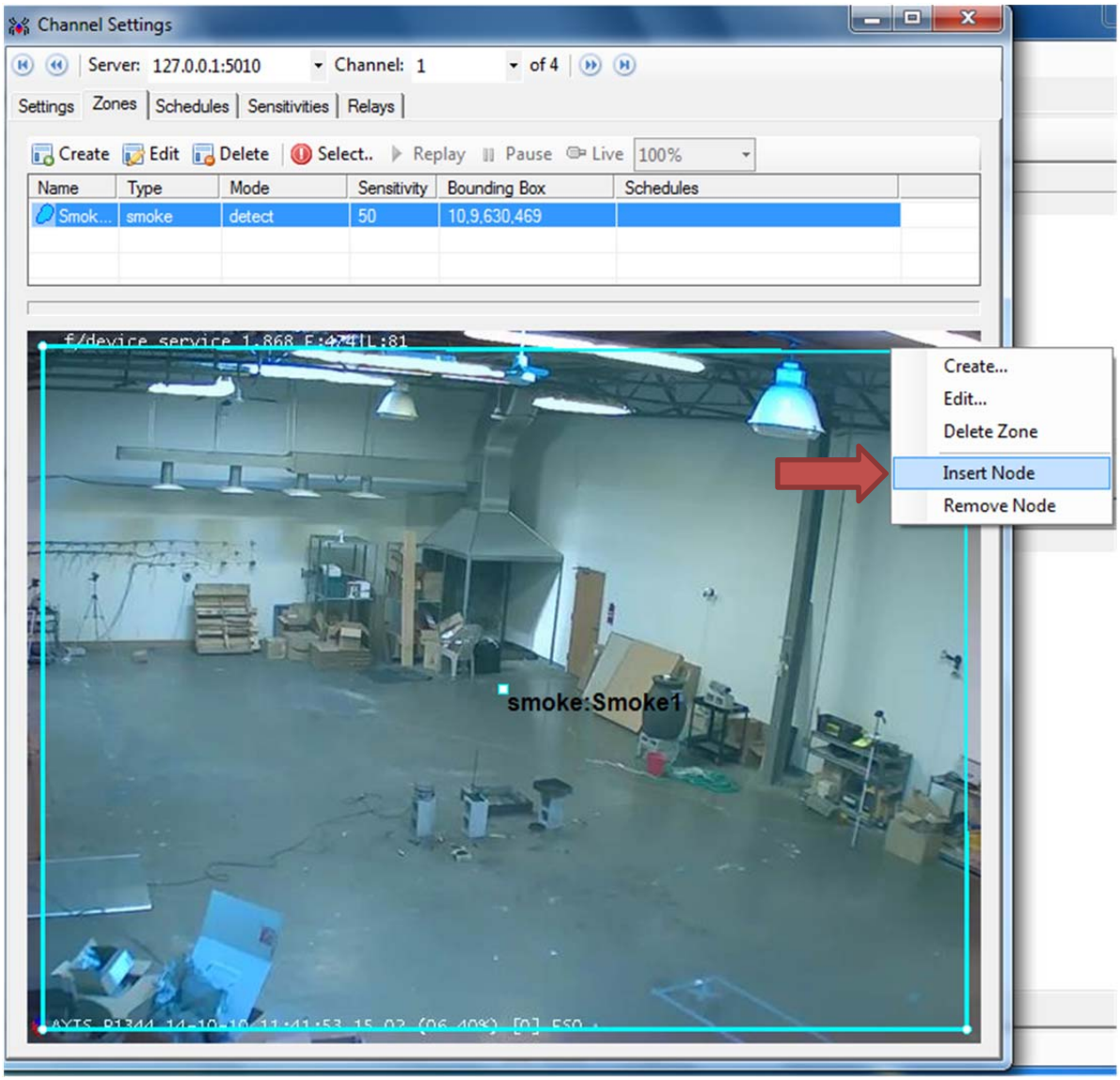
6. Click ***Create***. The **Zone** creation dialogue box will pop up. Set each field as follows then click ***Save***.

   a. Name = Smoke1 (no spaces)
   b. Mode = detect
   c. Type = smoke
   d. Shape = Rectangle or Polygon



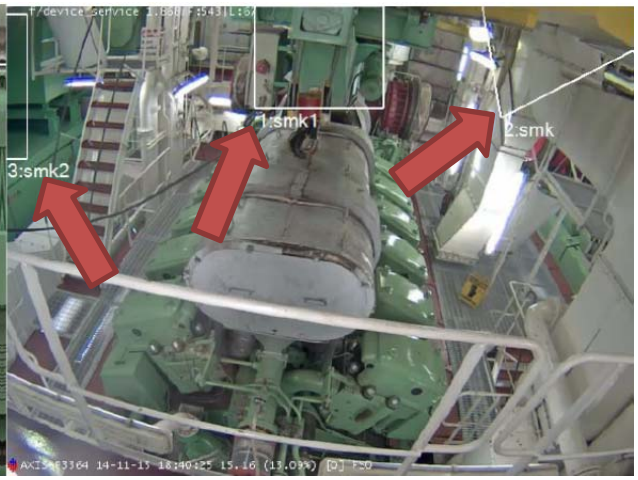
7. A new smoke zone (Smoke1) will be added to the camera video image. If rectangle was the selected shape use the corner, top and side nodes to resize the zone and the middle node to move the zone. If polygon was the selected shape click on a corner node to move nodes around independently, use the middle node to move the entire zone.

   You can also right click on a node then select **Insert Node** to add nodes. A new node will be added to the left of the selected node on the zone boundary that can be used to adjust the shape of the zone to fit the detection area. Repeat as necessary depending on the required shape of the zone.



8. Configure smoke detect (alarm) zones in the upper area and around the camera field of view, over equipment and in areas where there will not be personnel movement during normal conditions. Where there are personnel during normal conditions add zones above head-height and avoid walkways and ladders (stairs). Add as many lights in zones as possible for greatest contrast. Contact Fike for sample configuration audit report and see pictures below.

