



## ProConnect

High Definition Network Video Recorder

## User Manual



AvertX ProConnect Software (1.6)

Software Manual

Manual Edition 35146AG – June 2018

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The following words and symbols mark special messages throughout this guide:

**WARNING:** Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.

**CAUTION:** Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.

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**Note** Text set off in this manner indicates information that is necessary for proper operation of the product.

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## Standard Warranty

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All products, purchased through AvertX and its authorized resellers, are warranted to be free from defects in material or workmanship under normal use for two years from date of shipment. At AvertX's discretion, defective products under warranty will be repaired or replaced at no cost. If AvertX determines that the product should be replaced, it may do so with new or refurbished products of equal or greater value. Product warranty does not cover product failure caused by misuse, alteration of the product, incorrect installation, electric surges or physical damage.

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- All other refurbished products sold by AvertX are warranted for six months from the date of shipment
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For the most up to date information visit [www.avertx.com](http://www.avertx.com).

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## IMPORTANT SAFEGUARDS

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1. **Read Owner's Manual** – After unpacking this product, read the owner's manual carefully, and follow all the operating and other instructions.
2. **Power Sources** – This product should be operated only from the type of power source indicated on the label. If not sure of the type of power supply to your home or business, consult product dealer or local power company.

3. **Ventilation** – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
4. **Heat** – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products that produce heat.
5. **Water and Moisture** – Do not use this product near water.
6. **Cleaning** – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
7. **Power Cord Protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
8. **Overloading** – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electrical shock.
9. **Lightning** – For added protection for this product during storm, or when it is left unattended and unused for long periods, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power line surges.
10. **Object and Liquid Entry Points** – Never insert foreign objects into the recorder, other than the media types approved by AvertX, as they may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the product.
11. **Accessories** – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious personal injury and serious damage to the product.
12. **Burden** – Do not place a heavy object on or step on the product. The object may fall, causing serious personal injury and serious damage to the product.
13. **Damage Requiring Service** – Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions:
  - When the power-supply cord or plug is damaged.
  - If liquid has been spilled, or objects have fallen into the unit.
  - If the unit has been exposed to rain or water.

- If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
- If the unit has been dropped or the enclosure has been damaged.
- When the unit exhibits a distinct change in performance – this indicates a need for service.

14. **Servicing** – Do not attempt to service this product as opening or removing covers may expose the user to dangerous voltage or other hazards. Refer all servicing to qualified personnel.
15. **Replacement Parts** – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

**Safety Check** – Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

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## BATTERY EXPLOSION CAUTION STATEMENT

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**CAUTION:** Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.

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## HANDLING

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Please retain the original shipping carton and/or packing materials supplied with this product. To ensure the integrity of this product when shipping or moving, repackage the unit as it was originally received from the manufacturer.

Do not use volatile liquids, such as aerosol spray, near this product. Do not leave rubber or plastic objects in contact with this product for extended periods of time. Rubber or plastic objects left in contact with this product for extended periods of time will leave marks on the finish.

The top and rear panels of the unit may become warm after long periods of use. This is not a malfunction.

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## LOCATING

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Place this unit on a level surface. Do not use it on a shaky or unstable surface such as a wobbling table or inclined stand.

If this unit is placed next to a TV, radio, or VCR, the playback picture may become poor and the sound may be distorted. If this happens, place the recorder away from the TV, radio, or VCR.

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## CLEANING

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Use a soft dry cloth for cleaning.

For stubborn dirt, soak the cloth in a weak detergent solution, wring well and wipe. Use a dry cloth to wipe it dry. Do not use any type of solvent, such as thinner and benzene, as they may damage the surface of the recorder.

If using a chemical saturated cloth to clean the unit, follow that product's instructions.

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## MAINTENANCE

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This recorder is designed to last for long periods of time. To keep the recorder always operational we recommend regular inspection maintenance (cleaning parts or replacement). For details, contact the nearest dealer.

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## MOISTURE CONDENSATION

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Moisture condensation damages the recorder. Read the following information carefully.

Moisture condensation occurs during the following cases:

- When this product is brought directly from a cool location to a warm location.
- When this product is moved to a hot and humid location from a cool location.
- When this product is moved to a cool and humid location from a warm location.
- When this product is used in a room where the temperature fluctuates.
- When this product is used near an air-conditioning unit vent
- When this product is used in a humid location.

Do not use the recorder when moisture condensation may occur.

If the recorder is used in such a situation, it may damage discs and internal parts. Remove any CD discs, connect the power cord of the recorder to the wall outlet, turn on the recorder, and leave it for two to three hours. After two to three hours, the recorder will warm up and evaporate any moisture. Keep the recorder connected to the wall and moisture will seldom occur.

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## WARNING

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TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE.

DO NOT OPEN THE CABINET.

REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

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## CAUTION

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## RACK MOUNT INSTRUCTIONS

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**Elevated Operating Ambient** – If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T<sub>ma</sub>) specified by the manufacturer.

**Reduced Air Flow** – Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.

**Mechanical Loading** – Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

**Circuit Overloading** – Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

**Grounding** – Grounding of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

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## FCC STATEMENT

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**INFORMATION TO THE USER:** THIS PRODUCT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THE PRODUCT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY, AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE WITH RADIO COMMUNICATIONS. OPERATION OF THIS PRODUCT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE, IN WHICH CASE YOU WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT YOUR OWN EXPENSE.

THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE IN A NON-RESIDENTIAL INSTALLATION. HOWEVER, THERE IS NO GUARANTEE THAT INTERFERENCE WILL NOT OCCUR IN A PARTICULAR INSTALLATION. IF THIS EQUIPMENT DOES CAUSE HARMFUL INTERFERENCE WITH THE RADIO OR TELEVISION RECEPTION, WHICH CAN BE DETERMINED BY TURNING THE EQUIPMENT OFF AND ON, YOU ARE ENCOURAGED TO TRY TO CORRECT THE INTERFERENCE BY ONE OR MORE OF THE FOLLOWING MEASURES.

- REORIENT OR RELOCATE THE RECEIVING ANTENNA.
- INCREASE THE SEPARATION BETWEEN THE EQUIPMENT AND RECEIVER.
- CONNECT THE EQUIPMENT TO AN OUTLET ON A CIRCUIT DIFFERENT FROM THAT TO WHICH THE RECEIVER IS CONNECTED.
- CONSULT THE DEALER OR AN EXPERIENCED RADIO/TV TECHNICIAN FOR HELP.

**CAUTION:** CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMÉRIQUE DE LA CLASSE B EST CONFORME À LA NORME NMB-003  
DU CANADA.

### **OPERATION OF THIS DEVICE IS SUBJECT TO THE FOLLOWING CONDITIONS:**

- THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.
- THIS DEVICE MUST ACCEPT INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.
- CABLES USED WITH THIS DEVICE MUST BE PROPERLY SHIELDED TO COMPLY WITH THE REQUIREMENTS OF THE FCC.
- ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED IN THIS MANUAL COULD VOID YOUR AUTHORITY TO OPERATE THIS EQUIPMENT.

USERS OF THE PRODUCT ARE RESPONSIBLE FOR CHECKING AND COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND STATUTES CONCERNING THE MONITORING AND RECORDING OF VIDEO AND AUDIO SIGNALS. AVERTX SHALL NOT BE HELD RESPONSIBLE FOR THE USE OF THIS PRODUCT IN VIOLATION OF CURRENT LAWS AND STATUTES.

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# INTRODUCTION

## PRODUCT DESCRIPTION

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AvertX ProConnect cloud managed recorders are turn-key appliances designed for hassle free, plug-n-play installation. AvertX ProConnect model recorders come equipped with an integrated PoE switch for connecting IP cameras directly to the recorder, and come preloaded with AvertX's powerful ProConnect Software recording software.

All AvertX ProConnect recorders are designed for deployment with AvertX Connect, allowing centralized administration of users, permissions, and system settings. These recorders also utilize AvertX's Web Connect technology for single sign-on, roaming profiles, and automated internet connectivity.

To learn more about the ProConnect model recorder or the rest of recorder lineup visit [www.AvertX.com](http://www.AvertX.com).

## FEATURES

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AvertX ProConnect recorders include the following features:

- Fully integrated with AvertX Connect
- Complete remote operation and administration with AvertX Connect
- Record up to 16 channels of IP video per server
- Up to 12TB on-board storage
- Online User Management via AvertX Connect
- Cloud video export and sharing
- Remote software updates with no need to be on-site
- Advanced cyber security including multi-factor authentication for remote access
- Support for all major Windows and Mac browsers with no plug-ins to install
- Mobile apps available for Android, iOS and Apple TV

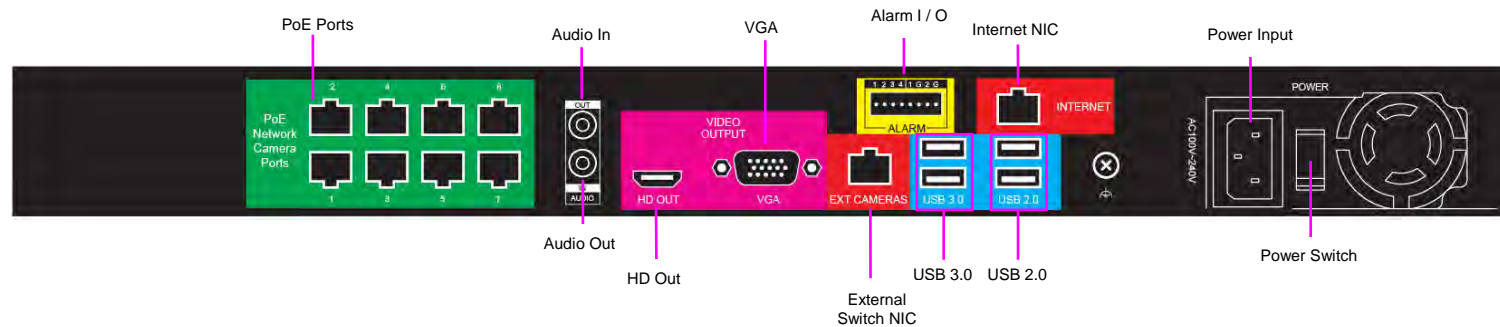
## CONTROLS AND CONNECTIONS

Generation 2 hardware shown. Ports and layout may vary slightly.

