Web Interface
User Guide

Avigilon H.264 HD IP Models:
H3-B1, H3-B2, H3-B3, H3-D1, H3-D2, H3-DC1, H3-DC2, H3-DO1,
H3-DO2, H3-DP1, H3-DP2, H3-BO1-IR, H3-BO2-IR, H3M-DO1, H3PTZ
and ENC-4P-H264
# Table of Contents

**Introduction** .................................................. 1
  System Requirements ........................................ 1

**Accessing the Camera Web Interface** ................. 2

**Live View** .................................................... 3
  Using the Camera Zoom and Focus Controls .............. 3
  Using Camera Presets ....................................... 4
  Using the PTZ Camera Controls ............................ 5
  Using the Encoder PTZ Controls ........................... 6

**Setup** .......................................................... 7
  General .......................................................... 7
  Network ......................................................... 8
  Image and Display ........................................... 9
  Compression and Image Rate ................................ 12
    Configuring RTSP Stream URI ............................. 13
    Accessing the Still Image URI ............................ 14
  Motion Detection ............................................. 14
  Privacy Zones ................................................ 16
  Storage ........................................................ 17
    Enabling Onboard Storage ................................. 17
    Downloading Recorded Video From the Web Interface .................................................................... 18
    Downloading Recorded Video From the SD Card .... 19
    Deleting Recorded Video ................................... 20
  Digital Inputs and Outputs .................................. 20
  Microphone ...................................................... 21
  Speaker .......................................................... 21
  Users ............................................................. 22
    Adding a User ................................................ 22
    Editing Users and Passwords .............................. 23
  System ........................................................... 23
    Upgrading the Camera Firmware ......................... 23
    Device Log ...................................................... 24

**PTZ Camera** .................................................. 25
  PTZ Tours ....................................................... 25
    Editing PTZ Tours ............................................. 26
  PTZ Limits ....................................................... 27

**Encoder** ....................................................... 29
  Selecting a Port or Channel Option ........................ 29
  Enabling Video Input Termination ......................... 29
  Setting Up PTZ .................................................. 29
Introduction

All Avigilon™ high definition H.264 IP cameras and encoders contain a web interface that allows you to view live video and configure the device through a web browser.

Before you access the web interface, make sure you complete all the procedures described in the device installation guide.

System Requirements

The web interface can be accessed from any Windows, Mac or mobile device using one of the following browsers:

- Windows Internet Explorer browser version 7.0 or later
- Mozilla Firefox browser version 3.6 or later
- Opera browser 9.0 or later
- Chrome browser 8.0 or later
- Safari 5.0 or later
- Android 2.2 (Froyo) browser or later
- Apple iOS 5.0 browser or later.
Accessing the Camera Web Interface

After the camera or encoder has been installed, you need the device’s IP address to access the web interface. The IP address can be found in one of the following places:

- **Avigilon Camera Installation Tool**: click the **Connect to Camera** button to see the details of the connected camera or encoder.

- **Avigilon Control Center Client**: open the Setup dialog box to see the details of the selected device.

Once you have the IP address, complete the following procedure to access the web interface:

**NOTE**: The web browser must be configured to accept cookies or the camera web interface will not function correctly.

1. On a computer with internet access, enter the device’s IP address into a web browser:
   
   \[\text{http://<camera IP address>}/\]

   For example, `http://192.168.1.40/`

2. You will automatically be prompted to enter your username and password to access the device.

   The default username is `admin`, and the default password is `admin`. It is recommended that you change the default password after your first login. For more information, see *Editing Users and Passwords* on page 23.

**NOTE**: You can only change the device password in the web interface. The password cannot be changed in the network video management software.
Live View

After you login, the first page you see is the Live View. The Live View contains an image panel that displays the live video stream.

The menu links at the top left corner takes you to each of the pages in the web interface. Click Live View any time to return to this page.

