SightMonitor Installation Guide



For SightSensor

SightMonitor 15.x and later
SightSensor Firmware 15.x and later

Set-Up Videos and Resources:
http://www.sightlogix.com/getting-started/

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SightMonitor Installation Guide
Made in the USA.

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Warnings and Cautions

Warning!

If mounting the camera on a pole, tower or any elevated location, use industry standard safe practices to avoid injuries.

Caution!

Except as described in this manual for wiring the back panel, do not open the SightLogix camera for any reason. Always handle the camera with care to avoid damage to electrostatic-sensitive components.

Prior to making any connections, ensure the power supply or circuit breaker is switched off.

Be careful not to leave fingerprints on the camera’s optics.

Operating the camera outside of the specified input voltage range or the specified operating temperature range can cause permanent damage.

Always ensure that your SightLogix device is properly grounded. Failure to properly ground the camera can lead to permanent damage. Typical to good grounding practices, the camera ground should be connected to the lowest resistance path possible. You can learn best practices to protect your SightLogix equipment at http://www.sightlogix.com/surge.

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GETTING STARTED

GENERAL INFORMATION

This guide describes the basic installation of SightLogix SightSensor cameras. If you need help during the installation process, contact SightLogix at +1 609.951.0008 option 2 or support@sightlogix.com.

- Refer to the SightLogix Enterprise System Guide (http://portal.sightlogix.com/help/documentation) for more advanced procedures, including:
    - Setting up a SightTracker to automatically control a PTZ camera
    - Defining advanced video analytic rules
    - Fine-tuning your calibration
    - Troubleshooting common issues

All installers are encouraged to use the SightLogix Support Portal where you will find documentation videos, third-party integrations, and troubleshooting: http://portal.sightlogix.com/help/getting-started.

This installation guide includes the following topics:

- Installing software
- Wiring and powering the camera
- Calibrating your device
- Creating video analytic alarm policies
- Upgrading Firmware

For safety, and to achieve the highest levels of performance from your SightLogix system, always follow the warnings and cautions in this manual when handling and operating the camera.

SightLogix System Overview

This guide provides setup information for the SightSensors.

- SightSensors use a thermal imager to detect intruders that violate pre-defined security rules.
    - **SightSensor NS** presents high-clarity black and white thermal video.
    - **SightSensor TC** presents high-clarity black and white thermal and HD color video.
    - **SightSensor HD** presents black and white thermal and HD color video.
- SightSensors use a high degree of processing to analyze video in real time, while also stabilizing the video to ensure reliable detection.
- SightSensors are calibrated by the installer to use geo-registered video analytics for size, speed and direction rules that minimize false alerts and increase detection accuracy.

- SightLogix cameras are intended to be mounted on a heavy-duty mount or wall mount commonly used in the CCTV industry for outdoor cameras, and which are available from SightLogix or other suppliers. Cables will exit from the bottom rear of the camera housing.
- Each camera comes equipped with a standard ¼-20 three-hole one-inch spacing plate suitable to attaching to a standard camera bracket. Three bolts are supplied. One of the mounting bolts is used to connect the green ground wire (supplied).
- Camera connections are made through the water-tight cable gland on the bottom rear of the camera.
- The camera can be powered with a conventional power supply using 24V AC or POE.
- An Ethernet connection is provided for IP video streaming.
- The SightLogix software adheres to the server-client architecture and consists of a single Coordination System (CS) server and one or more SightMonitor clients.
    - The CS server maintains configuration, camera, and target information in a database.
    - The SightMonitor client is the graphical interface to the SightMonitor server. It displays target and camera information maintained by the server and it presents a series of user-input screens for calibrating and making configuration changes, such as setting up alarm policies or adjusting the video settings.
    - One CS server must be installed on the network. Multiple SightMonitor clients can be installed to allow users to view the SightMonitor from anywhere on the network, however the camera can only be connected to one SightMonitor server at any given time.
    - A web browser can be used for configuring the camera's IP address.

Installation Steps

Setting up a SightLogix device includes the following basic steps:

1. In a bench test environment, unpack the device, connect to a network, attach the appropriate cabling and assign an IP address.
2. Install the SightLogix CS software on your Windows PC and log in.
3. Set up the site map by inserting an image of the site to be monitored.
4. Add or discover the device to the SightMonitor device tree.
5. After this previous step, you can install and position the camera on a pole or mount to cover the area of interest.
6. Once positioned to cover the area of interest calibrate the camera to the scene.
7. Set up alarm policies. By default, any object moving within the camera view generates an alarm; alarm policies allow you to be more selective.

8. Add the device to a video management system (VMS) and check the video image to make sure it's alarming as per the alarm policies for the area to be monitored.

Supplied materials

Your SightLogix equipment will be shipped with the following items:

- Your SightLogix device
- CD(s) containing software, documentation, license file, and site map (if available at time of order)
- Grounding wire (must be attached to mounting bolt, as shown).
- Weather-tight gland for connection cables
- Info tag containing key setup information

Required Materials

The installer will need to supply the following items:

- Power source (24V AC) and power cable for system power (2-conductor, w/shield, gauge determined by cable length and supply voltage), and/or PoE power supply or PoE switch if used for system power

- Cat5e Ethernet cable for digital video and/or PoE for system power
- Camera mount, miscellaneous electrical hardware, connectors, and tools
- A PC with a 2 GHz dual-core processor with at least 4GB of memory running one of the following: Windows 7 Professional, Windows 10 Professional (32-bit or 64-bit), Windows 11 Professional; Windows Server 2003, 2008, 2012, and 2016 (32-bit or 64-bit), Windows Server 2019.
    - Note: For large sites of fifty cameras or more, we strongly recommend:
    - A dedicated PC (with no additional third-party software installed) with a I7-core processor and at least 16GB of memory running one of the following: Windows 7 Professional, Windows 10 Professional (32-bit or 64-bit), Windows 11 Professional; Windows Server 2003, 2008, 2012, and 2016 (32-bit or 64-bit), Windows Server 2019.
- IP network. Cameras can connect to the network using copper wiring (CAT5e). 100MB and higher networks are required.
- Range of IP network addresses provided by the network administrator.
- A monitor for displaying the SightMonitor.
- Geo-referenced image of site to be monitored. You can obtain aerial images from Google® Earth, SightLogix, or other providers.

INSTALLING YOUR DEVICE

INSTALLATION STEPS

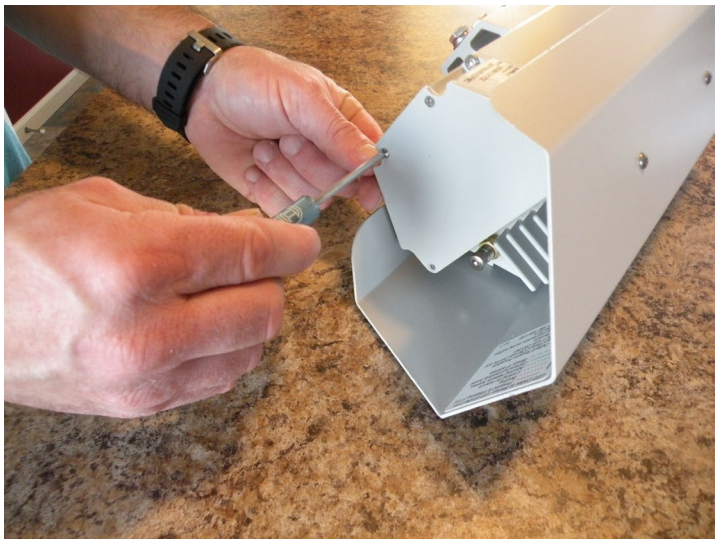
Since the camera is to be mounted on a pole or tower or other hard-to-reach location, we recommend performing initial setup on a work bench at ground level prior to mounting the camera in its final location.

1. Remove the Back Plate

In order to access the electrical connections and install the cables, it is necessary to remove the back plate of the camera housing.

Note:

The back plate is held in place with screws which do not need to be removed entirely. Back out the screws maintaining forward pressure until you feel the threads disengage. The gasket will hold the screws in place while the back plate is removed.



2. Connect Ethernet and Power

- Connect the RJ45 jack to the Ethernet port of a workstation.
- If using Power over Ethernet (PoE) make sure power is being supplied by the Ethernet device which the Ethernet cable has been plugged into or a PoE power injector in the cable run leading to the camera.
- if POE is not being used connect 24VAC by removing the connector header and connecting power to the header pins referencing the pin assignments printed on the pc board next to the connector which are marked for 24V.

Total maximum power consumption with all camera options are as follows:

Camera	Basic Operation with Detection	Window Heater for Severe Icy Conditions	IR Lighting	Total with all Options
SightSensor HD	8W	20W	6W	34W (1.5 amps)
SightSensor NS (320x240)	6.5W	20W	NA	26W (1.5 amps)
SightSensor NS (640x480)	8W	20W	NA	26.5W (1.5 amps)
SightSensor TC	11W	20W	NA	31W (1.5 amps)

***Note:**

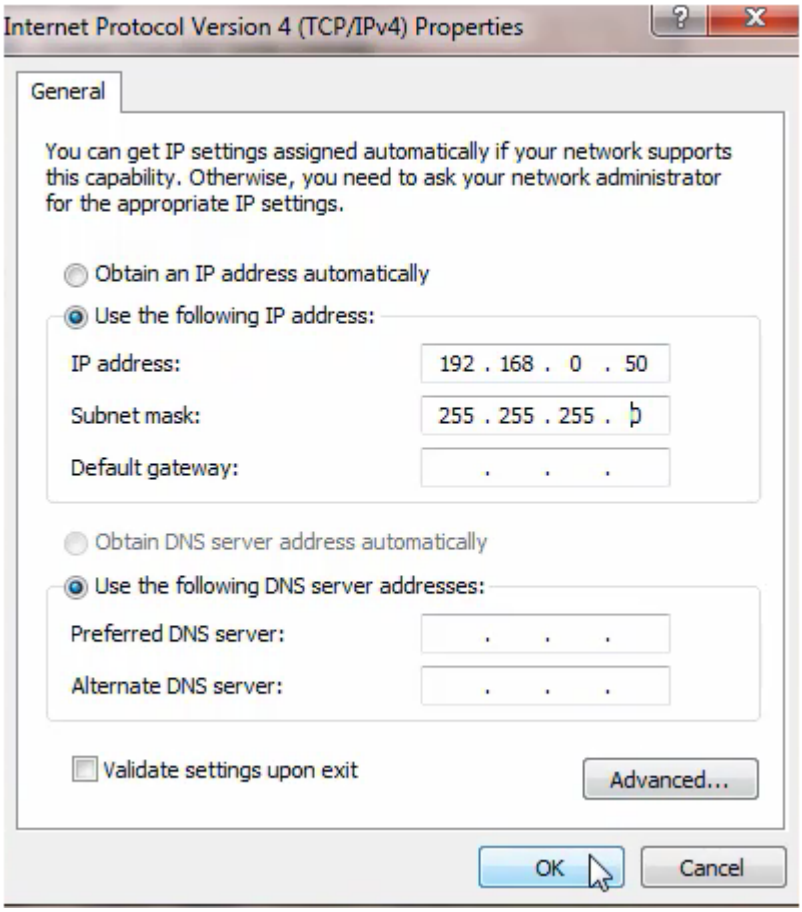
External window heater (and IR Illumination for HD cameras) require 24V power and will not operate on POE only.