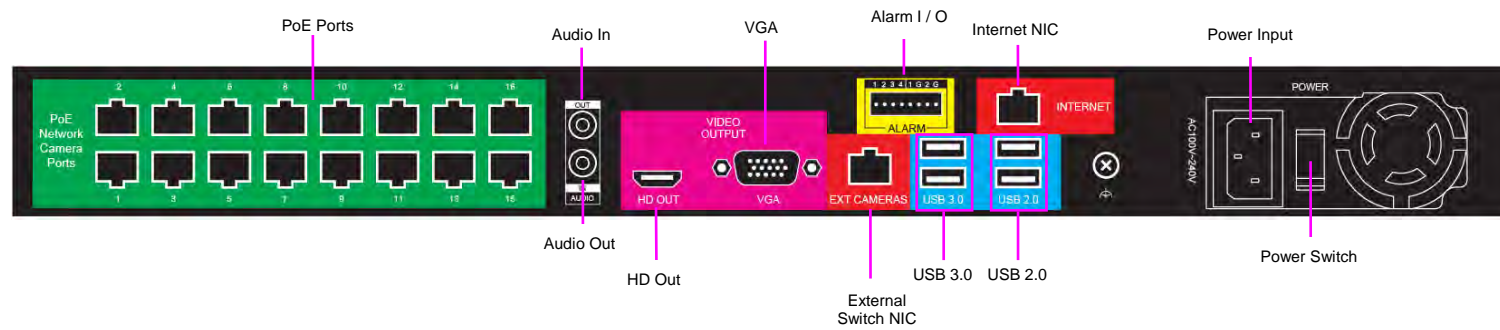
### ProConnect Front Panel



### ProConnect Rear Panel (8 Channel)



## ProConnect Rear Panel (16 Channel)




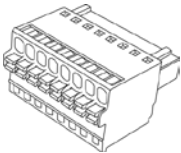
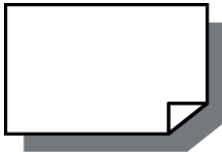
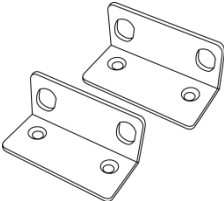


## GETTING STARTED

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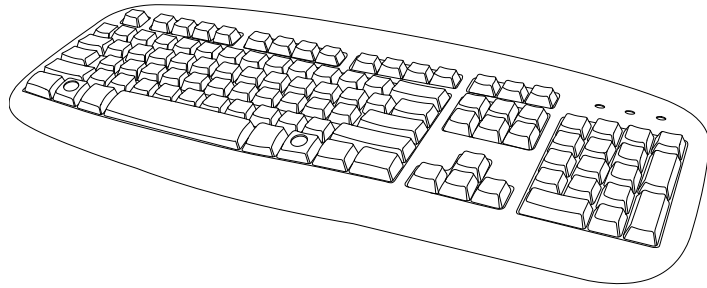
### Box Contents

AvertX ProConnect recorders come with a power cord, keyboard and mouse. A Quick Start guide and other necessary documentation are also included. Identify the following components to make sure everything has been properly included with your new recorder. If any of the following items are missing, contact AvertX Pro Team Support at 855-228-3789 to arrange a replacement.

	
ProConnect Recorder	Power Cord
	
Keyboard and Mouse	Alarm I / O Block
	
QuickStart Guide	Rack Mount Installation Kit

## Keyboard Setup

To attach the keyboard, connect the keyboard to a USB port located on the back of the recorder.



## Mouse Setup

To attach the mouse, connect the mouse to a USB port located on the back of the recorder.

In this manual:

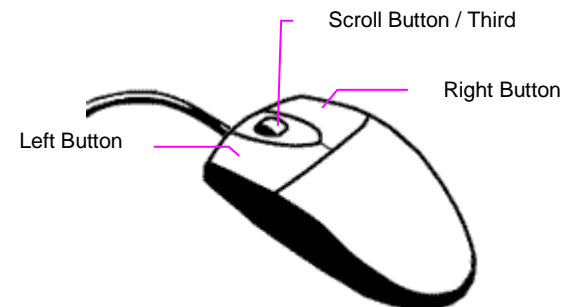
**Click** means to position the mouse cursor over an item and to single click the left button.

**Right-click** means to position the mouse cursor over an item and to single click the right button.

**Double-click** means to position the mouse cursor over an item and to click the left button twice in quick succession.

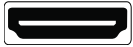
**Select** means to position the mouse cursor over a radio button, checkbox, or list item, and then click on it.

The scroll wheel in between the two buttons is used for added navigation functionality. By moving the wheel with index finger (scrolling), quickly move through multiple pages, lines, or windows. The wheel may also function as a third button allowing the user to quickly click or double-click an icon or a selected item.



## Monitor Setup

These connections are available to connect a monitor:



**HDMI® Output** To TV / Digital Display



**VGA Output** To TV / Analog Monitor

Attach the monitor(s) to the rear of the recorder using the cable supplied by the monitor manufacturer. Refer to the monitor manual for detailed information on how to setup and use it.

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**Note** The monitor must be capable of a minimum screen resolution of 1024x768 and support 32-bit color.

---

## Connecting a Camera Using a PoE Port

The ProConnect recorder is equipped with an on-board Power over Ethernet (PoE) switch for use with PoE IP cameras. PoE cameras are connected to the recorder using the PoE switch and begin displaying video immediately with no manual configuration required.

Connect one end of the CAT 5 Ethernet cable to the RJ-45 connector of the camera and the other end of the cable to the network switch or recorder.

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**Note** If you are connecting the camera directly to a recorder, a crossover cable is necessary for most configurations.

---



Check the status of the link indicator and activity indicator LEDs. If the LEDs are unlit, check the LAN connection.

The Orange activity light flashes to indicate network activity.

The Green link light indicates a good network connection.

## SETTING UP THE RECORDER FOR THE FIRST TIME

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1. Plug the supplied power cord into the recorder. Do **NOT** connect the power cord to a power source at this time.
2. Connect the network cable intended for remote connection to the **Internet NIC**.

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**Note** The External Switch NIC is intended for use with a dedicated camera network with an accessory PoE Switch.

---

1. Connect the supplied **keyboard** and **mouse** using the rear USB ports.
2. Connect a **monitor** using the HDMI or VGA ports.
3. Connect the **cameras** to PoE ports, if available.
4. Connect the **power cord** to a power source, and then turn the recorder **ON**.
5. Log in to the ProConnect recorder using the default credentials:
  - Username: admin
  - Password: 1234
6. Follow the **Setup Wizard** to complete basic setup of your system.

## TURNING ON THE RECORDER

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1. Turn on the monitor connected to your recorder.
2. Use the power switch on the rear of the recorder to turn the recorder **ON**.
3. The recorder will run a series of self-tests. If asked to respond to any messages, follow the instructions carefully.

Startup is complete when the ProConnect software is finished loading and displays the main login screen.

## TURNING OFF THE RECORDER

---

1. Click **Setup**, and then click **Power Off / Restart**.
2. Click Power Off.



# WEB INTERFACE SYSTEM REQUIREMENTS

ProConnect can be accessed locally via the ProConnect Local or remotely via the ProConnect Web Interface. The Web Interface runs in a Flash environment, making it compatible with a wide range of browsers and without additional software installation.

For an optimal Web Interface experience, ensure that you are using the following:

## Minimum Browser Requirements

Most current version of Adobe Flash

1366x768 Resolution Monitor

Microsoft Edge<sup>®</sup>, Microsoft Internet Explorer (11.0 +) / Chrome / Mozilla Firefox / Safari web browser

Broadband internet connection (25 Mb/s download, 5 Mb/s upload)

## Recommended Browser Requirements

Most current version of Adobe Flash

1920x1080 Resolution Monitor

Microsoft Edge<sup>®</sup>, Microsoft Internet Explorer (11.0 +) / Chrome / Mozilla Firefox / Safari web browser

Broadband internet connection (25 Mb/s download, 5 Mb/s upload)

The Web Interface can be accessed from the local area network by typing in the recorder's IP address, or over the internet via AvertX Connect.

For more information about configuring AvertX Connect, see the **AvertX Connect Account** section of this manual.

## BROWSER LIVE GRID VIEW SUPPORT

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Live View Support	1 Channel	4 Channel	9 Channel	16 Channel
Chrome	X	X	X	X
Edge	X	X	-	-
Internet Explorer 11	X	X	-	-
Firefox	X	X	X	-
Safari (macOS only)	X	X	X	X

# INSTALLATION AND SETUP

**Note** ProConnect software setup can be performed through the ProConnect recorder local interface or through the web browser Web Interface.

## Default Administrator Username / Password

When ProConnect is launched, you will be prompted to login. The default Administrator username and password are as follows:

**Username:** admin

**Password:** 1234

**Note** Once registered to AvertX Connect, your AvertX Connect credentials can be used to log in, in addition to the default credentials listed above.

## First Time Wizard

The First Time Wizard can be accessed from both the web interface and locally, and will guide you through a basic setup of your ProConnect recorder. If you wish to make system changes after the initial setup process using the First Time Wizard, These options can be found in System Settings, User Management, and Network Configuration.

The Setup Wizard will run the first time the recorder is powered on. If you click the X, you will be given the option to dismiss it temporarily (it will run next time the recorder powers on) or to dismiss it forever.

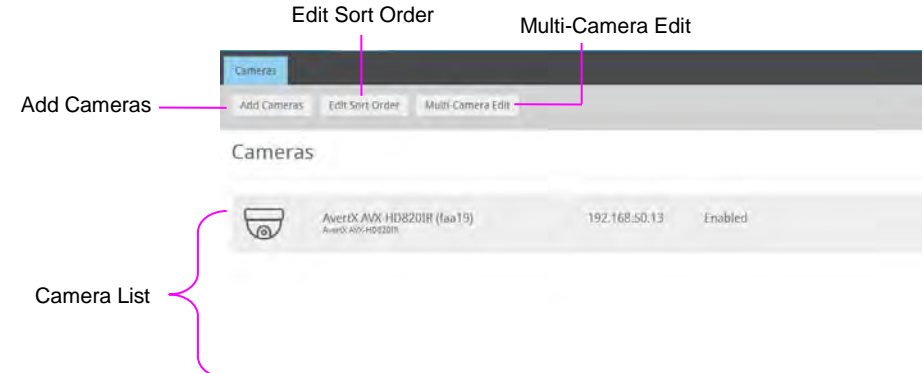
# SETUP MENU

## SYSTEM SETTINGS

### Cameras

#### Camera Management

Use Camera Management to perform basic and advanced camera functions.



**Camera List** – List of cameras currently connected to the selected recorder.

**IP Address** – The current IP address of the camera.

**State** – The current camera state.

- **Enabled:** The camera is enabled, active, and recording.
- **Disabled:** The camera is disabled, but previously recorded video is still available.

**Add Camera** – Add a camera(s) to the Camera List.

**Advanced** – Launches Network Camera Manager (Console Only)

**Edit Sort Order** – The order the cameras will be displayed in local and remote clients.

**Multi-Camera Edit** – Delete cameras, update images, change recording types, and other options to multiple cameras at once.

**Sort By** – Order cameras by State, Name, Model, or IP Address.

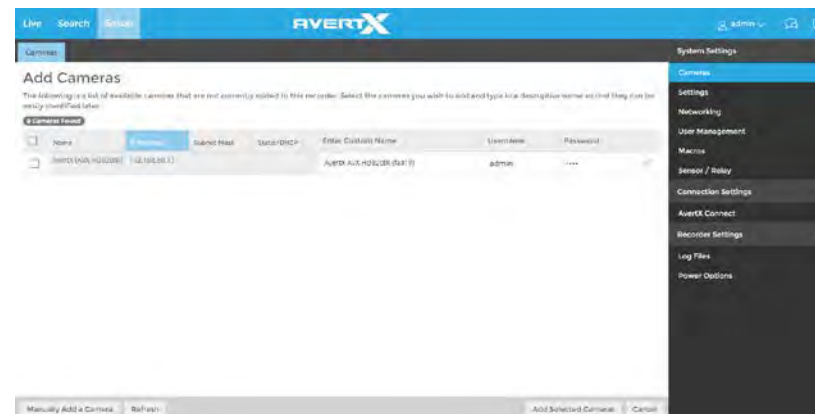
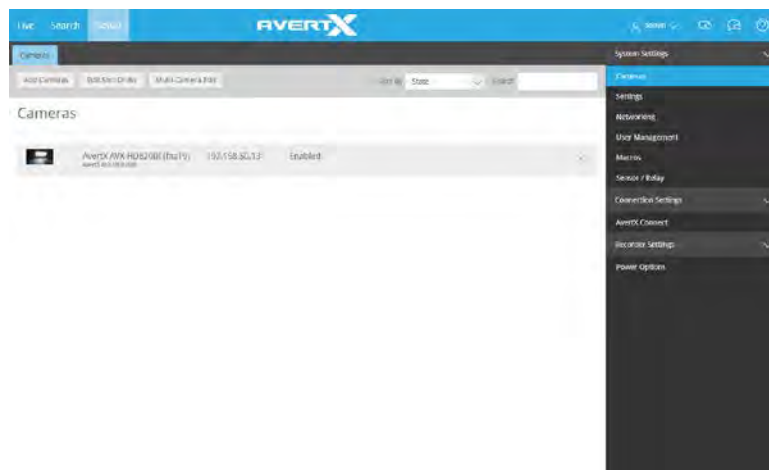
**Search** – Search for a camera in the Camera List.