The following sections describe the buttons that may be displayed under the image panel if users have access to PTZ controls. To give a user PTZ controls, see Adding a User on page 22.

**NOTE:** Some options are disabled if they are not supported by the camera.

**Using the Camera Zoom and Focus Controls**

- To zoom out, move the slider towards the right.
- To zoom in, move the slider towards the left.
**Using Camera Presets**

1. On the Live View page, use the Zoom and Focus controls to focus the camera on a specific point in the video image.

2. To add this camera position as a preset, enter a name in the **Add Preset** field then click **Add**.

3. To use a preset, select a configured preset from the **Presets** drop down list and click **Go**.

4. To delete a preset, select a preset from the drop down list then click **Remove**.

The presets can also be configured in the Avigilon Control Center Client software through the PTZ controls.
Using the PTZ Camera Controls

If you are accessing a standalone pan-tilt-zoom (PTZ) camera, you can control Focus and Presets in the same way as other cameras but you also have access to other features that are specific to the PTZ camera.

1. To zoom the camera:
   - Adjust the Zoom slider.
   - Or, click and drag to create a green box on the image panel to define the area you want to zoom in and see.

2. To move the camera:
   - Click anywhere on the image panel to center the camera to that point.
   - Or, drag your mouse from center to move the camera in that direction. The farther the arrow is from center, the faster the camera will move.

3. To perform a guard tour, select a tour from the drop down list then click Start. To setup a tour, see PTZ Tours on page 25.

4. To stop a guard tour, click Stop. You can pause a tour at any time just by using the other PTZ controls.
Using the Encoder PTZ Controls

Any camera that is connected to an H.264 encoder can have the PTZ option enabled. Once enabled, the full pan, tilt and zoom controls are displayed in the Live View for that camera.

To enable PTZ for cameras that are connected to an encoder, see Setting Up PTZ on page 29.

1. Select a camera from the Port drop down list.

   **NOTE:** The PTZ controls are only displayed when the camera is displayed by itself.

2. To move the camera field of view, click one of the directional buttons on the far left.

3. To control the camera’s **Zoom, Iris** or **Focus**, click the + or - buttons.

4. For **Presets**, you can perform any of the following:
   - To add a preset, move the camera’s field of view into position then give the preset a name and click **Set**.
   - To use a preset, select a name or number from the drop down list and click **Go To**.

5. For **Patterns**, you can perform any of the following:
   - To record a pattern, select a number from the drop down list then click **Record**. Use the directional buttons to move the camera and create the pattern. When you are done, click **Stop**.
   - To run a pattern, select a number from the drop down list and click **Run**.

6. To activate an auxiliary command, select an Aux# from the drop down list and click **Start**. When you are finished, click **Stop**.
NOTE: Some options are disabled if they are not supported by the camera, or if you do not have the required user permissions.

The device’s factory default settings allow you to use the camera or encoder immediately after installation. If you have special requirements, you can customize the settings through the web interface.

A Restore Default button is available on each Setup page to allow you to restore the factory default settings.

Be aware that some of the settings are only available through the camera web interface and cannot be changed in the network video management software.

For the settings that are specific to PTZ cameras, see PTZ Camera on page 25.

For the settings that are specific to encoders, see Encoder on page 29.

General

When you select the Setup link, the first page you see is the General page. The General page allows you to set the device identity.

Name: 5.0-H3S-B01-IR
Location: 

☐ Disable camera status LEDs
☐ Disable configuration ethernet port

Time Settings

10/10/2013 16:53:43 (GMT-08:00) Las Vegas, Vancouver (PST/PDT)

☒ Automatically adjust clock for Daylight Savings Time

Camera time synchronized with NTP Server (Configure NTP Server)

1. In the Name field, give the device a meaningful name.
2. In the Location field, describe the device’s location.
3. Select the Disable camera status LEDs check box to disable the LEDs located on the device.
4. If the camera is not connected to the Avigilon Control Center software, set the time.
   - If you prefer to manually set the camera’s date and time, enter the date, time and time zone on this page.

