

## Avigilon Control Center Client User Guide

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# Introduction

## What is the Avigilon Control Center Client?

The Avigilon Control Center Client software works with the Avigilon Control Center Server software to give you access and control of your Avigilon High Definition Surveillance System.

The Client software allows you to view live and recorded video, and control user access to the Avigilon Control Center. The Client software also gives you the ability to configure the server, cameras and other external devices that are part of your surveillance system.

The Client software can run on the same computer as the Server software, or run on a remote computer that connects with the Server software through a local area network (LAN) or a wireless area network (WAN).

What you can do in the Client software depends on the Server software edition. There are three editions of the Server software available: Core, Standard and Enterprise. Core contains all the essential software features for monitoring live and recorded video. Standard gives you all the Core features plus access to the point of sales feature, digital input and output, audio, and expanded search options. The Enterprise edition gives you access to the full suite of Client software features, including alarms, rules, Site View, Web Pages, Maps and system backup. Visit the Avigilon website for an overview of the features available in each edition: <a href="http://avigilon.com/#/products/avigilon-control-center/editions/">http://avigilon.com/#/products/avigilon-control-center/editions/</a>

A copy of the Client software can be downloaded from the Avigilon website, or installed with the Server software.

Minimum requirements		Recommended requirements
Monitor resolution	1280 x 1024	1280 x 1024
OS	Windows XP with Service Pack (SP) 2 or later, Windows Vista, or Windows 7	Windows XP with Service Pack (SP) 2 or later, Windows Vista, or

## System Requirements

		Windows 7
CPU	Intel Single Core 2.4 GHz processor	Intel Dual Core 2.0 GHz processor
System RAM	1 GB	2 GB
Video card	PCI Express, DirectX 9.0c compliant with 128 MB RAM (Intel GMA 900 or better, NVIDIA 6600 or better, ATI X1300 or better)	PCI Express, DirectX 10.0 compliant with 256 MB RAM (NVIDIA GeForce 600 series or better)
Network card	100 Mbps	1 Gbps
Hard disk space	500 MB	500 MB

## For More Information

Visit Avigilon at http://www.avigilon.com/ for additional product documentation.

#### Avigilon Training Center

The Avigilon Training Center provides free online training videos that demonstrate how to set up and use the Avigilon Surveillance System. Register online at the Avigilon Partner Portal site to begin: <u>http://avigilon.force.com/login</u>

#### Support

For additional support information, visit http://avigilon.com/#/support-and-downloads/.

Regular Avigilon Customer Support Center hours of operation are from 6:00 a.m. to 6:00 p.m. Pacific Standard Time (PST) and can be reached by calling the toll-free number: +1.888.281.5182.

E-mails can be sent to: <a href="mailto:support@avigilon.com">support@avigilon.com</a>.

For emergency technical support 24 hours a day, 7 days a week, please call the Avigilon Emergency Technical Support Hotline at +1.604.506.3117.

#### <u>Upgrades</u>

Software and firmware upgrades will be made available for download as they become available. Check <u>http://avigilon.com/#/support-and-downloads/</u> for available upgrades.

### <u>Feedback</u>

We value your feedback. Please send any comments on our products and services to <u>feedback@avigilon.com</u>

# **Getting Started**

Once the Avigilon Control Center Client software has been installed, you can start using the Avigilon High Definition Surveillance System immediately. Refer to any of the following procedures to help you get started.

To watch a video overview of the application, see the *Introduction to Avigilon Control Center Client and Viewing Live Video* training video in the Avigilon Training Center.

# Starting and Shutting Down the Avigilon Control Center Client

The Avigilon Control Center Client software can be started or shut down at anytime. The Avigilon Control Center Server software is a Windows service and will continue to run in the background even when the Client software is shut down.

#### Starting the Client Software

Perform one of the following:

- From the Windows Start menu, select All Programs > Avigilon > Avigilon Control Center Client > Avigilon Control Center Client.
- Double-click the Pavigilon Control Center Client shortcut icon on the desktop.
- From the Avigilon Control Center Admin Tool, click Launch Control Center Client. See the *Avigilon Control Center Server User Guide* for more information.

Log in to your server(s) when the Log In dialog box appears. See Logging In for more information.

#### Shutting Down the Client Software

1. In the Avigilon Control Center Client software, select File > Exit.

2. In the confirmation dialog box, click Yes.

## **Discovering Servers**

The Avigilon Control Center Client software must communicate with the Avigilon Control Center Server software to access and configure your surveillance system. If the server is on the same network segment (subnet) as your computer, the server is automatically discovered and appears in the System Explorer on the left side of the application window.

If the server is on a different subnet, the server must be manually discovered. There is no limit to the number of servers that can be discovered by the Client software.

- 1. Open the Find Server dialog box.
  - o In the Log In dialog box, click Find Server....
  - In the application window, select File > Manage Server Connections. In the Manage Servers dialog box, click Find Server...

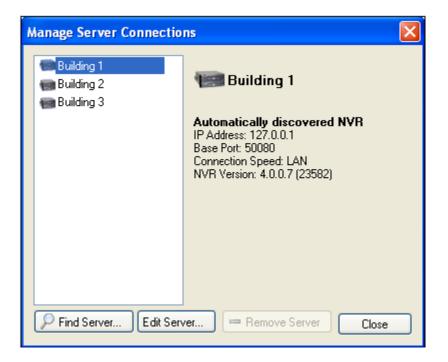


Figure A. Manage Server Connections dialog box

2. In the Find Server dialog box, enter the **Hostname/IP Address**, the **Base Port**, and the **Connection Speed** of the server you want to discover.

Find Server	X
Hostname/IP Address:	192.168.1.12
Base Port:	50080 🗘
Connection Speed:	WAN 🔽
	<u>O</u> K <u>C</u> ancel

Figure B. Find Server dialog box

The base port is 50080 by default. You can change the base port number in the Avigilon Control Center Admin Tool. See the *Avigilon Control Center Server User Guide* for more information.

**Tip:** Set the **Connection Speed** to WAN if you are on a low bandwidth network (for example, internet or wireless network), and select LAN if you are on a high bandwidth connection (for example, office or home network). This enables the Avigilon Control Center to better manage your bandwidth and image rate.

3. Click OK.

If the server is found, the server will appear in the Manage Server Connections dialog box.

If the server is not found, check the following then try again:

- The network settings are configured correctly.
- The firewall is not blocking the application.
- The Avigilon Control Center Server software is running on the server.

## Logging Into and Out of Servers

To access your Avigilon High Definition Surveillance System through the Client software, you must log in to the servers running the Avigilon Control Center Server software. Whenever the Client software detects a server with the Server software installed, you are prompted to log in.

The default administrator access uses *administrator* as the username and no password. To maintain the security of the administrator account, it is recommended that your system administrator immediately create a password for this account after the first login. Your system administrator can then create user accounts for other users.

If the Client software does not detect any servers, click **Find Server...**. See <u>Discovering Servers</u> for more information.

#### Logging In

Be aware that the number of servers you can log into at one time is determined by the type of server you can access. Standard edition servers only allow you to be logged into three servers at the same time, while Enterprise edition servers allow you to be logged into an unlimited number of servers.

Note: You cannot access Standard edition servers and Enterprise edition servers at the same time.

1. Open the Log In dialog box. The Log In dialog box automatically appears when a server is detected by the Client software.

To manually access the Log In dialog box, perform one of the following:

- o From the File menu, select Log In to log in to all available servers
- In the System Explorer, right-click a server and select Log In to log in to the selected server.
- 2. In the Log In dialog box, select a specific server or select **All Servers** from the **Log in to** drop down list.

Log In		
	Log in to:	All Servers 💌
<b>e</b>	User Name:	administrator
avigilon	Password:	
		Use current Windows credentials
🔎 Find Server		Log In Close

Figure A. Log In dialog box

**Tip:** If you accessed the Log In dialog box from a specific server, you will not have the option of logging into All Servers.

If the server you want to log into is not shown, click Find Server... to try to discover the server.

- 3. Enter your **User Name** and **Password**, or select the **Use current Windows credentials** check box if your system administrator has imported your Windows account information into the server.
- 4. Click Log In.

After logging in the first time, you can set up automatic login from the client Setup dialog box. See <u>Changing General Client Settings</u> for more information.

#### Logging Out

You can log out of one or all servers at any time.

То	Do this	
Log out of one server	<ol> <li>Right-click the server in the System Explorer and select Log Out.</li> </ol>	
Log out of all servers	<ol> <li>Select File &gt; Log out.</li> <li>When the Log Out dialog box appears, click Yes.</li> </ol>	

## Navigating the Application

Once you log in, the Avigilon Control Center Client application window is where you setup your surveillance system, monitor video, and view, search, and export recorded video.

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

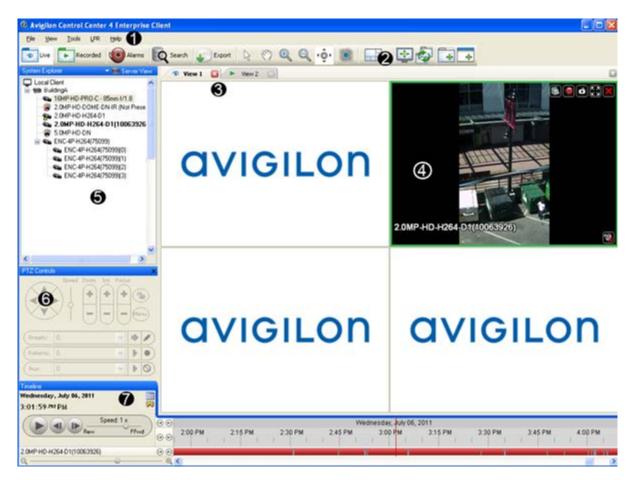


Figure A. Avigilon Control Center Client application window.

	Area	Description
	Workspace	The right pane where the feature tabs appear.
1	Menu bar	A standard Windows application menu that provides access to features not available on the Toolbar.
2	Toolbar	Provides quick access to commonly used tools. If any buttons are missing from your toolbar, click the small down arrow on the right-edge of the toolbar to display the hidden buttons.
3	View	Provides a way to organize image panels. You can have multiple Views open at once. This is the most common tab in the Workspace.
4	Image panel	Displays live or recorded video from a camera.
5	System Explorer	Displays all the servers and cameras in your surveillance system.

		When you right-click any item in the System Explorer, you have the option to <b>Expand All</b> or <b>Collapse All</b> items in the System Explorer.	
6	PTZ Controls	Provides a way to control pan and tilt and zoom (PTZ) cameras.	
7	Timeline	Displays the Timeline for a recorded video, and contains color- coded events. This tool allows you to review video for a specific time frame, and control the video playback.	
		<b>Note:</b> The Timeline only appears for recorded video.	

## Adding and Removing Cameras in a View

To monitor video, add a camera to the View. The camera video can be removed from the View any time.

#### Adding a Camera to a View

Perform one of the following:

- Drag the camera from the System Explorer to an empty image panel in the View.
- Double-click a camera in the System Explorer.
- In the System Explorer, right-click the camera and select Add to View.

The camera is added to the next empty image panel in the View layout.

**Tip:** You can drag the same camera to multiple image panels to watch the video at different zoom levels.

#### Removing a Camera From a View

Perform one of the following:

- Right-click the image panel and select **Close**.
- Inside the image panel, click 
   Close.

## Viewing Live and Recorded Video

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

When you monitor video, you can choose to watch live and recorded video in the same View, or only one type of video per View.

Once you've added the required cameras to the View, perform the following:

- 1. To switch the View between live and recorded video, perform one of the following:
  - Select View > Live or Recorded.
  - On the toolbar, select either Live or Recorded.
- 2. To switch individual image panels between live and recorded video, right-click the image panel and select either **Live** or **Recorded**.

Image panels displaying live video have a blue border, while image panels displaying recorded video have a green border.

# Setup

The default settings in the Avigilon Control Center Client software allow you to start working with the application immediately after installation.

If you have special requirements, refer to the following sections to configure your settings:

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

## Managing Server Connections

When you start the application, you automatically have access to all the servers connected to your network. If you need to access a server that is on a different network segment, you need to manually discover the server.

Once you are connected to a server, you can also change how you connect to the server.

#### **Discovering Servers**

The Avigilon Control Center Client software must communicate with the Avigilon Control Center Server software to access and configure your surveillance system. If the server is on the same network segment (subnet) as your computer, the server is automatically discovered and appears in the System Explorer on the left side of the application window.

If the server is on a different subnet, the server must be manually discovered. There is no limit to the number of servers that can be discovered by the Client software.

- 1. Open the Find Server dialog box.
  - o In the Log In dialog box, click Find Server....
  - In the application window, select File > Manage Server Connections. In the Manage Servers dialog box, click Find Server...

Manage Server Connections		
Building 1 Building 2 Building 3	<b>Automatically discovered NVR</b> IP Address: 127.0.0.1 Base Port: 50080 Connection Speed: LAN NVR Version: 4.0.0.7 (23582)	
Pind Server Edit Serv	ver Remove Server Close	

Figure A. Manage Server Connections dialog box

2. In the Find Server dialog box, enter the **Hostname/IP Address**, the **Base Port**, and the **Connection Speed** of the server you want to discover.

Find Server	
Hostname/IP Address:	192.168.1.12
Base Port:	50080
Connection Speed:	WAN 🔽
	<u>OK</u> <u>C</u> ancel

Figure B. Find Server dialog box

The base port is 50080 by default. You can change the base port number in the Avigilon Control Center Admin Tool. See the *Avigilon Control Center Server User Guide* for more information.

**Tip:** Set the **Connection Speed** to WAN if you are on a low bandwidth network (for example, internet or wireless network), and select LAN if you are on a high bandwidth connection (for example, office or home network). This enables the Avigilon Control Center to better manage your bandwidth and image rate.

3. Click OK.

If the server is found, the server will appear in the Manage Server Connections dialog box.

If the server is not found, check the following then try again:

- The network settings are configured correctly.
- The firewall is not blocking the application.
- The Avigilon Control Center Server software is running on the server.

#### Editing and Deleting a Server Connection

Use the Manage Server Connections dialog box to edit and delete your server connections.