**Delete or Disable [x]** – Deleting a camera will remove the camera and all associated video from the recorder. To remove the camera but keep the video, select Mark as Disabled instead.

## Add Cameras

1. Click **Setup**.
2. Under the **System Settings** tab, click **Cameras**.
3. Click **Add Cameras**. The add camera menu will appear, and automatically discover supported cameras available on the physically connected network.
4. Check the appropriate boxes to select the camera(s) you wish to add.
5. Enter the appropriate credentials (username and password) for the cameras you wish to add, and then click **Add Selected Cameras**.

**Note** Supported cameras will automatically populate the manufacturer's default username and password when possible.



**Manually Add a Camera** – Enter camera information manually to add it to the Camera List.

**Refresh** – Refresh the camera list to reflect changes.

**Add Selected Cameras** – Check the boxes to add the cameras selected from the Add Camera list to the Camera tab.

**Camera Name** – The make and model of the camera.

**IP Address** – The IP address of the camera.

**Subnet Mask** – The subnet mask of the camera.

**Enter Custom Name** – Enter a custom name for the camera to make it more easily identifiable.

**Username / Password** – The necessary credentials to access the camera.

## Camera Auto-Discovery

ProConnect recorders automatically configure cameras attached to the onboard PoE switch. Cameras not connected to the PoE switch will automatically be discovered, but need to be configured via the Add Camera menu.

**Note** Automatic configuration Plug N Play (PnP) of cameras attached to the PoE switch can be disabled by navigating to **Networking**, clicking the **Plug and Play** tab, and unchecking the box labelled **Enable Plug and Play**.

## Add Cameras Manually

If you do not see the camera you wish to add in the Add Cameras list, it may be necessary to add it manually.

1. Click **Setup**.
2. Under the **Settings** tab, click **Cameras**.
3. Click **Add Cameras**, then **Manually Add Camera**.
4. Enter the appropriate connection information to add the camera, including Protocol, IP Address, Port, Manufacturer, Model, Username, Password, and Camera Name.
5. Click **Add Camera**.



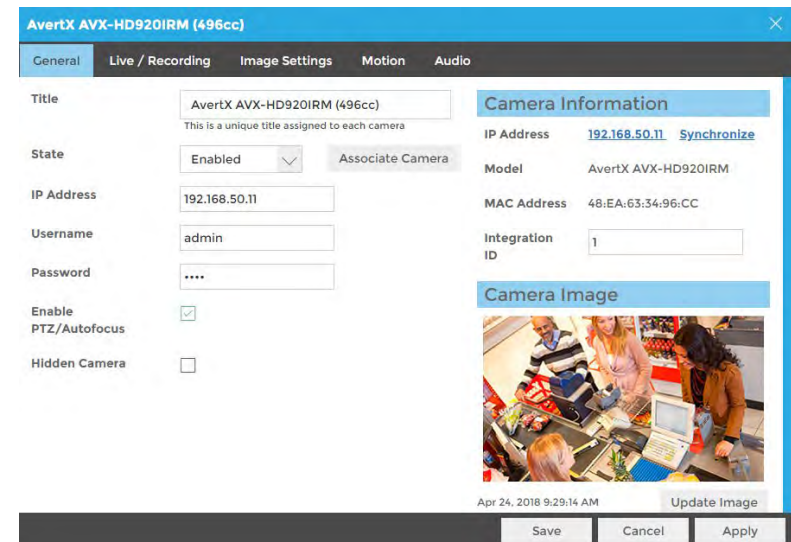
**Note** Cameras can be added using AvertX, ONVIF or RTSP protocols. If RTSP is selected, the stream URLs need to be input manually. Consult your camera manufacturer's documentation for URL stream information.

**Note** The camera image will not be immediately available. The image will be visible after clicking **Apply** and the connection to the camera is made.

## Edit Cameras

To edit an existing camera in the Camera List:

1. Click the desired camera in the **Camera List**.
2. In the camera window, make the desired changes, and then click **Update Image** to update the camera image.
3. Click **Apply**, and then click **Save**.



**Note** Automatic configuration Plug N Play (PnP) of cameras attached to the PoE switch can be disabled by navigating to **Networking**, clicking the **Plug and Play** tab, and unchecking the box labelled **Enable Plug and Play**.

**Title** – Customizable camera name, seen on the Camera List and in the Live Screen.

**Status** – Set the camera to Enabled or Disabled.

- Enabled: Uses a recording channel license, can be viewed in live and recorded.
- Disabled: Does not use a recording channel license and cannot be viewed in live or recorded.

**Associate Camera** – Select another camera to transfer camera information to in case of hardware failure or change in camera status.

**IP Address** – Camera IP address. Clicking the IP address in a web browser allows direct access to the cameras web setup menu.

**Username and Password** – Credentials to access camera.

**Enable PTZ/Autofocus** – Enable Pan, Tilt, Zoom (PTZ) capabilities. If a camera does not have PTZ capabilities, this option will be unavailable.

**Hidden Camera** – Enable to allow only users with hidden camera permissions to view this camera.

**Camera Model** – Model number of the camera (transmitted from the camera itself).

**Synchronize** – Manual check of IP device for latest information.

**Update Image** – Update the thumbnail image for this camera to the current live view.

## Live / Recording

The Live Recording tab displays Recording Options, which determines when and how the camera will record.

**Recording Options**

☐ Motion ☐ Continuous ☒ Continuous + Motion ☐ Live Only (No Recording) [Connect Directly to Camera](#)

Continuous Recording Stream: Low - 720 x 576, 15FPS, 1024kbps

Motion/Event Recording Stream: High - 2592 x 1520, 15FPS, 6144kbps

Collect Motion Event Data ☐

**Stream Configuration & Remote Viewing** [Edit](#) [Learn More](#)

Live Remote Viewing	Stream	Frames Per Second	Resolution	Bitrate (kbps)	GOP Length
High Bandwidth	Stream 1	15	2592 x 1520	6144	30
Low Bandwidth	Stream 2	15	720 x 576	1024	30

Displaying 1 of 3 [Save](#) [Cancel](#) [Apply](#)

**Motion** – Record only motion detected by motion thresholds.

**Continuous** – Records video stream continuously.

**Continuous + Motion** – Record one Continuous stream, and then records a Motion stream in addition when motion is detected.

**Live Only (No Recording)** – Camera displays live video but does not record unless a macro is setup to record on sensor events.

**Continuous Recording Stream** – Stream continuously recorded at a lower resolution and/or frame rate when motion is not detected and Continuous + Motion recording option is selected.


**Motion/Event Recording Stream** – Higher resolution and/or frame rate camera video stream used when a motion event is detected.

**Collect Motion Event Data** – This function collects motion event data when a continuous stream is recording and populates the events in Event Search.

**Stream Configuration & Remote Viewing** – This is where you designate what high, medium, and low-quality streams are. You can choose one of these as the recording stream, and the system automatically chooses the highest res stream under 720x576 (D1) to

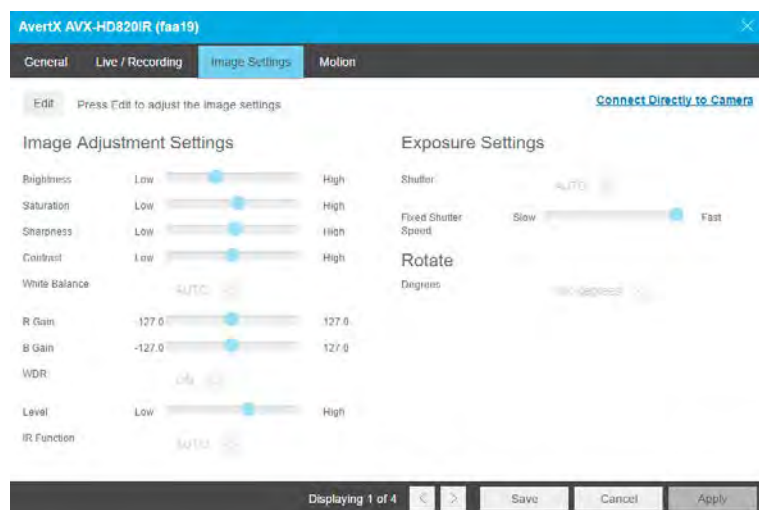
use for motion detection. These streams are also used as high, medium, and low-quality streams in the live view.

**Note** If at least one resolution at 720x576 or below is not available, the following warning below will appear.

 Server side motion detection is enabled on this camera and for performance reasons a video stream with a resolution between 720x576 and 352x240 is highly recommended. An optimal stream is not currently detected, but motion detection will still continue to function.

## Image Settings

The Image Settings tab displays Picture Adjustment Settings and Exposure Settings. These settings have a direct correlation to the camera performance and recorded video quality. The settings displayed here are options made available through the appropriate drivers. Making changes to these settings will then push the changes to the camera.



**Brightness** – Depth of light and shadow in the image.\*

**Saturation** – Depth of color in the image.\*

**Sharpness** – Manage image texture, particularly visible in dark scenes.\*

**Contrast** – Difference between bright and dark areas of the image.\*

**White Balance** – Preset colors corresponding to natural or artificial lighting for the most accurate color representation.

**Wide Dynamic Range** – Enhances details both in the foreground and background.\*\*

**IR Function** – Activate the camera IR (infrared) lights if available, for use with night-time recording.

**Shutter** – Designate shutter speed. Longer shutter speed will increase visibility at night, but also result in blurred movement in the frame.\*\*

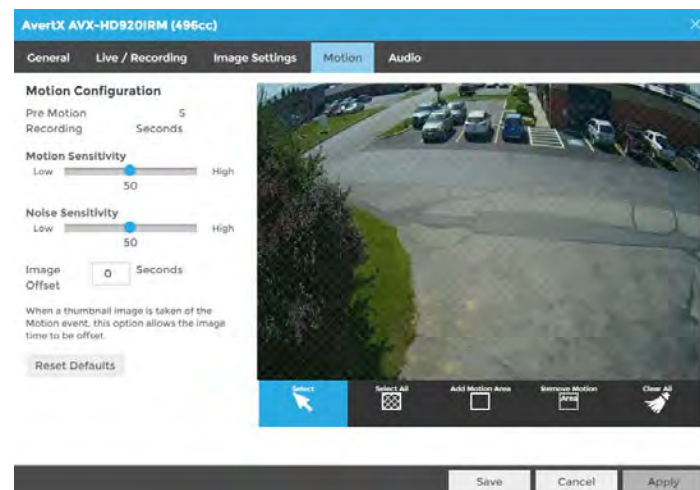
**Rotate** – Allows the camera to be flipped 90, 180 or 270 degrees.

\* This option can drastically affect the quality of recorded video. The default value is recommended.

\*\*Using this option results in improved video quality but increases recorded video file size.

## Motion

AvertX cameras are set to register motion as events in the video timeline. By default, the entire camera will be configured as a motion area. You can customize areas of the field of view that will register motion events.