- Once power is supplied to the camera, the LEDs blink a sequence of red/green for about two minutes and then turn off. This indicates the camera completed its boot cycle and is communicating with the Ethernet. You can then skip the next step.
    - If the LED's continue to blink red/green then the camera has not found a network to connect to and you will need to complete steps 3.

3. Assign Your PC an IP Address in Camera's Default IP Range

When first powered, the camera will request an IP address via DHCP; if one is not assigned after thirty seconds, it will take on the default IP address: 192.168.0.99. In this case you will need to assign your PC an IP address in the camera's default address range to continue.

- On your computer, open Network and Sharing Center
- Click "Change Adapter Settings"
- Click "Local Area Connection"
- Choose "Internet Protocol Version 4" and click "Properties"
- Click "Use the following IP address" and complete the fields. The example below can be used for a camera that has the default IP address.



4. Change the Camera's Default IP Address

Now that your workstation can communicate with the camera, you can change the IP address from the default.

- Open a browser and connect to the default IP address: 192.168.0.99
- A page opens showing a screen image from the camera's thermal imager
- Click "Network"
- Enter the camera's default Username and Password:
    - Username: root
    - Password: push2edg
- The Network page is displayed. Change the IP address as desired.
- Press "Save". The camera reboots and takes on the new IP address.
- Be sure to record the new IP address with the serial number of the camera for future reference.

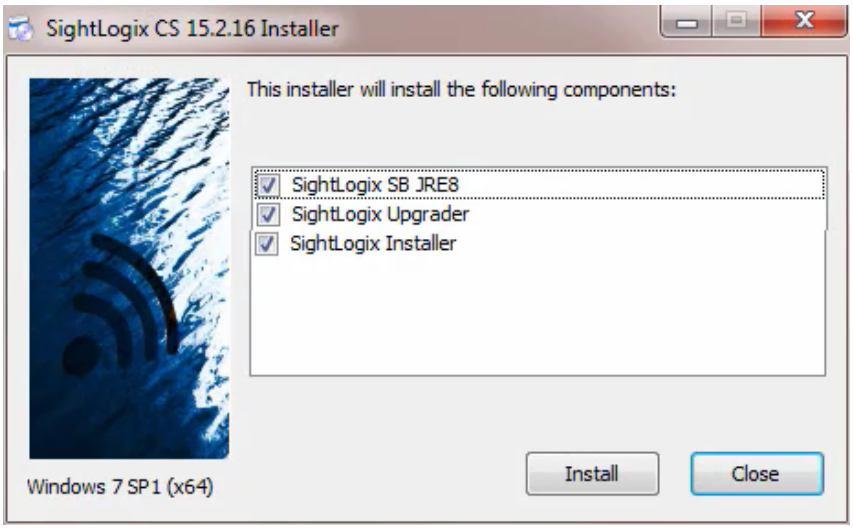
5. Install CS Software

- Copy the contents of the SightLogix software CD to a folder on your workstation.

Note:

We recommend installing SightLogix software from a folder on your PC, and not from the CD. Also note that the included license file is a zipped archive and **must stay zipped** for use.

- Double-click the installer.
    - Use the standard installer for 32-bit systems: slcs_xx.x.x_setup.exe
    - Use the 64-bit installer for 64-bit systems: slcs_xx.x.x_setup64.exe
- Click Install and check all components



- Click “Next” on system setup wizard and accept the license agreement to continue.
- Install the license file: Browse to the directory copied from the CD and click “OK”.
- Click “Next” to continue the install.
- Select your default measurement units, US (feet, MPH, etc) or SI (meters, kmh, etc)

Caution!

Choose your default measurement carefully; this setting cannot be changed without reinstalling the software.

- Click “Install”

The installation begins. It can take a few minutes to process.

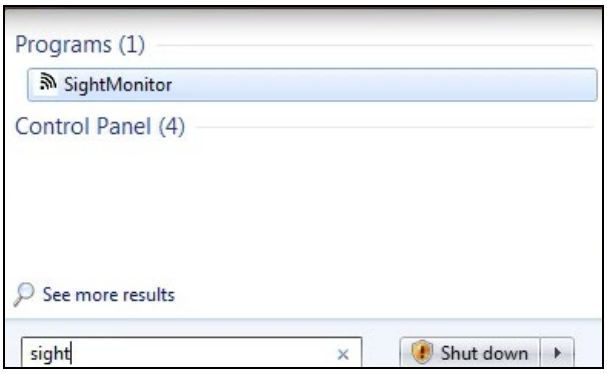
- When presented with the Command Prompt window, hit any key on your keyboard to continue.

- Click “Finish” to complete the installation.

6. Add Your Site Map to SightMonitor

When you install SightLogix software, a default site map is included. You should add the geo-referenced topology map that represents your site using the following steps.

- Open the folder containing the SightLogix software previously copied to the hard drive.
- Copy the site map .jpeg and.info file to the Site Images directory created during installation. The location of the files is:
    - SightLogix→CS→Tomcat→webapps→slc→site_images
- Click the SightMonitor shortcut added to your Windows Start menu during installation, as shown.



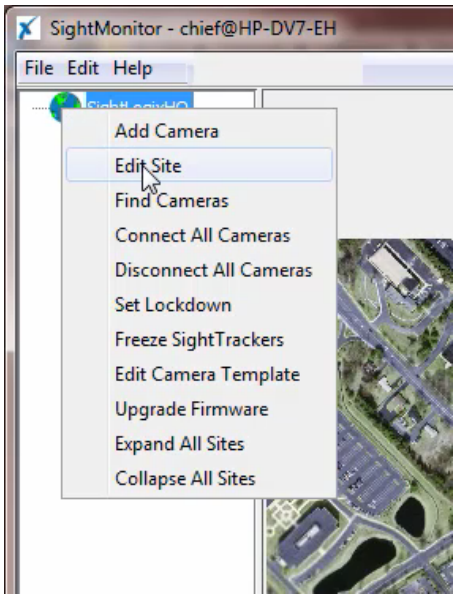
- Enter the default Username and Password:
    - Username: chief
    - Password: change
- The default site map will be displayed.

Note:

If your product shipment did not include a site map, you can obtain aerial images from Google® Earth, SightLogix other providers. Instructions for using Google Earth to install a custom site map are here: http://portal.sightlogix.com/help/google-earth.

Once the sitemap .jpeg and .info files are copied to the Site Images directory, you can select it in SightMonitor.

- In SightMonitor, right-click the Site icon (globe) and choose “Edit Site”.



- Select the new image from the Site Images list at left and click "Load" and then "Save".
- Close the Sites window to see the new site map.

7. Use SightMonitor to Discover Your Camera

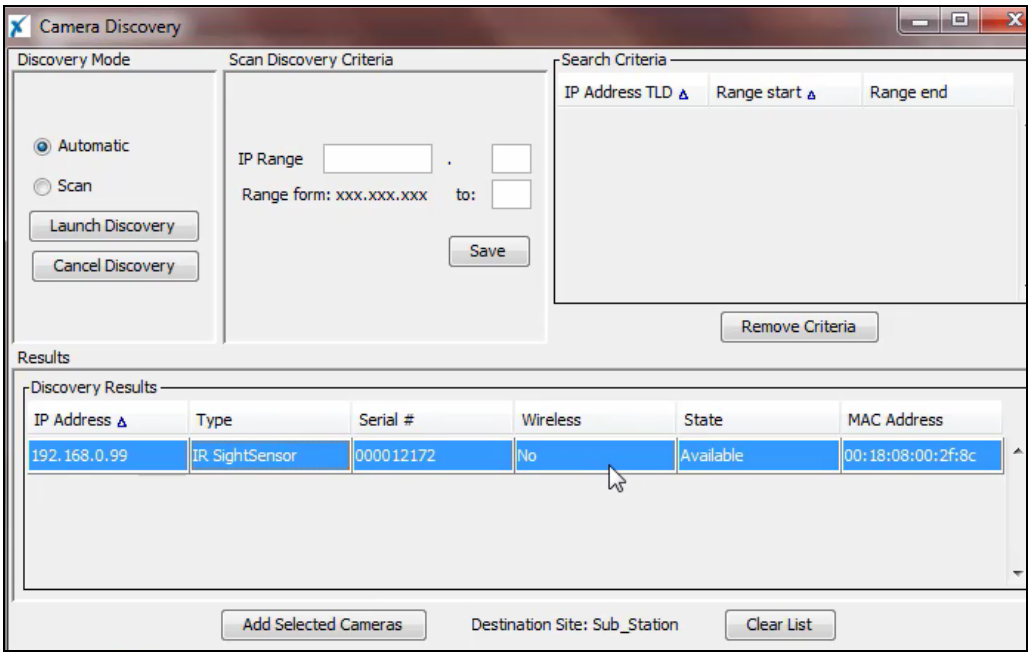
There are three ways to add a camera to SightMonitor: ***Auto Discover***, ***Scan by IP Range***, and ***Add the Device by IP Address*** described below.

Note

If you are managing remote cameras behind a router which is port forwarding the default management port, use the ***Add the Device by IP Address*** method.

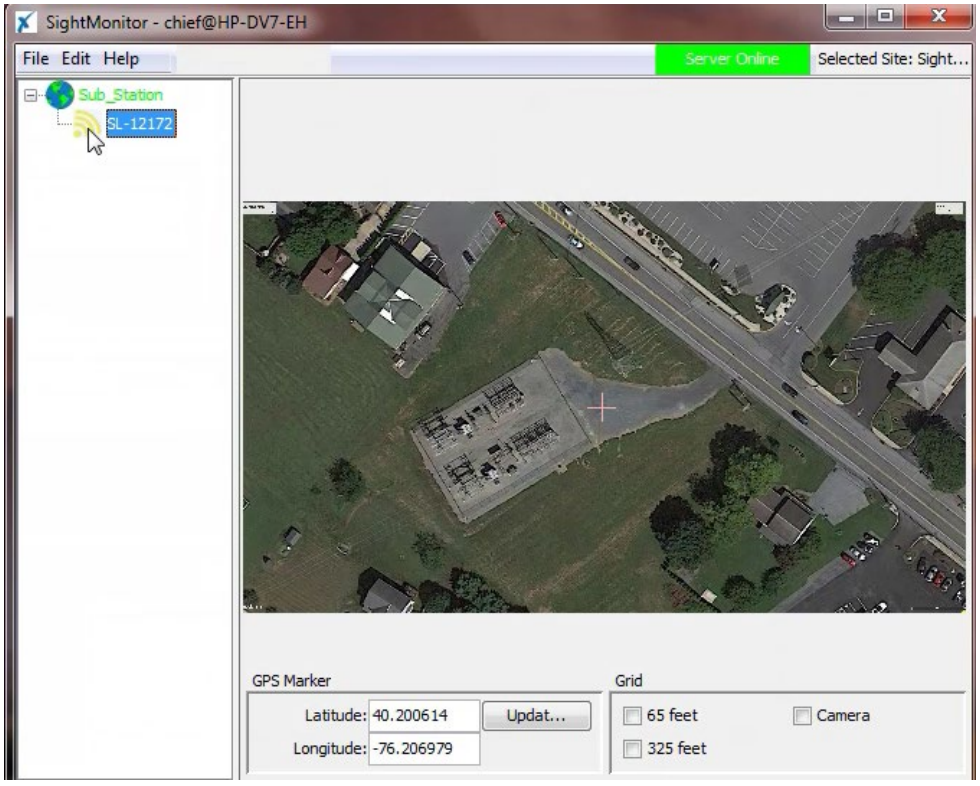
Auto Discovery

- Right-click the Site icon and choose "Find Cameras".
- Click "Launch Discovery" to start a multicast broadcast to locate cameras.
- If SightLogix devices are found, information is displayed in the Results window, as shown.