Example smoke zone 1

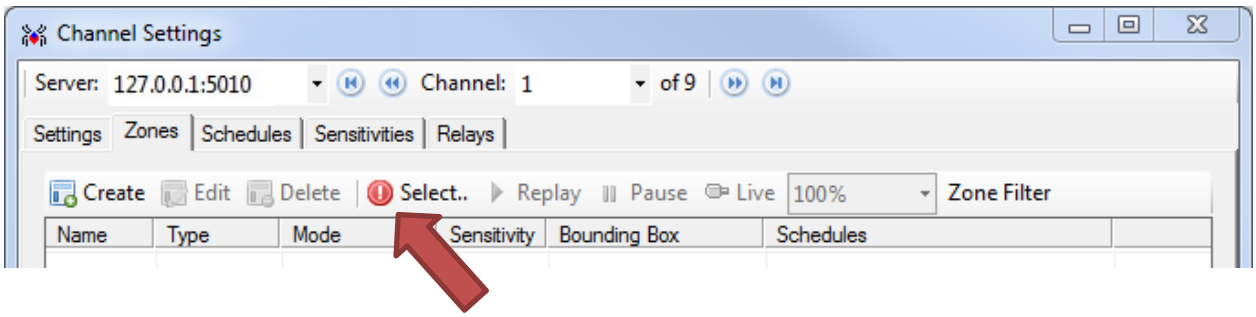


Example smoke zone 2

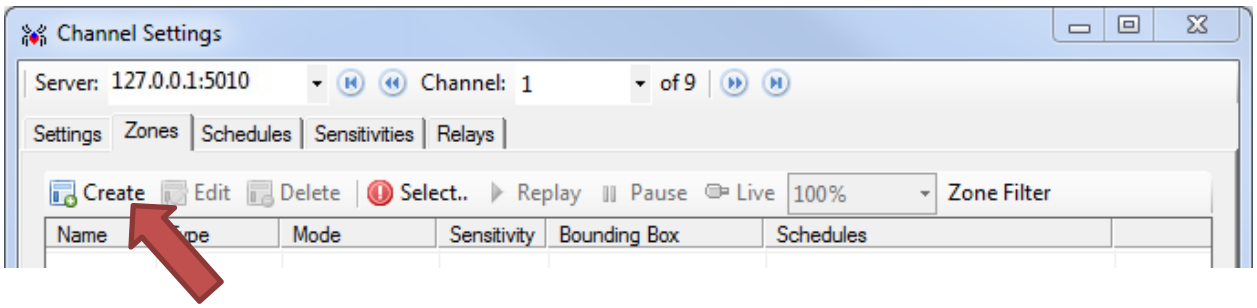
Placement of zones is a key part of configuring the system. It is recommended that a trained person be allowed an uninterrupted two to three hours to monitor activity and strategically locate the zones in all areas, covering as much area as possible where personnel will not normally be present unless working directly on the equipment. Cameras may need adjustment if zones cannot be placed in necessary locations without personnel interference.

Note: Personnel working inside the detect (alarm) zone will cause detections and this is acceptable. The *Maintenance Mode* feature may be used when personnel are performing maintenance in the designated alarm areas. Do not adjust settings for these events. Only adjust zones for detections caused by personnel movement near a zone.

Set up Tip – Click on ***Select*** to see all detection videos for this camera. Zones can be modified while watching the detection video.



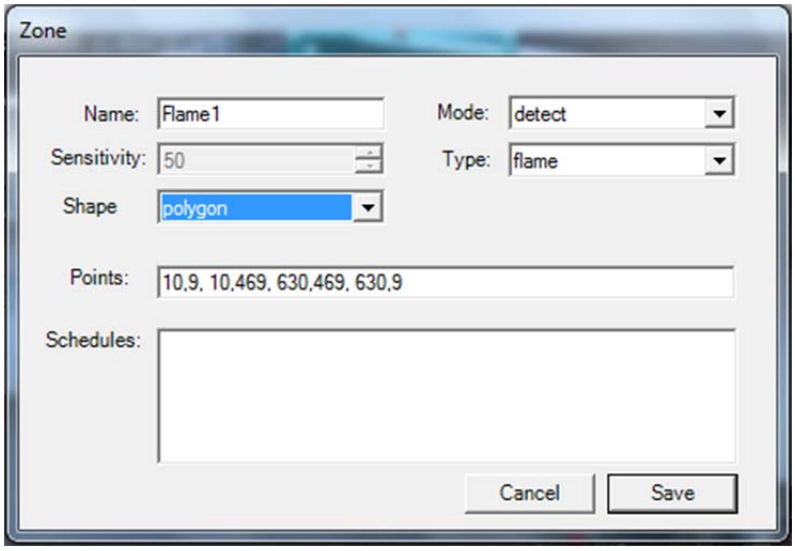
9. Create a flame detect (alarm) zone if necessary. Click ***Create*** again.



Note: It is recommended no flame zones are created however if necessary they can be created to target specific areas.

10. The Zone creation dialogue box will open. Set each field as follows then click ***Save***.

    e. Name = Flame1
    f. Mode = Detect
    g. Type = Flame
    h. Shape = Rectangle or Polygon