**Motion Sensitivity** – Reduce or increase the sensitivity of motion detection.

**Noise Sensitivity** – Reduce or increase noise sensitivity detected on a camera.

**Image Offset** – Offset when an image is captured from a motion event.

**Reset Defaults** – Resets motion sensitivity and noise sensitivity back to default values.

**Select** – Allows motion detection grids to be moved.

**Select All** – Draws a full motion detection grid over the image.

**Add Motion Area** – Draw individual motion detection grids.

**Remove Motion Area** – Allows removal of motion detection grid areas within a grid.

**Clear All** – Removes all motion detection area grids.

### To Configure Motion:

1. Click **Setup**, then **Cameras**.
2. Click the desired camera in the **Camera List**.
3. Click the **Motion** tab.
4. Click **Add Motion Area** or **Remove Motion Area**, and then click and drag the capture square to create the area.

---

**Note** By default, the entire camera will be configured as a motion area.

---

5. Continue modifying Motion Areas as desired using the tools below the camera frame.

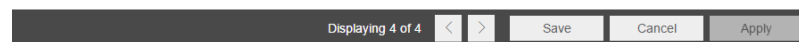
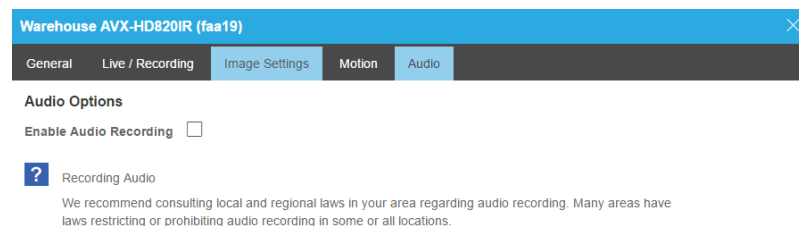
---

**Note** Motion Areas can be subtracted to disable motion detection for specific areas of the video stream and motion grids can be drawn over each other.

---

6. Click **Save**.

## Audio



Before enabling this option, ensure that audio is already enabled on the camera. If audio is enabled on the recorder prior to enabling it on the camera, audio may not record until the recorder is restarted.

### Audio Options:

1. Check **Enable Audio Recording** to enable audio recording on a specific IP camera.
2. Then click **Save** or **Apply**.

---

**Note** Audio must be enabled on the IP camera itself with the G.711 or AAC codec for ProConnect to record audio from the camera. Check the manufactures manual on how to enable audio on the IP camera.

---

**Note** AvertX recommends consulting local and regional laws in your area regarding audio recording. Many areas have laws restricting or prohibiting audio recording in some or all locations without the consent of all parties.

---



## Advanced Camera Management

Cameras that are set to static IP addresses, third party cameras, and cameras not supported by ONVIF may not be detected automatically.

### Discovering AvertX Cameras with a Static IP Address (Local)

1. Click **Setup**, and then **Cameras**.
2. Click **Advanced**.
3. Click **Refresh** in **Network Camera Manager**.
4. Note the discovered **IP address** for the desired camera.
5. Click **Exit** to return.
6. Follow the steps in the *Adding Cameras Manually* section, typing the **Static IP Address**.

---

**Note** Network Camera Manager (NCM) is a tool to discover AvertX cameras. Network Camera Manager is available in Support Tools on AvertX ProConnect recorders.

---

### Configuring AvertX Cameras with DHCP (Local)

1. Click **Setup**, and then **Cameras**.
2. Click **Advanced**.
3. Network Camera Manager will load and automatically scan for cameras.
4. Select your desired cameras, and **DHCP**, and then click **Apply**.
5. Click **Exit** to return.
6. Follow the steps in the *Adding Auto-Detected Cameras* section to add the camera.

### Adding Third Party Cameras

Third party cameras may require installing a manufacturer camera discovery tool on a separate PC. Once the camera discovery tool is installed, follow the steps for adding a camera with a static IP address or using DHCP as outlined above.

### Adding Unsupported Cameras

Single and multi-sensor cameras that are not AvertX or ONVIF compatible must be added using the RTSP stream(s) of the camera. Consult the camera manual for more detailed information regarding RTSP streams. When you know the URL for the RTSP stream(s) of your camera, follow the steps in the *Adding Cameras Manually* section, selecting RTSP protocol.

## Settings

### General Settings

#### Default Language

Select a default language for the system from the dropdown menu.

#### Time Settings

Use the Time Settings section to make changes to the time zone, NTP server, or the time on the recorder. A Time Zone is required whether or not an NTP server is selected.

Live Search Setup

General Settings Storage Licensing Software Upgrade

Language

Default Language English

Time Settings

NVR Time Zone Region North America

NVR Time Zone (-07:00) Pacific

Use NTP ☒ Requires Internet Synchronize NVR clock with preconfigured NTP (Network Time Protocol) server

NTP Server 1.cctv.pool.ntp.org

Set NVR Time 05/16/2018 12:51:40 PM

Network Time Protocol (NTP) is a protocol used to synchronize time across a range of computers or recorders to within milliseconds of each



other. All recorders should be set to the same NTP server to achieve this synchronicity.

To enable use of a Network Time Protocol (NTP) Server:

1. Click **Setup**, and then click the **General Settings** tab.
2. Click **Settings**.
3. In the **General Settings** tab, check the **Use NTP** checkbox.
4. Enter the URL of the **NTP Server**.
5. Click **Save**.

## Export/Import Configuration

### Export

This function exports configuration settings from this recorder to a file. This file can be imported later to restore the saved settings.

Export

### Import

This function imports configuration settings from a file. This will modify the current configuration settings to match those in the file.

☒ Complete Restore

Use this option when restoring to the same recorder or a replacement recorder.

☐ Partial Restore

Use this option when using this configuration file as a template for other recorders. Unique Camera Identifiers will not be copied.

+ Select Import File

Import

Cancel

This function exports most configuration options on the recorder to a file. This file can then be imported as needed to restore the configuration options to the saved state. The AvertX Connect account information is not exported and will therefore need to be manually configured upon import.

To export recorder configuration settings:

1. Click **Setup**, and then click the **Settings** tab.
2. Click **Export**.
3. When prompted, **Save** the exported configuration file.

---

**Note** In the ProConnect Web Interface, the default location to save the .dat archive file is in the Downloads folder.

---

To import recorder configuration settings:

1. Click **Setup**, and then click the **Settings** tab.
2. Click **Complete** or **Partial Import**, and then click Select Import File.
  - Select Complete Restore when restoring to the same recorder or a replacement recorder.
  - Select Partial Restore when using a configuration file as a template for other recorders. Unique Camera Identifiers will not be copied.
3. Navigate to the desired file.
4. Click **Import**.

---

**Note** Imports / exports can be performed on both locally and Web Interface. Local exports will require an attached USB storage device.

---

## Remote Assist Session

The Remote Assist Session enables an AvertX Technical Support agent to remotely control your recorder, allowing them to assist you with troubleshooting your system.

### Remote Assist Session

This function enables technical support to temporarily take control of your recorder to assist with any issues. Once enabled, technical support will provide a connection code which will need to be entered below.

Remote Assist

☐ Enable ☒ Disable

Connection Code

Connect

Status

Remote Assist is currently disabled

### To set up a Remote Assist Session:

1. Contact AvertX Technical Support by visiting <http://www.avertx.com/contact-support/> or call the AvertX ProTeam during available phone support hours.
2. Once you are connected with a Support agent, click **Enable**, and then enter the **Connection Code** given to you by the Support agent.

---

**Note** When a Remote Assist Session is enabled and the session code is entered, the Support agent will have full remote access to your recorder to provide assistance.

---

3. Click **Connect**.

## Console

### Console



#### Automatically log in to the live page

When the recorder is restarted, the console will automatically log in to the Live window. Users will have the ability to view live video and edit other settings that are typically available to all users in live but will be required to log in with a valid account to access Search or Setup.

Check the box to automatically log in to the live page. This allows the recorder to boot directly into live display and be used as a live display monitor

When the recorder is restarted, the console will automatically log in to the Live window. Users will have the ability to view live video and edit other settings that are typically available to all users in Live but will be required to log in with a valid account to access Search or Setup.

## Export Signing Certificate

Videos and images exported from ProConnect have an embedded digital signature. This is used to validate that these items have not been tampered with.

To validate the files have not been tampered with, you will need the following:

- The image or video file you wish to validate
- The AvertX Digital Signature Verifier (DSV)
- The Certificate Thumbprint from the ProConnect recorder

---

**Note** The DSV is a small utility that allows you to validate that the file has not been tampered with. This utility can be downloaded from [avertx.com](http://avertx.com).

**Note** The thumbprint is a value derived from the certificate that uniquely identifies it; specifically, it is a SHA-1 hash of the certificate.

---

The DSV utility will attempt to verify the exported file, and then present one of two findings:

- Digital Signature Validated: the thumbnail for the ProConnect recorder will match the thumbnail displayed for the validated file.
- Digital Signature Invalid: this indicates that the file does not contain a valid certificate.

## Retention Limit

This option sets the maximum number of days that recorded video will be kept.

To enable Retention Limit:

1. Select **Enable** next to Retention Limit
2. Enter the number of days recorded video should be kept.
3. Click **Save**.

## Encrypt Relayed Video

This option encrypts video sent using relay.

## Storage

The Storage tab displays all partitions or drives available for recording.



### Enable / Disable Recording Drives

1. Click **Setup**.
2. Click **Settings** under **General Configuration**, and then click the **Storage** tab.
3. Check or uncheck the **Enable** checkbox to disable the Drive.
4. Click **Save**.

**Note** Your ProConnect recorder will leave 10% free space on a drive by default; it is not recommended to lower this setting below 10% as this space is used for managing recorded data's FIFO (First In, First Out) process.

## Licensing

**Note** Your ProConnect software will be preregistered in the factory and can pull licenses from the cloud if connected to AvertX Connect.

1. Click **Setup**, and then **Settings** under **General Configuration**.
2. Click the **Licensing** tab.
3. Click **Add New License**, and then follow the on-screen instructions to acquire the Unlock Code.
  - a. Navigate to <http://activate.avertx.com/>.
  - b. In the Licensing tab, enter the Product Serial, and then click **Next**.
  - c. The Unlock Code will be displayed. Write or copy the code.

**Note** You will need the **System Serial Number** and **System ID** displayed in the **Settings > Licensing** tab to register your software, or on the product label on the recorder.

4. Enter the License Serial Number and the **Unlock Code**, and then click **Next**.



**Serial Number** – The software serial number tied to the software license.

**Unlock Code** – A code generated on registration that unlocks a specific software feature set.

**Remove** – Remove this license from the recorder.

**Add New License** – Adds a new license to the recorder.

**Refresh** – Refreshes the license set by checking with web services for any updates.

**Licenses Available** – The number of camera licenses unlocked.

**Licenses Used** – The number of camera licenses currently being used.

**System ID** – Unique ID generated for use with manual licensing based on the hardware the software is installed on.

## Software Update

By default, ProConnect will allow you to download and install updates direct from AvertX Connect. Updates can also be performed manually via selected files or custom URLs. If an update is available, the user will see a message along with an option to install. The message will display the update version and whether the update is recommended or critical.

### Update via AvertX Connect

1. Click **Setup**, and then click the **Settings**.
2. Click the Software Upgrade tab.
3. Click the **Check For Update** link.
4. Click **Install** if an update is available.

---

**Note** ProConnect checks for updates on startup, every 6 hours, or when the Check For Update link is clicked.

---

### Update via Manually Selected File

1. Click **Setup**, and then **Settings**.
2. Click the Software Upgrade tab.
3. Click Show More Options.
4. Click **Select File** then navigate to the location of the **.ssp upgrade file**.
5. Click **Install**.