- Devices not yet added to SightMonitor show state “Available”. Devices already discovered by SightMonitor will show “Added”.
- Click “Add Selected Camera” and close the window.

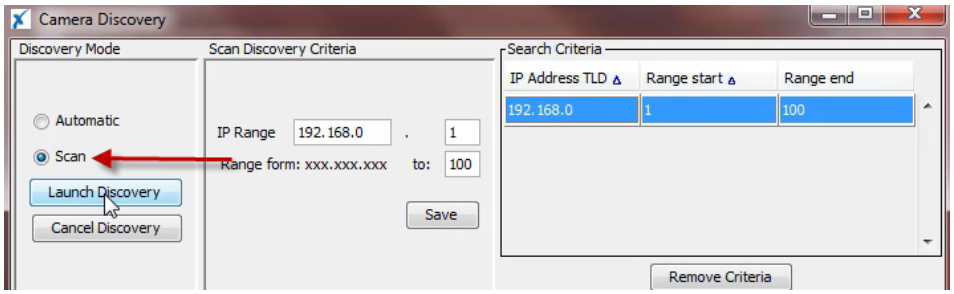
An icon will now reside in the camera tree representing the camera just discovered.



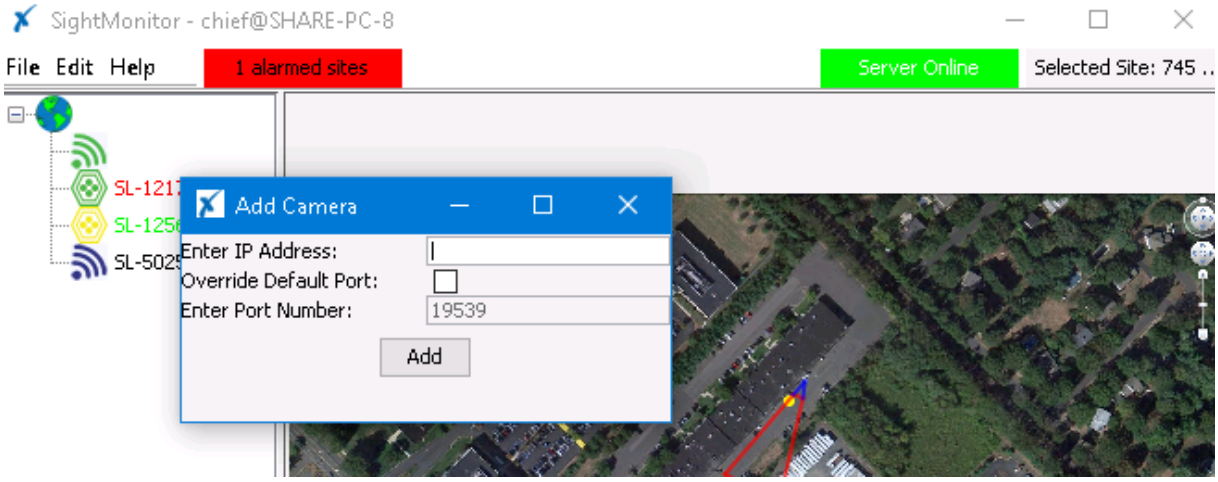
Scan by IP Range

If Auto Discovery does not find the device, do the following:

- Right-click the Site icon and choose “Find Camera”.
- Change the Discovery Mode from “Automatic” to “Scan”.
- Enter an IP range for your network and click “Save”.
- Highlight the range in Search Criteria and click “Launch Discovery”.



Add the Device by IP Address



If you know the IP address of the device you want to add to SightMonitor, or if you need to change the default Port Number that the device will use, do the following:

- Right-click the Site icon, and choose “Add Camera”.
- Enter the IP address.
- If the camera is behind a router which is port forwarding the default camera management port, check “Use Non-Default Port”, enter the forwarded Port Number, and click “Add”.

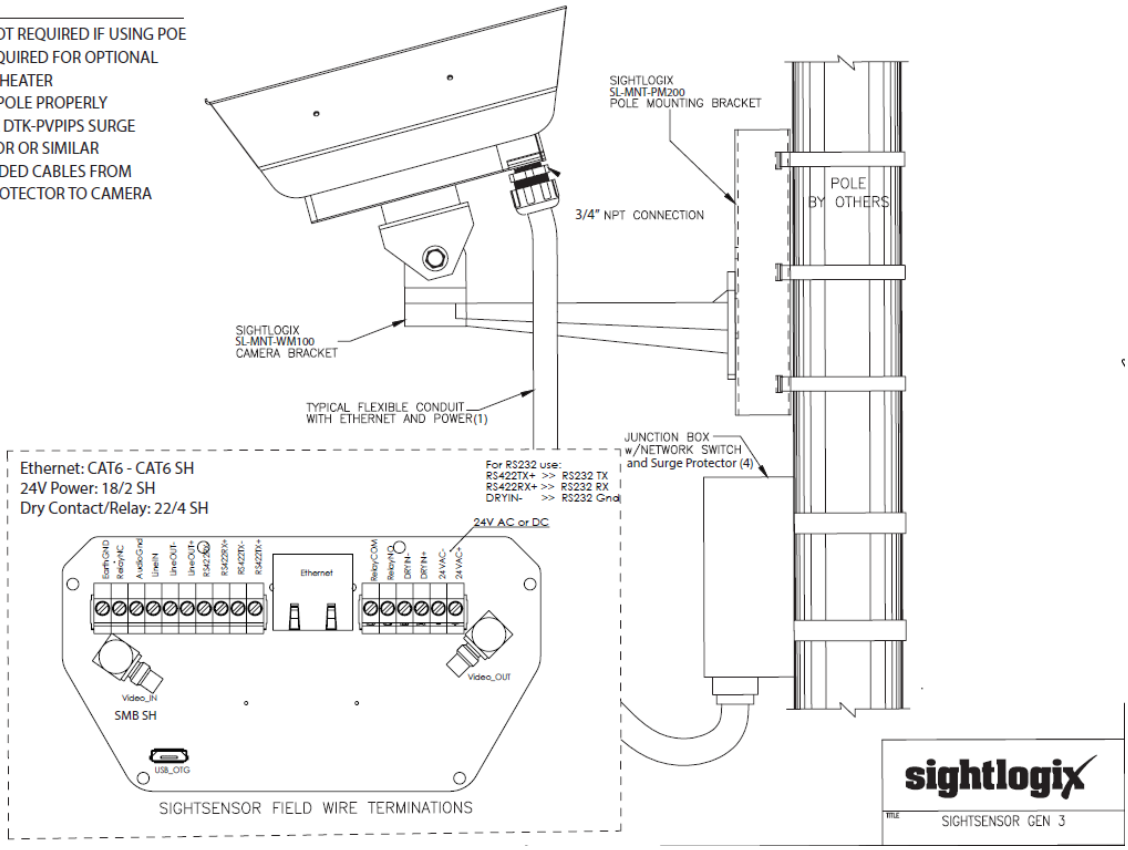
8. Mount the Device for Use

Each SightLogix device comes equipped with an interface plate suitable either for attaching to a wall or pole. Install SightLogix devices according to these guidelines:

- Cameras must be pointing slightly down, less than zero degrees, to ensure triangulation and aid with accuracy.
- Once in place, adjust the camera as necessary to capture the area to be monitored. SightLogix cameras are fixed and need to be physically adjusted.
- When installing multiple cameras for a perimeter application, it is recommended that camera ranges slightly overlap to ensure complete coverage of the perimeter with no gaps between blind spots under the camera.
- Once the device is installed, connect it to the network and to a power source
- Ensure the camera is properly grounded. SightSensors have grounding and surge protection to provide further immunity from high current transients that can occur in installations that are subject to electrical storms and/or nearby lightning events. In order to protect against these high current events, installers are required to provide an earth connection to the grounding lug on the base of the camera, as shown.
    - You can learn best practices to protect your SightLogix equipment at http://www.sightlogix.com/surge.

NOTES

1. POWER NOT REQUIRED IF USING POE
2. 24VAC REQUIRED FOR OPTIONAL WINDOW HEATER
3. GROUND POLE PROPERLY
4. USE DITEK DTK-PVPIPS SURGE PROTECTOR OR SIMILAR
5. USE SHIELDED CABLES FROM SURGE PROTECTOR TO CAMERA



CALIBRATING YOUR DEVICE

CALIBRATION OVERVIEW

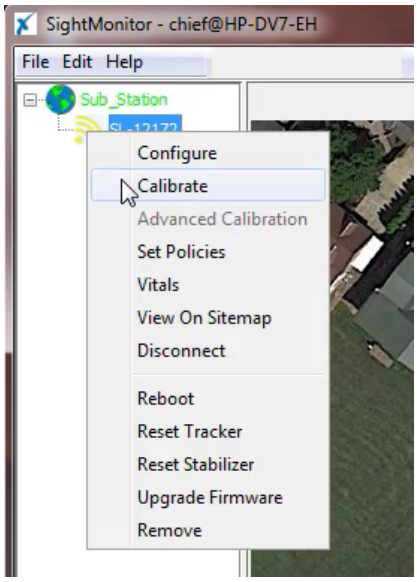
- Calibrating provides two Key functions:
    - Pinpoint target locations as they move across the site map in real time.
    - Set accurate video analytic detection rules based on size, speed and direction.
- Two calibration points are required. When selecting points, select a ground location next to a landmark or other permanent object and always select locations that can be easily identified in both the site map and the camera view. The points should be close to areas you're interested in monitoring. Points should be some distance away from one another.
- If the area is hilly with wide variations in elevation, select points that are roughly midway between the highest and lowest elevations.
- Turning on the grids in the site map makes it easier to measure distances and locate points.