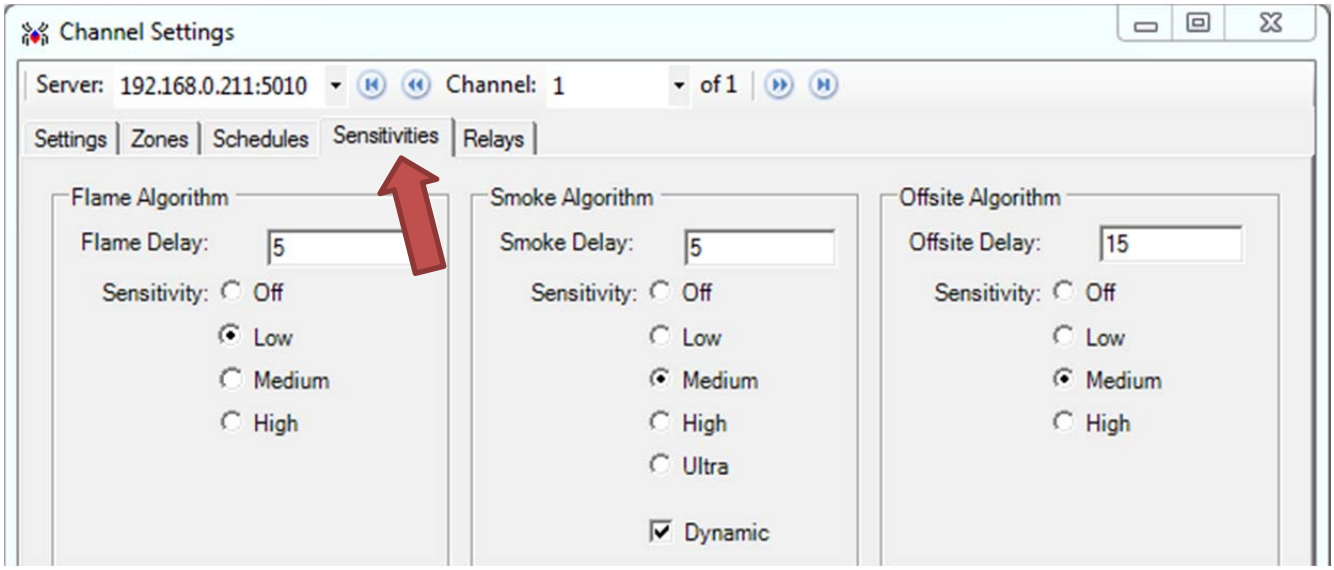


11. Use the selected shape to create a Flame1 zone over hazard area.

12. Flame or Offsite (Reflected flame) blocking zones may be created in the event of unwanted detections. The system will not alarm for events inside the blocked zones.

13. Select the **Sensitivities** tab and set *Smoke Sensitivity*, *Time Delay* and *Dynamic* (if required). See setting recommendations below.

> **Note:** Use Fike Fire Test Tool for testing. See Fike Video Analytics 06-871 document.



Recommended Smoke Algorithm Detection Settings:

Engine Tops: Set Flame to Low sensitivity with 5 second time delay. If personnel movement in camera view cannot be avoided, set Smoke to Medium sensitivity with 5 second delay and Dynamic Off. If further false alarms continue to occur due to personnel movement, turn Dynamic ON. Set Offsite to Medium sensitivity with 15 second delay.

Engine sides (lower engine decks) purifier rooms, mooring decks and walkways: Set Flame to Low sensitivity with 5 second time delay. If personnel movement in camera view cannot be avoided, set Smoke to Medium sensitivity with 5 second delay and Dynamic Off. If further false alarms continue to occur due to personnel movement, turn Dynamic ON. Set Offsite to Medium sensitivity with 15 second delay.

> **Note:** Dynamic is the same as event verification, meaning the algorithm will make a positive detection, then restart the algorithm to verify the detection before indicating the event. It is recommended to leave Dynamic Off and use Maintenance Mode when personnel are working within zones if possible.

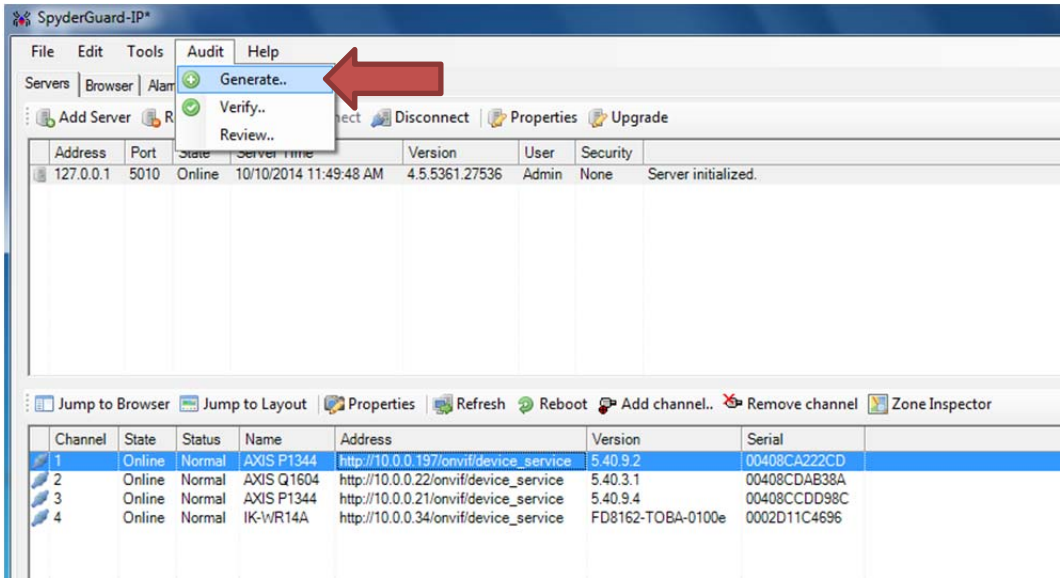
14. Close the **Channel Settings** window.

15. Save the system configuration. It is important to save system configuration every time changes are made so that they can be restored if necessary.

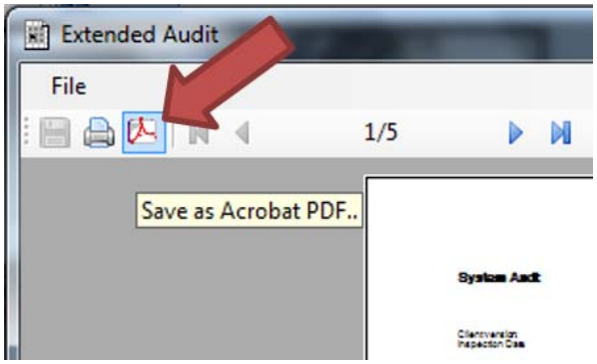
    a. The SpyderGuard file (.axf file) primarily stores the browser tab hierarchy. From within the Fike Video Analytics application, go to ***File > Save As,*** then save the file to C:\Documents folder and to a flash drive. Name the file with the ship name and date.

    b. Storage Data files store camera configuration including property settings such as zone, sensitivity and time delay. Locate the C:\Storage folder on the Server. Copy the entire folder to the C:\Documents folder on the server and to a flash drive.