---

**Note** Do not leave this page until the update is complete

---

### Update via Custom URL

1. Click **Setup**, and then **Settings**.
2. Click the Software Upgrade tab.
3. Click Show More Options.

4. Click Specify URL.
5. Type or copy the **URL** where the upgrade file is located.
6. Click **Install**.

---

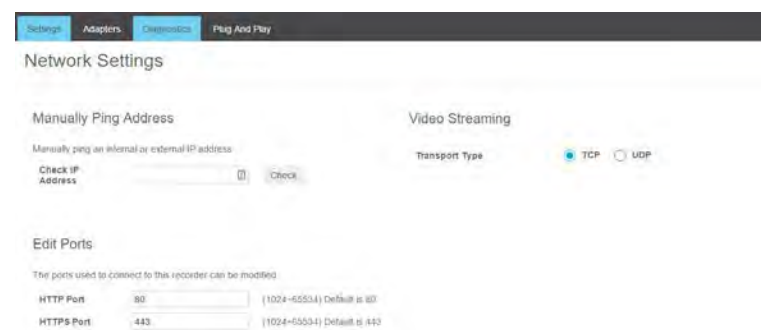
**Note** Do not leave this page until the update is complete

---

## Networking

### Settings

The Settings tab allows for manual ping of an IP address, edit ports, proxy setup and video streaming configuration.



### Manually Ping Address

Manually ping an internal or external IP address.

### Edit Ports

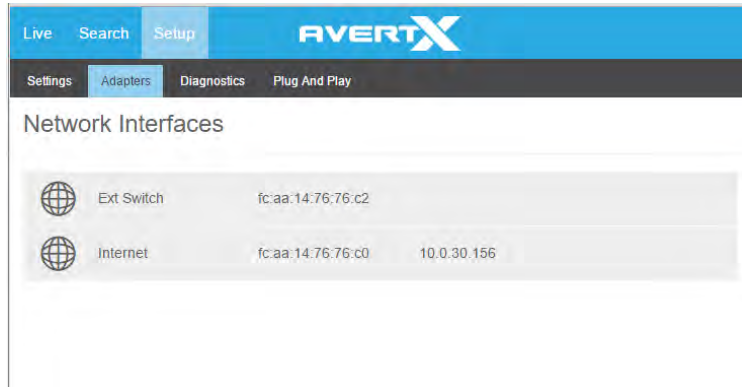
The ports used to connect to the recorder can be modified.

### Video Streaming

Designate the video streaming transport type for global IP network traffic: TPC or UDP.

## Adapters

This tab displays the Internet Network Port and Ext Switch Network Port available on the ProConnect recorders.



To make changes to a Network Port:

1. Click **Setup**, and then click the **Networking** tab.
2. Click the **Adapters** tab.
3. Click the desired NIC and make any necessary changes.

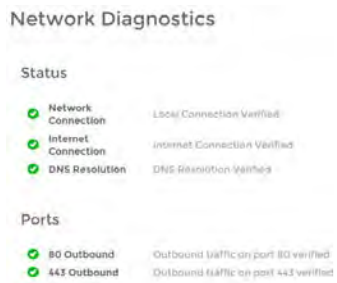
---

**Note** The Client NIC must be set to static to manually choose an IP address.

---

## Diagnostics

The diagnostics tab shows the operational status of various connections, ports, and relays for your recorder. This is a helpful tool for troubleshooting.



**Network Connection** – Test pings the local gateway setup on the recorder. In some cases, this may fail if internal ICMP is disabled on the firewall/router. In these rare cases a red X may appear, but service may work without issue.

**Internet Connection** – Test pings an IP (8.8.8.8) to see if internet connectivity is working correctly.

**DNS Resolution** – Check to ensure you can resolve DNS names.

**80 Outbound** – Check to ensure that network traffic can flow through port 80.

**443 Outbound** – Check to ensure that network traffic can flow through port 443.

## Plug And Play

Plug And Play (PnP) allows you to disable automatic add and record for PoE cameras, as well as power cycle individual ports, which will reset the connected camera.

To disable Plug and Play:

1. Click **Setup**, and then click the **Networking** tab.
2. Click the **Plug And Play** tab.
3. Uncheck the **Enable Plug and Play** checkbox.

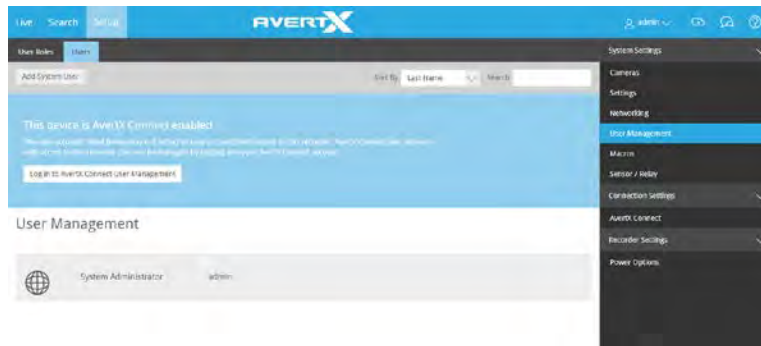
—OR—

Uncheck the **Enable PnP** checkbox for the desired camera.

To power cycle the PoE camera: Click the **Power Cycle** icon in the row for the desired PoE camera.

## User Management

AvertX **strongly recommends** that users be managed through AvertX Connect rather than on the local recorder. If the device is AvertX Connect enabled, it will be necessary to log in to AvertX Connect User Management to manage users who have access to the recorder. Users added this way will have an AvertX Connect account.



## User Roles

The default User Roles includes Administrator, Controller, Live, Operator, and Super Administrator. Custom rolls can also be created.

### User Roles

	Administrator Administrator Role. This role allows users access to all features and manage all users below them.
	Controller Controller Role. This role allows users access to all features and configuration except user management.
	Live Live View Role. This role allows users to view live video from all cameras.
	Operator Operator Role. This role allows users to view live and recorded video from all cameras.
	Super Administrator Super Administrator Role. This role has access to all possible permissions in the system.

---

**Note** Default roles cannot be modified

---

## Add New Custom Role

Custom roles are user roles that have custom selected assigned permissions.

1. Click **Setup**, and then click the **User Management** tab.
2. Click User Roles.
3. Click Add Role.
4. Type the role **Name** and **Description**, and then use the **Assigned Permissions** list to check the appropriate permission boxes.
5. Click **Save**.

## Edit Existing Role

1. Click **Setup**, and then click the **User Management** tab.
2. Click on the existing role you wish to edit.
3. Edit the **Name**, **Description**, and **Assigned Permissions** list as necessary.
4. Click **Apply**, and then click **Save**.

## Users

AvertX **strongly recommends** that all User Management be handled through AvertX Connect. Users and User Management on the local recorder should ONLY be used if the recorder is a standalone system with no connection to AvertX Connect.

## Add System User

1. Click **Setup**.
2. Click User Management under General Configuration, and then click the Users tab.
3. Click Add System User.
4. Enter the appropriate user information, and then designate a **Username** and **Password**.
5. Check the appropriate box to designate a user **Role**.

---

**Note** More than one user role can be selected.

---

6. Click **Save**.

## Adding User Image

1. Click **Select**, chose a file, and then click **Open**.
2. Once the file is listed under the user image, click **Upload**.
3. Click **Save** to save your changes.

## Macros

Under the macro section you can create custom actions based on schedule's and holidays.

### Managing Macros

Create custom actions based on schedules and holidays in the macros section.

#### Add a Macro

1. Click Add A Macro.
2. Enter the macro name in the **Macro Name** field
3. Check the **Enable Macro** box.
4. Select the drop down under the **Schedule** option to modify when a trigger is in effect.
5. Select either **Sensor** or **Motion** under the **Event Class** drop down.
6. Select the appropriate **Event Type** in the Event Type dropdown that corresponds with the desired sensor or motion event class chose in step 5.
7. Select the source IP device in the **Source** drop down list.

**Note** You can setup multiple triggers by clicking the **Add New Trigger** button.

#### Setting Up an Action for a Previously Created Macro

1. Select the desired schedule under the **Schedule** dropdown.
2. Select the action type under the **Type** dropdown.
3. Select the command for the action under the **Command** dropdown.
4. Select target object from the **Target Object** drop down.
5. Select the duration of the action under the **Duration** dropdown.
6. If an additional action is added they will happen in **Order**, and can be dragged and dropped to reorder for priority.
7. Click **Save** to complete macro setup.

Example image below: when sensor 1 fires during weekdays the event stream will be recorded for a specific camera the duration of the event.

### Schedules

#### Add a Schedule

1. Click the **Add a Schedule** button.
2. Type the name of the schedule in the **Schedule Name** field.
3. Select the **Start Time** and **End Time** on the desired days or click the copy button to copy a time range from a previous day.
4. When finished click **Save**.

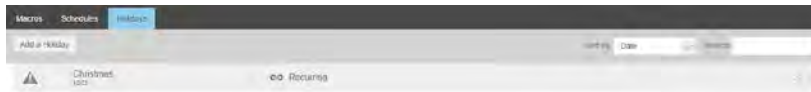
**Note** Always, Never, Weekdays, and Weekends are default schedules and cannot be edited.



## Holidays

### Add a Holiday

1. Click the **Add a Holiday** button
2. Type the name of the Holiday in the **Name** field.
3. Select the **Date** from the calendar.
4. Type the year of the holiday or leave the setting at 0 for recurring holiday.
5. Click **Save** to save the holiday.



## Sensor / Relay

**Note** Refer to the hardware manual for the model of the recorder or camera for physical installation instructions of sensors and relays.

## Sensors

Enable	Number	Sensor Name	Origin	Current State	Default State	Debounce (ms)	Associated Camera	Image Offset	Invert State
<input type="checkbox"/>	1	Sensor (I) 0 - 1/A	Onboard (I) 0 - 1/A	Open	Normally Open	50	Select Camera	0	<input type="checkbox"/>
<input type="checkbox"/>	2	Sensor (I) 0 - 2/A	Onboard (I) 0 - 2/A	Open	Normally Open	50	Select Camera	0	<input type="checkbox"/>
<input type="checkbox"/>	3	Sensor (I) 0 - 3/A	Onboard (I) 0 - 3/A	Open	Normally Open	50	Select Camera	0	<input type="checkbox"/>
<input type="checkbox"/>	4	Sensor (I) 0 - 4/A	Onboard (I) 0 - 4/A	Open	Normally Open	50	Select Camera	0	<input type="checkbox"/>

**Enable** – Enable or disable a sensor.

**Sensor Number** – Sensor number associated with the ProConnect recorder.

**Sensor Name** – Name of the sensor associated with the ProConnect recorder.

**Sensor Origin** – Origin of the sensor being used by the ProConnect recorder (typically internal to the recorder).

**Current State** – Current state of the sensor (open or closed).

**Default State (NO/NC)** – Normally Open or Normally Closed sensor.

**Debounce** – Debounce time in milliseconds (1000 milliseconds = 1 second) is the duration to ignore repeated contacts.

**Associated Macros** – Shows any macros associated with a specific sensor.

**Associated Camera** – Allows the association of a specific camera to a sensor.

**Image Offset** – The delay between the start of a sensor event and the time an event is captured

**Invert State** – Inverts the state of the sensor.

### Setting Up A Sensor

1. Enable a specific sensor by checking the box in the **Enable** column.
2. Modify the ProConnect sensor number in the **Sensor Number** column if needed.
3. To modify the sensor name, type the new name into the **Sensor Name** box.
4. Set Normally Open or Normally Closed in the **Type (NO/NC)** drop down.
5. Change **debounce** default in milliseconds if sensor contact is likely to break contact constantly.
6. Associate a camera to record with the sensor by selecting a camera from the **Associate Camera** drop down.
7. Modify the image offset value if a delay is required when recording a sensor event.
8. Check the box labeled **Invert State** if desired.
9. Click **Save**.