Note:

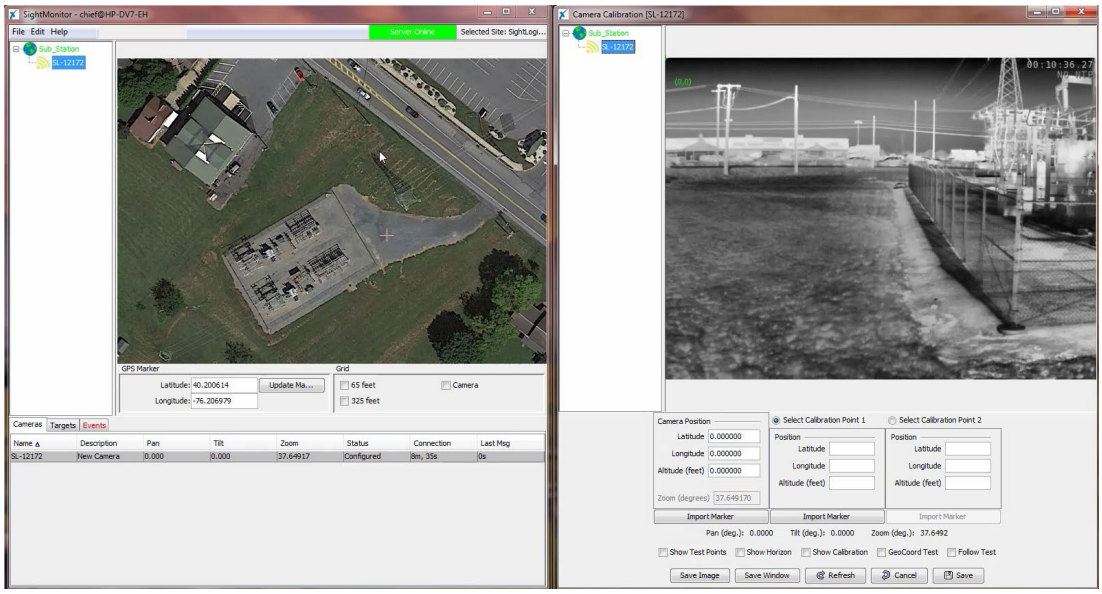
You can find a helpful video showing the calibration process described below in the SightLogix support portal: http://portal.sightlogix.com/help/video-tutorials.

CALIBRATION STEPS

- Right-click the camera and choose "Calibrate".



- A window opens showing a single frame capture from the thermal imager.
- Move the calibration window next to the site map window for easier configuration, as shown below.



- Double-click the sitemap at the location of your SightLogix device.
- A cross icon is displayed at that location and its current GPS coordinates are displayed in the Latitude and Longitude windows.
- On the calibration window (at right), click “Import Marker”.
- Enter the height above ground that the camera is mounted in the Altitude field.
- In the Calibration Points column, select the radio button for one of the calibration points.
- In the site map, double-click to select the first calibration point. Choose a fixed object such as a utility pole, the corner of a building, etc.
- Zoom in by using the mouse roller ball or pressing +.
- Move over to the calibration window showing the imager snapshot and double-click at the same location.
- Click “Import Marker”.
- Repeat for a second calibration point using a different fixed point on the site map.
- A camera cone is overlaid on the site map, indicating a calibrated camera.

Fine-Tuning Your Calibration

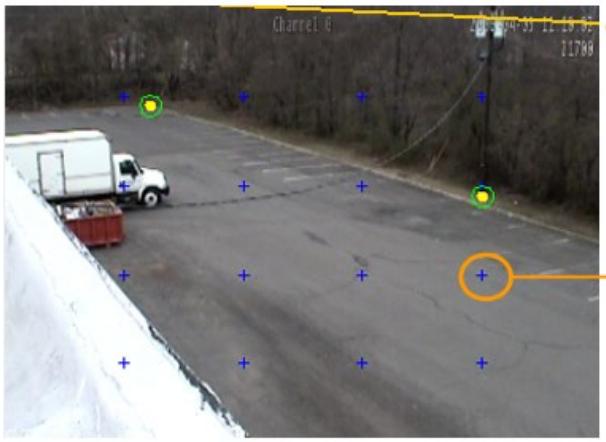
There are three parts to the calibration test for a SightSensor:

- Comparing the system-derived horizon to the real horizon.
- Verifying that test points in the camera view correspond to points in the site map.
- Viewing the GPS coordinates of a single point, which you can compare to a landmark point whose GPS coordinates are already known (optional).

To show the system-derived horizon, click the Show Horizon checkbox. This draws a line across the camera view where the system thinks the horizon is. The horizon should be somewhat aligned with the real horizon. If the horizon is at the wrong angle, check the camera height; if the angle is good but at the wrong height, you may need to select new points.

To show test points, select the Show Test Points checkbox (the horizon will also be shown, though you can hide it by unselecting the Show Horizon checkbox). In the video image, you will see 16 points equally distributed below the horizon. These points should correspond to points shown in the site map, where the points should be parallel to the camera and exhibit a linear arrangement of four groups of four points. (There are exceptions such as hilly sites where the horizon is obscured and calibration points are at different heights.)

If the arrangement is random and if the two sets of test points don't correspond, you need to recheck or correct the calibration.



System-calculated horizon
Check that it roughly matches the real horizon.

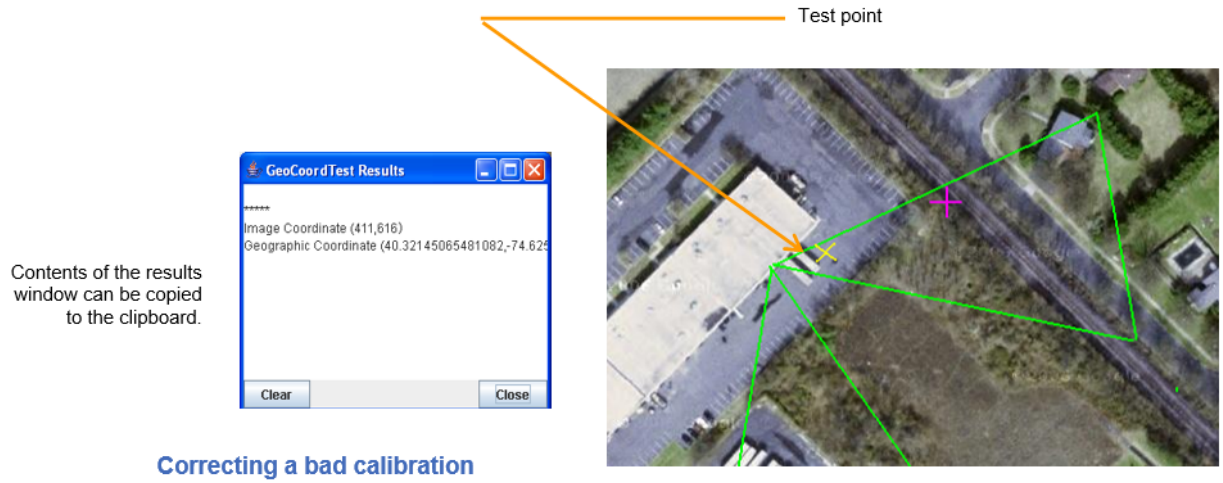
Test points here should correspond with points in site map.

A scattered distribution can indicate a poor calibration.

In a good calibration, the points will be parallel to the camera, arranged in a roughly linear fashion.

Once the calibration is shown to be good, it is recommended that you use the Save Image option on the Calibration dialog to create a JPEG image of the calibration information. This can be useful if you need ever need to reconstitute a calibration.

To retrieve the coordinates of a specific point: click GeoCoordTest and then double-click anywhere in the camera view to return the GPS coordinates of that point. This places a test point (circled in red) and opens a dialog with the coordinates calculated by the system. This procedure is useful for verifying the calibration by comparing the system-derived GPS to a reference point whose GPS is already known. The test point is also represented in the site map.



Correcting a bad calibration

If a calibration is not good, check first that the camera height is correct. Verify that the elevation is the difference in height between the camera and the calibration points. If after reentering the camera height and retesting the calibration, the test points are still not correct, select different points.

Correcting a bad calibration

If a calibration is not good, check first that the camera height is correct. Verify that the elevation is the difference in height between the camera and the calibration points. If after reentering the camera height and retesting the calibration, the test points are still not correct, select different points.

Note

Visit the SightLogix Support Portal at http://portal.sightlogix.com/help/video-tutorials for a calibration video guide, or refer to the SightLogix Enterprise System Guide for more information.

CONFIGURING VIDEO ANALYTIC ALARM POLICIES

ABOUT ALARM POLICIES

By default, any object moving within an alarm zone generates an alarm. However, you can set the system to be more selective about when and where alarms occur.

For example, you may not want alarms generated during working hours, or for objects that are only moving within a zone, or you may want only certain objects—differentiated by speed, size, or heading—to generate alarms.

You control alarms through **zones** and **alarm policies**.

A **zone** is a specific area of the camera view that you define and specify whether or not it can generate alarms or even track objects.

Three zone types are supported:

- An **alarm** zone is an area that can generate an alarm. Any sensitive areas that you wish to secure should be included in an alarm zone.
- A **mask** zone is an area in which no motion detection or tracking occurs. This zone type is useful for excluding areas prone to nuisance alarms, such as the sky, background roadways with traffic, or areas where birds congregate.
- An **ignore** zone also does not generate alarms, nor does it track objects that originate in the zone; however, unlike a mask zone, an ignore zone continues to track objects that are already being tracked, such as those that move from alarm zones or undefined areas into the ignore zone.

Tracked objects are represented in the site map: Targets in alarm zones are shown in red and tracked objects outside an alarm zone (those in undefined areas as well as tracked objects that have moved into an ignore zone) are shown in yellow. Targets in masked zones are never represented.

An alarm **policy** is an alarm zone together with a set of rules that dictate the conditions under which alarms within that zone occur, or do not occur. These rules allow you to do the following:

- Specify the hours of the day or days of the week when alarms can occur. For example, you might set up a time range that is in effect only during non-working hours, such as between 7:00 pm and 6:00 am on weekdays, but all 24 hours on the weekends.
- Designate the alarm zone to be a tripwire so only those objects that enter or exit a zone (or do both) generate alarms. Thus, objects simply moving within the zone would not generate an alarm.
- Specify that an alarm be generated only if the target was tracked previously in a specified zone (a powerful feature called a “From-To Zone”).
- Specify that only certain types of objects can trigger an alarm. You specify objects by size, speed, direction, or shape (aspect ratio).

- Each alarm zone can have multiple rules. For example, you can define one set of rules for a specific time range (such as working hours) and a different set for off hours.

Note

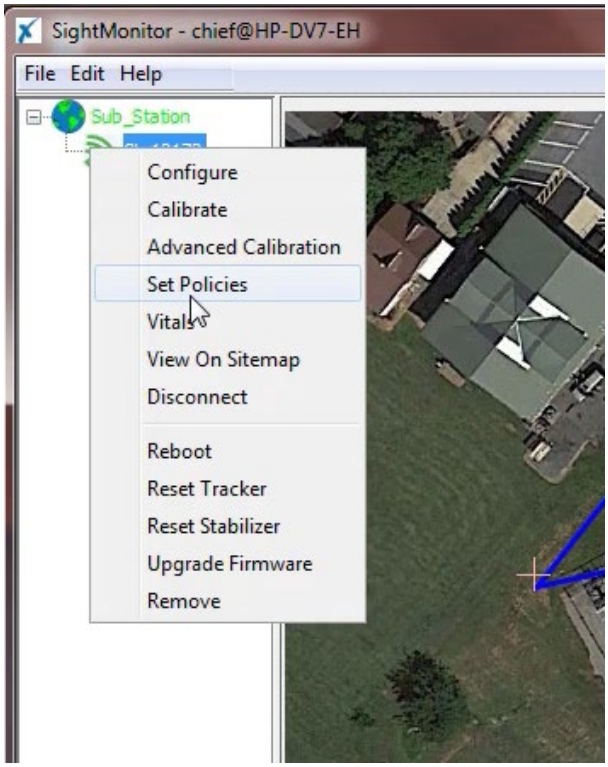
SightLogix has created a helpful video tutorial for creating alarm policies that supplements the information in this guide, available at http://portal.sightlogix.com/help/video-tutorials.