16. Click the ***Audit*** drop down, then ***Generate*** to create a detailed report of the system settings.



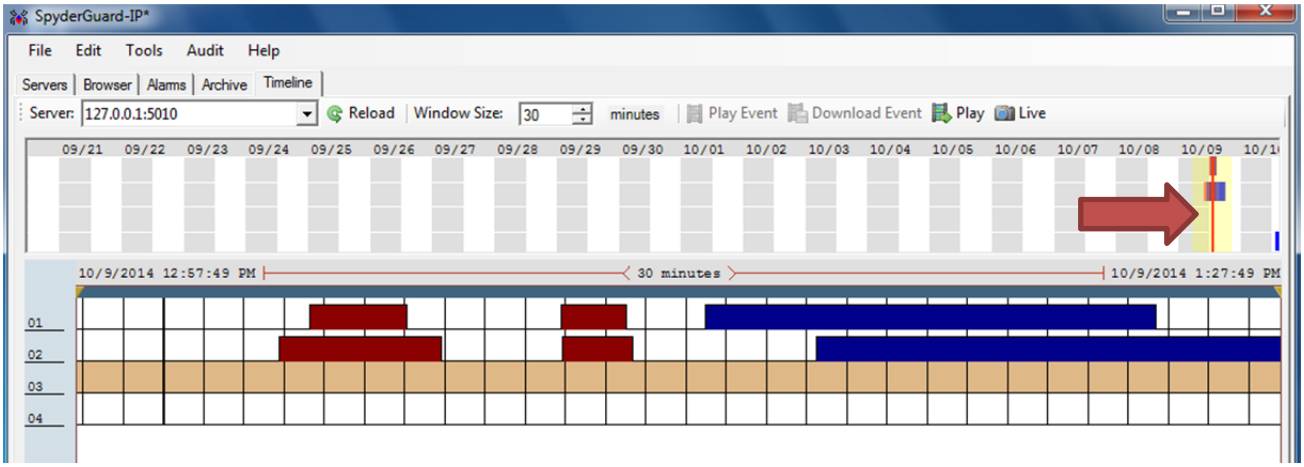
17. The Audit window will open. Save the Audit file with today's date as a PDF file to c: Documents on the workstation. Save another copy of the PDF file to a flash drive.



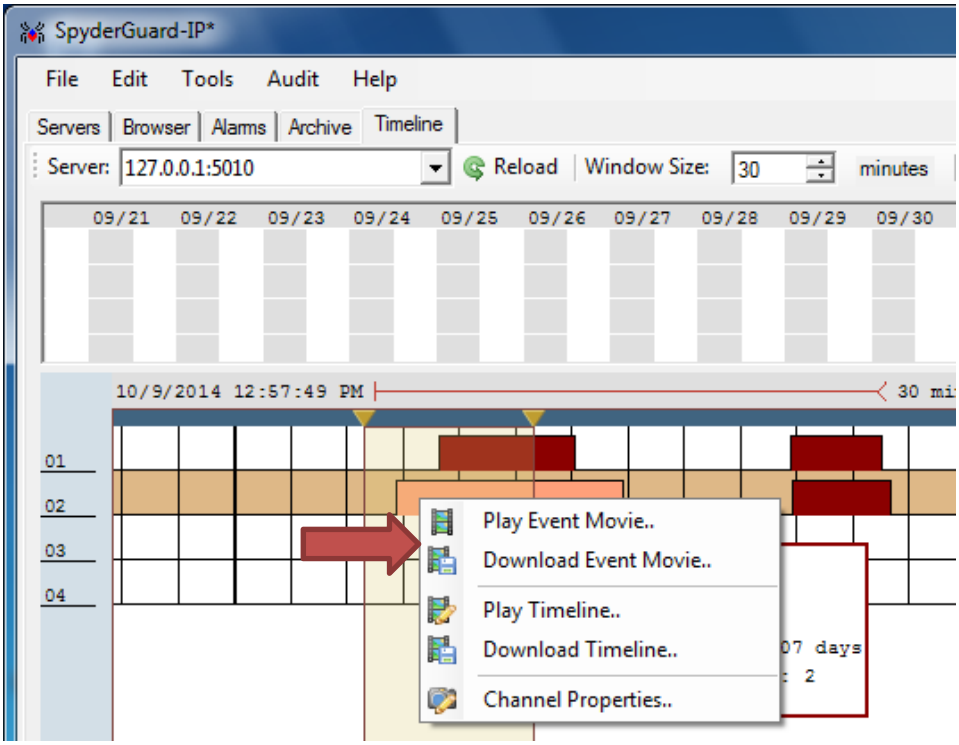
18. Save another copy of the Audit with today's date, by clicking ***Generate*** then ***File > Save Data***. This file will be saved in the programs default file type (.audit) and may be used later for maintenance checks (See Fike Video Analytics 06-871 document).

19. After the system has been running for a few days or at the next ship visit, go to the ***Timeline*** tab. If there are events, find the RED vertical line in the upper view and move it over the event, the event will be expanded in the lower half of the screen. Red indicates a flame event and blue indicates a smoke event.

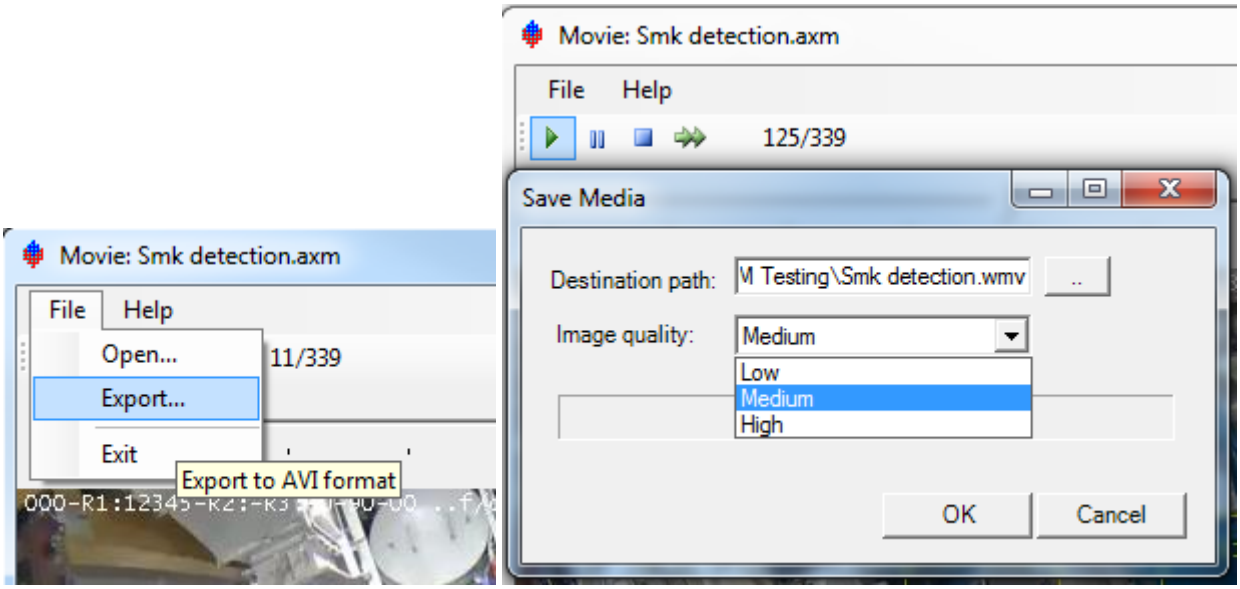
Note: It may be easier to locate alarms in the ***Archive*** tab.