   It is recommended that you always set the camera’s time zone if the onboard storage feature is enabled.
   - If you prefer to auto-synchronize the camera’s date and time with an NTP server, configure the NTP server on the Network page. See Network on page 8 for more information.

5. (HD Bullet Camera only) Select the **Disable configuration ethernet port** check box to disable the secondary ethernet port underneath the camera.

6. Click **Apply**.

## Network

On the Network page, you can change how the device connects to the server network and choose how the device keeps time.

**NOTE:** You can only set the HTTPS port, the RTSP port, and the NTP Server in the camera web interface.

1. In the Address and Hostname area, select how the device obtains an IP address:
   - **Obtain an IP address automatically:** select this option to connect to the network through an automatically assigned IP address.
     
     The IP address is obtained from a DHCP server. If it can not, the IP address will default to addresses in the 169.254.x.x range.
   - **Use the following IP address:** select this option to manually assign a static IP address.
     
     Enter the **IP Address**, **Subnet Mask**, and the **Default Gateway** you want to use.

2. If you need to customize the hostname, enter it in the **Hostname** field.

3. In the Control Ports area, you can specify which control ports are used to access the device. You can enter any port number between 1 and 65534. The default port numbers are:
• **HTTP Port**: 80
• **HTTPS Port**: 443
• **RTSP Port**: 554

4. In the NTP Server area, decide if you want the camera to use a Network Time Protocol (NTP) server to keep time.

   By default, the camera keeps time through the Avigilon Control Center software. If the camera is connected to a different network video management software, select one of the following options:

   • **DHCP**: select this option to automatically use the same NTP server as the rest of the network.
   • **Manual**: select this option to manually set which NTP server is used.

5. Click **Apply** when you are done.

### Image and Display

**NOTE**: This setup page is not available for encoders, and some options are not available if they are not supported by the camera

On the Image and Display page, you can control the camera’s video display settings.

The Image and Display page includes an image panel that displays the camera’s live video stream. When you click **Apply** to save your changes, the video stream is updated.

Avigilon cameras have electronic zoom and focus controls, so you can set the camera’s zoom and focus through this page as well.
1. Use the Zoom controls to adjust the camera's zoom position.

2. If the camera has a built-in auto focus feature, you can select the **Continuous Focus** option to enable the camera to focus itself whenever the scene changes.

3. To manually focus the camera, select **Open** in the **Iris** drop down list then use the **Focus** buttons to focus the camera.

   The left arrow buttons focus the camera towards Zero (0), and the right arrow buttons focus the camera towards Infinity. Click the **Auto Focus** button to enable the camera to automatically focus once.