CREATING AND EDITING ALARM POLICES

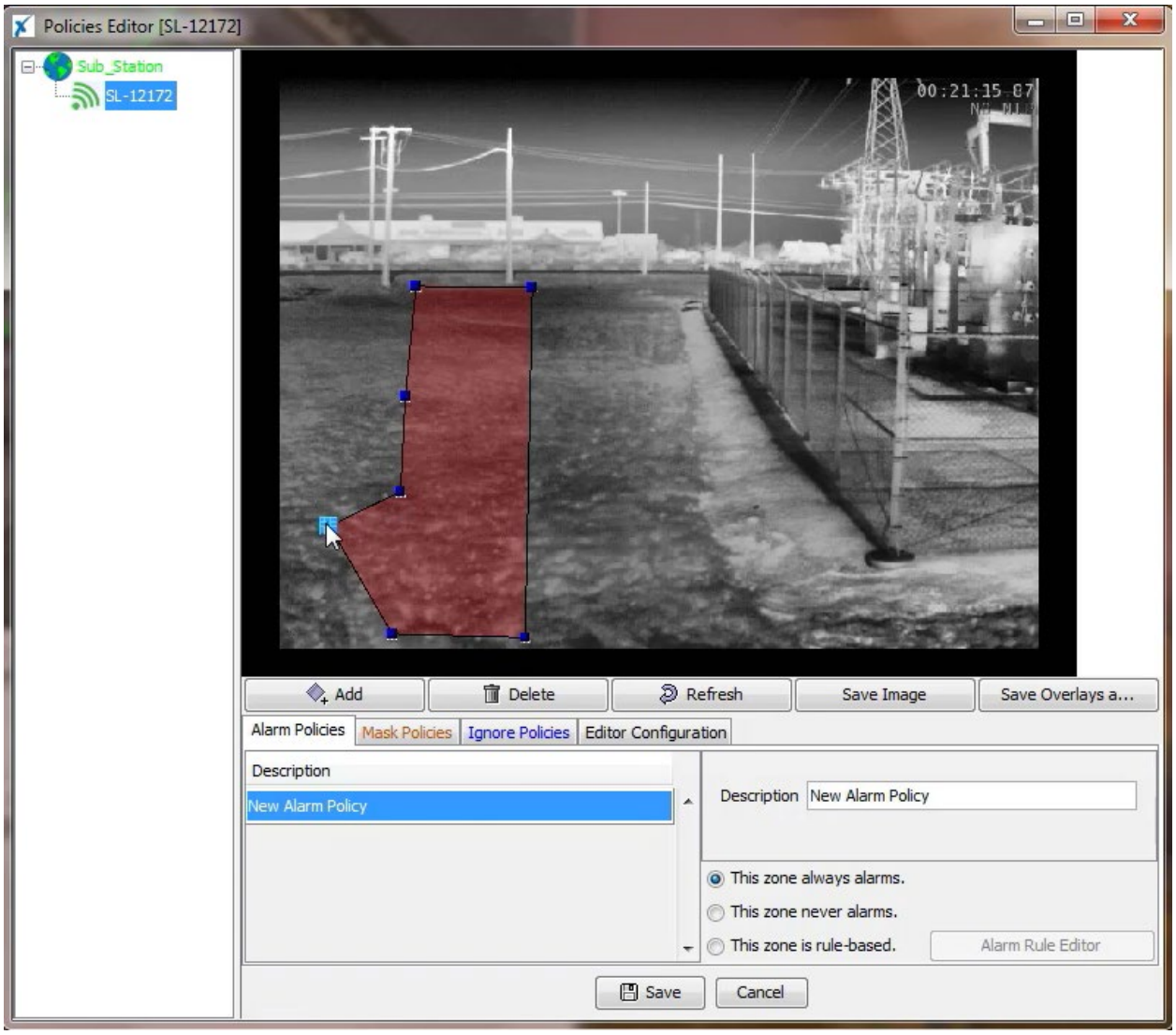
When defining alarm zones, always draw alarm zones on the ground; alarms are generated only when an object's ground position is within an alarm zone.

To Create a Zone:

- Right-click on the camera in the camera tree and choose "Set Policies".



- The Policy Editor window opens, showing a snapshot from the camera's thermal imager.
- To add a zone, click "Add" and select "New Alarm Policy".
- Left-click in the snapshot image and drag your mouse to draw a polygon shape on the location of the zone. Left-click again to add another point to your shape.
- Double-click to close the shape. You can click anywhere along the shape to add points, or grab an existing point to stretch and resize, as shown. Right-click on a point to delete it.



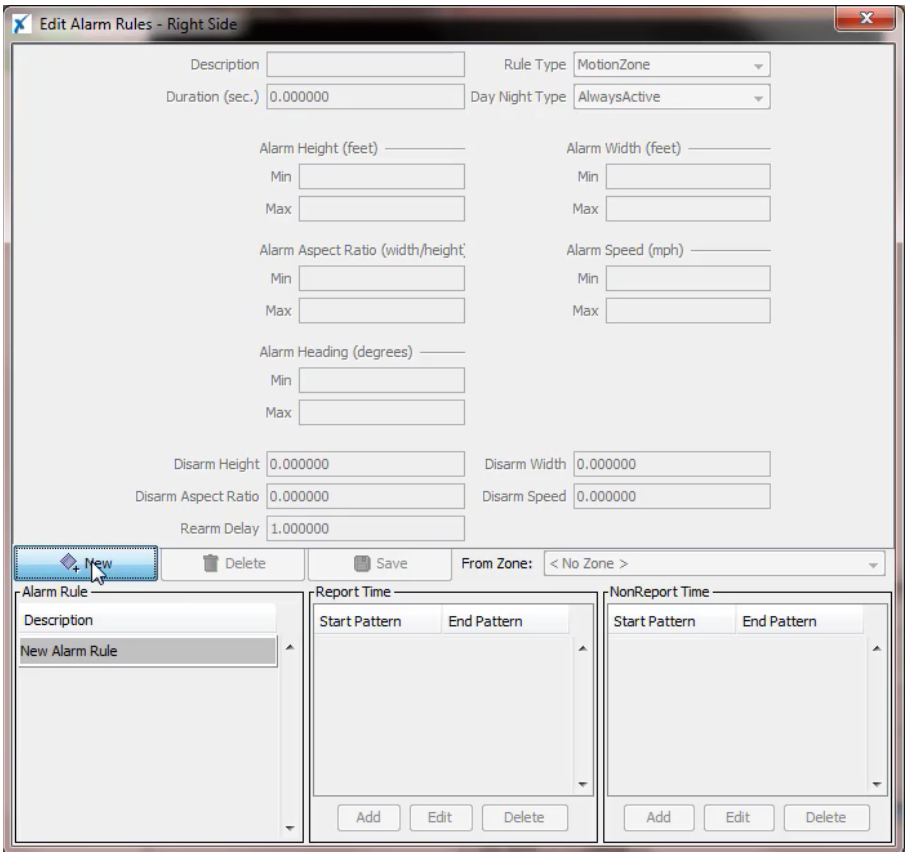
- Enter a name for the zone in the Description field.
- Specify whether it always alarms, never alarms, or alarms only under certain conditions.
    - **This Zone Always Alarms**: Any object moving anywhere sets off an alarm. Not recommended since anything (a cat, for example) sets off an alarm. Use a rule-based alarm for more constraints on alarms.
    - **This Zone Never Alarms**: Useful for defining “From” zones where you only want a target alarmed if they go from one area of the scene into another.
    - **This Zone is Rule-Based**: Alarms only under conditions set by rules. Recommended for reducing nuisance alarms (a cat, for example, would not alarm if the object size was defined as 2 feet tall and one foot wide).

Applying Rules to Alarm Zones

Alarm zones can be associated with a set of rules that specify more precisely the conditions under which alarms are generated. These rules restrict alarms by time, by the duration of time spent in the zone, by tripwire, by previous path, or by target attributes such as the target's size, speed, direction, and shape (aspect ratio). By default, no rule set is created for an alarm zone (meaning any moving object generates an alarm at any time).

You set up the alarm rules using the alarm rule editor:

- Click the Alarm Rule Editor button on the Zones dialog (an alarm zone must be selected). The editor window opens, as shown.



- Click "New" and highlight "New Alarm Rule" to activate the options in the window.
- Define your rule using the options available and click "Save".

Specifying target attributes

You can restrict alarms according to an object's size, shape (aspect ratio), speed, or direction.

Note: Speed and heading for an object takes two seconds to become valid after a target is tracked. Adding a speed to a rule will cause a delay in responding to a new target.

Target attributes	
Height, width	Meters or feet (as previously selected in install process)
Speed	Meters or miles per hour (as previously selected in install process)
Heading	Degrees from North
Aspect ratio	Enter a number or fraction that represents the result of a ratio of width to height. For example, to alarm on people as opposed to vehicles, you would enter a figure less than 1 since people, being twice as tall as wide, would have a ratio less than 1, (~.4 to .2). Vehicles, being wider than tall, would have a value greater than 1.

Setting time ranges

A time range specifies the hours when alarms can be generated for a particular alarm zone. By default, an alarm zone is in effect for all 24 hours.

Note!

Time ranges require an NTP server to be defined in SightMonitor. To do so:

- Right-click SightSensor icon, choose Configure, click the Network tab, enter the IP address of your NTP server in the Network NTP dialog. Click Save.

- Right-click on the SightSensor icon, and choose Reboot. If the camera has successfully connected to the NTP server, its server address will be displayed just below the Network NTP dialog.

- Select the Camera tab, choose the appropriate Time Zone from the Time Zone drop-down.

To set a specific time range:

- From the Edit Alarm Rules dialog, select an alarm policy.
- Click Add under Report Time if you're specifying a time range for alarms, or click Add under Nonreport Time to specify a time range when alarms cannot occur.
- Depending on how you want to define a time range, enter both a start and end pattern for the appropriate field or fields. (Asterisks denote no constraints for a field.) Hours are entered using a 24-hour clock.

For example, for alarms to be generated only during work hours, enter 0700 for the start pattern (in hour field) and 1800 for end pattern; in day of week, enter 02 (for Monday; Sunday is 1) and 6 for Friday in the end pattern.

Note:

The start time is included in the range, and the end time is outside the range.

- Click" Save".
- Repeat for each additional time range to be associated with the zone.
- To edit or delete a time range, select the range and click Edit or Delete as appropriate.