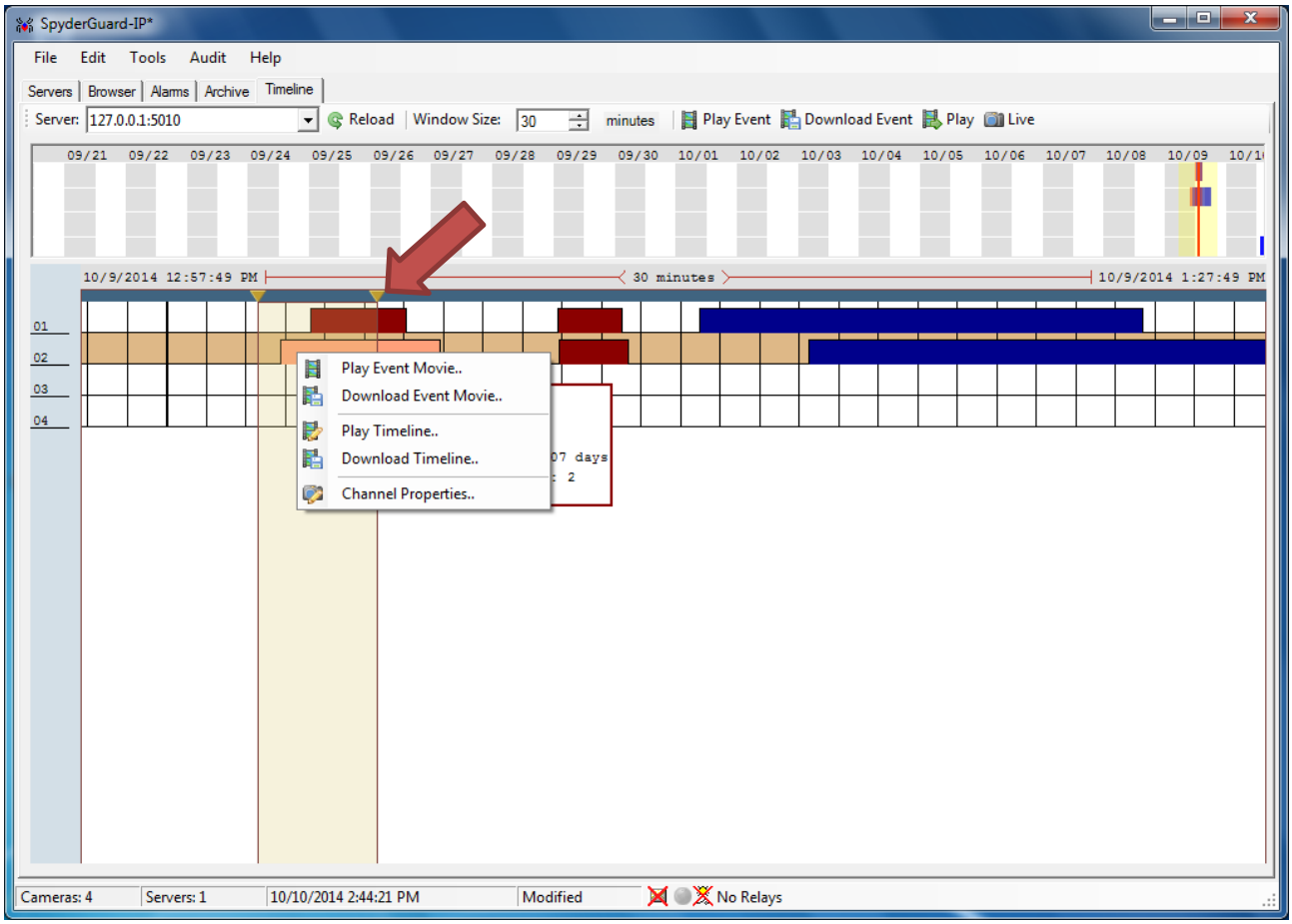
20. To view an event, right click on the event and choose ***Play Event Movie***. To download an event, right click on the event and choose ***Download Event Movie***.



21. Event video can be saved in .axm or .wmv format. Video saved in .axm format is created by the software and can only be played on a computer that has the Fike Video Analytics software installed. Video saved in .wmv format can be played by most video programs; however, the quality of the saved video will not be of the highest quality. The video, when saved and opened in .axm format, can be exported and saved in.wmv format as high quality.



22. You can also define a section of timeline to download or view that is useful in observing video prior to an event. To define, drag the gold triangle from either side, which will define a section of timeline.



23. To view, right click and choose ***Play Timeline***. To download, choose ***Download Timeline***. You may also go to ***Archive*** tab and search all events as well as view and download.

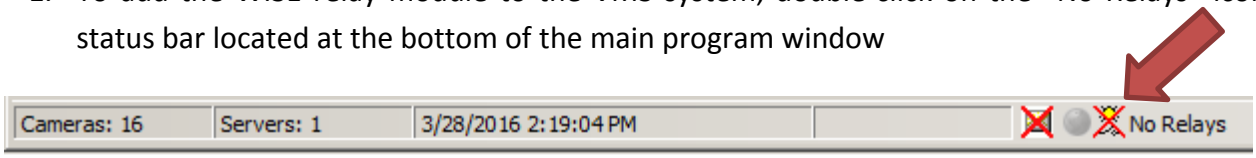
24. Go back to specific camera ***Channel Settings*** and adjust zones if necessary.