**NOTE:** Once the focus is manually set, it will not change.

4. To adjust the video image, make changes to any of the following settings as required.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exposure</strong></td>
<td>You can allow the camera to control the exposure by selecting <strong>Automatic</strong>, or you can set a specific exposure rate. <strong>NOTE:</strong> Increasing the manual exposure time may affect the image rate.</td>
</tr>
<tr>
<td><strong>Iris</strong></td>
<td>You can allow the camera to control the iris by selecting <strong>Automatic</strong>, or you can manually set it to <strong>Open</strong> or <strong>Closed</strong>.</td>
</tr>
<tr>
<td><strong>IR Cut Filter</strong></td>
<td>You can allow the camera to control the infrared cut filter by selecting <strong>Automatic</strong>, or set the camera to <strong>Color</strong> or <strong>Monochrome</strong> mode.</td>
</tr>
<tr>
<td><strong>Flicker Control</strong></td>
<td>If your video image flickers because of the fluorescent lights around the camera, you can reduce the effects of the flicker by setting the Flicker Control to the same frequency as your lights. Generally, Europe is <strong>50Hz</strong> and North America is <strong>60Hz</strong>.</td>
</tr>
<tr>
<td><strong>Backlight Compensation</strong></td>
<td>If your scene has areas of intense light that cause the overall image to be too dark, change the Backlight Compensation value until you achieve a well exposed image.</td>
</tr>
<tr>
<td><strong>Maximum Exposure</strong></td>
<td>You can limit the automatic exposure setting by selecting a maximum exposure level. By setting a maximum exposure level for low light situations, you can control the camera's exposure time to let in the maximum amount of light without creating blurry images.</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Maximum Gain</td>
<td>You can limit the automatic gain setting by selecting a maximum gain level. By setting the maximum gain level for low light situations, you can maximize the detail of an image without creating excessive noise in the images.</td>
</tr>
<tr>
<td>Priority</td>
<td>You can set <strong>Image Rate</strong> or <strong>Exposure</strong> as the priority. When set to <strong>Image Rate</strong>, the camera will maintain the set image rate as the priority and will not adjust the exposure beyond what can be recorded for the set image rate. When set to <strong>Exposure</strong> the camera will maintain the exposure setting as the priority, and will override the set image rate to achieve the best image possible.</td>
</tr>
<tr>
<td>Saturation</td>
<td>You can adjust the video’s color saturation by entering a percentage number. 0 creates a black and white image, while 100 creates intense color images.</td>
</tr>
<tr>
<td>Sharpness</td>
<td>You can adjust the video’s sharpness by entering a percentage number. 0 applies the least amount of sharpening, while 100 applies the most sharpening to make the edges of objects more visible.</td>
</tr>
<tr>
<td>Brightness</td>
<td>You can adjust the video’s brightness by entering a percentage number. 0 creates a dark image, while 100 creates a light-filled image.</td>
</tr>
<tr>
<td>Contrast</td>
<td>You can adjust the video’s contrast by entering a percentage number. 0 applies the least amount of contrast, while 100 applies the most contrast.</td>
</tr>
<tr>
<td>White Balance</td>
<td>You can control the white balance settings to adjust for differences in light. You can allow the camera to control the white balance by selecting <strong>Automatic</strong>, or select <strong>Custom</strong> and manually set the <strong>Red</strong> and <strong>Blue</strong> settings.</td>
</tr>
<tr>
<td>WDR</td>
<td>You can enable automatic color adjustments through Wide Dynamic Range (WDR). This allows the camera to adjust the video image to accommodate scenes where bright light and dark shadow are clearly visible.</td>
</tr>
<tr>
<td>Adaptive IR Compensation</td>
<td>You can enable automatic infrared adjustments through Adaptive IR Compensation. This allows the camera to automatically adjust the video image for saturation caused by IR illumination.</td>
</tr>
</tbody>
</table>
Compression and Image Rate

On the Compression and Image Rate page, you can change the camera’s compression and image quality settings for sending video over the network.

To enable easy access and lower bandwidth usage, the web interface only displays video in JPEG format and cannot be changed. The settings on this page only affect the video transmitted to the network video management software.

Avigilon cameras have dual stream capabilities, so even when the camera’s streaming format is set to H.264, the camera’s web interface can still display live video in JPEG format.

However, cameras that are connected to an Avigilon encoder do not typically have multi-stream capabilities. So once you set the video streaming format to H.264, live video from that camera is no longer displayed in the web interface.

**NOTE:** You can only set the RTSP stream settings in the camera web interface.
1. In the Format drop down list, select the preferred streaming format for displaying the camera video in the network video management software.

   If you are using the Onboard Storage feature, select H.264. For more information, see Enabling Onboard Storage on page 17.

2. In the Image Rate field, enter a number between 1-30 to indicate how many images per second you want the camera to stream over the network.

3. In the Quality drop down list, select the desired image quality level.

   Image quality setting of 1 will produce the highest quality video and require the most bandwidth.