1. Select File > Manage Server Connections.

Manage Server Connectio	ns 🔀
Euilding 1 Building 2 Building 3	Even Building 1 Automatically discovered NVR IP Address: 127.0.0.1 Base Port: 50080 Connection Speed: LAN NVR Version: 4.0.0.7 (23582)
Find Server Edit Serv	ver Remove Server Close

Figure A. Manage Server Connections dialog box

2. Select a server on the Server list then perform one of the following:

**Note:** You cannot remove or edit the IP address and base port of servers that were automatically discovered.

- To edit the server connection, click Edit. Update the server IP Address, Base Port and Connection Speed as required then click OK. Refer to <u>Discovering Servers</u> for details about the editable options.
- o To delete the server connection, click Remove Server.

#### Managing User Connections to a Server

Standard edition servers only allow 5 users to be logged in at the same time. If you are the sixth user to log in to the server, you will receive an error message.

However, if you are an administrator, or have *Manage user session* user permissions, you have the option to override another user's login status and replace the user.

1. Log in to the server. See Logging Into and Out of Servers for more information.

The following dialog box is displayed.

User Name       Log In Time         administrator       RRAMSAY-2       6/10/2011 10:08:28 AM         administrator       E0IKAWA-1       6/10/2011 10:09:13 AM         administrator       CHIGGS-1       6/10/2011 10:09:31 AM	o that
administrator         RRAMSAY-2         6/10/2011 10:08:28 At administrator           EOIKAWA-1         6/10/2011 10:09:13 At	
administrator EOIKAWA-1 6/10/2011 10:09:13 AM	
administrator AMANSELL-1 6/10/2011 10:09:33 AM administrator MBOWEN-1 6/10/2011 10:11:31 AM	M M M
ОК Са	ancel

Figure A. Log In dialog box

- 2. Select the user you want to replace.
- 3. Click **OK**. You will now be logged in to the server.

The user you replaced will see the following message:

Avigilor	Control Center
♪	You have been logged out of 'Building 1' by 'administrator'
	ОК

Figure B. Logged out message

## Connect/Disconnect Cameras

You can connect and disconnect cameras to servers using the Connect/Disconnect Cameras dialog box.

A camera's connection status is indicated by the icon beside the camera name in the System Explorer.

lcon	Definition
Camera Connected	The camera is connected to the server.
Camera Upgrading	The camera is connected to the server and is currently upgrading its firmware.
🗱 Camera Connection Error	The camera cannot connect to a server. This may be because the camera is no longer on the network or there is a network conflict
amera Disconnected	The camera is disconnected but there is recorded video from the camera still on the server.
No icon	The camera is disconnected and there is no recorded video left on the server.

#### Discovering a Camera

When cameras are connected to the network, they should be automatically discovered by the Avigilon Control Center Client software.

If a camera is not automatically discovered, you can try to manually discover the camera on the network.

• From the Tools menu, select Connect/Disconnect Cameras.

In the Connect/Disconnect Cameras window, all Avigilon and ONVIF cameras connected to the same network segment (subnet) as the Avigilon Control Center Server are automatically detected and appear in the Discovered Cameras list.

If the camera you want to connect to is on a different subnet, or is manufactured by a third party, perform the following:

- 1. At the top of the Connect/Disconnect Cameras dialog box, click Find Camera....
- 2. In the Find Camera dialog box, complete the following fields:

④ Find Camera		④ Find Camera	
Search From Server:	Building 1 💌	Search From Server:	Building 1 💌
Search Type:	IP Address 💌	Search Type:	IP Address Range 🛛 🗸
Camera Type:	Avigilon 🔽	Camera Type:	Avigilon 🔽
IP Address/Hostname:		Start IP Address:	
Control Port:	55080 🗢	End IP Address:	
User Name:		Control Port:	55080
Password:		User Name:	
6	<u>O</u> K <u>C</u> ancel	Password:	
			OK Cancel



Figure B. Find Camera dialog box: IP Address Range

- o Search From Server: select the server that you want the camera to connect to.
- Search Type: select a search type.
- Camera Type: select the camera's brand name.

Tip: Select ONVIF to discover cameras that are ONVIF complaint.

- IP Address/Hostname: (For IP Address search only) enter the camera's IP address or hostname. The camera and server's gateway IP address must be set correctly for the camera to be found.
- Start IP Address and End IP Address: (For IP Address Range search only) enter the start and end IP addresses. Only addresses in that range will be searched for the selected camera type.
- Control Port: enter the camera control port number.
- o Provide the User Name and Password for the camera if required.
- 3. Click OK.

If the camera is discovered, it will appear in the Discovered Cameras list. You can now connect the camera to a server.

#### Connecting a Camera to a Server

Once the camera has been discovered on the network, it can be connected to the server.

1. From the **Tools** menu, select **Connect/Disconnect Cameras**. The Connect/Disconnect Cameras dialog box appears.

P Find Camera Show A	All Servers 🔻								
Discovered Cameras									
Name	ð.	IP Address 169-254-177-5	Brand	Model 5.0MP-HD-DN	MAC Address 00:18:85:00:15:8A				
0MP-HD-DN(5514)		107-607-677-0	Aviation	oursenerory	00:10:00:10:00				
Connected Cameras	IP Address	Туре	Model	MAC Address	Status				
Avigilon Demo NVR	IP MODIESS	type	Piodes	INHIG HOULDSS	3,6(0)				
11MP-HD-PRO-C(2081)	169.254.246.250	Avigilon	11MP-HD-PRO-C	00:18:85:00:08:21	Connected				
11MP-HD-PRO-C(8296)	169.254.6.175	Aviglion	11MP-HD-PRO-C	00:18:85:00:20:68	Connected				
16MP-HD-PRO-C(11453)	169.254.132.133	Aviglion	16MP-HD-PRO-C	00:18:85:00:2C:8D	Connected				
3.0MP-HD-DN(3369)	169.254.101.112	Avigion	3.0MP-HD-DN	00:18:85:00:0D:29	Connected				
ENC-4PORT-2AI(10421)	169.254.63.253	Avigilon	ENC-4PORT-2AI	00:18:85:00:28:85	Connected				
S.0MP-HD-DN( Avigion 5.0MP-HD-DN	5514) v	IF	rmware Version: 4.2.0.0 P Address: 169.254.177 IAC Address: 00:18:85:0	5					
Camera is Disconnect This camera is not conne recorded.		re not being	💠 Connect						

Figure A. Connect/Disconnect Cameras dialog box

- 2. In the Discovered Cameras area, select a camera then click **Connect...**.
- 3. In the Connect Camera dialog box, select the server you want the camera to connect to.

🙆 Connect Camera 🛛 🚺						
Connect to:	Avigilon Demo NVR	~				
Connection Type:	Primary	*				
License Priority:	1	~				
C	<u>O</u> K <u>C</u> ancel					

Figure B. Connect Camera dialog box

4. Click OK.

5. If the camera is password protected, the Camera Authentication dialog box appears. Enter the camera's username and password, then click **OK**.

#### Editing the Camera Connection to the Server

- 1. From the **Tools** menu, select **Connect/Disconnect Cameras**.
- 2. In the Connect/Disconnect Cameras dialog box, select the camera connection you want to edit from the Connected Cameras list.
- 3. Click Edit. Refer to Connecting a Camera to a Server for details about the editable options.
- 4. Click OK.

#### Disconnecting a Camera from a Server

- 1. From the Tools menu, select Connect/Disconnect Cameras.
- 2. In the Connect/Disconnect Cameras dialog box, select the camera you want to disconnect from the Connected Cameras list then perform one of the following:
  - o Click Disconnect.
    - The camera is disconnected from the server and moved to the Discovered Cameras list.
  - o Drag the camera into the Discovered Cameras list.

#### Upgrading Camera Firmware

Camera firmware updates are typically included with the Avigilon Control Center Server update packages. Camera firmware updates are automatically downloaded and installed to the camera.

When the camera firmware is being upgraded, video from that camera cannot be displayed and the System Explorer will display the following symbol beside the camera.

System Explorer	🕶 🌆 Server View 🛛
📮 Local Client	
💼 🦛 Avigilon Demo NVR	
🚊 🦛 Building 1	
🗠 👡 5.0MP-HD-C(2010)	
2.0MP-HD-H264-	B1

Figure A. System Explorer: camera firmware upgrade

When the firmware upgrade is complete, the System Explorer will display the **Camera Connected** icon again, and video from the camera will display.

## Server Setup

The server Setup dialog box is responsible for all the Avigilon Control Center features that are configured and stored on the server.

Refer to any of the following sections to access and configure the server setup.

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

#### Accessing the Server Setup

Perform one of the following steps to open the server Setup dialog box:

- Select **Tools > Setup...** then select the server you want to setup from the left pane.
- In the System Explorer pane, right-click the server and select **Setup**.

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.



Figure A. Server Setup dialog box

#### General

Use the General dialog box to change the name the server displays in the System Explorer.

#### Changing the Server's Name

The default name for the server may not be useful for your purposes. Use the General dialog box to change the server's name to something more meaningful to your surveillance system.

- Right-click a server in the System Explorer then select Setup to open the server Setup dialog box.
   See Accessing the Server Setup for more information.
- 2. Click General.
- 3. In the General dialog box, enter a new server name.

🕘 General - B	uilding 1	×
Server Name:	Building 1	
<u> </u>	Cancel Apply	

Figure A. General dialog box

4. Click **OK**.

#### Recording Schedule

Use the Recording Schedule dialog box to set the recording schedule for the cameras connected to the server. By default, the Avigilon Control Center is set to record motion and configured events when they occur.

Once the recording schedule is set, camera recordings are made automatically.

#### Using Templates to Modify the Recording Schedule

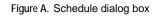
The recording schedule is set by using templates that tell cameras what to record and when to record. For example, you can create one recording schedule template for the weekdays and another for the weekend.

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

#### Adding a Template

- Right-click a server in the System Explorer then select Setup to open the server Setup dialog box.
   See Accessing the Server Setup for more information.
- 2. Click Recording Schedule.
- 3. In the Recording Schedule dialog box, click Add Template in the Templates pane.

Weekday1	Record Mode:								We	ekda	y1						~	Set Ar	rea	×	Clear A	irea
Weekends New Template	🗰 Continuous																					
Default	Motion																					
	Digital Inputs																					
	(1) Alarms																					
	POS Transactions																					
Template	License Plates																					
ete Template		12 AM	AM 2 A	3 AI	M 4 AI	5 AM	6 AM	7 AM	AM 9	AM	11. AM	AM 12 F	1 Pf	1 2 Ph	3 PM	4 PM	PM	7 I	PM 8 P	9 PN	1 10 PM	1 PM



- 4. Enter a name for the template.
- 5. Click the **Set Area** button then click or drag the cursor across the **Record Mode** timeline to set the types of events that the cameras will record throughout the day.

Record Mode Definition						
Continuous	Record video constantly.					
Motion	Only record video when motion is detected.					

- 6. To disable recording in parts of the template, click the **Clear Area** button then click or drag the cursor across the timeline to remove the set recording areas.
- If cameras are not recording in Continuous mode all day, you can set cameras to record reference images between events in the recording schedule. Select the **Record a reference** image every: check box then set the time between each reference image.

#### **Editing and Deleting a Template**

- Right-click a server in the System Explorer then select Setup to open the server Setup dialog box.
   See Accessing the Server Setup for more information.
- 2. Click Schedule.
- 3. In the Schedule dialog box, select a template from the Templates pane and perform one of the following:
  - To edit a template, modify the schedule.
  - o To rename a template, click **Rename Template** and enter a new name.
  - o To delete a template, click **Delete Template**.
- 4. Click OK.

#### Setting Up a Weekly Recording Schedule

You can set up a week's recording schedule by applying templates to cameras for each day of the week.

- Right-click a server in the System Explorer then select **Setup** to open the server Setup dialog box.
   See <u>Accessing the Server Setup</u> for more information.
- 2. Click Recording Schedule.
- 3. In the Recording Schedule dialog box, select a template from the Templates pane.
- 4. In the Default Week area, select the cameras and days of the week this template applies to.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5.0MP-HD-C(2920)	Weekends	Weekday1	Default	Default	Default	Default	Default
5.0MP-HD-DN(5343)	Weekends	Weekday1	Default	Default	Default	Default	Default
5.0MP-HD-DOME-DN-IR	Weekends	Weekday1	Default	Default	Default	Default	Default
5.0MP-HD-DOME-DN-IR(6345)	Weekends	Weekday1	Default	Default	Default	Default	Default

Figure A. Recording Schedule dialog box: Default Week

5. Click OK.

#### Recording and Bandwidth

While the Schedule dialog box sets what cameras record, the Recording and Bandwidth dialog box sets how long camera recordings are kept.

You can use the Recording and Bandwidth dialog box to change the data aging settings and maximum recording times for each camera that is connected to the server.

**Changing Recording Settings** 

- Right-click a server in the System Explorer then select Setup to open the server Setup dialog box.
   See <u>Accessing the Server Setup</u> for more information.
- 2. Click **Recording and Bandwidth**. The Recording and Bandwidth dialog box appears.

		1 Total	l record tin	ne estima	ate is based	d on constant recording					
Full Image	Rate and Reso	lution	Ha	If Image	Rate	Quarter Image Ra	te		Low Resol	ution	
2.0W-H3PTZ-DP20(10092489)	0d 16h			0	Od 7h	1 days, 0 hours	Max	•	days	6.3 Mbps	
2.0W-H3PTZ-DP20(10092033)	0d 16h			0	0d 7h	1 days, 0 hours	Max	•	days	2.8 Mbps	
2.0MP-HD-H264-B2(101350)	1d Oh				_	1 days, 0 hours	Max	•	days	2.3 Mbps	
2.0MP-HD-H264-B2(101332)	0d 7h	0	0d 16h	0	Od 7h	1 days, 0 hours	Max	•	days	8.2 Mbps	
2.0MP-HD-H264-B2(101307)	1d Oh	_	_	_	_	1 days, 0 ho <mark>urs</mark>	Max	٠	days	6.2 Mbps	
📾 2.0-H3-D1(140335)	Od 16h			0	Od 7h	1 days, 0 hours	Max	٠	days	3.9 Mbps	
📨 2.0-H3-B1(14942340)	0d 16h			0	0d 7h	1 days, 0 hours	Max	•	days	2.5 Mbps	
폐 1.0-H3-D1(140339)	0d 16h			0	0d 7h	1 days, 0 hours	Max	•	days	0.6 Mbps	
📾 1.0+H3-B1(14942361)	0d 7h	0	0d 16h	0	0d 7h	1 days, 0 hours	Max	•	days	9.1 Mbps	
Camera		Da	ta Aging			Total Record Time	Max. F	leco	rd Time	Bandwidth	

Figure A. Recording and Bandwidth dialog box

The Data Aging column shows an estimate of the recording time that is available at each image rate given the amount of space on the server.