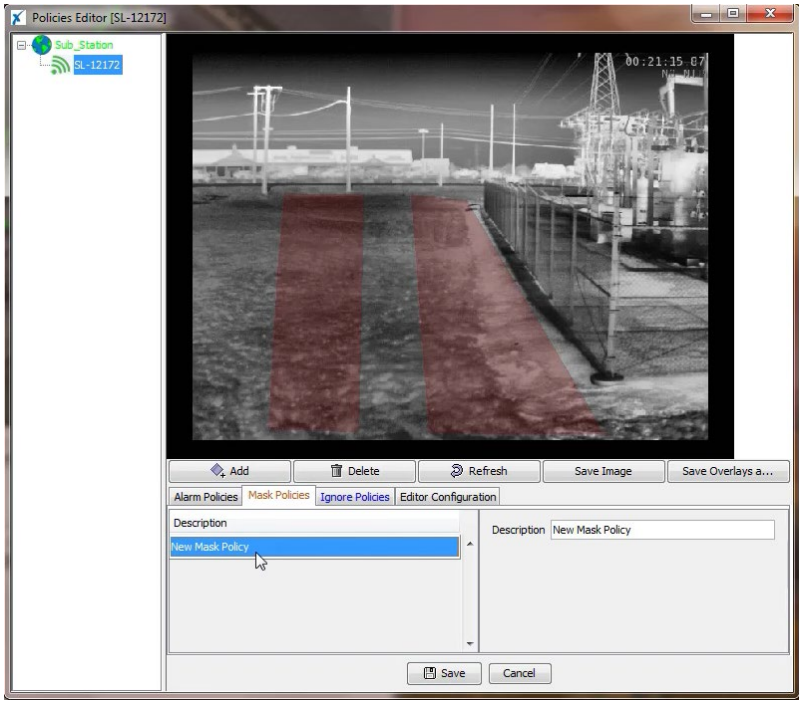
Asterisks in any field apply no restrictions (for example, * in the day field indicates all days). Use a comma to separate multiple entries for a field.

Creating a Mask Zone

Mask zones are areas that will never alarm, and are typically used in areas where you have unwanted movements like vehicle activity, moving vegetation, birds, etc.

To create a Mask Zone:

- Right-click on the camera in the camera tree and choose "Set Policies" to access the Alarm Policy Editor.



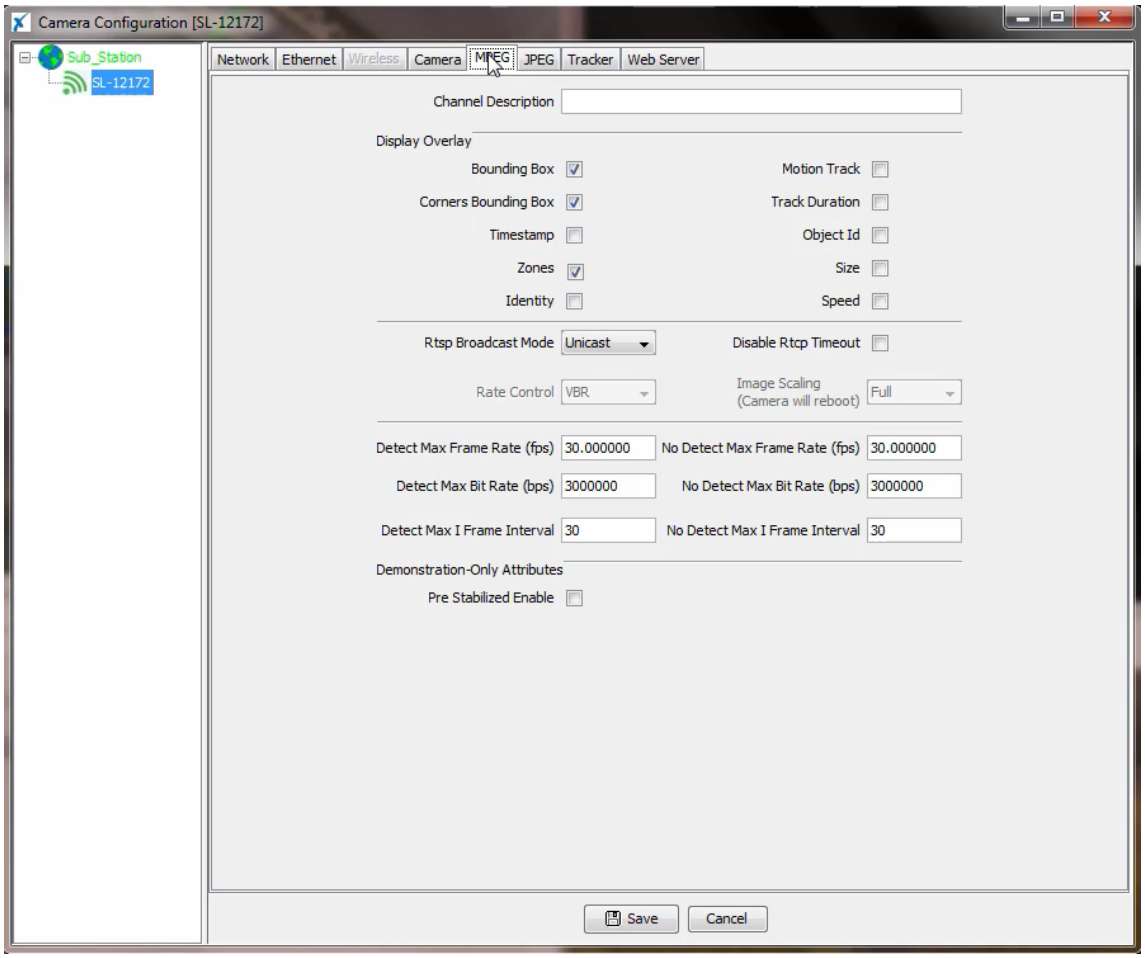
- Select the Mask Policies tab, click "Add" and highlight the New Mask Policy field.
- Left-click on the camera snapshot image to draw a new mask zone. In the example shown, you might consider drawing a mask zone on the background traffic and sky.
- Double-click to close the shape.

- Give the mask policy a name in the Description field, for example “Traffic Mask” and click “Save”.

Displaying Video Overlays

After you have drawn your alarm policies and are ready to test your system, you have the option to overlay your policies in the live video to see exactly where they are.

- Right-click on the camera from the camera tree and choose “Configure” to open the Camera Configuration Window.



- Click the MPEG tab.
- Choose your Display Overlay options and click “Save”.

Viewing Live Video: SightSensor TC and HD

On the dual-stream SightSensor TC and HD, both visible and thermal streams are available as MJPEG or MPEG.

MPEG streams can be viewed using a third-party media player such as the open-source VLC (https://www.videolan.org/vlc/) or your Video Management System.

On VLC Media Player, click “Media” and “Open Network Stream” (use your camera’s IP address if changed from the default)

- Visible: rtsp://192.168.0.99/mpeg1
- Thermal: rtsp://192.168.0.99/mpeg2

MJPEG streams can be viewed through a web browser using the following URLs (use your camera’s IP address if changed from the default):

- Visible: http://root:push2edg@192.168.0.99/axis-cgi/mjpg/video.cgi
- Thermal: http://root:push2edg@192.168.0.99/axis-cgi/mjpg/video.cgi?ch=2

Viewing Live Video: Thermal-Only SightSensors

On the Thermal SightSensor, thermal video streams are available as MJPEG or MPEG.

MPEG streams can be viewed using a third-party media player such as the open-source VLC (https://www.videolan.org/vlc/) or your Video Management system.

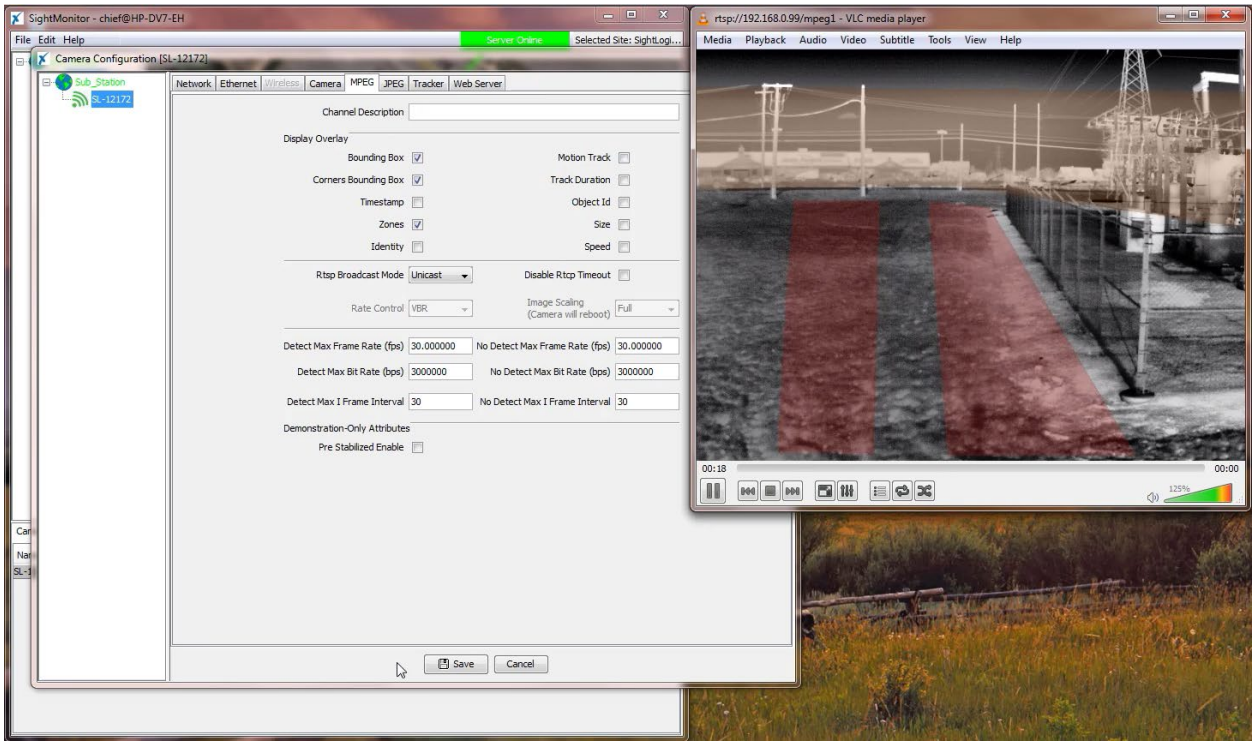
On VLC Media Player, click “Media” and “Open Network Stream” (use your camera’s IP address if changed from the default)

- rtsp://192.168.0.99/mpeg1

MJPEG streams can be viewed through a web browser using the following URLs (use your camera’s IP address if changed from the default):

- http://root:push2edg@192.168.0.99/axis-cgi/mjpg/video.cgi

To turn various Display Overlays on or off while the video streams, select a Display Overlay option and click “Save”. The changes will be updated in the live stream.