## Relays

Number	Relay Name	Origin	Current State	Default State	Associated Macro	Duration
1	Relay (V) 0 - 1/2	Onboard (V) 0 - 1/2	Open	Normally Open		1
2	Relay (V) 0 - 2/2	Onboard (V) 0 - 2/2	Open	Normally Open		1

**Relay Number** – Relay number associated with the ProConnect recorder.

**Relay Name** – Name of the relay associated with the ProConnect recorder.

**Relay Origin** – Origin of the relay being used (typically internal to the recorder).

**Current State** – Current state of the relay (open or closed).

**Default State (NO/NC)** – Normally open or normally closed relay.



**Associated Macros** – Shows any macros associated with a specific relay.

**Duration** – The duration the relay will fire when activated.

### Setting Up A Relay

1. Modify the relay number if needed by click in the **Relay Number** field and hitting backspace until cleared and type in the new number.
2. Modify the relay name by selecting **Relay Name** field and hitting backspace until cleared and type in the new relay name.
3. Set Normally Open or Normally Closed in the **Type (NO/NC)** drop down.

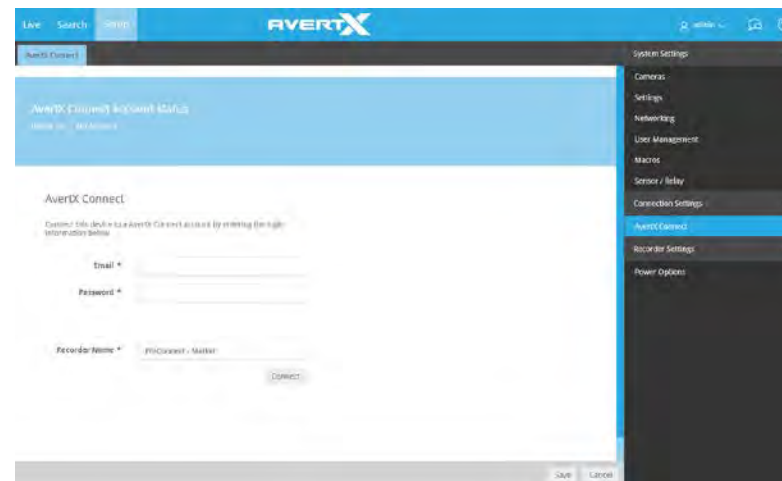
---

**Note** Refer to the hardware manual for the model of the recorder or camera for physical installation instructions of sensors and relays.

---

4. Modify the **Duration** if the momentary activation time needs to be modified.
5. Click **Save**.

## AvertX Connect



AvertX Connect is a cloud-based service that enables you to turn your recorder into a cohesive platform, with online user and recorder management features.

To begin using AvertX Connect, you will need to create an AvertX Connect account.

1. Use a web browser to navigate to **<http://connect.avertx.com>** and complete account registration. You will receive an email from AvertX Connect to verify your email address. Click the confirmation link.

To enable AvertX Connect on your recorder, follow the instructions below:

1. Click **Setup**
2. Click **AvertX Connect** under the Connection Settings section.
3. Enter your AvertX Connect **Username** and **Password**
4. Modify the **Recorder Name** if needed (this will be the label in AvertX Connect).
5. Click **Connect**.

## Log Files



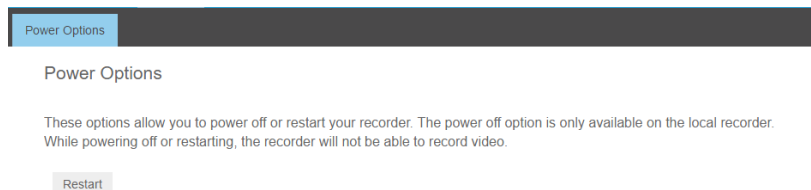
Timestamp	Severity	Category	Event Type	Description
2018-05-03 0:25:12 AM	Info	System Status	Power On	20180503 00:25:12
2018-05-03 0:25:12 AM	Info	System Status	SurfView RTOS	05/03/2018 00:25:12 PM
2018-05-03 0:25:12 AM	Info	System Status	Image Version	06/16/2016 09:15
2018-05-03 0:25:12 AM	Info	System Status	Software Version	1.4.0.4374
2018-05-03 0:25:12 AM	Info	System Status	System Startup	startup
2018-05-03 0:25:12 AM	Info	Services	Service Start	edgeguard
2018-05-03 0:25:12 AM	Info	Services	Service Start	spnserver

Log files are loaded or downloaded in this section.

## Loading and Exporting Logs (Browser Client Only)

1. Select the Log Files tab.
2. Select the Download All button.
3. Use the arrow buttons next to Page 1 or scroll wheel to cycle through the system log pages.

## Power Options



Power Options

These options allow you to power off or restart your recorder. The power off option is only available on the local recorder. While powering off or restarting, the recorder will not be able to record video.

Restart

Recorders can be powered off or restarted from the local interface; however, the Web Interface is limited to remote restarts.

## SUPPORT TOOLS (LOCAL)

Support tools are a set of utilities that allows you to complete the following setup or diagnostic tasks:

**Note:** Support Tools can only be accessed in the ProConnect NVR Software locally.

**Resource Monitor** – Diagnoses system resources issues by monitoring memory and processor usage.

**Pin Bomgar** – Pins a recorder for Bomgar access.

**Log Viewer** – View system logs.

**Terminal** – Linux terminal access.

**Network Diagnostics** – Diagnoses connectivity and network issues by monitoring, recording, and analyzing network traffic.

**Video Streaming** – Manually connect to video streams to diagnose camera connectivity issues.

**Web Browser**– Connect to and configure camera firmware, routers, and switches.

**Disk Management** – Monitor hard drive partitions on the recorder.

**Network Camera Manager** – Configure network settings for AvertX cameras on the Local Area Network or attached to the recorder.

**Advanced Resource Monitor** – Allows monitoring of memory, processor, I/O, network usage remotely.

## To Enter Support Tools:

1. Click on **Settings** in the Navigation Bar
2. Click on the **Setting** tab on the Right column
3. Type the combination **Control + Alt + S**, then click the “**Launch Support Tools**” button.

## ADVANCED NETWORK MANAGEMENT

---

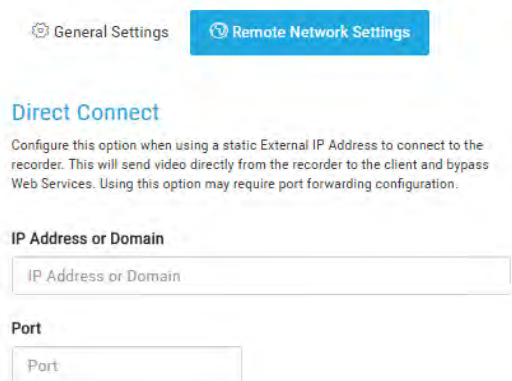
With port forwarding, traffic bypasses AvertX Connect, allowing for optimal connection speeds. Additional setup is required, however, because the routers need to be configured to forward traffic to the correct recorder.

---

**Note** Visit [http://portforward.com/english/routers/port\\_forwarding/](http://portforward.com/english/routers/port_forwarding/) for instructions on how to open ports on your particular router.

---

1. Complete the AvertX Connect cloud relay as instructed above in the *Register ProConnect to Your AvertX Connect Account*.
2. Access the router used for internet communication and forward **TCP port 80** to the internal address of the ProConnect Software recorder.



General Settings Remote Network Settings

**Direct Connect**

Configure this option when using a static External IP Address to connect to the recorder. This will send video directly from the recorder to the client and bypass Web Services. Using this option may require port forwarding configuration.

IP Address or Domain

IP Address or Domain

Port

Port

3. From AvertX Connect, click **My Recorders**, and then click the **Settings Icon** next to the name of the desired recorder.
4. Click **Remote Network Settings**, and then enter the **external IP** or **DNS** entry for the router in the **IP Address** or **Domain** field, and **80** in the **Port** field.

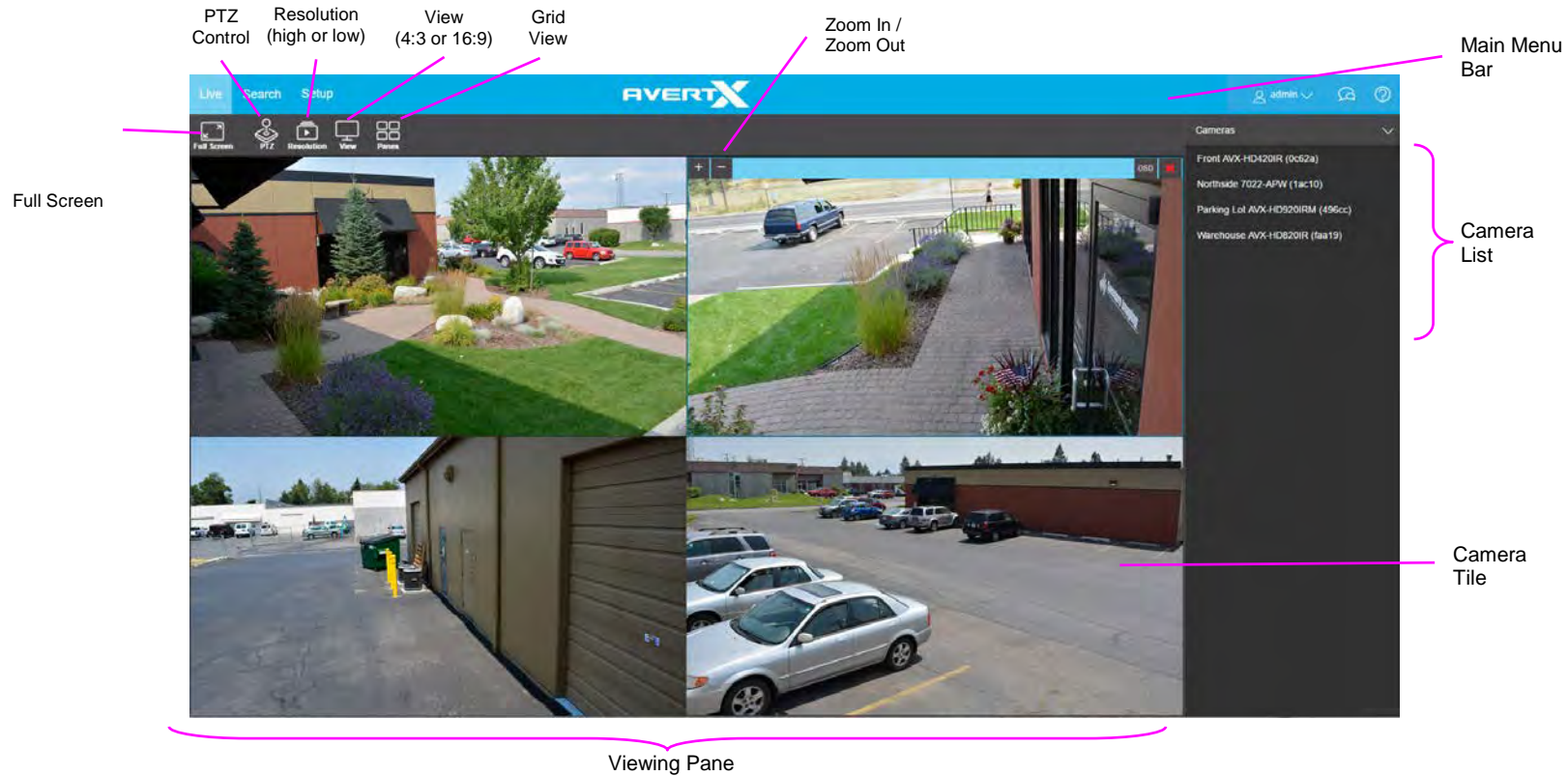
---

**Note** Port 80 is the default port.

---

5. Click **Save**.

# LIVE SCREEN VIEWING PANE



The Live screen displays the camera list and live video. Customize the Live screen to view specific cameras in different layouts.