- For JPEG2000 or JPEG compression cameras, data aging is available at three rates.
   Full Image Rate and Resolution keeps recordings in its original quality, while Half
   Image Rate discards half of the recorded data to make room for new recordings, and
   Quarter Image Rate keeps 1/4 of the original recorded data so that you can still see older video.
- For H.264 cameras that support data aging, data aging is available at two rates. Full Image Rate and Resolution keeps the original high quality video and the secondary stream of low resolution video. Low Resolution only keeps the secondary stream of low resolution video.

**Note:** Data aging can only occur when the secondary stream is enabled.

- For H.264 cameras that *do not* support data aging, only the **Full Image Rate and Resolution** video is kept.
- 3. In the Data Aging column, move the sliders to adjust the amount of time video is stored at each image rate.
  - To change the data aging settings for all linked cameras, move the slider for one linked camera and all linked cameras are updated.
  - To change the data aging setting for one camera, break the camera's link to the other cameras by clicking the **Link** icon to the left of the camera's name, then make your changes.

4. In the Max. Record Time column, manually enter a maximum record time or select one of the options from the drop down list for each camera.

**Note:** If the time estimated in the Total Record Time column is shorter than what is set in the Max. Record Time column, the camera's actual recording time may be shorter than what is set.

5. Click OK.

#### Users and Groups

When users are added to the Avigilon Control Center, they are assigned to an access group that defines their permissions on the server. Use the Users and Groups dialog box to create and manage users and groups.

#### Adding a User

- Right-click a server in the System Explorer then select Setup to open the server Setup dialog box.
   See Accessing the Server Setup for more information.
- 2. Click Users and Groups.
- 3. In the User and Groups dialog box, click Add User.

sers Groups Active	Directory		
User Name	First Name	Last Name	^
administrator e.bennet	Elizabeth	Bennet	
John Smith	John	Smith	
jSmithe Mr.Darcy OX\User1 OX\User2	Jane Fitzgerald	Smithe Darcy	
Add User Delet	e User Edit User		<u> </u>

Figure A. User and Groups dialog box

4. When the Add User dialog box appears, complete the User Information area.

Add User	
General Member Of	
User Information	
User Name: User1	
First Name: John	
Last Name: Smith	
Email Address: jsmith@avigilon.com	
Disable user	
Login Timeout Enable login timeout Idle Time: 1 🔷 hour 0 📚 min	
Password	
Password:	
Confirm Password:	
Password never expires Password Expiry (Days): 90	
	ancel

Figure B. Add User dialog box, General tab

- 5. If you don't want this user to be active yet, select the **Disable user** check box. Disabled users are in the system but cannot access the server.
- 6. In the Login Timeout area, select the **Enable login timeout** check box to limit the amount of time the user can be logged in while the application is idle.
- 7. In the Password area, complete the following fields:
  - **Password:** enter a password for the user.
  - **Confirm Password:** re-enter the password.
  - **Require password change on next login:** select this check box if the user must replace the password after the first login.

- Password Expiry (Days): specify the number of days before the password must be changed.
- Password never expires: select this check box if the password never needs to be changed.
- Select the Member Of tab and select the check box beside each access group the user belongs to.

Add User General Member Of Groups User Privileges: Camera Access Rights: 5.0MP-HD-DN(3209) Administrators ■ View five images Power Users Use PTZ conitols E C ENC-4PORT-24I(6708) Standard Users Lock PTZ controls TENC-4PORT-2AI(6708.1) Restricted Users Trigger manual recording. Training Trigger digital outputs Listen to microphones Broadcast to speakers S View recorded images Export images Sackup images Manage user sessions Connect and disconnect cameras Setup cameras Setup general settings Setup network settings Setup image and display setting Setup compression and image r Setup image dimension settings Setup motion detection settings Setup privacy zone settings Setup manual recording setting: Setup digital input & output setti Setup microphone settings Setup speaker settings Setup servets Setun meneral sett > < 0K Cancel

The other two columns display the permissions linked to the selected group.

Figure C. Add User dialog box, Member Of tab

9. Click **OK**. The user is added to the server.

#### Editing and Deleting a User

You can edit and delete users as needed.

**Note:** If a user has access to more than one server, the changes to the user need to be made on each server.

- Right-click a server in the System Explorer then select Setup to open the server Setup dialog box.
   See <u>Accessing the Server Setup</u> for more information.
- 2. Click Users and Groups.
- 3. In the Users and Groups dialog box, select a user then perform one of the following:
  - To edit the user's information, click **Edit User**. Refer to <u>Adding a User</u> or details about the editable options.
  - To delete the user, click **Delete User**.

**Note:** Users imported through the Active Directory tab cannot be deleted, only disabled.

#### Adding Groups

Groups define what features users have access to. Create new groups to tailor what users can access.

- Right-click a server in the System Explorer then select Setup to open the server Setup dialog box.
   See Accessing the Server Setup for more information.
- 2. Click Users and Groups.
- 3. In the Users and Groups dialog box, select the Groups tab and click Add Group.

🖲 Users and Groups - Building A 🛛 🔹 🚺
Users Groups Active Directory
Group Name
Administrators Power Users Standard Users Restricted Users OX\Users
0/103613
Add Group Delete Group Edit Group
Close

Figure A. User and Groups dialog box

4. In the Add Group dialog box, select a group to use as a template for your new group and click **OK**.

4 Add Group	×
Copy permissions from group:	
Administrators	*
<u> </u>	

Figure B. Add Group dialog box

5. In the Edit Group dialog box, give the new group a name then select the permissions and camera access rights for the group.

Clear the check box of any feature or camera you do not want the group to access.

Edit Group	
Group Members          Name:       New Group         Group Privileges:       ✓         ✓       View live images         ✓       Use PTZ controls         ✓       Lock PTZ controls         ✓       Trigger manual recording         ✓       Trigger digital outputs         ✓       Trigger digital outputs         ✓       Listen to microphones         ✓       Broadcast to speakers         ✓       View recorded images         ✓       Export images         ✓       Backup images         ✓       Setup cameras         ✓       Setup general settings         ✓       Setup network settings         ✓       Setup compression and image rate         ✓       Setup compression and image rate	Camera Access Rights: 16MP-HD-PRO-C - 85mm f/1.8 2.0MP-HD-H264-D1 5.0MP-HD-DN ENC-4PORT ENC-4PORT ENC-4PORT
	<u> </u>

Figure C. Edit Group dialog box: Group tab

6. Select the Members tab to add users to the group.

D Edit Group			X
Group Members			
User Name	First Name	Last Name	
administrator			
Add User Remov	re User		
		<u> </u>	Apply

Figure D. Edit Group dialog box: Members tab

- a. Click Add User....
- b. Select the users that should be part of this new group.

Avigilon Control Center Client	×
Users to Add:	
<ul> <li>Users</li> <li>administrator</li> <li>e.bennet</li> <li>jBingley</li> <li>John Smith</li> <li>jSmithe</li> <li>Mr.Darcy</li> </ul>	
<u> </u>	

Figure E. Add users to groups dialog box

c. Click OK. The users are added to the Members list.

If a user is added to the group through the Add User or Edit User dialog box, the user is automatically added to the group's Members list.

7. Click **OK** to save the new group.

#### Editing and Deleting a Group

You can change the access permissions for a set of users by editing their access group.

**Note:** Active Directory groups can only be deleted from the Active Directory tab.

1. Right-click a server in the System Explorer then select **Setup** to open the server Setup dialog box.

See <u>Accessing the Server Setup</u> for more information.

- 2. Click Users and Groups and select the Groups tab.
- 3. Select a group and perform one of the following:
  - To edit the group, click Edit Group. Refer to <u>Adding Groups</u> for details about the editable options.
  - To delete the group, click **Delete Group**.

**Note:** Default groups cannot be deleted.

#### **Email Notification**

Use the Email Notification dialog box to prepare the server for sending email messages in response to specific events. You can set what events require email notification and who receives the emails.

#### Setting Up the Email Server

Before emails can be sent, the server must be set up to send emails.

- Right-click a server in the System Explorer then select Setup to open the server Setup dialog box.
   See Accessing the Server Setup for more information.
- 2. Click Email Notification.
- 3. In the Email Notification dialog box, select the Email Server tab.

Email Server Settings					
Sender Name:	Building 1				
Sender Email Address:	noreply@avigilon.com				
Subject Line:	Avigilon Control Center Syste				
SMTP Server:	sntp.net				
Port: 25					
Timeout (seconds): 30					
Security and Authentication: Use secure connection (TLS/SSL) Server requires authentication Username: Password:					

Figure A. Email Notifications dialog box: Email Server tab

- 4. In the Email Server Settings area, complete the following
  - a. Sender Name: enter a name for the server sending out the email.
  - b. Sender Email Address: enter an email address the server can use to send emails.
  - c. Subject Line: enter a default subject line for all emails sent from this server.
  - d. SMTP Server: enter the SMTP server address used by the email.
  - e. Port: enter the SMTP port.

- f. **Timeout (seconds):** enter the maximum number of seconds the server will try to send an email before it quits.
- 5. (Optional) If the email server uses encryption, you can select the **Use secure connection** (TLS/SSL) check box.
- 6. (Optional) If the email account has a username and password, select the **Server requires authentication** check box.
  - a. Enter the **Username** and **Password** for the email account.
- 7. Click OK.

#### Configuring Email Notification

In the Email Notification dialog box, you can create email notification groups to specify who will receive email notifications when an event occurs.

- Right-click a server in the System Explorer then select Setup to open the server Setup dialog box.
   See Accessing the Server Setup for more information.
- 2. Click Email Notification.
- 3. In the Email Notification dialog box, ensure the Email Notification tab is selected.
- 4. Click Add.

0	Email Notificat	tions - Buildin	g A		×
٢	Email Notifications	Email Server			
	Email Gro	ups;	Email Group Name:	New Email Group	
	New Email Group		Email Recipients:		
			Service Administrators Service User@avigilon.co	m	
			Add Email	add User/Group 💷 Remove	
			💠 Send Test Emai		
			Email Trigger:		51
			System event		
			Motion detected	on <u>any camera</u>	
			Digital input activ	ated on <u>any digital input</u>	
			POS transaction	exception on any transaction source	
			Email Settings:		51
			Attach images fro	om camera(s) linked to the event	
			Email Schedule:		ור
			Always		
	Add	ł	Send email at most e	every: 10 🗢 min	
	- Remo	ove			
				<u>QK</u> <u>C</u> ancel <u>A</u> p	ply

Figure A. Email Notifications dialog box

- 5. Enter a name for the new email group.
- 6. In the Email Recipients area, add all the users, groups and emails that are part of this email group. Perform any of the following:
  - Click Add User/Group to add an Avigilon Control Center user or access group. In the dialog box, select all the required users and groups then click OK.
  - Click **Add Email** to add individual emails. In the dialog box, enter the email address then click **OK**.

**Tip:** Make sure the Avigilon users and groups added to the Email Recipient list have a valid email in their user account.

- 7. Click Send Test Email to send a test email to everyone on the Email Recipients list.
- 8. In the Email Trigger area, select all the events that this email group will be notified of. Click the blue text to define the event requirements.

9. To attach a snapshot of the email notification event, select the **Attach images from camera(s) linked to the event** check box.

**Note:** This option is disabled if only System Events is selected because cameras cannot be linked to System Events.

- 10. In the Email Schedule area, select a schedule for the email notification. See <u>Scheduling Server</u> <u>Events</u> for more information.
- 11. To limit the number of emails sent, enter the amount of time between each email in the **Send** email at most every: field.
- 12. Click **OK**.

Editing and Deleting an Email Notification

You can edit the details of an email notification or delete the email notification when it is no longer needed.

 Right-click a server in the System Explorer then select Setup to open the server Setup dialog box.
 See Accessing the Server Setup for more information.

See <u>Accessing the Server Setup</u> for more information.

- 2. Click Email Notification.
- 3. In the Email Notification dialog box, ensure the Email Notification tab is selected then perform one of the following:
  - To edit the email notification, select the Email Group and make the required changes. Refer to <u>Configuring Email Notification</u> for details about the editable options.
  - To delete the email notification, select the Email Group and click Remove.

## System Log

The system log records events that occur in the Avigilon Control Center. This can be useful for tracking system usage and diagnosing issues.

You can filter the items displayed in the log and save the log to a separate file for sending to Avigilon support.

Note: The system log maintains a record of system events for up to 90 days.

#### Viewing the System Log

 Right-click a server in the System Explorer then select Setup to open the server Setup dialog box.
 See Accessing the Server Setup for more information.

#### 2. Click System Log.

3. In the System Log dialog box, select the log events you want to display in the Event Types to Show area, then click **Start Search**.

The search results are displayed in the left pane.