4. In the Max Bitrate field, enter the maximum bandwidth the camera can use. You can enter any number between 200-12000 kbps.

5. In the Resolution drop down list, select the preferred image resolution.

6. In the Keyframe Interval field, enter the number of frames between each keyframe. You can enter any number between 2-64.

7. Click Apply to save your changes.

Configuring RTSP Stream URI

In the Compression and Image Rate page, you can also configure the camera’s real time streaming protocol (RTSP). The RTSP Stream URI allows you to watch the camera’s live video stream from any application that supports viewing RTSP streams, including many video players.

1. To set the protocol, select either Unicast or Multicast in the RTSP Stream URI area then click Apply.

2. To watch the camera’s live video stream from an external video player, click Generate RTSP Stream URI.

   a. Copy and paste the generated address in to your video player. DO NOT open the live video stream yet.

   b. Add your username and password to the beginning of the address in this format:

      rtsp://<username>:<password>@<generated RTSP Stream URI>/

      For example: rtsp://admin:admin@192.168.1.79/defaultPrimary?streamType=u
c. Open the live video stream.

**Accessing the Still Image URI**

In the Compression and Image Rate page, you can access the last still image frame the camera recorded.

- To access the still image, click the link in the Still Image URI section.

The last recorded frame of video from the camera’s primary stream is displayed. You can choose to save or print the image directly from the browser.

**Motion Detection**

On the Motion Detection page, you can define the green motion detection areas in the camera’s field of view. Motion detection is ignored in areas not highlighted in green.

To help you define motion sensitivity and threshold, motion is highlighted in red in the image panel.

![Motion Detection](image)
1. The entire field of view is highlighted for motion detection by default. To define the motion detection area, use any of the following tools:
   - Click **Clear All** to remove all motion detection areas on the video image.
   - Click **Set All** to set the motion detection area to span the entire video image.
   - To set a specific motion detection area, click **Select Area** then click and drag anywhere on the video image.
   - To clear a specific motion detection area, click **Clear Area** then click and drag over any motion detection area.
   - Use the **Zoom In** and **Zoom Out** buttons to locate specific areas in the video image.

2. In the **Sensitivity** field, enter a percentage number to define how much each pixel must change before it is considered in motion.
   - The higher the sensitivity, the smaller the amount of pixel change is required before motion is detected.

3. In the **Threshold** field, enter a percentage number to define how many pixels must change before the image is considered to have motion.
   - The higher the threshold, the higher the number of pixels must change before the image is considered to have motion.

4. Click **Apply** to save your changes.
Privacy Zones

On the Privacy Zones page, you can set privacy zones in the camera’s field of view to block out areas that you do not want to see or record. The camera supports up to four privacy zones.

1. To add a privacy zone, click **Add**. A privacy zone box is added to the video image.

2. To define the privacy zone area, perform any of the following:
   a. Drag the bottom or right side of the box to resize the privacy zone.
   b. Click the center of the box then drag to move the privacy zone.
   c. Click the **X** at the top right corner of the gray box to delete the privacy zone.

**NOTE:** Privacy zones can only be rectangular in shape.

3. Click **Apply** to save the privacy zone settings.

4. If you are using a PTZ camera, a list of privacy zones is available at the bottom of the page. When you click one of the privacy zones, the camera moves and highlights that privacy zone in the image panel.
Storage

On the Onboard Storage page, you can enable the camera’s Onboard Storage feature and download recorded video directly from the camera.

Onboard Storage

- Status: Recording on motion
- Capacity: 63.0 GB
- Current Usage: 234.1 MB
- Remaining Capacity: 16.0 hours

Settings

- Enable Onboard Storage
- Record only when server connection is interrupted

Recording Mode:
- Continuous
- On Motion

Recordings

- Camera Time: 04:58:31 PM (FST/PDT) (Change)
- Filter From To

<table>
<thead>
<tr>
<th>Start Time</th>
<th>Duration</th>
<th>File Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-10-10 4:57:07 PM</td>
<td>00:00:12</td>
<td>12 MB</td>
</tr>
<tr>
<td>2013-10-10 4:57:22 PM</td>
<td>00:00:32</td>
<td>32 MB</td>
</tr>
</tbody>
</table>

Recordings can be played in VLC Player, Quicktime and Windows Media Player by installing a free H.264 decoder such as FFDShow.