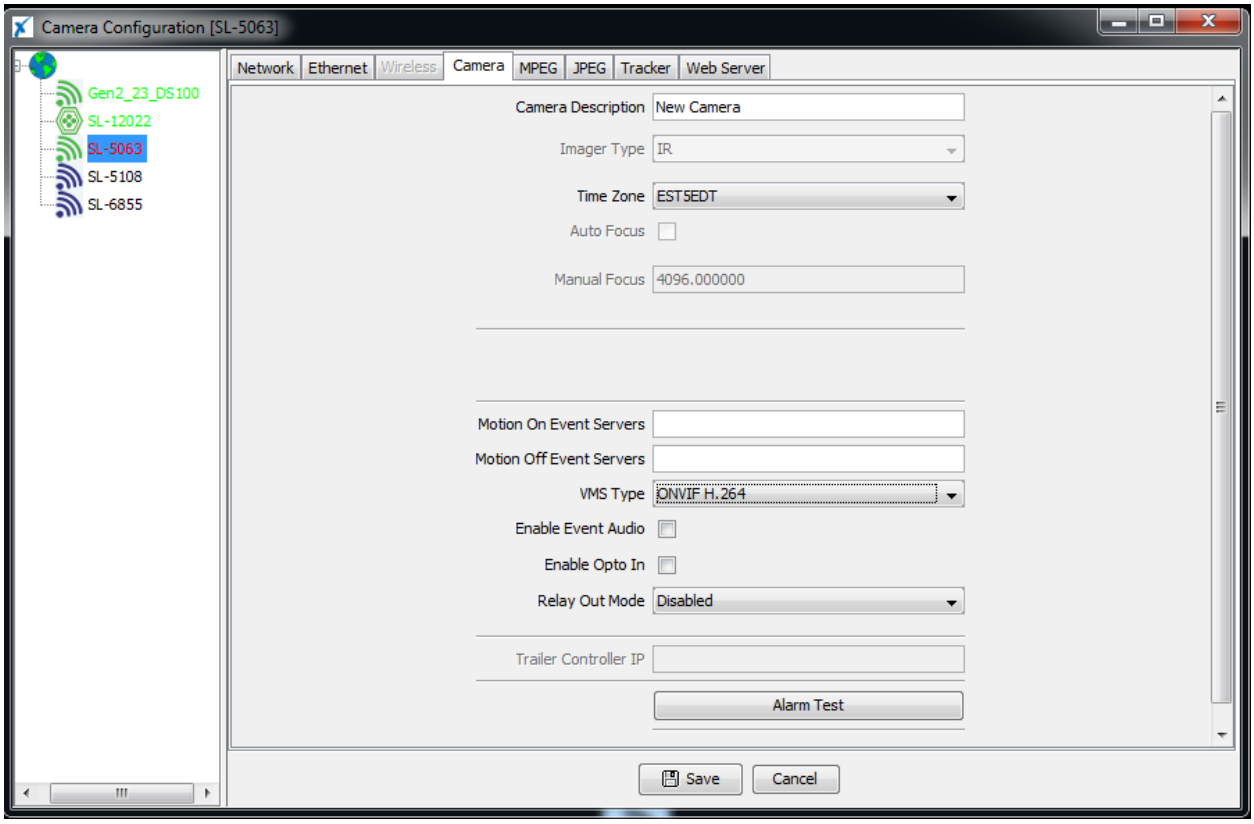

SightMonitor - chief@HP-DV7-EH
File Edit Help
Server Online
Selected Site: SightLogi...
Camera Configuration [SL-12172]
Sub_Station
SL-12172
Network Ethernet Wireless Camera MPEG JPEG Tracker Web Server
Channel Description
Display Overlay
Bounding Box
Corners Bounding Box
Timestamp
Zones
Identity
Motion Track
Track Duration
Object Id
Size
Speed
Rtsp Broadcast Mode Unicast
Disable Rtcp Timeout
Rate Control VBR
Image Scaling (Camera will reboot) Full
Detect Max Frame Rate (fps) 30.000000
No Detect Max Frame Rate (fps) 30.000000
Detect Max Bit Rate (bps) 3000000
No Detect Max Bit Rate (bps) 3000000
Detect Max I Frame Interval 30
No Detect Max I Frame Interval 30
Demonstration-Only Attributes
Pre Stabilized Enable
Save
Cancel
rtsp://192.168.0.99/mpeg1 - VLC media player
Media Playback Audio Video Subtitle Tools View Help
00:18
00:00
125%

TROUBLESHOOTING AND FINDING MORE INFORMATION

ADDING DEVICES TO A VIDEO MANAGEMENT SYSTEM (VMS)

First, set the VMS type in SightMonitor:

- Right-click your device in the camera tree, choose Configure, and navigate to the Camera tab.



  - Choose ONVIF H.264 (recommended) or ONVIF MPEG4. The system uses the default username *service* and the password *test1234.*

  - To test if the alarm is being transferred and received by the VMS, press the Alarm Test button to simulate a motion alarm state and confirm in your VMS.

- Additional steps are required depending on the VMS and for non-ONVIF connections. Refer to the SightLogix Support Portal for your specific VMS: http://portal.sightlogix.com/help/vms-and-ptz-integrations.

SETTING DAY/NIGHT MODE (SIGHTSENSOR HD ONLY)

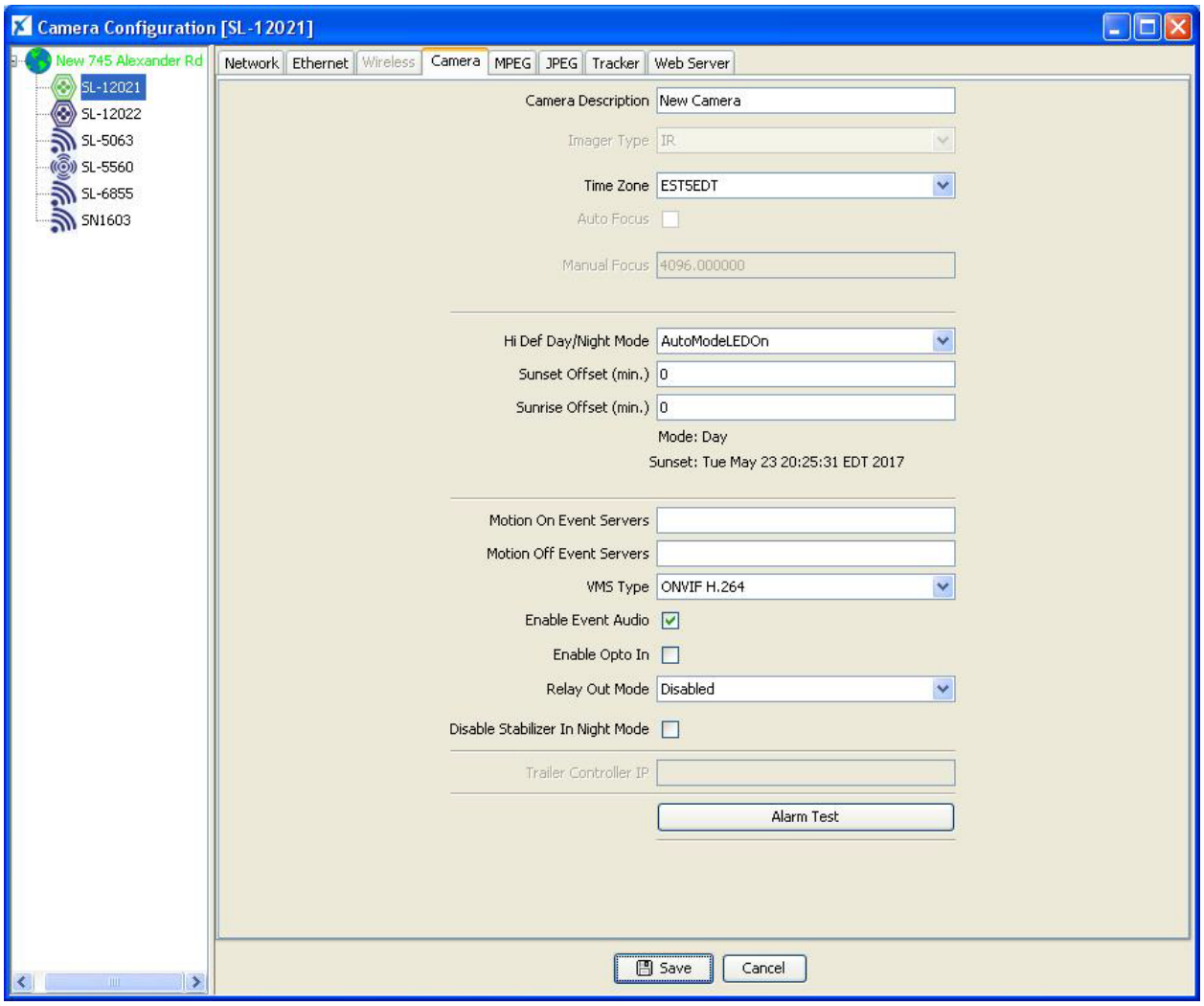
- This section applies to SightSensor HD cameras only.

For SightSensor HD, you can configure the visible imager's Day/Night Mode setting for low-light conditions. The options are located on the Camera tab, as shown.

Day/Night Mode Options	
DayMode	Sets the imager to Day Mode (Default setting). Always produces a color image.
NightModeLEDON	Sets the imager to Night Mode, with LEDs on. This setting produces a black and white image.
NightModeLEDOff	Sets the imager to Night Mode, with LEDs off. This setting produces a color image.
AutoModeLEDOn	Provides automatic switching at sunrise and sunset according to the NTP server, and sets the LEDs on at night. Will produce a black and white image at night.
AutoModeLEDOff	Provides automatic switching at Sunrise and Sunset according to the NTP server, and sets the LEDs off at night.
Reserved	Reserved for future enhancements.

Day/Night Mode Details

- Night Mode increases the sensitivity of the camera producing a brighter image, however the image is black and white.
- LED illumination improves very dark scenes but requires 24VAC.
- You can also choose to set a Sunrise or Sunset offset, in minutes.


Camera Configuration [SL-12021]
New 745 Alexander Rd
SL-12021
SL-12022
SL-5063
SL-5560
SL-6855
SN1603
Network
Ethernet
Wireless
Camera
MPEG
JPEG
Tracker
Web Server
Camera Description
New Camera
Imager Type
IR
Time Zone
EST5EDT
Auto Focus
Manual Focus
4096.000000
Hi Def Day/Night Mode
AutoModeLEDOn
Sunset Offset (min.)
0
Sunrise Offset (min.)
0
Mode: Day
Sunset: Tue May 23 20:25:31 EDT 2017
Motion On Event Servers
Motion Off Event Servers
VMS Type
ONVIF H.264
Enable Event Audio
Enable Opto In
Relay Out Mode
Disabled
Disable Stabilizer In Night Mode
Trailer Controller IP
Alarm Test
Save
Cancel

INSTALLING SIGHTMONITOR (CS) CLIENT ON ADDITIONAL COMPUTERS

To install the SightMonitor Client on a remote machine, copy the following folder from the CS Server machine to the remote machine.

(64Bit Windows)

%SYSTEMDRIVE%\Program Files(x86)\Sightlogix\CS\Tomcat\webapps\slcs\SightMonitor

(32Bit Windows)

%SYSTEMDRIVE%\Program Files\Sightlogix\CS\Tomcat\webapps\slcs\SightMonitor

Run the SightMonitor\sminstaller.exe.

UPGRADING SOFTWARE AND FIRMWARE

Prior to Coordination System (CS) Release 15.12.23, firmware updates were included in the CS software. Starting with Release 15.12.23, firmware is provided separately from the CS.

- If you do not need to update SightMonitor and just want to upgrade firmware using a firmware file that has been provided to you from SightLogix support, first copy the file to:

C:\Program Files(x86)\SightLogix\CS\webserver\webapps\slcs\firmware_images

Then follow the directions starting with Upgrading the Firmware, below.