Time 🕆	Туре	Message		Events Types to Show:
10/28/2009 12:20:57 PM	Device	Camera 'Door I' connected.	^	Every Types     Every Server
0/28/2009 12:05:29 PM	Storage	Backup finished successfully.		
10/28/2009 12:05:01 PM	Storage	A backup has started.		E V User
10/28/2009 11:51:59 AM	Storage	Backup finished successfully.		
10/28/2009 11:51:21 AM	Storage	A backup has started.		
10/28/2009 11:47:08 AM	Storage	Backup finished successfully.		
10/28/2009 11:46:33 AM	Storage	A backup has started.		
10/28/2009 10:21:59 AM	Device	Camera '8.0MP-HD-DOME-360(7560)' connected.		
10/28/2009 9:38:38 AM	Device	Successfully upgraded firmware on camera '3.0MP-HD-C'.		
10/28/2009 9:38:37 AM	Device	Communication to '3.0MP-HD-C' has been restored.		
10/28/2009 9:38:34 AM	Device	Successfully upgraded firmware on camera '2.0MP-HD-C'.		
10/28/2009 9:38:33 AM	Device	Communication to '2.0MP-HD-C' has been restored.		
10/28/2009 9:37:24 AM	Device	Successfully upgraded firmware on camera '1.0MP-HD-C(24		
10/28/2009 9:37:23 AM	Device	Communication to '1.0MP-HD-C(2448)' has been restored.		
10/28/2009 9:37:18 AM	Device	Successfully upgraded firmware on camera '5.0MP-HD-C'.		
10/28/2009 9:37:17 AM	Device	Communication to '5.0MP-HD-C' has been restored.		28 results found
10/28/2009 9:37:11 AM	Device	Successfully upgraded firmware on camera '16MP-HD-PRO-C'.		
10/28/2009 9:37:10 AM	Device	Communication to '16MP-HD-PRO-C' has been restored.		
10/28/2009 9:36:18 AM	Device	Successfully upgraded firmware on camera 'ENC-4PORT(22		Save events to file
10/28/2009 9:36:15 AM	Device	Communication to 'ENC-4PORT(2219)' has been restored.		
10/28/2009 9:32:06 AM	Device	Upgrading firmware on camera 'ENC-4PORT(2219)'.		
10/28/2009 9:32:03 AM	Device	Upgrading firmware on camera '1.0MP-HD-C(2448)'.		
10/28/2009 9:32:03 AM	Device	Upgrading firmware on camera 'S.0MP-HD-C'.		
10/28/2009 9:32:03 AM	Device	Upgrading firmware on camera '3.0MP-HD-C'.		
10/28/2009 9:32:02 AM	Device	Upgrading firmware on camera '16MP-HD-PRO-C'.		
10/28/2009 9:32:02 AM	Device	Upgrading firmware on camera '2.0MP-HD-C'.		
10/28/2009 9:31:57 AM	System	Network connection was detected with IP address 192.168		
10/28/2009 9:31:57 AM	System	The LPR plugin may not have been installed properly or the		
10/28/2009 9:31:54 AM	Application	The server application is starting up	~	

Figure A. System Log dialog box

- 4. Select a result to display the event details on the right.
- 5. To save the log search results, click **Save events to file...** and save the file.
- 6. Click Close.

#### Scheduling Server Events

Server events are actions triggered within the Avigilon Control Center Server that are not related to video recording, like email notifications. When you configure a server event, you are given the option to assign a schedule for the event. Schedules control when events are enabled — at specific times during a day or only on specific days.

When you arrive at the scheduling page while configuring an event, you have the option to select an existing schedule or create a new schedule.

Schedule: Always

Figure A. Schedule option

- 1. To use a configured schedule, select an option from the drop down list. The default option is **Always**, which allows the event to run constantly.
- 2. To create or edit a schedule, click 🥒 .

Schedules:				
Always	Name:	New Schedule		
Fridays	Start	10:35 AM		
New Schedule	End	03:35 PM		
	Start Date:			
	<ul> <li>Daily</li> <li>Week</li> <li>Month</li> <li>Yearly</li> </ul>	ly Sunday Monv ly Thursday Frida	ALC: CONTRACT CONTRACT	✓ Wednesday
Add Delete				QK Cancel

Figure B. Edit Schedules dialog box.

- a. To add a new schedule, click Add then enter a name for the new schedule.
- b. To edit a schedule, select a schedule from the list and make the required changes.
- c. In the **Start** and **End** fields, enter the time the event is enabled for.
- d. In the **Start Date** field, enter when the schedule would begin.
- e. In the Recurrence Pattern area, select how often you want the event to be enabled.

1.

1.

Option	Description
Daily	<ul><li>The event would be enabled every day at the same time.</li><li>Select the number of days between each schedule recurrence.</li></ul>
Weekly	<ul> <li>The event would be enabled every week at the same day(s) and time.</li> <li>Select the day(s) of the week, then select the number of weeks between each schedule recurrence.</li> </ul>
Monthly	The event would be enabled once a month at the same day and time.

	Select the specific day or weekday, then select the number of months between each schedule recurrence.
Yearly	<ul> <li>The event would be enabled once a year at the same day and time.</li> <li>Select the specific day or weekday and month, then select the number of years between each schedule recurrence.</li> </ul>

2.

1. 2. Click **OK**.

# Camera Setup

The camera Setup dialog box is responsible for all the features that control cameras and the devices that can be connected to cameras.

Refer to any of the following sections to access and configure the camera setup.

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

**Note:** The dialog box may appear different depending on the camera. Some options are disabled or hidden if they are not supported by the camera.

## Accessing the Camera Setup

Perform one of the following steps to open the camera Setup dialog box:

- Select **Tools > Setup...** then select the camera you want to setup from the left pane.
- In the System Explorer pane, right-click the camera and select **Setup**.

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

**Note:** The dialog box may appear different depending on the camera. Some options are disabled or hidden if they are not supported by the camera.

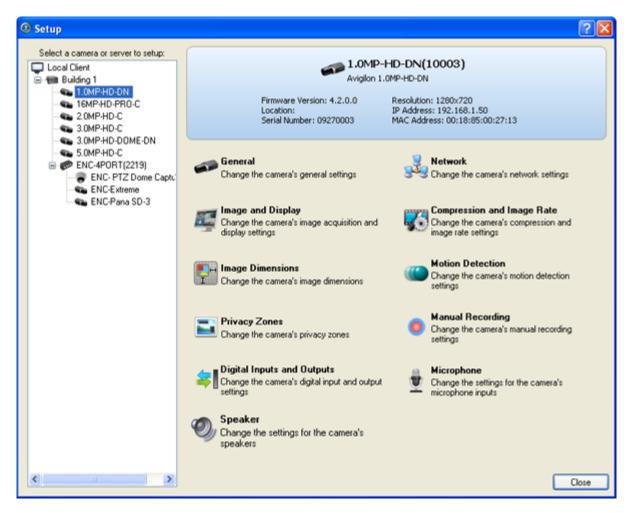


Figure A. Camera Setup dialog box

#### <u>General</u>

Use the camera General dialog box to set the camera's identity and configure the camera's PTZ settings. You can also reboot the camera through the General dialog box.

#### Setting the Camera's Identity

In the camera General dialog box, you can give the camera a name, describe the camera's location, and give the camera a logical ID. The logical ID is needed to use the select camera keyboard command.

**Note:** The dialog box may appear different depending on the camera. Some options are disabled or hidden if they are not supported by the camera.

1. Right-click the camera in the System Explorer then select **Setup** to open the camera Setup dialog box.

See Accessing the Camera Setup for more information.

2. Click **General**. The General dialog box is displayed.

🕑 G	eneral - 1.0M	AP-HD-	DN	×
	Camera Name:	1.0MP	HD-DN	
Ca	mera Location:	Building	gA	
	Logical ID:			
		📃 Disa	able camera status LEDs	
Í	PTZ		Enable PTZ	
	Pr	otocol:	Pelco D	~
	Dip Switch A		1	\$
		d Rate:	2400	~
		Parity:	None	~
ļ				
Reboot Camera				
		<u>0</u> K	<u>Cancel</u>	,

Figure A. General dialog box

- 3. In the **Camera Name** field, give the camera a meaningful name to help you identify the camera. By default, the camera model number is used as the camera's name.
- 4. In the Camera Location field, describe the camera's location.
- 5. In the **Logical ID** field, enter a unique number to allow applications and integrations to identify this camera.
- 6. To disable the LEDs on the camera, select the **Disable camera status LEDs**. This may be required if the camera is installed in a covert location.
- If the camera has a motorized zoom and focus lens, the Enable PTZ Controls check box is displayed. When selected, users can control the camera's zoom and focus through the PTZ Controls pane. See <u>Controlling PTZ Cameras</u> for more information.
- 8. Click OK.

#### Configuring PTZ

Use the camera General dialog box to enable and configure the pan, tilt, zoom (PTZ) features for Avigilon cameras. PTZ devices are connected to Avigilon cameras through the RS-485 inputs.

Third party PTZ cameras cannot be configured through the Avigilon Control Center.

1. Right-click the camera in the System Explorer then select **Setup** to open the camera Setup dialog box.

See <u>Accessing the Camera Setup</u> for more information.

- 2. Click **General**. The General dialog box appears.
- 3. In the PTZ area, select the **Enable PTZ** check box.

**Note:** If the following options are not displayed, the camera only has a motorized zoom and focus lens and cannot perform full PTZ. Selecting the **Enable PTZ Controls** check box will allow users to control the zoom and focus through the PTZ Controls pane.

- 4. In the **Protocol** drop down list, select the appropriate PTZ protocol. The available protocols include:
  - American Dynamics Sensormatic
  - o AXSYS
  - o AXSYS DCU
  - o Ernitec ERNA
  - o Honeywell Diamond
  - o Kalatel ASCII
  - o Pelco D
  - o Pelco P
  - o TEB Ligne
  - Vicon extended
  - o Vicon normal
  - o Videotec Legacy
  - Videotec MACRO
- 5. Enter the **Dip Switch Address**, **Baud Rate** and **Parity** for the PTZ device.
- 6. Click **OK**.

#### Rebooting the Camera

You can restart all Avigilon cameras through the camera's General dialog box. This feature is not available for third party cameras.

 Right-click the camera in the System Explorer then select Setup to open the camera Setup dialog box.

See <u>Accessing the Camera Setup</u> for more information.

- 2. Click General. The General dialog box appears.
- 3. Click Reboot Camera.

The camera disconnects from the Avigilon Control Center and shuts down. When the camera starts up again, the camera should automatically reconnect with the Avigilon Control Center.

#### **Network**

Use the camera Network dialog box to change how a camera connects to the server network.

**Note:** The dialog box may appear different depending on the camera. Some options are disabled or hidden if they are not supported by the camera.

Changing Camera Network Settings

- 1. Right-click the camera and select Setup to open the camera Setup dialog box.
- 2. Click Network.
- 3. In the Network dialog box, select how the camera obtains an IP address:

Network			
💿 Obtain an IP -	address automatically		
🔘 Use the follow	ving IP address:		
IP Address:	0.0.0.0		
Subnet Mask:	0.0.0.0		
Gateway:	0.0.0.0		
Control Port: 55080 🗢 Default: 55080			
IP Address:	239 . 247 . 108 . 234		
TTL:	1		
Base Port:	21252		
Ports Used:	21252 - 21254		
<u> </u>	Cancel Apply		

Figure A. Network dialog box

• **Obtain an IP address automatically:** select this option for the camera to connect to the network through an automatically assigned IP address.

The camera will attempt to obtain an address from a DHCP server. If it cannot, the camera 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 for the camera.

Enter the IP Address, Subnet Mask and Gateway you want the camera to use.

- 4. Select the **Control Port** for connecting to the camera. This port is also used for manually discovering the camera on the network.
- 5. Select the **Enable Multicast** check box to enable multicast streaming from the camera. You must enable multicast to set up redundant connections to multiple servers.

Use the default generated IP Address, TTL and Base Port, or enter your own values.

6. Click OK.

#### Image and Display

Use the Image and Display dialog box to control a camera's display settings for live and recorded video.

#### Changing Image and Display Settings

**Note:** The dialog box may appear different depending on the camera. Some options are disabled or hidden if they are not supported by the camera.

 Right-click the camera in the System Explorer then select Setup to open the camera Setup dialog box.
 See Accessing the Camera Setup for more information.

See <u>Accessing the Camera Setup</u> for more inform

- 2. Click Image and Display.
- 3. In the Image and Display dialog box, make the required changes to adjust the camera's image settings. A preview of your changes are displayed in the image panel.

**Tip:** Use the **Maximum Exposure**, **Maximum Gain** and **Priority** options to control low light behavior.

Image and Display	×
δ. (*) <b>Θ. Ο.</b> Εκροι	ure: Automatic
	Iris: Automatic
IR Cur	iter: Automatic 💌
Ficker Cor	trok 60 Hz 👻
Maximum Expos	ure: 1/30s (33ms)
Maximum G	ain: 36 do 🖌
Ph	nity: Image Rate 😽
Solura Solura	ion 40%
Shaper	ing 50%
Image Rota	ion: 180 degrees
Automatic white bala	ice .
O Custom white balance	
	ied - 50%
	lan
Histogram Exposure: 8 ms (1/124.429 of a second) Zoom: <<< <	> >>
O Continuous Focus	
Manual Focus	
Focus: Auto Focus	
Restore Defaults Apply to Cameros	QK Cancel Apoly

Figure A. Image and Display dialog box

Option	Description	
Exposure	You can allow the camera to control the exposure by selecting Automatic, or you can set a specific exposure rate. Note: Increasing the manual exposure time may affect the	
	image rate.	
Iris	You can allow the camera to control the iris by selecting <b>Automatic</b> , or you can manually set it to <b>Open</b> or <b>Closed</b> .	
IR Cut Filter	You can allow the camera to control the infrared cut filter by select <b>Automatic</b> , or set the camera to <b>Color</b> or <b>Monochrome</b> mode.	
Flicker Control	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 <b>50Hz</b> and North America is <b>60Hz</b> .	
Backlight Compensation	If your scene has areas of intense light that cause the overall image to be too dark, move the <b>Backlight Compensation</b> slider until you achieve a well exposed image.	
Maximum Exposure	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.	
Maximum Gain	You can limit the automatic gain setting by selecting a maximum gain level. By setting a maximum gain level for low light situations, you can maximize the detail of an image without creating excessive noise in the images.	
	You can set <b>Image Rate</b> or <b>Exposure</b> as the priority.	
Priority	When set to <b>Image Rate</b> , 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 <b>Exposure</b> , the camera will maintain the exposure setting as the priority, and will override the set image rate to achieve the best image possible.	
Saturation	You can adjust the video's color intensity by moving the <b>Color</b> <b>Saturation</b> slider until the video image meets your requirements.	
Sharpening	You can adjust the video sharpness to make the edges of objects more visible. Move the <b>Sharpening</b> slider until the video image meets your requirements.	
Image Rotation	You can change the rotation of captured video. You can rotate the video 90, 180 or 270 degrees clockwise.	
White Balance	You can control white balance settings to adjust for differences in light.	
	You can allow the camera to control the white balance by selecting <b>Automatic</b> , or select <b>Custom</b> and manually set the <b>Red</b> and <b>Blue</b> settings.	