25. **DO NOT** leave Fike Video Analytics VMS on in Engine Control Room for crew interface until system has been running though a “burn in” period, fully adjusted and confirmed stable.

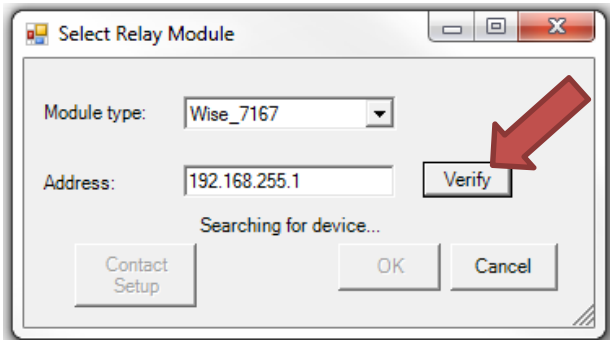
SETTING UP THE WISE IP RELAY

The Video Management Software (VMS) allows a single external relay (WISE 7167) to be connected to the system. The module provides eight, dry relay contacts, seven of which can be independently programmed. Usually two of these relays contacts are used to connect to the shipboard automation system.

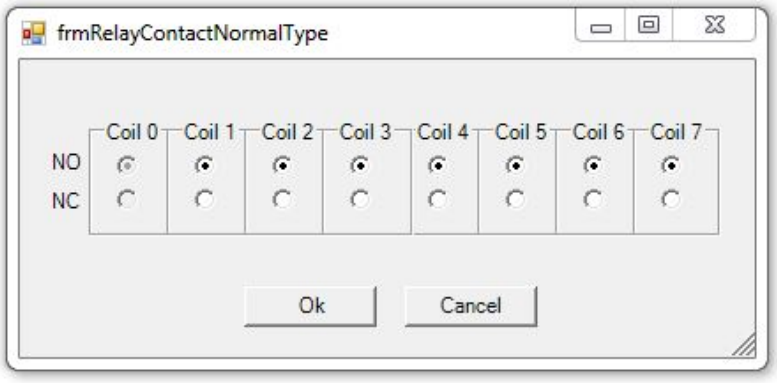
1. To add the WISE relay module to the VMS system, double-click on the "No Relays" icon on the status bar located at the bottom of the main program window



2. The ***Select Relay Module*** box will open, select Wise_7167 from the Module Type drop down; then, enter the relay address in the Address field and click the ***Verify*** button to begin the search for the device.



3. Once the relay module is found, click the ***Contact Setup*** button to open the relay contact type dialog box, which allows you to change the relay contacts from NO to NC, if needed.



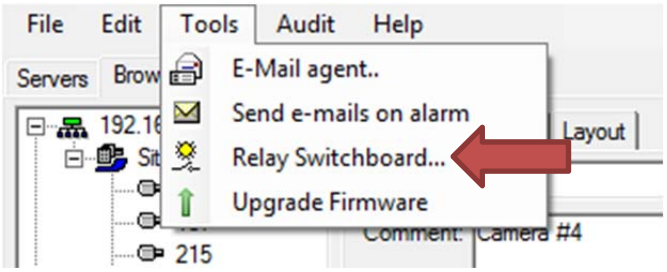
4. Click OK; then OK again to close.

NOTE: Should power to the Wise relay module be lost, all relay contacts will default to the normally open state.

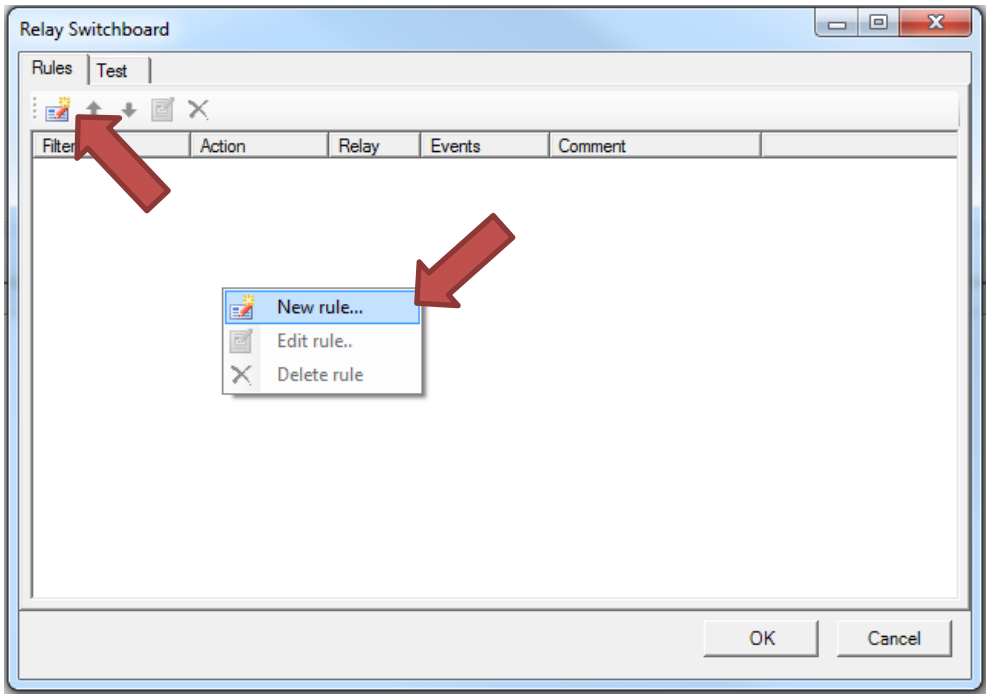
Once the relay is added, the relay status indicator 

will be included in the main window status bar.