Enable Onboard Storage

To use the camera’s onboard storage feature, you must first insert an SD card into the camera. Refer to the camera’s installation manual for the location of the SD card slot.

1. On the Onboard Storage page, select the Enable Onboard Storage check box.

2. If you prefer, select the Record only when server connection is interrupted check box. Otherwise, the camera will record video to the network video management server and to the SD card.

3. Select one of the following recording modes:
- **Continuous**: the camera never stops recording to the SD card.
- **On Motion**: the camera only records when there is motion in the scene.

The recorded video will be divided into files no more than five minutes in length or 100MB in size.

4. On the Compression and Image Rate page, make sure the format is set to **H.264** to maximize the SD card recording capacity and performance.

### Downloading Recorded Video From the Web Interface

Listed in the Recordings section are all the videos that have been recorded to the SD card.

It is recommended that you download recorded video from the web interface. However, if your bandwidth is limited, you can choose to download the recorded video directly from the SD card. For more information, see *Downloading Recorded Video From the SD Card* on page 19.

To download recorded video from the web interface, perform the following:

1. On the Storage page, select the check box beside all the videos you want to download.
   - To help you find the video you want, you can filter the videos by date and time. Select the **Filter** check box then select the time range.

2. Click **Download**.

The selected video files are automatically downloaded to your browser’s default Downloads folder. If you are prompted by the browser, allow the download to occur.

**NOTE:** Do not close your browser window until the download is complete or the file may not download correctly. This is important if you are downloading multiple video files because the files are downloaded one by one.
Downloading Recorded Video From the SD Card

If you do not have enough bandwidth to download recorded video directly from the web interface, you can choose to download the recorded video directly from the SD card.

To download recorded video directly from the SD card, perform the following:

1. In the Onboard Storage page, disable onboard storage by clearing the **Enable Onboard Storage** check box then click **Apply**.
2. Remove the SD card from the camera.
3. Insert the SD card into a card reader.
4. When the Windows AutoPlay dialog box appears, select **Open folder to view files**.
5. Open the Avigilon Camera Footage application.

The Avigilon Camera Footage window lists all the video files that are stored in the SD card.

- To download all the recorded video, click **Download All**.
- To download specific video, select the video files you want then click **Download Selected**.

6. When you are prompted, choose a location to save the video files.
The files start downloading from the SD card and are saved to the selected location.

7. When you are ready, eject the SD card.

8. Insert the SD card back in to the camera then enable Onboard Storage to begin recording to the SD card again.

**Deleting Recorded Video**

As the SD card becomes full, the camera automatically starts overwriting the oldest recorded video. You can also choose to manually delete video to make extra room for new recordings.

On the OnBoard Storage page, you can choose to delete video in the following ways:

- To delete individual video files, select all files you want to delete from the Recordings list then click **Delete**.
- To delete all recorded video files, click **Format Card** to format the SD card.

**Digital Inputs and Outputs**

On the Digital Inputs and Outputs page, you can set up the external input and output devices that are connected to the camera.

**Digital Inputs and Outputs**

**Digital Input 1**

- **Name:** Digital Input 1
- **Circuit State:** Normally Open

**Digital Output 1**

- **Name:** Digital Output 1
- **Circuit State:** Normally Open
- **Duration:** 1000 ms
- **Trigger**

1. In the Digital Inputs area, name the digital input and select the digital input’s circuit state.
2. In the Digital Outputs area, name the digital output and select the digital output’s circuit state.
3. In the Digital Outputs **Duration** field, enter how long the digital output is active for when triggered. You can enter any number between 100-3,600,000 milliseconds.