- 4. To focus the camera, see <u>Focusing the Camera Lens</u>.
- 5. Click Apply to Cameras... to apply the same settings to other cameras of the same model.
- 6. Click OK.

#### Zooming and Focusing the Camera Lens

If you have a camera with a lens capable of electronic zoom and focus, you can zoom and focus the camera through the Image and Display dialog box.

**Note:** The dialog box may appear different depending on the camera. Some options are disabled or hidden if they are not supported by the camera.

 Right-click the camera in the System Explorer then select Setup to open the camera Setup dialog box.
 See <u>Accessing the Camera Setup</u> for more information.

\_\_\_\_\_<u>\_</u>\_\_\_

- 2. Click **Image and Display**. The Image and Display dialog box appears.
- 3. If the camera has a built-in auto focus feature, you can choose one of the following:
  - **Continuous Focus:** the camera will automatically focus itself whenever the scene changes. Skip the following step.
  - **Manual Focus:** you can manually focus the camera through the Image and Display **Focus** buttons. Once the focus is manually set, it will not change.
- 4. While you view the camera image panel, complete the following steps to zoom and focus the camera:

**Tip:** For Avigilon HD Professional cameras, the lens must be set to auto-focus (AF) mode on the camera. If the camera does not detect the lens, the **Focus** buttons are not displayed.

#### 3.

- a. Use the **Zoom** buttons to zoom in to the distance you want to focus.
- b. In the **Iris** drop down list, select **Open**. When the iris is fully open, the camera's depth of field is the shortest.
- c. Use the Focus buttons until the image becomes clear.

Button	Description
Auto Focus	The camera will automatically focus once.
0	Focused as close to zero as possible
<<	Large step toward zero
<	Small step toward zero
>	Small step toward infinity
>>	Large step toward infinity
Inf	Infinity

- 4. Click **Apply to Cameras...** to apply the same settings to other cameras of the same model.
  - 5. Click OK.

#### Compression and Image Rate

Use the camera Compression and Image Rate dialog box to modify the camera's compression and image quality settings for sending image data over the network.

**Note:** The dialog box may appear different depending on the camera. Some options are disabled or hidden if they are not supported by the camera.

#### Changing Compression and Image Rate Settings

- 1. Right-click the camera in the System Explorer then select **Setup** to open the camera setup dialog box.
- 2. Click Compression and Image Rate. The Compression and Image Rate dialog box appears.

Compression and Image Rate			
R O Q Q	H.264	~	
Image Rate:	, 1.0 9.0 17	30	30 ips
Image Quality	6 (Default)	~	
Max Bit Rate:	12000	\$	kbps
Resolution:	1920x1080	~	
Keytrame Interval	30	\$	frames
Bandw	Enable secondary live viewi idth: 11.1 Mbps	ng stre	am
Restore Defaults Apply to Cameras	OK Cancel		Apply

Figure A. Compression and Image Rate dialog box.

The Bandwidth area gives an estimate of the bandwidth used by the camera with the current settings. Adjust the settings as required.

**Note:** For cameras capable of maintaining multiple streams, the settings in this dialog box only affect the primary stream.

3. In the **Format** drop down list, select the preferred streaming format.

- 4. In the **Image Rate** bar, move the slider to select the how many images per second (ips) you want the camera to stream over the network.
- 5. In the **Image Quality** drop down list, select the desired image quality number.

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

- 6. In the **Max Bit Rate** drop down list, select the maximum bandwidth the camera can use in kilobits per second (kbps).
- 7. In the **Resolution** drop down list, select the preferred image resolution.
- 8. In the **Keyframe Interval** drop down list, enter the preferred number of frames between each keyframe.
- 9. If your camera supports multiple video streams, you can select the **Enable secondary live** viewing stream check box.

When enabled, the secondary live viewing stream is a lower resolution video stream that is automatically displayed when you monitor live video on a network that does not have enough bandwidth to display the primary live viewing stream.

- 10. Click Apply to Cameras... to apply the same settings to other cameras of the same model.
- 11. Click **OK**.

#### **Image Dimensions**

Use the Image Dimension dialog box to set the image dimensions for the camera. You can crop the video image to help reduce bandwidth and increase the maximum image rate.

#### Changing Image Dimensions Settings

 Right-click the camera in the System Explorer then select Setup to open the camera Setup dialog box.

See <u>Accessing the Camera Setup</u> for more information.

- 2. Click Image Dimensions.
- 3. In the Image Dimensions dialog box, adjust the image dimensions by performing one of the following:
  - o Drag the edges of the image until the video is cropped to fit your requirements.
  - Change the values for the **Top**, **Left**, **Width**, and **Height** field.



Figure A. Image Dimensions dialog box

4. Click OK.

#### Motion Detection

In the Motion Detection dialog box, you can define specific motion detection areas and configure the camera's sensitivity and threshold for motion.

#### Selecting an Area to Detect Motion

In the Motion Detection dialog box, you can define the green motion detection areas in the camera's field of view. Motion detection is ignored in the areas not highlighted in green.

1. Right-click the camera in the System Explorer then select Setup to open the camera Setup dialog box.

See Accessing the Camera Setup for more information.

- 2. Click Motion Detection.
- 3. In the Motion Detection dialog box, use the tools above the image panel to define the green motion detection area:
  - Set Area: select this button then draw green rectangles to define the motion detection 0 areas. You can draw multiple rectangles to create your motion detection area.

- Clear Area: select this button and draw rectangles to erase sections from the motion detection area.
- **Draw:** select this button and manually draw motion detection areas with your mouse. This tool allows you to be very specific and highlight unusual shapes.
- Set All: click this button to highlight the entire image panel for motion detection.
- **Clear All:** click this button to clear the image panel of motion detection areas.

@ Motion Detection	
Motion Detection Area	Sensitivity.
	Threshold Motion
	Pte-Motion Record Time:
E A	
Restore Defaults	QK Cancel Apply

Figure A. Motion Detection dialog box

4. Click OK.

To define the sensitivity and threshold for the motion detection area, see <u>Controlling Motion Sensitivity</u> and <u>Threshold</u>.

#### Controlling Motion Sensitivity and Threshold

In the Motion Detection dialog box, you can control the camera's sensitivity and threshold for motion. You can also define how much time should be recorded before and after each motion event.

- Right-click the camera in the System Explorer then select Setup to open the camera Setup dialog box.
   See Accessing the Camera Setup for more information.
- 2. Click Motion Detection. The Motion Detection dialog box appears.

3. Move the **Sensitivity** slider to adjust 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.

4. Move the **Threshold** slider to adjust 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.

**Tip:** The **Motion** indicator above the Threshold slider will move to indicate how much motion is occurring in the current scene. Only when the motion indicator moves to the right of the Threshold marker will the camera note the motion.

- 5. In the **Pre-Motion Record Time** and **Post-Motion Record Time** boxes, specify how long video is recorded before and after the motion event.
- 6. Click **OK**.

## Privacy Zones

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.

#### Adding a Privacy Zone

#### **Note:** You can add no more than 4 privacy zones per camera.

- Right-click the camera in the System Explorer then select Setup to open the camera Setup dialog box.
   See <u>Accessing the Camera Setup</u> for more information.
- 2. Click **Privacy Zones**.
- 3. In the Privacy Zones dialog box, click **Add** and a green box will appear on the image panel.

O Privacy Zones	
Privacy Zones:	Privacy Zone 2:
Privacy Zone 1 Privacy Zone 2	
	<u>QK</u> <u>Cancel</u> <u>Apply</u>

Figure A. Privacy Zones dialog box

- 4. Move and resize the green box until it covers the area you want to block out.
- 5. If you are adding privacy zones to a PTZ camera, the following two options are displayed above the image panel.
  - Select this option to enable PTZ mode. PTZ mode allows you to pan and tilt the camera field of view to where the privacy zone needs to be. For details on how to use the pan and tilt controls, see Controlling PTZ Cameras.



- μż Select this option to disable PTZ mode.
- 6. Click OK.

0

0

#### Editing and Deleting a Privacy Zone

1. Right-click the camera in the System Explorer then select Setup to open the camera Setup dialog box.

See Accessing the Camera Setup for more information.

- 2. Click Privacy Zones.
- 3. In the Privacy Zones dialog box, select a privacy zone from the Privacy Zone list and perform one of the following:
  - To edit the privacy zone, adjust the green box on the image. 0
  - To delete the privacy zone, click **Delete**. 0
- 4. Click OK.

## Manual Recording

You can manually set a camera to record events outside of the camera's recording schedule. Manual recording can only be activated when viewing live video. See Triggering Manual Recording for more information.

Use the Manual Recording dialog box to define the maximum manual recording time for each camera.

#### Changing Manual Recording Settings

1. Right-click the camera in the System Explorer then select Setup to open the camera Setup dialog box.

See Accessing the Camera Setup for more information.

Click Manual Recording. The Manual Recording dialog box appears.

Manual Recording		
Manual Recording Duration: Pre-Trigger Record Time:		minutes seconds
Restore Defaults Apply to Camera	аз ОК	Cancel Apply

Figure A. Manual Recording dialog box

- 3. Specify the following:
  - Manual Recording Duration: enter how long the camera should record for if recording is 0 not manually stopped.
  - 0 Pre-Trigger Record Time: enter the amount of time video is recorded before manual recording is activated.
- Click Apply to Cameras... to apply the same settings to other cameras of the same model.
- 5. Click OK.

# **Client Setup**

The client Setup dialog box is responsible for all the Avigilon Control Center features that are configured and stored on the local client computer.

Refer to any of the following sections to access and configure the client setup.

## Accessing the Client Setup

Perform one of the following steps to open the client Setup dialog box.

- Select **Tools > Setup...** and select the local client from the left pane.
- In the System Explorer, right-click the local client and select **Setup**.

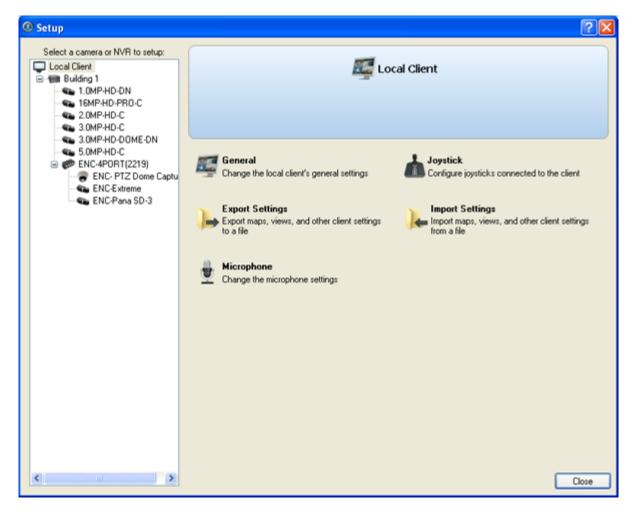


Figure A. Setup Local Client dialog box

#### <u>General</u>

Use the client General dialog box to change your local application preferences.

Changing General Client Settings

1. Right-click the local client in the System Explorer then select **Setup** to open the client Setup dialog box.

For more information, see Accessing the Client Setup.

- 2. Click General.
- 3. In the General dialog box, make any required changes:

④ General	×		
General: Save/restore w	indow lavout		
	launch full screen		
Display on-scree			
Cycle dwell time:			
Language:	Windows Default		
<ul> <li>Automatically log</li> <li>Using Windows</li> </ul>	-		
-	ser name and password:		
_	User Name:		
Passwor	d:		
Maximum Incoming Client Bandwidth:			

Figure A. General dialog box

- **Save/restore window layout:** select this check box if you want the application to remember your layout preferences.
- **Automatically launch full screen:** select this check box if you want the application to automatically launch in full screen each time it starts.
- Display on-screen messages: select this check box if you want the application to display event notification messages through the Event pop-up dialog box. Event notifications include license plate recognition events, system events and rule events. If the check box is cleared, all event notifications are hidden.

- Cycle dwell time: enter the number of seconds the application waits before it cycles to a different View. See Cycling Through Views for more information.
- Language: select a language from the drop down list to change the application language. Select Windows Default for the application to automatically display the same language as the local client.
- **Automatically log in to servers:** select this check box to automatically log into all servers that are available on the network.

Select the type of login you use: **Windows Authentication** — your Windows login; or **Using saved user name and password** — your Avigilon Control Center username and password.

• In the Maximum Incoming Client Bandwidth area, you can set how much bandwidth is allowed to come into the client. This would include video streaming.

Select **Unlimited**, or select **Other** and specify the maximum kilobits per second (kbits/s) you want to allow.

4. Click OK.

#### Joystick

Two types of joysticks are supported: standard Microsoft DirectX USB Joysticks and the Avigilon Professional Joystick Keyboard.

Use the Joystick dialog box to configure the joystick settings.

#### Configuring a Standard USB Joystick

Use the Joystick dialog box to configure the buttons used in your standard Microsoft DirectX USB joystick.

- 1. Connect the joystick.
- Right-click the local client in the System Explorer then select Setup to open the client Setup dialog box.
   For more information, see Accessing the Client Setup.
- 3. Click Joystick.
- 4. If the joystick is not automatically detected, an error message will appear. Click **Scan for Joysticks...**.

#### Note: The error message will not appear if the joystick was detected.

When the joystick is detected, the Joystick dialog box appears.

O Joystick			
Joystick: CH F	PRODUCTS IP DESKTOP CONTROLLER		
🛑 Button 1	None	Button 7 None	<b>v</b>
🛑 Button 2	None	Button 8 None	×
🔴 Button 3	None	Button 9 None	✓
🛑 Button 4	None	Button 10 None	✓
🔴 Button 5	None	Button 11 None	<b>~</b>
🛑 Button 6	None	Button 12 None	<b>∨</b>
			<u> </u>

Figure A. Joystick dialog box

- 5. Set up an action for each button on the joystick:
  - a. Press a button on the joystick and the button label is highlighted in the Joystick dialog box.
  - b. Select an action for the button from the drop down list.
  - c. Repeat this procedure for each button on the joystick.
- 6. Click OK.