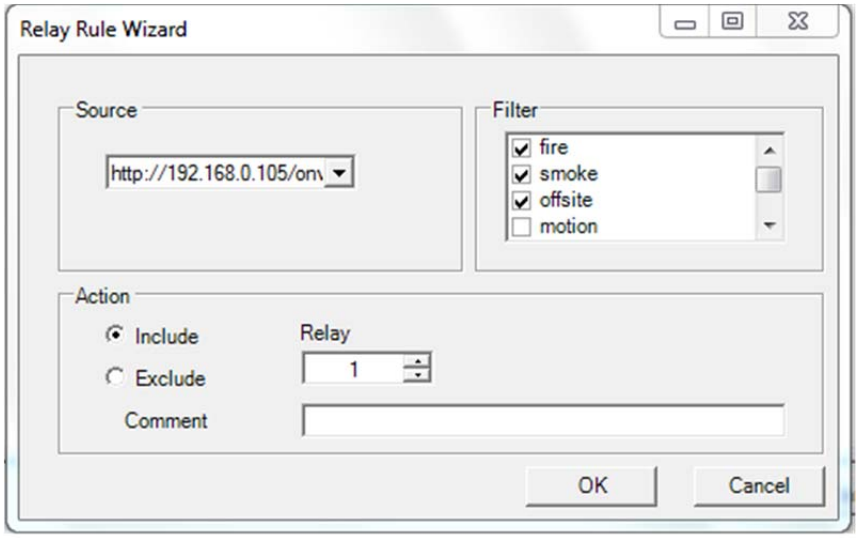
5. To configure the newly added relay module, select **Tools** in the top tool bar and click ***Relay Switchboard***.



6. Within the **Relay Switchboard** window you will find two tabs that will allow you to generate new rules, arrange the order of the rules, edit rules, delete rules, and test relay functionality. Initially the rules list will be empty. In order to populate the list, right-click within the list box and select ***New rule*** or click the ***New Rule*** button. In response the Video Management Software will open the *Relay Rule Wizard*.

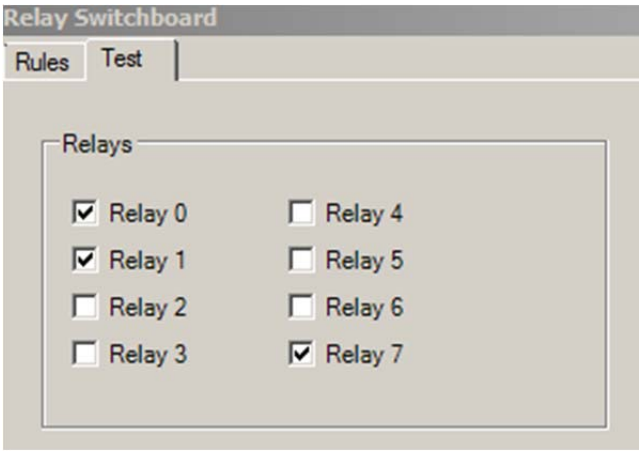


7. This dialog box allows you to create rules to define the action for 7 relays provided on the Wise-7167 relay module. By default, relay 0 is reserved for status indication, leaving 7 relays (1-7) for user defined rules. Use the asterisk to define all the channels or select channels individually. Select the events for which you want the relay to engage using the Filter check boxes. When Action is set to Include, the relay will be engaged when any of the Filtered alarm types takes place. When in Exclude mode the relay state will override any other engaging rule.

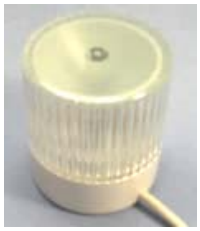


Source	Sets the IP address of the camera that will trigger the selected relay to activate. Use the asterisk to define all the channels or select channels individually.
Filter	Sets the event type(s) that will trigger the selected relay.
Action	Sets which relays will activate in response to the event. Include=Relay will be engaged when any of the filtered alarm types takes place. Exclude=Relay state will override any other engaging rule.
Comment	Enter a description of the function of the relay or any other comment associated with the relay operation.

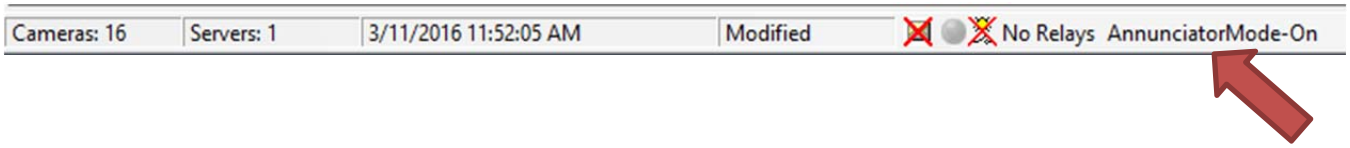
8. You can test the relay engagement by using the ***Test*** tab in the ***Relay Switchboard*** screen. It enables you to engage or disengage selected relays manually by selecting the appropriate checkbox.



CONNECTING THE LED ANNUNCIATOR



The LED annunciator plugs into an available USB port on the VMS monitoring PC to provide visual indication of system alarm events. The VMS software will indicate the annunciator is connected on the bottom status bar by displaying ***AnnunciatorMode-On***.