**Camera List** – List of connected cameras, these cameras can be dragged into a camera tile to display live video.

**Note** The recorder local Live Screen does not display the Camera List.

**On-Screen Display (OSD)** – Displays the resolution, video format, bit rate, and frame rate of the camera.

**Camera Tile** – Individual tile for viewing live video from one camera.

**Viewing Pane** – Comprised of camera tiles and makes up the viewing space in the Live Screen

**Full Screen** – View live video in full screen mode.

**PTZ** – Enable / Disable control of Pan-Tilt-Zoom (PTZ) functions in live view.

**Resolution** – Designate the stream quality for cameras in the Viewing Pane.

**View** – Drop down selection of Live video viewing options (4:3, 16:9, original (displays original aspect ratio of all cameras) and stretch (stretches camera images to fit Camera Tile).

**Panes** – Designate a screen division (1, 4, 9, or 16) to view live video from cameras in the viewing pane.

## NAVIGATION BAR



## RIGHT-CLICK MENU

Right-clicking on a live camera tile while viewing live or recorded video will display the right-click options menu.

**OSD** – On-Screen Display (resolution, video format, bit rate, and frame rate).

**Remove Camera** – Remove camera from the current Live Screen viewing pane.

**Remove All Cameras** – Removes all cameras from the current Live Screen viewing pane.

**Zoom In** – Zoom in on a supported camera.

**Zoom Out** – Zoom out on a supported camera.

## CUSTOMIZING THE LIVE SCREEN

### How Do I Add / Remove Cameras from The Live Screen Display?

#### Add Camera

1. Click and drag a camera from the **Camera List** to the **Viewing Pane** to create a **Camera Tile**.

---

**Note:** Change the Live screen **grid** if more camera channels are desired.

---

—OR—

---

2. Click the desired camera on the **Camera List** to automatically add it to the **Viewing Pane** in an available **camera tile**. Each subsequent camera clicked will be added to the next available **camera tile**.

---

—OR—

---

3. Drag one **camera tile** over in the **Viewing Pane** to swap their locations.

#### Remove Camera

1. Right-click in the desired camera tile to display the **right-click menu**, and then click **Remove** or **Remove All**.

---

—OR—

---

2. Move the mouse to the top of the camera tile to display the **tile toolbar**, and then click the **red 'X'**.

## How Do I Adjust the Grid of Camera Tiles in The Viewing Pane?

The Live screen display can be adjusted to show live video for 1, 4, 9, or 16 camera tiles.

1. In the Live screen, click **Panes**.
2. Click on the desired **screen grid**. The screen grid will automatically apply.
3. Adjust the **camera tiles** to display the desired cameras.

## How Do I Adjust the Live Screen View?

The Live screen view affects the camera tiles and the aspect ratio / format of the live video being displayed.

1. In the Live screen, click **View**.
2. Click the desired **view**. The Live Screen view will automatically apply.

---

**Note** Choose from aspect ratios of 4:3 or 16:9, and choose a format of Stretch or Original.

---

## How do I Adjust the Live Video Stream Quality?

The Stream Quality option affects the resolution of live video as seen on the Live Screen. The stream resolution can be set to low, medium, high, or automatic.

1. In the Live screen, click **Stream**.
2. Click the desired **streaming resolution (Low, Medium, or High)**. The Live Screen will automatically adjust.

---

**Note** The available streaming resolutions are dependent on camera setup.

---

## How Do I Enable and Control PTZ?

1. In the Live screen, click **PTZ**.
2. Select the **PTZ camera**.
3. Hold the left mouse cursor down on the video pane and drag the arrow icon to move.

## How Do I Enable Fullscreen?

1. In the Live screen, click the **Fullscreen** icon.
2. Click the **Fullscreen** icon again to disable.

## How Do I Turn the OSD On / OFF?

The On-Screen Display (OSD) shows the video resolution, video format, bitrate, and frames per second on top of the live video feed. The OSD can be turned on / off per-camera or for all cameras.

### Toggle OSD for All Viewing Panes

Right-click on any viewing pane to display the **right-click menu**, and then click **OSD**.

### Toggle OSD Per-Camera

Move the mouse to the top of the desired viewing pane to display the **pane toolbar**, and then click **OSD**.

## Digital Zoom

Digital zoom can be used in the Live screen or the Search screen.

---

**Note** Digital Zoom is currently only supported in the ProConnect Web Interface.

---

1. Click to select the desired **Camera Tile**.
2. Use the scroll wheel on your mouse to scroll up, zooming in.
3. Scroll down to zoom back out, or use the **Right-Click Menu** to **Reset Zoom** per camera tile or **Reset All Zoom**.

---

**Note** Layouts will save Digital Zoom settings.

---

# PERFORMING A SEARCH

Perform a Timebar Search or a Preview Search to review recorded video, including playback and export of images and video clips.

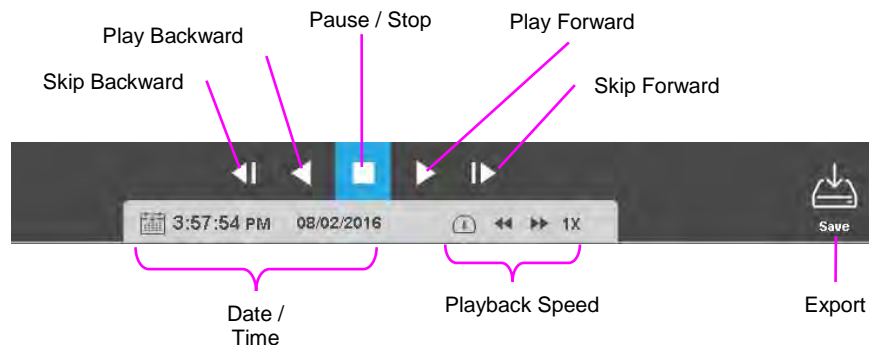
**Note** Timebar and Preview Searches are currently only available in the ProConnect Web Interface.

Three different searches are available in ProConnect software:

- Date/Time Search – standard search feature available only through the local recorder.
- Timebar Search – Advanced Date/Time search with visual tools. Only available through the ProConnect Web Interface.
- Preview Search – Advanced thumbnail-based search. Only available through the ProConnect Web Interface.
- Event Search – Advanced event-based search. Only available through the ProConnect Web Interface.

## How Do I Perform a Date / Time Search Via a Recorder?

### Date / Time Search Bar Playback Controls



### Add Camera(s) to the Date / Time Search Viewing Pane

When the Search Screen is opened, the cameras that were in the Viewing Pane in the Live Screen will appear, however, cameras can be arranged separately in the Search Screen to facilitate the desired search.

To add cameras to the Search Screen:

1. In the Search Screen, click a camera in the **Camera List**.

—OR—

2. Click and drag a camera from the camera list to the **Viewing Pane**.

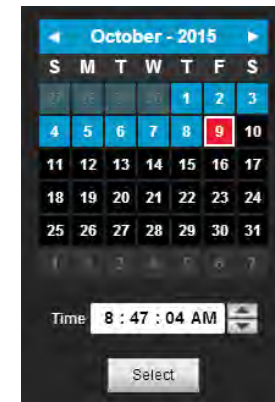
### Customize the Camera Tile Grid

Changing the Grid of the viewing pane allows for viewing multiple cameras. All cameras will begin playback of recorded video at the time designated on the horizontal Timebar Search Bar.

1. Click the **Grid** button.
2. Click on the desired grid.
3. Assign the available cameras to the desired camera tiles.

### Perform a Date / Time Search

1. Customize the camera tile grid in the Search Screen Viewing Pane if desired.
2. In the Search Screen, click the **Date / Time Picker**.
3. Select a **date** from the calendar, and then designate a **time** if desired.
4. Click **Select**.
5. Click **Play**.





## How do I Perform a Timebar Search (Web Interface Only)

Full Screen Resolution View Grid view

Live Search Setup

Full Screen Resolution View Panes

Cameras

- Front AVX-HD420IR (0c62a)
- Northside 7022-A/PW (1ac10)
- Parking Lot AVX-HD920IRM (496cc)
- Warehouse AVX-HD620IR (faa19)

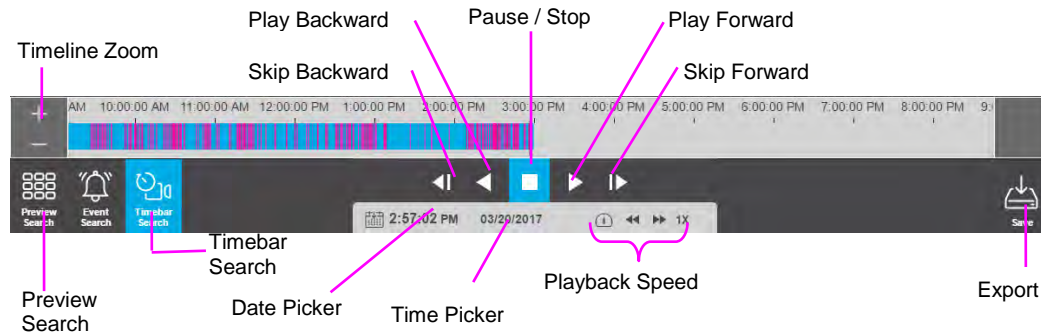
Camera List

Preview Search Event Search Timebar Search

Timeline Search Bar



## Timebar Search Bar Playback Controls



**Note** The example Timebar Search Bar shows recorded video that is based on Continuous + Motion recording, meaning the higher resolution motion video is only recorded when a motion event is triggered. This results in video automatically switching between the lower resolution and higher resolution video. Motion video is shown in magenta, and non-motion video is shown in light blue.

**Timebar** – Continuous recording is represented by light blue lines on the Timebar Search bar, with magenta lines on the Timebar Search bar representing Motion events.

**Timebar zoom** – Increases or decreases the amount of time shown in the timebar. Allows for greater accuracy in timebar movement.

**Skip Backward** – Move to the previous frame of recorded video.

**Play Backward** – Play recorded video backward.

**Pause / Stop** – Pause / Stop video playback.

**Play Forward** – Play recorded video forward.

**Skip Forward** – Move to the next frame of recorded video.

**Playback Speed** – Control the speed of video playback.

**Timebar Previewer** – Hovering over the timeline will show a preview of the recorded video.

**Export** – Export recorded video as seen in the current search playback.

**Date and Time Picker** – Use to designate a date and time to search recorded video.

## Add Camera(s) to the Timebar Search Viewing Pane

When the Search Screen is opened, the cameras that were in the Viewing Pane in the Live Screen will appear, however, cameras can be arranged separately in the Search Screen to facilitate the desired search.

To add cameras to the Search Screen:

1. In the Search Screen, click a camera in the **Camera List**.

—OR—

2. Click and drag a camera from the camera list to the **Viewing Pane**.

## Customize the Camera Tile Layout

Changing the layout of the viewing pane allows for viewing multiple cameras. All cameras will begin playback of recorded video at the time designated on the horizontal Timebar Search Bar.