#### Configuring an Avigilon Professional Joystick Keyboard

The Avigilon Professional Joystick Keyboard is a USB add-on that contains a joystick for controlling zoom and pan within image panels, a jog shuttle for controlling the Timeline, and a keypad programmed with the application's keyboard commands. Refer to <u>Keyboard Commands</u> for the keypad commands that control the application.

By default, the keyboard is installed in right-hand mode. Use the Joystick dialog box to configure left-hand mode.

- 1. Connect the keyboard.
- Right-click the local client in the System Explorer then select Setup to open the client Setup dialog box.
   For more information, see <u>Accessing the Client Setup</u>.
- 3. Click Joystick.

4. If the keyboard is not automatically detected, an error message will appear. Click **Scan for Joysticks...**.

Note: The error message will not appear if the keyboard was detected.

When the keyboard is detected, the Joystick dialog box appears.

O Joystick	
Joystick: Avigilon USB Professional Joystick Keyboard	
Enable left-hand mode	
	OK Cancel

Figure A. Joystick dialog box

- 5. Select the Enable left-hand mode check box.
- 6. Click OK.

The keyboard is now configured for left-hand mode.

Rotate the keyboard until the joystick is on the left and the jog shuttle is on the right. Reinstall the keypad cover with the View button labels at the top.

#### **Exporting Settings**

You can export your personalized settings from the local client so that the settings can be backed up or used on a different computer. These settings include general client settings, joystick, maps, saved Views, web pages and Site View.

To export server settings like Recording Schedules, Users & Groups, POS Source and Device Connection settings, see the *Avigilon Control Center Server User Guide*.

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

#### **Exporting Client Settings**

- Right-click the local client in the System Explorer then select **Setup** to open the client Setup dialog box.
   For more information, see <u>Accessing the Client Setup</u>.
- 2. Click **Export Settings**.

3. Select the settings you want to export.

④ Export Settings
Select the items to export:
✓ General settings
Joystick settings
🗹 Maps
Views
✓ Web Pages
✓ Sites
Layouts
<u> </u>

Figure A. Export Settings dialog box

The **General settings** include display quality, deinterlacing, manually added servers, image overlays, and client connection speed.

- 4. Click OK.
- 5. In the Save As dialog box, name and save the file.

Exported client settings can only be saved in Avigilon Client Settings File (.avc) format.

#### Import Settings

Import and use settings that were previously exported from the local client or from a different computer.

Note: The imported settings will overwrite the local client's current settings.

#### Importing Client Settings

- Right-click the local client in the System Explorer then select Setup to open the client Setup dialog box.
   For more information, see Accessing the Client Setup.
- 2. Click Import Settings.
- 3. In the Select File to Import From dialog box, find the Avigilon Client Settings File (.avc) you want to import then click **Open**.
- 4. Select the settings you want to import.

Import Settings
Select the items to import:
General settings
<ul> <li>Joystick settings</li> </ul>
💌 Maps
Views
💌 Web Pages
✓ Sites
Layouts
General settings, joystick settings, 🏝 web pages, and sites will be overwritten.
<u>D</u> K <u>C</u> ancel

Figure A. Import Settings dialog box

5. Click OK.

# Views

# What are Views?

A View is a tab composed of image panels that allows you to organize how video is displayed.

For example, you can choose to display video from multiple cameras at the same time by using different layouts.

# Adding and Removing a View

Views allow you to customize how you monitor video. You can add a new View to an existing window or open a new View in its own window to make use of multiple monitors. Views can also be removed as required.

## Adding a New View to the Application Window

Perform one of the following:

- Select File > New View.
- From the toolbar, click the

#### Adding a View to a New Window

Perform one of the following:

• Select File > New Window.

From the toolbar, click the New Window button.

A new window appears. You can now position this window to make use of multiple monitors.

#### Closing a View from the Application Window

Perform one of the following:

- Select File > Close View.
- On the View tab, click the Close View button.

#### Closing a Window

Perform one of the following:

- Select File > Close Window.
- Click the **Close** button on the top right corner of the window.

## **View Layouts**

You can organize how video is displayed through View layouts. You can choose to display video from a different camera in each image panel, or display video from the same camera at different zoom levels.

There are 10 pre-configured layouts that you can edit to fit your needs.

#### Selecting a Layout for a View

You can organize how video is displayed by selecting a View layout. The figure shows the default View layouts.

- Select View > Layouts > # Division.
- On the toolbar, select the **Change Layout** button then select one of the layout options.

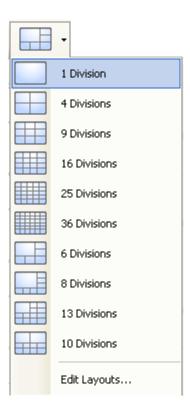


Figure A. Layouts on the toolbar

## Editing a View Layout

If the default View layouts do not fit your surveillance requirements, you can customize a View layout.

1. On the toolbar, select the **Change Layout** button then select **Edit Layouts**.

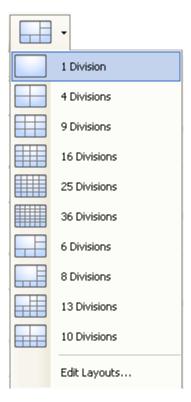


Figure A. Layouts on the Toolbar

- 2. In the Edit Layouts dialog box, select the layout you want to change.
- 3. Enter the number of **Columns** and **Rows** you want in your layout.
- 4. In the layout diagram, do any of the following to further customize the layout.

Edit Layouts				
Layouts:	Columns:	4	Rows: 4	•
1 Division				
4 Divisions				
9 Divisions				
12 Divisions				
25 Divisions				
36 Divisions				
6 Divisions				
8 Divisions				
13 Divisions				
8 Divisions				
Restore Defaults				<u>QK</u> <u>Cancel</u>

Figure B. Edit Layouts dialog box

- To create a larger image panel, select a grey line to delete the border between two image panels. When a line is highlighted in red, the line can be deleted.
- To restore an image panel, select a dotted line to divide a large image panel into two. When a dotted line is highlighted in green, the line can be restored.
- To restore all default View layouts, click **Restore Defaults**. All custom layouts in the Layouts list will be replaced.

**Note:** You can only add or subtract lines to create a rectangular shape.

5. Click **OK** to save your changes. The previous View layout has been replaced with your customized layout.

**Tip:** The keyboard commands used to access View layouts are linked to the layout's position on the View Layouts list. For example, if your custom layout is placed at the top of the Layouts list (layout 1), you can press Alt + 1 to use that layout.

# Making a View Full Screen

You can maximize a View to make full use of a monitor.

On the toolbar, click Full Screen.

# Ending Full Screen

On the toolbar at the top left of the screen, click End Full Screen.

Tip: The toolbar is hidden when the application is idle. Move your mouse to display the toolbar.

# Cycling Through Views

Once you have multiple Views setup, you can cycle through the Views by displaying each one for a few seconds. This is useful when monitoring a large number of cameras.

- 1. Activate the Cycle Tab feature:
  - From the View menu, select **Cycle Views**.
  - On the toolbar, click Cycle Views.

To change the cycle dwell time, see <u>Changing General Client Settings</u> for more information.

# Video

The Avigilon Control Center Client software allows you to monitor live and recorded video from multiple cameras. While monitoring video, you have access to PTZ controls, digital zoom, audio, manual recording, digital outputs, and other playback settings.

To watch a video of the application's video features, see the *Introduction to Avigilon Control Center Client and Viewing Live Video* training video and the *Identifying, Bookmarking, Searching and Exporting Video* training video in the Avigilon Training Center.

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

# Monitoring Live Video

While monitoring live video, you can perform any of the following procedures.

# Adding and Removing Cameras in a View

To monitor video, add a camera to the View. The camera video can be removed from the View any time.

#### Adding a Camera to a View

Perform one of the following:

- Drag the camera from the System Explorer to an empty image panel in the View.
- Double-click a camera in the System Explorer.
- In the System Explorer, right-click the camera and select Add to View.

The camera is added to the next empty image panel in the View layout.

**Tip:** You can drag the same camera to multiple image panels to watch the video at different zoom levels.

# Removing a Camera From a View

Perform one of the following:

- Right-click the image panel and select **Close**.
- Inside the image panel, click Lose.

# **Displaying Live Video**

Once a camera has been added to an image panel, you can choose to watch the live video stream. You can set the entire View to display live video, or only set specific image panels to display live video.

Live video have a blue border around the image panel.

- To display live video in a View, perform one of the following:
  - Select View > Live.
  - On the toolbar, select Live
- To switch a single image panel to display live video, right-click the image panel and select Live.

# Using Instant Replay

To review an event that just occurred, you can immediately access recently recorded video through the instant replay feature.

- Right-click the image panel and select one of the instant replay options:
  - Replay 30 Seconds
  - Replay 60 Seconds
  - Replay 90 Seconds

The image panel immediately plays back the camera's most recently recorded video.

# Zooming and Panning a Video

The zoom and pan tools allow you to focus on specific regions in a camera video.

### Using the Zoom Tools

The most common way to zoom in and out of the video image is to rotate the scroll wheel on your mouse. The software also includes a set of Zoom tools that can be used with your mouse:

- 1. Select a Zoom tool:
  - From the Tools menu, select Zoom In Tool or Zoom Out Tool.
  - On the toolbar, click Zoom In Tool or Zoom Out Tool.
- 2. Click the image panel until you reach the desired zoom depth.

#### Using the Pan Tools

You can right-click and drag inside an image panel to pan the video image. Or, you can use the Pan tool:

- 1. Select the Pan tool:
  - From the Tools menu, select **Pan Tool**.
  - On the toolbar, click W Pan Tool.
- 2. Drag the video image in any direction inside the image panel.

# Monitoring PTZ Cameras

PTZ cameras can be controlled through the image panel onscreen controls or by using the tools in the PTZ Controls pane.

Be aware that some of tools and features may not be displayed if they are not supported by your camera.

#### Controlling PTZ Cameras

Pan, Tilt, Zoom (PTZ) controls allow you to control cameras with PTZ features. You can control a PTZ camera by using the onscreen controls or by using the tools in the PTZ Controls pane.

See Keyboard Commands for other ways to use the PTZ controls.

- 1. To display the PTZ Controls, perform one of the following:
  - From the **Tools** menu, select **PTZ Controls**.
  - On the toolbar, click PTZ Controls.

The PTZ Controls are displayed below the System Explorer. If the PTZ Controls are unavailable, select an image panel that is displaying video from a PTZ camera.

Note:	The controls may appear different depending on the camera. Some options are
disabled	or hidden if they are not supported by the camera.

PTZ Control	s	×
	Speed Zoom	Focus Henu Menu Menu
Presets:	1. PRESET	- 🔶 🖉
Patterns:	1	- •
Aux:	1	- • •

Figure A. PTZ Controls

- 2. To pan or tilt, perform one of the following:
  - Click the round **Pan/Tilt** arrow buttons in the PTZ Controls. The speed of the pan/tilt movements can be adjusted using the **Speed** slider.
  - In the image panel, drag your mouse from center to move the camera in that direction. The farther the cursor is from the center of the image panel, the faster the camera will move.
  - If the camera supports Click to Center, click anywhere on the image panel to center the camera to that point.

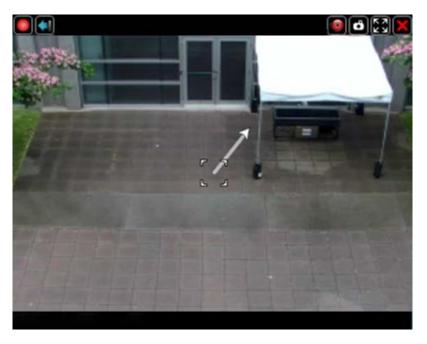


Figure B. PTZ Onscreen Controls

3. Use the other PTZ controls to perform any of the following:

Action	Control	Procedure
To zoom	Zoom + -	<ul> <li>Click the and buttons.</li> <li>Click the image panel and use the mouse scroll wheel to zoom in and out.</li> <li>If the camera supports Drag to Zoom, click and drag to create a green box to define the area you want to zoom in and see.</li> <li>Right-click the image panel and select Zoom Out Full.</li> </ul>
To control the <b>Iris</b> or <b>Focus</b>	Iris Focus	Click the <table-cell-rows> and 💻 buttons.</table-cell-rows>
To program a PTZ preset	Presets: 1. 💌 🔿	<ol> <li>Move the camera's field of view into position.</li> <li>In the PTZ Controls pane, select a preset number and</li> </ol>

		<ul> <li>click </li> <li>3. In the Preset Name dialog box, enter a name for the preset and click OK.</li> </ul>
To activate a PTZ preset		Select a preset and click 🛸.
To return to the Home preset position		If the PTZ camera supports a Home preset position, the button is enabled. Click the button to return the camera to its Home position.
To program a PTZ pattern	Patterns: 1	<ol> <li>In the PTZ Controls pane, select a pattern number and click .</li> <li>Use the PTZ controls to move the camera and create the pattern.</li> <li>Click .</li> </ol>
To activate a PTZ pattern		In the PTZ Controls pane, select a pattern number and click . The pattern will repeat until the pattern is stopped or another pattern is run.
To activate a PTZ tour	Tours: 1. V	In the PTZ Controls pane, select a tour number and click . The tour will repeat until stopped or until other PTZ controls are used. To program a PTZ tour, see <u>Programming PTZ Tours</u> .
To activate an auxiliary command	Aux: 1 💌 🕨 🚫	<ol> <li>Select an aux command number and click</li> <li>Click O to turn off the auxiliary output.</li> </ol>
To display the PTZ camera onscreen menu	Menu	1. Click the <b>Menu</b> button.

	<ol> <li>In the PTZ Controls pane, use the Pan/Tilt buttons to navigate the menu.</li> </ol>
	Use the <b>Pan/Tilt</b> buttons to navigate the menu.
	Use the <b>Zoom</b> buttons to modify your selection choices.
	Use the <b>Focus</b> buttons to confirm or cancel your selections.
To lock the PTZ controls	Click Click No other user will be able to use the PTZ controls for this camera until you unlock the controls or log out.