4. Click **Trigger** to manually trigger the digital output from the web interface.

5. Click **Apply** to save your changes.

**Microphone**

If a microphone is connected to the camera, you can adjust the gain on the Microphone page. The higher the gain setting, the higher the microphone volume.

- Enter a number between the available range displayed on the right then click **Apply**.

**Speaker**

If a speaker is connected to the camera, you can adjust the volume on the Speakers page.

- Enter a number between 0-100 to set the speaker volume then click **Apply**.
On the Users page, you can add new users, edit existing users, and change passwords.

### Adding a User

1. On the Users page, click **Add...**
2. On the Add User page, enter a username and password for the new user.
3. In the **Security Group** drop down list, select the access permissions available to this new user.
   - **Administrator:** full access to all the available features in the camera web interface, including PTZ controls.
   - **Operator:** has access to the Live View and PTZ controls but limited access to the Setup features. The new user can only access the Image and Display page, Compression and Image Rate page, Motion Detection page, Privacy Zones page, Digital Inputs and Outputs page, Microphone page and the Speaker page. The new user can also configure onboard storage settings but cannot delete video recordings or format the SD card.
   - **User:** has access to the Live View and optional PTZ controls, but cannot access any of the Setup pages. To enable the PTZ controls, select the **Use PTZ Controls** check box.
4. Click **Apply** to add the user.
Editing Users and Passwords

1. On the Users page, select a user from the User Name list and click **Modify**.
2. To change the user’s password, enter a new password for the user.
3. To change the user’s security group, select a different group from the **Security Group** drop down list.

**NOTE:** You cannot change the security group for the admin account.

4. Click **Apply** to save your changes.

System

On the System page, you can manually upgrade the camera firmware, reboot the camera, and restore all of the camera’s factory default settings.

**System**

**Upgrade Firmware**

Current Firmware Version: 1.0.0.26

Select the firmware .bin file:

![Browse button]

**Reboot**

Reboot device:

![Reboot button]

**Restore**

Restore to factory defaults:

![Restore button]

Upgrading the Camera Firmware

To manually upgrade the camera’s firmware, download the latest version of the firmware .bin file from the Avigilon website ([http://avigilon.com/support-and-downloads/for-cameras-and-hardware/firmware-updates-and-downloads/](http://avigilon.com/support-and-downloads/for-cameras-and-hardware/firmware-updates-and-downloads/)) and complete the following procedure:
1. Click **Browse** and locate the downloaded firmware file.
2. Click **Upgrade**. Wait until the camera upgrade is complete.

## Device Log

The Device Log page allows you to view the camera’s system logs and the camera access logs.

1. In the **Type** drop down list, select either Access Logs or System Logs.
2. In the **Minimum Log Level** drop down list, select the log messages you want to see.
3. In the **Maximum Number of Logs** drop down list, select the number of log messages you want displayed each time.
4. Click **Update**. The logs are displayed below.
PTZ Camera

Avigilon H.264 PTZ cameras use many of the same settings as the other cameras. The following settings are only available to PTZ cameras.

**PTZ Tours**

For PTZ cameras, you have the option of running a Tour on the Live View page. Tours allow the PTZ camera to automatically move between a series of preset positions, and can be set to pause at each preset for a specific amount of time for video monitoring.

To create a tour, complete the following:

**NOTE:** All the required presets must be added before a new tour can be created. See *Using Camera Presets* on page 4 for more information.

1. Among the Setup options, click **PTZ Tours**.
2. Click **Create New Tour**.

![PTZ Tours](image)

*Click on a tour to view or edit details*
3. Give the tour a name.

4. In the Mode drop down list, select one of the following:
   a. **Sequential**: the PTZ camera will go to each preset in the set order.
   b. **Random**: the PTZ camera will go to each preset in random order.