1. Click the **Grid** button.
2. Click on the desired grid.
3. Assign the available cameras to the desired camera tiles.

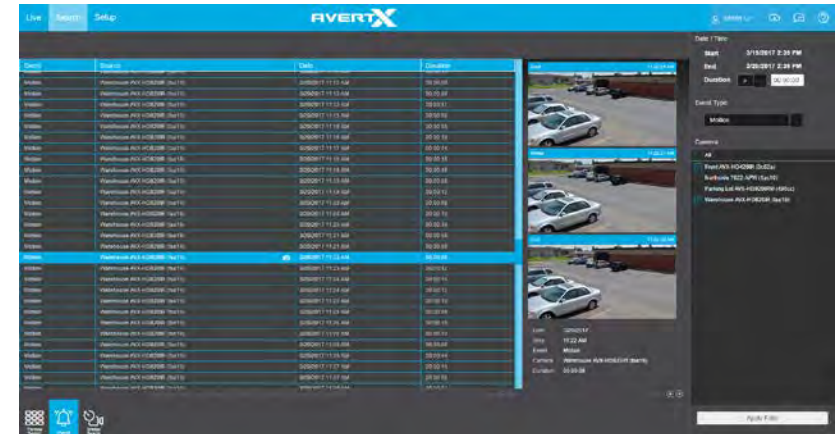
## Perform a Timebar Search

1. Customize the camera tile grid in the Search Screen Viewing Pane if desired.
2. Select a Date (and time) from the **Timebar Search Date Picker**.
  - a. On the Preview Search Bar, click the **Timebar Search Date Picker**.
  - b. Select the desired **Date (and specific time)**, and then the timeline will update automatically.

Use the **Play/Pause**, **Stop**, **Play Forward/Backward**, and **Skip Forward/Backward** playback controls to control video playback during your search.

## How do I Perform an Event Search (Web Interface Only)?

Event Search is ideal for reviewing sensor or relay events such as motion in a filtered, easily consumable format.



## Perform an Event Search

1. Under **DATE / TIME** select the Start, End and Duration.
2. Check cameras or sensors to search for events in the left tree view.
3. Click Apply Filter.
4. Select an **event** in the event table to review.
5. Click the **preview image** and the **play icon** to review this video in Timeline Search.

**Note** Hitting the back button on the browser in timeline search will load the previous event search results when switching between the two.

## How do I Perform a Preview Search (Web Interface Only)

Number of Thumbnails

Time Range

On-Screen Display Toggle

OSD

AVERTX

admin

Cameras

7023-APW (1ac10)

AVX-HD420IR (0c62a)

24hr

8/30/2017 9:19 AM ~ 8/31/2017 9:19 AM

Preview Search

Event Search

Timebar Search

Timeline Search Bar

Video Interval

Preview search is ideal for viewing before and after comparisons at user-determined intervals. This search can help a user narrow down a time period during which something changed in the scene, such as vandalism or theft.

## Preview Search Bar Playback Controls

The Preview Search bar displays the number of thumbnails displayed in the Viewing Pane, the Time Range interval between the first and last thumbnail, and the overall Video Interval.

**Number of Thumbnails** – Number of thumbnails distributed across the Time Range.

**Time Range** – Time interval between the first and last thumbnail.

**On-Screen Display Toggle** – Toggle the on-screen display on or off during search.

**Video Interval** – Display of the exact start and end time for the designated interval.

**Preview Search Date Picker** – Calendar display tool for choosing Preview Search Dates.

## Perform a Preview Search

1. Select a camera from the **Camera List**.

---

**Note** Preview Searches allows for only one camera displayed at a time.

---

2. Select a Date from the Preview Search Date Picker.
  - a. On the Preview Search Bar, click the **Preview Search Date Picker**.
  - b. Select the desired **Date**, and then the thumbnails will update automatically.
3. Select the **Number of Thumbnails**, the **Time Range**, and turn the **OSD On / Off** as desired.

---

**Note** Your combination of thumbnail quantity and time range will determine the time interval between each snapshot displayed. For example, 25 thumbnails in a 24-hour time range will result in 1-hour time intervals between displayed pictures.

---

4. Left-click on the desired thumbnail to narrow the time interval, opening new thumbnails.

---

**Note** When the thumbnail is narrowed to the smallest time interval, left-clicking again will begin recorded video playback in the Timebar Search Screen.

---

5. Right-click the desired thumbnail to expand the time interval, opening new thumbnails.

## How Do I Export from Search?

---

**Note** Exports during Search are only available from the Timebar Search Screen. Preview Searches must be narrowed to the Timebar Search Screen before an export is possible.

---

- During a Timebar Search, you have the option to export an image or a video clip.
- Resulting image files can be saved locally.
- Resulting video files can be saved locally OR remotely to your AvertX Connect account where they can be viewed and managed remotely.

### Export Image Locally

1. In the Search Screen, perform the desired **Timebar Search**.
2. Click **Save**.
3. In the Image tab, click **Save Locally**.

---

**Note** Locally exported images are saved in the **Downloads** folder as **JPEG files**.

---

### Export Video Clip Locally

1. In the Search Screen, perform the desired **Timebar Search**.
2. Right-click and select **Export**.
3. In the Video Clip tab, designate the Length of Clip and Video Quality.
  - Mobile Compatible exports video in 1080p unless the primary recording stream is already at a lower resolution.

---

**Note** Larger **Length of Clip** and higher **Video Quality** will result in larger video files.

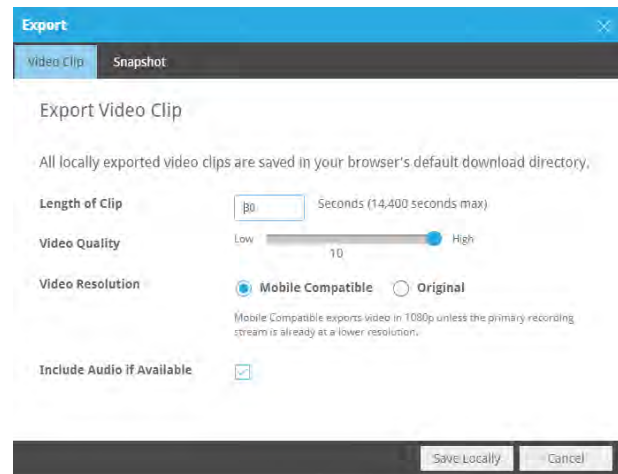
---

4. Click Save Locally.

---

**Note** Locally exported video clips are saved in the **Downloads** folder by default as **MP4 files**.

---



---

**Note** Locally exported video clips are saved in the **Downloads** folder by default as **MP4 files**.

---

## Export Video Clip to Cloud Video Archive

Exporting a video clip remotely saves the clip in your AvertX Connect account. For more information regarding viewing exported video clips, see the *How Do I View Exported Video Clips in AvertX Connect?* section.

1. In the Search Screen, perform the desired **Timebar Search**.
2. Right-click and select **Export**.
3. In the **Video Clip** tab, designate the Length of Clip and Video Quality.

---

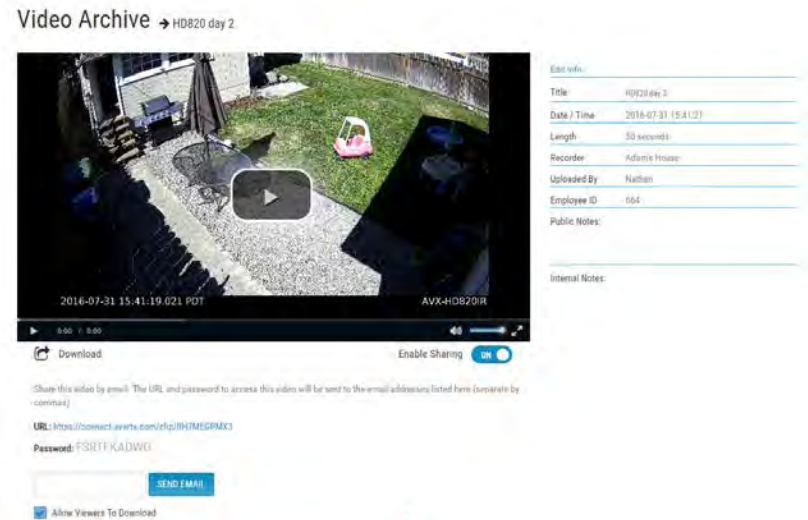
**Note** Larger **Length of Clip** and higher **Video Quality** will result in larger video files.

---

4. Type the desired **Clip Information**.
5. Click **Export**.

## How Do I View Exported Video Clips in AvertX Connect?

AvertX Connect allows you to view video clips exported during a search. These clips are stored in the Video Archive and can be watched, shared, and downloaded.



1. Navigate to **connect.avertx.com** and login.
2. Click Video Archive.
3. Select the desired video clip, and then click the **Play** icon.

---

**Note** If desired, **Share** the video clip. A URL will be provided with an access password which can then be distributed to others.

---

**Note** If desired, download the video clip to your default download location.

---



# HOW DO I ENABLE EMAIL ALERTS FOR MOTION, SENSOR OR HEALTH EVENTS?

Email Alerts for motion, sensor and health alerts are set through the ProConnect NVR and sent to the AvertX Connect cloud gateway for delivery. You will need [a valid AvertX Connect account](#) and access to a web browser with an internet connection.

## Enable Sending Events to AvertX Connect:

1. Go to the **Setup** menu, and then the **AvertX Connect** tab.
2. Enter your AvertX Connect account's **Email** and **Password** to link your NVR to AvertX Connect.
  - Select **Send Health Events to AvertX Connect** to enable motion alert.
  - Select **Send Event Images to AvertX Connect** to receive an image with the alert. Deselecting this option reduces the amount of data sent if your network has bandwidth limitations.

**Note:** These options are selected by default when you register your NVR with AvertX Connect.

## Add a Macro:

1. Click the **Macros** tab on the right-hand menu.
2. Click **Add a Macro**.
3. Enter a macro name in the **Macro Name** field.
4. Check the **Enable Macro** box.

## Create a Trigger:

1. Select the drop down under the **Schedule** option to modify when a trigger is in effect. For more information on schedules, see the [Schedule section](#).
2. Select either **Sensor** or **Motion** under the **Event Class** drop down.
3. Select the appropriate Event Type in the **Event Type** dropdown that corresponds with the desired sensor or motion event class.
4. Select the source IP camera or sensor in the **Source** drop down list. If no source is selected, all cameras or sensors will trigger event notification.

**Note:** You can set up multiple triggers by clicking the **Add New Trigger** button.

## Create an Action:

1. Select the desired schedule under the **Schedule** dropdown.
2. Select the action type **Send to AvertX Connect** under the **Type** dropdown.
3. Set the duration of the event to trigger the action in the **When Event Duration Exceeds** field.
4. If an additional action is added they will happen in order and can be dragged and dropped to reorder for priority.
5. Click **Save** to complete macro setup.

**Note:** You can set up multiple Actions by clicking the **Add New Action** button.

## Go to AvertX Connect

Users > Bruce Woods > User Profile

[User Profile](#) [User Permissions](#) [Recorder Access](#) [Change Password](#) [Change Email](#)

First Name  
Bruce

Middle Name

Last Name  
Woods

☒ Receive Health Alert Emails  
☒ Receive Sensor Alert Emails (configured on the recorder)  
☒ Receive Motion Alert Emails (configured on the recorder)

[Delete User](#) [Cancel](#) [Save](#)

1. To enable email alerts to specific users, go to **connect.avertx.com** and **Login**.
2. Click on **Manage Users** in the Main Menu.
3. Click on the user you wish to receive alerts.
4. In the User Profile, select **Receive Motion Alert Emails**. Select **Receive Health Alert Emails** and **Receive Sensor Alert Emails** if desired.
5. Click **Save** to complete. The email address associated with this account will now receive email alerts.

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