### Programming PTZ Tours

If the PTZ camera supports guard tours, the tours can be programmed through the PTZ Controls pane. 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.

- 1. Create all the PTZ presets you need for this tour. See <u>Controlling PTZ Cameras</u> for more information.
- 2. In the PTZ Controls pane, select a tour number then click 🖉 . The Edit PTZ Tour dialog box is displayed.

Edit PTZ Tour		×
Name:	New Tour	
Tour Pause Duration:	0 min	
Tour Mode:	Sequential	
	Set as default tou	r
Default Tour Idle Start Time:	5 min	·
Preset	Move Speed	View Time
0. 🔻	80% 🚖	10 sec 🚔
1. 🔻	80% 🚔	10 sec 🚔
	_	
		<u>O</u> K <u>C</u> ancel

Figure A. Edit PTZ Tour dialog box

- 3. In the Edit PTZ Tour dialog box, give the tour a name.
- 4. In the **Tour Pause Duration** field, enter the amount of time before a tour repeats. Tours repeat until manually stopped, or until other PTZ controls are used.
- 5. In the **Tour Mode** drop down list, select one of the following:
  - Sequential: the PTZ camera will go to each preset in the set order.
  - Random: the PTZ camera will go to each preset in random order.
- 6. 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.
- 7. To add a preset, click 🚔 and a preset is added to the list.

#### 6.

- 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. Repeat step 7 until all the presets for this tour have been added.
- 7. To remove a preset, select the preset then click —.
  - 8. To re-order a preset, select the preset then click 🟫 or 📥. The preset order only affects tours that use Sequential mode.
  - 9. Click **OK** to save the tour.

### Triggering Manual Recording

Cameras are set to follow a recording schedule. If an event occurs outside the camera's recording schedule, you can click the record indicator icon to force the camera to record the event. See <u>Schedule</u> for more information about recording schedules.

The **Record Indicator** overlay must be enabled for manual recording to work. See <u>Displaying Video</u> <u>Overlays</u> for more information.

The following table explains the different camera recording states.

Blue = recording	Red = recording triggered by an event	Grey = not recording

Starting and Stopping Manual Recording

• In the top-left corner of the image panel, click the Record Indicator icon to start manual recording.



The record indicator is highlighted in blue to show that the camera is recording. Manual recording continues until it is stopped, or until the maximum manual recording time is reached.

Click the record indicator again to stop manual recording.



The maximum manual recording time is configured in the Manual Recording dialog box, see <u>Manual</u> <u>Recording Settings</u> for more information.

# Monitoring Recorded Video

While monitoring recorded video, you can perform any of the following procedures:

### Adding and Removing Cameras in a View

To monitor video, add a camera to the View. The camera video can be removed from the View any time.

#### Adding a Camera to a View

Perform one of the following:

- Drag the camera from the System Explorer to an empty image panel in the View.
- Double-click a camera in the System Explorer.
- In the System Explorer, right-click the camera and select Add to View.

The camera is added to the next empty image panel in the View layout.

**Tip:** You can drag the same camera to multiple image panels to watch the video at different zoom levels.

#### Removing a Camera From a View

Perform one of the following:

- Right-click the image panel and select **Close**.
- Inside the image panel, click Lose.

# **Displaying Recorded Video**

Once a camera has been added to an image panel, you can choose to watch the camera's recorded video. You can set the entire View to display recorded video, or only set specific image panels to display recorded video.

Recorded video have a green border around the image panel.

- To display recorded video in a View, perform one of the following:
  - Select View > Recorded.
  - Recorded. On the toolbar, select
- To switch a single image panel to display recorded video, right-click the image panel and select Recorded.

# Zooming and Panning a Video

The zoom and pan tools allow you to focus on specific regions in a camera video.

#### Using the Zoom Tools

The most common way to zoom in and out of the video image is to rotate the scroll wheel on your mouse. The software also includes a set of Zoom tools that can be used with your mouse:

- 1. Select a Zoom tool:
  - From the **Tools** menu, select **Zoom In Tool** or **Zoom Out Tool**. 0
  - Zoom In Tool or Koom Out Tool. On the toolbar, click 0
- 2. Click the image panel until you reach the desired zoom depth.

#### Using the Pan Tools

You can right-click and drag inside an image panel to pan the video image. Or, you can use the Pan tool:

- 1. Select the Pan tool:
  - From the Tools menu, select Pan Tool.

• On the toolbar, click Pan Tool 2. Drag the video image in any direction inside the image panel.

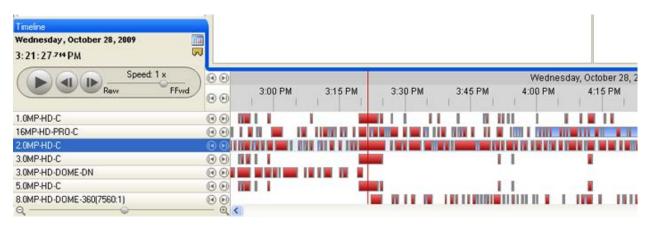
# Playing Back Recorded Video

The Timeline displays when video was recorded and lets you play back the recordings.

The colored bars on the Timeline show the camera's recording history:

- A red bar shows the camera recorded an event.
- A blue bar shows the camera recorded video.
- White areas show that the camera did not record any video.
- An orange bar is a bookmark in the camera's recording history.

See <u>Bookmarking Recorded Video</u> for more information about bookmarks.



#### Figure A. Playback tools on the Timeline

Use any of the following controls to playback the recorded video files:

Action	Control	Procedure
To select a playback time	ma	<ul> <li>Click the calendar icon and select a date and time.</li> <li>Or, click on a point in the Timeline.</li> </ul>
To add a bookmark		Click <b>Add Bookmark</b> to add a bookmark on the Timeline.
To start playback		Click <b>Play</b> .

To stop playback		Click <b>Pause</b> .
To move forward a frame		Click Step Forward.
To move back a frame		Click Step Backward.
To control the playback direction and speed	Speed: 1 x Rev Fwd	Drag the slider to the right to move the video forward. Drag the slider to the left to move the video backward. The farther away the slider is from center the faster the playback speed.
To jump forward or back on the Timeline	Image: Second state         June           28         28           Image: Second state         1           Image: Second state         1	On the Timeline, click one of the <b>Go Forward</b> or <b>Go Back</b> buttons to move to different points on the Timeline.
To expand the Timeline to a specific moment in time	0, ⊕,	<ul> <li>Move the slider on the bottom right to zoom in or out on the Timeline.</li> <li>Or, you can place your mouse over the Timeline and use the scroll wheel to zoom in or out on the Timeline.</li> </ul>
To center the Timeline on the time marker		Right-click the Timeline, and select <b>Center on</b> Marker.
To move through the Timeline quickly with the time marker	3:15 PM 3:30 PM	Drag the time marker through the Timeline.
To pan the Timeline		<ul> <li>Move the horizontal scroll bar under the Timeline.</li> <li>Or, right-click and drag the Timeline.</li> </ul>

# Bookmarking Recorded Video

You can add bookmarks to recorded video to help you find and review an event later. Bookmarked video can be protected against scheduled data cleanup so the video is never deleted.

#### Adding a Bookmark

- 1. To open the Edit Bookmark dialog box, perform one of the following:
  - On the Timeline, click Add Bookmark.
  - Drag the time marker to where you want to start the bookmark, then right-click and select **Add Bookmark**.

The Edit Bookmark dialog box appears, and the bookmark time range is highlighted on the Timeline

Edit Bookmark	
Name: New Bookmark:   Time Range to Bookmark:   From:   Thu 2011-05-12   To:   Sun 2011-05-15   O5:59:03:255   AM   Duration:   2   7   31   1   Days   Hours   Minutes   Seconds   Description:   Protect bookmark data	Cameras:
	<u> </u>

Figure A. Add Bookmark dialog box

- 2. Enter a name for the bookmark.
- 3. In the Cameras pane, select all the cameras that are attached to this bookmark.

Note: You can only bookmark multiple cameras from the same server.

4. In the Time Range to Bookmark area, enter the time you want to bookmark.

You can also move the black time range markers on the Timeline to adjust the time range.

- 5. In the **Description** field, enter any information about the bookmark.
- 6. To protect the bookmark video from being deleted, select the Protect bookmark data check box.

**Note:** Protected bookmarks are never deleted. Be aware that bookmarked video take up space and become the oldest video on the server.

7. Click OK.

Editing, Deleting or Exporting a bookmark

1. Click the bookmark on the Timeline then perform one of the following:

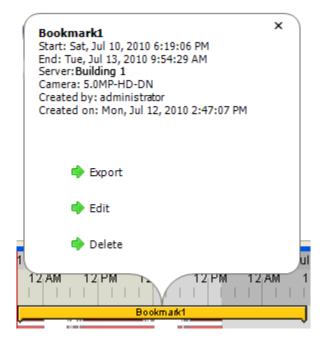


Figure B. Bookmark properties

То	Do this
Edit a bookmark	Click <b>Edit</b> then make your changes.
Delete a bookmark	Click <b>Delete</b> . When the confirmation dialog box appears, click <b>Yes</b> .
Export a bookmark	Click Export then complete the Export tab.

When editing a bookmark, refer to Adding a Bookmark for details about the editable options.

When exporting a bookmark, refer to <u>Exporting Recorded Video and Images</u> for information about the export options.

# Adjusting Video Display in Image Panels

You can adjust the image panel display settings to improve the video display on your monitor.

# Maximizing an Image Panel

You can maximize an image panel to enlarge the video display.

#### Maximizing an Image Panel

Perform one of the following:

- Right-click an image panel and select Maximize.
- Inside the image panel, click Maximize.
- Double-click the image panel.

#### Restoring an Image Panel

Perform one of the following:

- Right-click the maximized image panel and select **Restore Down**.
- Inside the image panel, click Restore Down.
- Double-click the image panel.

# **Displaying Video Overlays**

When you monitor video in a View, you can select the type of information that is displayed over the video.

Select View > Image Overlays, then select one or more of the following:

Option	Description
Camera Name	Displays the name given to the camera.
Camera Location	Displays the location given to the camera.
Timestamp	(Recorded video only) Displays the exposure timestamp for the video.

	(Live video only) Displays the recording status of a camera. The recording status is indicated by the round <b>Record Indicator</b> icon on the top left corner of the image panel. The color of the icon shows the camera's recording status.
Record Indicator	<ul> <li>Red: recording triggered by an event</li> <li>Blue: recording</li> <li>Grey: not recording</li> <li>Select the <b>Record Indicator</b> icon at any time to begin manual recording.</li> </ul>
Motion Activity	Highlights detected motion events in red.

# Changing the Image Panel Display Quality Settings

If you do not have enough network bandwidth or processing power, you may not be able to watch video at the full image rate and full quality. You can bias the image panels to display video in high quality and low frame rate, or low quality and high frame rate.

The Change Display Quality settings only affect the image panel display and does not affect the actual video quality or image rate between the camera and the server. To change the camera's actual display settings, see <u>Compression and Image Rate</u>.

- 1. Open the Change Display Quality dialog box:
  - Select Tools > Change Display Quality....
  - In the toolbar, click Change Display Quality.
- 2. In the Change Display Quality dialog box, select one of the following:

Change Display Quality		
Select the display quality. This setting does not affect the recorded image quality.		
O Maximum		
⊙ High		
🔿 Medium		
O Low		
Monochrome		
Restore Defaults <u>DK</u> <u>Cancel</u> Apply		

Figure A. Change Display Quality dialog box

- Maximum: displays the full video resolution with the lowest image rate.
- **High:** displays 1/4 of the full video resolution.
- Medium: displays 1/16 of the full video resolution.
- Low: displays 1/64 of the full video resolution with the highest image rate.
- 3. Select the **Monochrome** check box to display the video in black and white.
- 4. Click OK.

# Changing the Image Panel Display Adjustments Settings

You can change the image panel display settings to bring out video details that are hard to see with the image panel's default settings.

Display Adjustr	nents (16MP-HD-PRO-C)	? 🛛
Gamma:	0.00 0.00	550
Black Level:	0.00 1.00	030
White Level:	0.00 0.8	980
	Histogram	
Restore Defaults	3	Close

1. Right-click an image panel and select **Display Adjustments...**.

- Figure A. Display Adjustments dialog box
- 2. Move the sliders to adjust the Gamma, Black Level and White Level.

The image panel displays a preview of your changes.

3. Click **Restore Defaults** to clear your changes.

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

# Displaying Analog Video in Deinterlaced Mode

If there are visible interlacing artifacts in the analog camera video, you can enable the deinterlacing filter to help improve the video image.

Select View > Display Deinterlaced Images.

# Search

You can search for recorded video that are linked to an event, or simply search through the camera's recording history.

To watch a video overview of the Search features, see the *Identifying, Bookmarking, Searching and Exporting Video* training video in the Avigilon Training Center.

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

# Performing an Event Search

The Event Search allows you to search for a specific motion events and digital input events.



- 1. Click **Search** to open the Search tab.
- 2. In the Search tab, select Event Search.

The Search: Event tab is displayed.