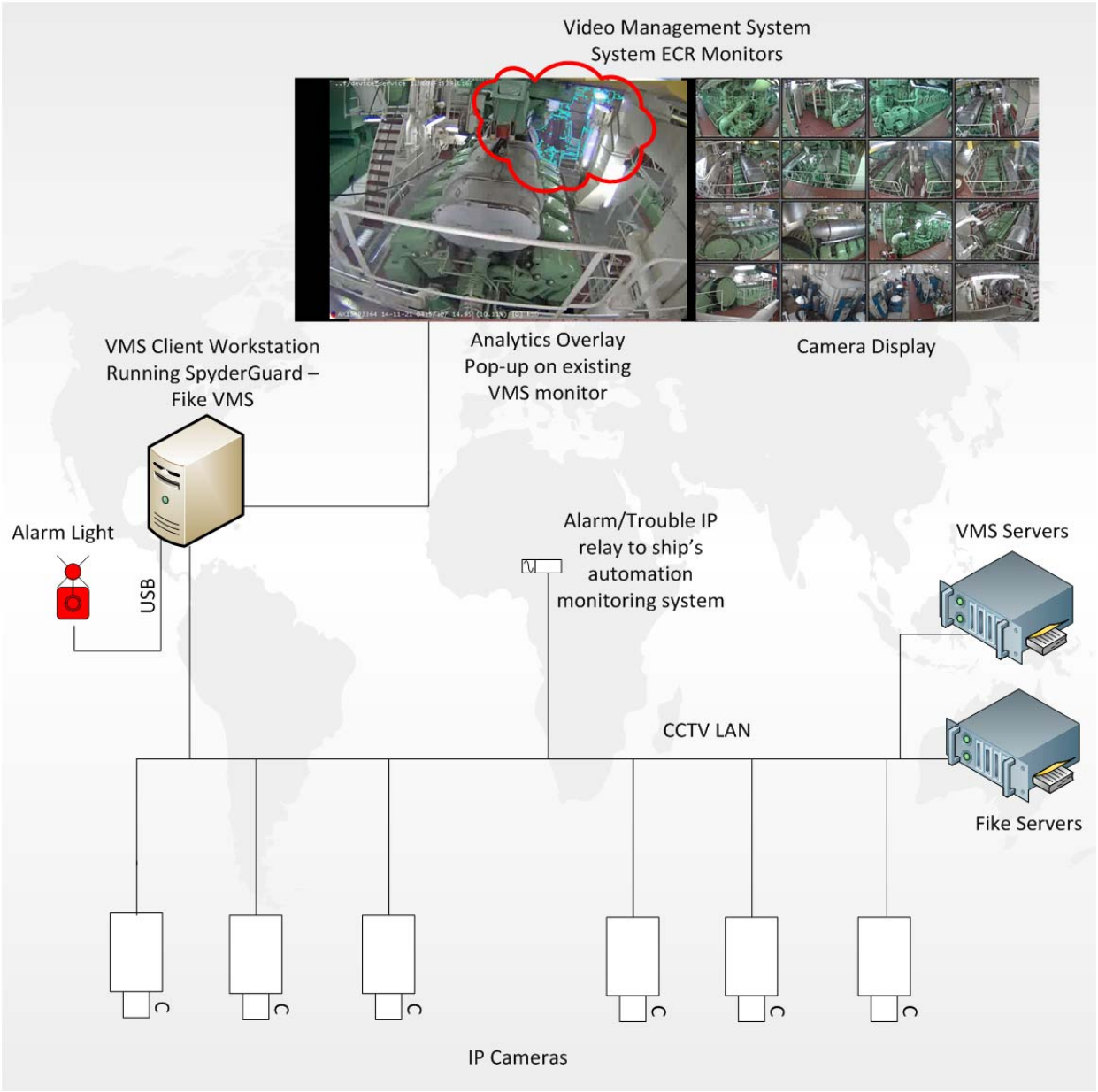
With ***Annunciator Mode-On***, VMS will display an '**ALARM ALERT!'** dialog box on the ***Alarms*** tab in response to an alarm event. The dialog box will indicate the event type and the assigned name given to the channel (camera) in the *Organizational Tree*.

MAINTENANCE MODE

Maintenance Mode allows the operator to disable smoke detection on a specific camera when work is performed in smoke detection (alarm) zones to avoid unwanted detections. In the ***Browser*** tab, check the ***Maintenance*** box and select amount of time, in minutes. Time will count down and smoke detection will re-enable at the end of countdown.

STANDARD SYSTEM CONFIGURATION LAYOUT

Below is a standard shipboard configuration layout.



OPERATOR POSTING

The Operator Posting on the next page provides a brief summary of the basic operation of the Fike Video Analytics system in response to a system event. The posting should be located adjacent to the Fike Video Analytics workstation for quick access.

Video Analytics Corporation

Shipboard Operation Posting

Fike Video Analytics software is being used to analyze the video feed from the cameras in the machinery spaces for the presence of oil mist, smoke, flame and reflected flame events. To mitigate inadvertent activations, virtual alarm zones have been placed over and around the engines where these events are likely to occur; however, the presence of humans within the space can cause system activation. Therefore, it is recommended that Maintenance Mode, described below, is enabled when work is to be performed in areas served by the Fike Video Analytics system.

1. **In the event of an alarm –**
    a. The Fike LED (If installed in viewable location) Light will blink red and SpyderGuard will automatically pop up in the **Alarms** tab.
    b. An **Acknowledge** button will center itself on the screen.
    c. The camera image with the event will be running in real time.
    d. A record of the event will be generated in the alarm list.
        A. Alarm evaluation –
            a. Acknowledge the alarm by clicking the **Acknowledge** button. The LED Light will blink green until the event has cleared.
            b. Determine if the event is critical and needs immediate attention.
            c. If needed, you can play back the event once it has cleared by double clicking the event in the **Alarm list**.
            d. To clear the event manually, highlight the active event and click the **Reset** button. The analytics indicating the alarm will stop and the event should clear after 15 seconds.
            e. The list will be deleted automatically according to the **Keep Time** timer.
2. **Preforming maintenance in camera view-**
    a. Determine the amount of time maintenance will be performed and enter the duration in minutes in the **Maintenance Time** box in this location- **Browser** tab **> General** tab **/ Channel** tab for that particular camera.
    b. Before maintenance begins, click the **Maintenance Mode** check box to start the countdown.
    c. This will block smoke only from being detected during this time. Fire will still be detected.
    d. If maintenance is completed early, simply uncheck the **Maintenance Mode** box to restart smoke detection.
    e. When the time has run down to 0 minutes smoke detection will automatically commence.
3. **Replaying an event-**
    a. Open the **Archive** tab, here certain events can be narrowed down to easily find particular events. Events can be replayed, downloaded and saved or an excel file of the event list produced.
    b. Or open the **Timeline** tab; note the dates across the top, each line represents a camera and events.
    c. Double click or right click an event in the lower section to play, or down load the event if needed. Move the vertical red line over the event in the upper section to see events in the lower section.
    d. Play any time-frame as the system is always recording by highlighting a camera line below and using the yellow triangles in each corner to adjust how much time you want to play or download.
4. **Audit Reports-**
    a. If an Audit Report is required, open the **Audit** menu, click **Generate** then save as a PDF.
5. **Support**-
    a. If product support is required, contact your Fike Video Analytics integrator first, usually CCTV provider.
    b. Fike technical support may be contacted at fikevideoanlytics@fike.com.

REVISION HISTORY

REVISION / DESCRIPTION OF CHANGE	REVISION DATE
ORIGINAL RELEASE	APRIL, 2015
Revision 1 / Procedure clarifications	June, 2016
Revision 2 / Procedure clarifications and Operator Posting	July, 2016
Revision 3 / Procedure clarification and Operator Posting	March, 2018

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