Installing new SightMonitor software— both the server (Coordination System) and client (SightMonitor)—over an existing installation consists of the following steps:

- Back up current settings. This step is optional but recommended (current alarm policy and other information is not overwritten during an upgrade).
- Download the latest software and run the install program, which also places new firmware on your computer.
- Launch SightMonitor and log in.
- Upload the new firmware to both firmware slots of each SightLogix device.

Downloading and Installing New Software

- Download the appropriate Windows version of software from the SightLogix FTP site:
    - ftp://pubftp@sightsurvey.sightlogix.com/public/CS/production
- Enter the following credentials when prompted:
    - Username: pubftp

- Password: pubftp2login

- Double-click the downloaded file and advance through the screens by clicking Next.
- When the site license agreement screen appears, accept the terms as listed. You will not be able to continue unless you accept the terms as shown. Click Next.
- When prompted, select the measurement units to be displayed. Select either US standards (feet, mph) or international standards (SI), which is the default and displays metric measurements. Click Next.
- At the last screen, click Finish. You will see a notification that the software is installed.
- You can now log in using a previously created username and password.

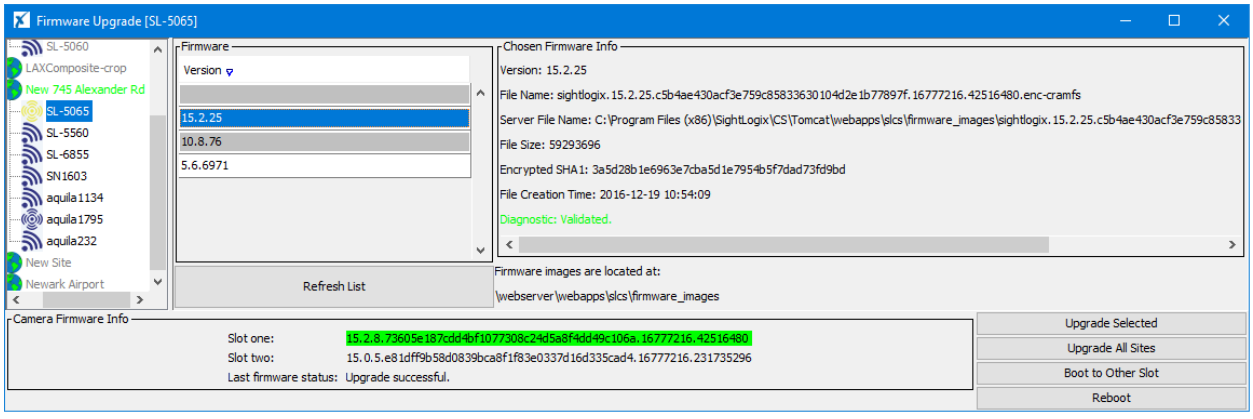
Upgrading Firmware

Once SightMonitor has been installed, the next step is to send the firmware into both firmware slots of the device(s).

Warning!

During firmware upgrades, the network connection between the camera and the Coordination System will be busy; target detection updates will be delayed.

- Open the Firmware Upload dialog (right-click a device icon and select Firmware Upload; if you're upgrading all devices, select it from the site's Edit menu).



- Click "Refresh List" to update the firmware list.
- Select the version of firmware you want to load from the firmware list.
    - When updating an existing camera, choose the software family running on the device that matches the family of firmware you are installing.
    - Gen1 and Gen2 devices use firmware version number 5 (for ex, 5.xx.bbbb).

  - Gen3 devices use firmware version number 10 (for ex, 10.xx.bbbb).
  - Gen3s devices use firmware version number 15 (for ex, 15.xx.bbbb).
- The highest numerical version number in the list is the most recent release.
- Upgrade each device to the highest firmware in the list. This will require running the upgrade process twice for each generation present on your network.
- Click "Upgrade Selected" to upgrade only the selected device, or click "Upgrade All Sites" to update all devices at the site.

When new firmware is loading for a site, the progress bar is an average of all the devices. To see progress for an individual device, select the appropriate device icon.

Once the firmware is finished being uploaded, the device or all devices will be automatically rebooted.

Note:

Devices hold two copies of the firmware for redundancy, each in one slot. It is required to perform this upgrade process two times so both copies of the firmware are loaded and are the same. Repeat until all devices report the same version of firmware on both slots.

- If you experience problems using the new software, return to the Firmware Upload dialog, re-select the previous software (click Boot to Other Slot), and reboot. Then contact SightLogix (support@sightlogix.com or +1 609.951.0008, opt 2).
- To reboot all of the devices associated with the site to the current slot at one time, click Reboot.

DECODING THE FLASHING LEDS

Normal LED Progression

After applying power to a camera, the normal LED sequence is:

Solid Red

The camera has power and is trying to load the firmware - approximately 8 seconds

Flashing Red (1/4 Sec on, 1/4 Sec off)

The camera has loaded the firmware and is starting to boot - approximately 4 seconds

Alternating Red/Green (1/4 Sec Green, 1/4 Sec Red)

Camera is attempting to find a network - approximately 4 seconds

Flashing Green (1/4 Sec on, 1/4 Sec off)

Camera has found a network (Ethernet has link); for DHCP, the IP address has not yet been found. Camera will check all hardware and establish all services at this stage - approximately 18 seconds

Solid Green

Camera has finished booting and after 3 seconds will show the last octet of the IP address approximately 3 seconds

Flashing IP

See below - approximately 8 seconds flashing followed by 3 seconds of solid green

Off

After 2 minutes, the LED turns off no matter what it was indicating

Factory Reset Case

Fast Alternating Red/Green (1/8 Sec Green, 1/8 Sec Red)

LED only shows this when camera has detected reset jumper shorting relay to Dry Input pins - 20 seconds

IP

Interpreting the Flashing IP

If the camera successfully boots, after showing solid green for three seconds, the camera will flash out the last octet of the IP address in binary, e.g.

- If the IP address is 192.168.50.148 then the camera reports 148
- 148 decimal is 0xA4 in hexadecimal
- 0xA4 is binary 1 0 0 1 0 1 0 0, indicated as Red Green Green Red Green Red Green Green

Failure cases

If the camera does not show solid green for 3 seconds, the camera will show one of these states for approximately 8 seconds before showing solid red again (indicating the start of a new boot cycle)

Off

If the LED never turns on at all, check the power connections to the camera. When it receives power, the LED will show solid red

Solid Red

Camera failed to boot firmware. You will see a brief blink of the Red LED every 15 seconds when the camera attempts to boot again.

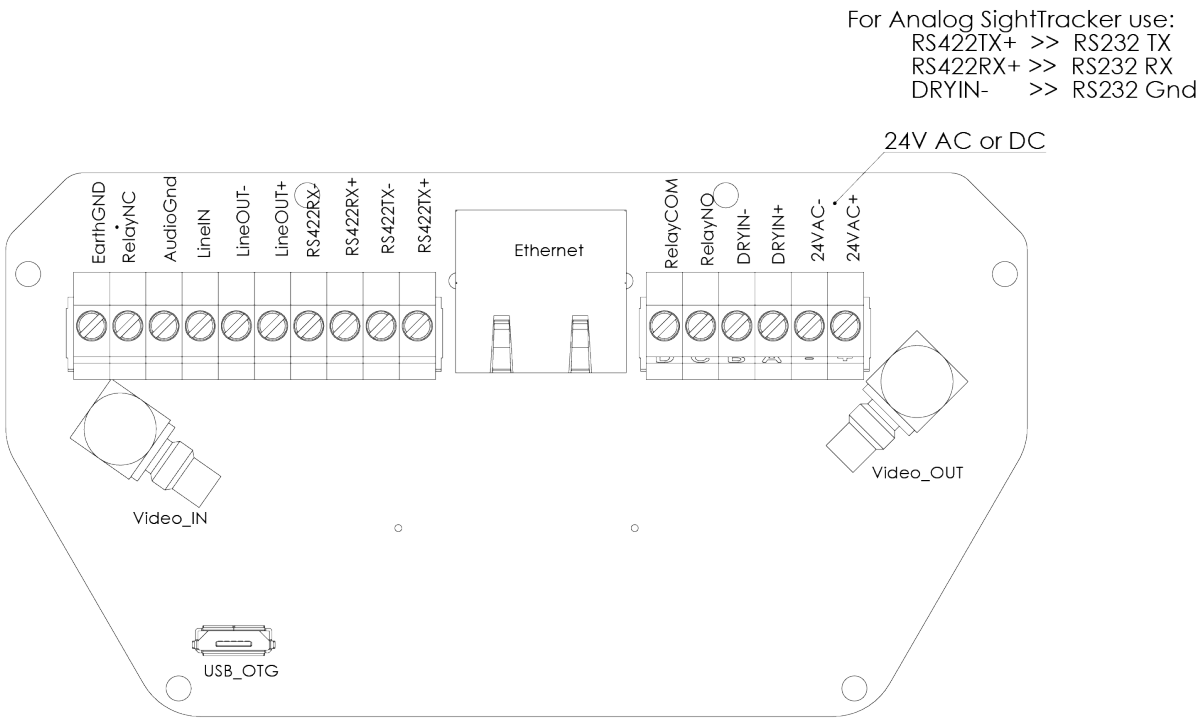
Alternating Red/Green

Camera did not find a network, the Ethernet has no link

Flashing Green

Camera did not establish IP address via DHCP or otherwise failed to complete the boot process

WIRE TERMINATIONS OVERVIEW



Wire Termination Descriptions	
EarthGND	Earth Ground connects to chassis ground
RelayNC	Relay Normally Closed
LineIN/AudioGnd	Microphone input
LineOUT–/ LineOut+	Audio output to an external amplifier
RS422RX–	Connect to RS422TX- signal from external device such as analog PTZ
RS422RX+	Connect to RS422TX+ or RS232RX signal from external device such as analog PTZ (DryIN- is ground for RS232)
RS422TX–	Connect to RS422RX- signal to external device such as analog PTZ
RS422TX+	Connect to RS422RX+ or RS232TX signal to external device such as analog PTZ (DryIN- is ground for RS232)
USB	USB connection to an external slave
RelayCOM/ RelayNO	Dry contact relay output. Normally open; close when activated.
DryIN–/ DryIN+	Input signal: Open is OFF state; shorting DryIN- to DryIN+ is ON state.
24VAC-/24VAC+	Nominal 24V AC power input
Video_IN	Video input from an analog PTZ/dome for SightTrackers. NTSC or PAL.
Video_Out:	Analog video output from SightSensor (NTSC)
Ethernet (RJ45)	Network connection; supports PoE IEEE 802.3af

FINDING MORE INFORMATION

- Visit the SightLogix Support Portal for additional resources including technical documentation, third-party VMS instructions, drawings, diagrams, and videos: http://portal.sightlogix.com/help
- The SightLogix Enterprise System Guide (http://portal.sightlogix.com/help/documentation) covers advanced procedures, including:
    - SightLogix software fields and descriptions
    - Setting up a SightTracker to automatically control a PTZ camera
    - Defining advanced video analytic rules
    - Fine-tuning your calibration
    - Troubleshooting common issues

Contact SightLogix Support

Visit: http://portal.sightlogix.com/help
Call: +1 609.951.0008, option 2
Email: support@sightlogix.com