5. Select the **Set as default tour** check box if you want this tour to run automatically.
   - The Default Tour Idle Start Time field is now enabled, enter the amount of time the PTZ camera must be idle for before this tour automatically begins.

6. To add a preset, click **Add Preset** and a preset is added to the list.
   a. In the Preset column, select a preset from the drop down list.
   b. In the Move Speed column, enter how fast you want the PTZ camera to move to this preset. The speed is 80% by default.
   c. In the View Time column, enter the amount of time you want the PTZ camera to stay at this preset position. The view time is 10 seconds by default.
   d. Continue until all the presets for this tour have been added.

7. To remove a preset, click the **(x)** icon to the far right of the preset.

8. To re-order a preset, click the up and down arrows or click and drag the left edge of the preset through the list.

9. Click **Apply** to save the tour.

**Editing PTZ Tours**

1. Among the Setup options, click **PTZ Tours**.
2. Click **Edit**.
3. Make the changes you need.
4. To undo the changes that you’ve made, click **Discard Changes**.
5. Click **Apply** to save your changes.
6. To delete the tour, click **Delete Tour**. When the confirmation dialog box appears, click **OK**.
PTZ Limits

Depending on where the PTZ camera is installed, you may want to limit the movement and zoom of the camera so that obstructions are never in view. For example, if the PTZ camera is installed close to the side of a building, you can set the limits so that the PTZ camera cannot move to show the wall it is installed against.

1. Among the Setup options, click **PTZ Limits**.

![PTZ Limits](image)

2. To limit the maximum movement range, you can do one of the following:
   - In the image panel, move the PTZ camera as far left as you want to display then click the **From** icon for the Pan Limit. Move the camera to the farthest point to the right and click the **To** icon. Repeat this procedure for the Tilt Limit, only move the camera up and down. For information about
moving the PTZ camera, see *Using the PTZ Camera Controls* on page 5.

- Below the image panel, you can set the Pan and Tilt Limit by adjusting the position of the two black dots on each circle. The gray area shows the set degree of movement. The Pan Limit sets the horizontal movement range and the Tilt Limit sets the vertical movement range.

3. To set the **Lens Zoom Limit**, enter a maximum zoom level.

4. To set the **Maximum Move Speed**, enter a maximum number of degrees per second.

5. To allow the camera to automatically correct the video image when the camera tilts more than 90°, select the **Enable E-Flip** check box. When this option is disabled, the video image is upside down when the camera tilts more than 90°.

6. Click **Apply** to save your settings.
Encoder

Avigilon H.264 encoders use many of the same settings as the cameras, but the following settings are only available to encoders.

Selecting a Port or Channel Option

An encoder can have up to 4 cameras and 4 audio devices connected at one time, so some pages in the web interface include a set of options for each port or channel on the encoder.

On pages with live video options, like Live View and Motion Detection, you can change the displayed camera by selecting a **Port** number from the drop down list.

On setup pages without video, the options are divided by video port or audio channel so that different options can be applied to each.

Enabling Video Input Termination

- To enable the video input termination, select a Port check box on the General page.

Setting Up PTZ

The H.264 encoders have pan, tilt and zoom (PTZ) setup options. Once enabled, the Live View will display the PTZ controls for the camera.

1. Among the Setup options, click **PTZ**.
   
   **PTZ**
   
   Baud Rate:  **2400**
   
   Parity:  **None**

   **Port 1**

   - Enable PTZ
   
   Protocol:  **AD Sensomatic**
   
   Dip Switch Address:  **99**  [1...99]

2. Select a **Baud Rate** and **Parity**.

3. For each port that is connected to a PTZ camera, select the **Enable PTZ** check box.

4. Select a **Protocol** and enter a **Dip Switch Address**.

5. Click **Apply**.

6. To use the PTZ controls, see *Using the Encoder PTZ Controls* on page 6.