				Time Range to Search		Cameras to Search:
				From		Local Client
	1			Tue 2011-06-28 💌 01:59	5:03:345 PM 🔮	- BuildingA
		and the second se		Τα		16MP-HD-PRO-C - 85m
				and the second se	1:10.747 PM	2.0MP-HD-H264-D1(10)
				Tue 2011-06-28 💌 02-21	1:10.747 PM	S.0MP-HD-DN
			4	Duration:		B C P ENC-4PORT
	10			0 0 0 26	0 7 0	ENC-4PORT
				Days Hours Minut	tes Seconds	ENC-PONT
				Events to Search For		
		100		Motion Events		
		10 0		Digital Input Events		
Narch Result	P					82 results found Start Search
Narch Hesuit Type	s Server	Camera	Source	Start Time	Duration	Motion Event
fotion	BuildingA	5.0MP-HD-DN		Mon. Jun 27, 2011 10:03:24 AM		Child W 1
					29.35.26	Start: Tue, Jun 28, 2011 9:50:28 AM
igital Input	BuildingA	16MP-HD-PR0-C - 85m	East Parking Lot Alarm I	Mon, Jun 27, 2011 10:50:22 AM	28.48.29	End: Tue, Jun 28, 2011 3:38:51 PM
ligital Input ligital Input	BuildingA	16MP-HD-PRO-C - 85m 5.0MP-HD-DN	Digital Input 1	Mon, Jun 27, 2011 10:50 22 AM Mon, Jun 27, 2011 3:37:16 PM	28.48.29 24.01:34	
igital Input	BuildingA BuildingA	16MP-HD-PR0-C - 85m		Mon, Jun 27, 2011 10:50.22 AM Mon, Jun 27, 2011 3:37:16 PM Mon, Jun 27, 2011 3:45:41 PM	28.48.29	End: Tue, Jun 28, 2011 3:38:51 PM
ligital Input ligital Input ligital Input	BuildingA	16MP-HD-PR0-C - 85m 5.0MP-HD-DN 2.0MP-HD-H264-D1(100	Digital Input 1	Mon, Jun 27, 2011 10:50 22 AM Mon, Jun 27, 2011 3:37:16 PM	28.48.29 24.01.34 23.53.10	End: Tue, Jun 28, 2011 3.38.51 PM Dutation: 5 hours, 48 minutes, 22 seconds
ligital Input ligital Input ligital Input fotion fotion fotion	BuildingA BuildingA BuildingA BuildingA BuildingA	16MP-HD-PR0-C - 85m 5.0MP-HD-DN 2.0MP-HD-H264-D1(100 16MP-HD-PR0-C - 85m 2.0MP-HD-H264-D1(100 2.0MP-HD-H264-D1(100	Digital Input 1	Mon, Jun 27, 2011 10:50:22 AM Mon, Jun 27, 2011 3:37:16 FM Mon, Jun 27, 2011 3:45:41 FM Tue, Jun 28, 2011 3:50:28 AM Tue, Jun 28, 2011 1:56:22 FM Tue, Jun 28, 2011 1:56:11 FM	28.48.29 24.01.34 23.53.10 5.48.22 0.01.39 0.00.14	End: Tue, Jun 28, 2011 3.38.51 PM Dutation: 5 hours, 48 minutes, 22 seconds
rigital Input ligital Input ligital Input fotion fotion fotion	BuildingA BuildingA BuildingA BuildingA BuildingA	16MP-HD-PRO-C - 85m 5,0MP-HD-ON 2,0MP-HD-H264-01(100 16MP-HD-PRO-C - 85m 2,0MP-HD-H264-01(100 2,0MP-HD-H264-01(100 2,0MP-HD-H264-01(100	Digital Input 1	Mon, Jun 27, 2011 10:50 22 AM Mon, Jun 27, 2011 3:37:16 PM Mon, Jun 27, 2011 3:45:41 PM Tue, Jun 28, 2011 9:50:28 AM Tue, Jun 28, 2011 1:54:27 PM Tue, Jun 28, 2011 1:56:11 PM Tue, Jun 28, 2011 1:56:52 PM	28.48.29 24.01.34 23.53.10 5.48.22 0.01.39 0.00.14 0.00.01	End: Tue, Jun 28, 2011 3:39.51 PM Duration: 5 hours, 48 minutes, 22 seconds Export this event Perform a pixel search on this event
rigital Input rigital Input fotion fotion fotion fotion fotion	BuildingA BuildingA BuildingA BuildingA BuildingA BuildingA	16MP HD #PRO C - 85m 5.0MP HD -0N 2.0MP HD H364-01(100 16MP HD -PRO C - 85m 2.0MP HD H364-01(100 2.0MP HD H364-01(100 2.0MP HD H364-01(100 2.0MP HD H364-01(100	Digital Input 1	Mon, Jun 27, 2011 10:50:22 AM Mon, Jun 27, 2011 3:37:16 PM Mon, Jun 27, 2011 3:45:41 PM Tue, Jun 28, 2011 9:50:28 AM Tue, Jun 28, 2011 1:56:21 PM Tue, Jun 28, 2011 1:56:52 PM Tue, Jun 28, 2011 1:56:52 PM Tue, Jun 28, 2011 1:56:50 PM	28.48.29 24.01:34 23.53:10 5.48.22 0.01:39 0.00.14 0.00.01 0.00.01	End: Tue, Jun 28, 2011 3.38.51 PM Duration: 5 hours, 48 minutes, 22 seconds Export this event
igital Input ligital Input ligital Input fotion fotion fotion fotion fotion	BuildingA BuildingA BuildingA BuildingA BuildingA BuildingA BuildingA BuildingA	16MP HD PRD-C - 65m. 5 0MP HD -0N 2 0MP HD H264 D1100 16MP HD PRD C - 65m. 2 0MP HD H264 D1100 2 0MP HD H264 D1100 2 0MP HD H264 D1100 2 0MP HD H264 D1100 2 0MP HD H264 D1100	Digital Input 1	Mon, Jun 27, 2011 10:50.22 AM Mon, Jun 27, 2011 3:37:16 PM Mon, Jun 27, 2011 3:45:41 PM Tue, Jun 28, 2011 9:50:28 AM Tue, Jun 28, 2011 1:54:27 PM Tue, Jun 28, 2011 1:56:31 PM Tue, Jun 28, 2011 1:57:05 PM Tue, Jun 28, 2011 1:57:05 PM	28.48.29 24.01.34 23.53.10 5.48.22 0.01.39 0.00.14 0.00.01 0.00.01 0.00.01	End: Tue, Jun 28, 2011 3:39.51 PM Duration: 5 hours, 48 minutes, 22 seconds Export this event Perform a pixel search on this event
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Figure A. Search: Event tab

- 3. In the Camera to Search area, select all the cameras you want to include in the search.
- 4. In the Time Range to Search area, set the date and time range of your search. The time range is highlighted on the Timeline by the black time range markers. You can also drag the time range markers to modify the time range.
- 5. In the Events to Search For area, select the types of events to include in the search.
- 6. Click Start Search.

# Viewing Event Search Results

1. In the Search Results area, select a search result. The event is highlighted on the Timeline and the video is displayed in the search image panel. Details about the search result are displayed on the right.

**Tip:** You can change the size of the image panel by moving the edge of the search results.

2. Use the Timeline controls to review the event.

See Playing Back Recorded Video for more information.

3. Click Export this event to export the selected event video.

See Exporting Recorded Video and Images for more information.

4. If you want to further refine your search, click **Perform a pixel search on this event**. You can now search for any pixel movement in the selected result.

See Performing a Pixel Search for more information.

5. Click Bookmark this event to bookmark the selected search result.

See Bookmarking Recorded Video for more information.

6. To export all listed results, click Export results to a file and save the file.

# Performing a Bookmark Search

The Bookmark Search allows you to search for a specific bookmark.

- 1. Click Search to open the Search tab.
- 2. In the Search tab, select Bookmark Search.

The Search:Bookmark tab is displayed. All available bookmarks are listed on the left.

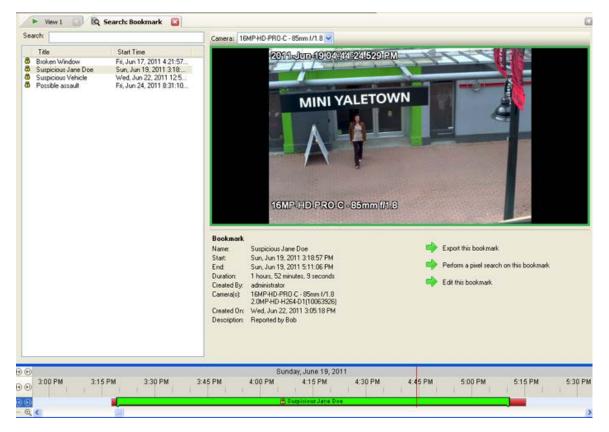


Figure A. Search:Bookmark tab

3. In the **Search** field, enter any text that may appear in the bookmark's title, description, linked camera name or the name of the user who created the bookmark.

The search is automatically performed on all the listed bookmarks until only the matches are displayed.

### Viewing Bookmark Search Results

- 1. In the Bookmark list, select a bookmark. The bookmark is highlighted on the Timeline and the video is displayed in the image panel. Details about the bookmark are displayed under the image panel.
- 2. Use the Timeline controls to review the event.

See Playing Back Recorded Video for more information.

3. Click Export this bookmark to export the selected bookmark.

See Exporting Recorded Video and Images for more information.

4. If you want to further refine your search, click **Perform a pixel search on this bookmark**. You can now search for any pixel movement in the selected bookmarked video.

See <u>Performing a Pixel Search</u> for more information.

5. Click Edit this bookmark to edit the bookmark.

See Bookmarking Recorded Video for more information.

# Performing a Pixel Search

The Pixel Search allows you to search for tiny pixel change in specific areas in the camera's field of view.

- 1. Click Search to open the Search tab.
- 2. In the Search tab, select **Pixel Search**.

The Search: Pixel tab displays.

► View1	Q Search: Event	Q Search: Pixe	el	⊲⊳×
	Clear Area 🕈 Draw 💽 Set Al 💽 C		Time Range to Search: From: Wed 2008-01-16 V 01:06:20:517 PM To: Wed 2008-01-16 V 01:09:07:217 PM Uvation: Duration: 0 0 0 2 46 Days Hours Minutes Seconds Pixel Search Options: Threshold: Low High Join results less than 5 seconds apart	Cameras to Search:
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Figure A. Search: Pixel tab

By default, the entire search image panel is highlighted in green.

3. In the Camera to Search area, select a camera.

- 4. In the Time Range to Search area, set the date and time range of your search. The time range is highlighted on the Timeline by the black time range markers. You can also drag the time range markers to modify the time range.
- 5. Define the pixel search area by using the motion detection tools above the image panel. Only areas highlighted in green are searched.
- 6. In the Pixel Search Options area, drag the Threshold slider to select the amount of motion required to return a search result.

A high threshold requires more pixels to change before results are found.

- Enter a number in the Join results less than field to set the minimum number of seconds between separate search results. You can enter any number between 1-100 seconds.
- 8. Click Start Search.

### **Viewing Pixel Search Results**

1. In the Search Results area, select a search result. The event is highlighted on the Timeline and the video is displayed in the search image panel. Details about the search result are displayed on the right.

> Tip: You can change the size of the image panel by moving the edge of the search results.

2. Use the Timeline controls to review the event.

See Playing Back Recorded Video for more information.

3. Click **Export this event** to export the selected event video.

See Exporting Recorded Video and Images for more information.

4. To export all listed results, click Export results to a file and save the file.

# Performing a Thumbnail Search

The Thumbnail Search is a visual search that displays the search results as a series of thumbnail images.

- Search to open the Search tab. 1. Click
- In the Search tab, select Thumbnail Search.

The Search: Thumbnails tab displays.

008-Oct-14 04:25:11.182 P		Time Range to Search: From:		Cameras to Search:
		Mon 2008-10-13 💌 08:33:20:9	81 AM 🚊	B V Building1
		To: Mon 2008-10-13 202:03:09:5	01 PM 📰	16MP-HD-PRO-M
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Figure A. Search: Thumbnails tab

- 3. In the Camera to Search area, select a camera.
- 4. In the Time Range to Search area, set the date and time range of your search. The time range is highlighted on the Timeline by the black time range markers. You can also drag the time range markers to modify the time range.
- 5. In the image panel, move or drag the edges of the green overlay to focus the search on one area in the video image.

Only the area highlighted in green is searched.

6. Click Start Search.

# Viewing Thumbnail Search Results

The search results display thumbnails at equal intervals on the Timeline.

 To change the size of the search result thumbnails, select Large Thumbnails, Medium Thumbnails, or Small Thumbnails from the drop-down menu above the search results and click Search Again.

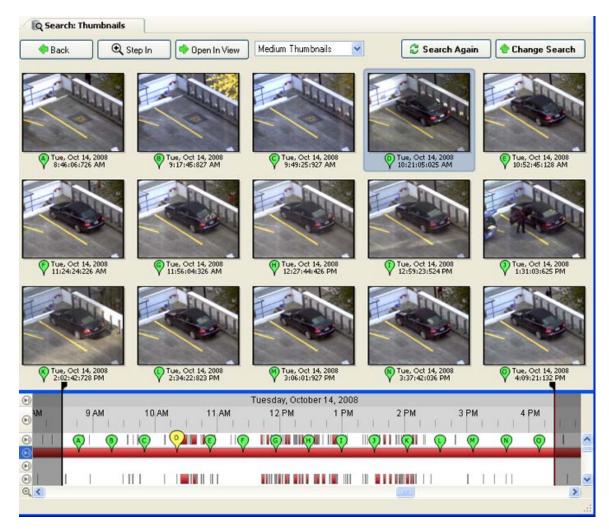


Figure B. Search: Thumbnail results tab

- 2. Select a thumbnail to highlight the video on the Timeline.
- Click Step In, or double-click the thumbnail to perform another search around the thumbnail.
   Click Back to return to the previous results page.
- 4. Click **Open In View** to open the recorded video in a new View.
- 5. Click **Change Search** to change the search criteria.

# Export

You can export video in multiple video and image formats. You can also export snapshots of an image panel as you monitor video.

To watch a video overview of the Export features, see the *Identifying, Bookmarking, Searching and Exporting Video* training video in the Avigilon Training Center.

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

# Exporting a Snapshot of an Image

You can export a snapshot of any image panel with video. When you export a snapshot, you are exporting whatever the image panel is currently displaying.

- 1. To export a snapshot, perform one of the following:
  - In the image panel, click the Save Snapshot icon.
  - Right-click the image panel and select **Save Snapshot**.

The snapshot Export tab is displayed, and the image you want to export is displayed.

3248	
Export Options Format: PNG image	Resolution: 1920 x 1080
	Change Image Region
	Overlays: 🗹 Timestamp
	Camera name
	Camera location
	Display Adjustments
	🔷 Start Export

Figure A. Export tab for Snapshot export

- 2. In the Format drop down list, select an export format.
- 3. For the selected export format, define your preferences:

Format	Image options		
Native Note: The Native	This is the recommended export format because the exported image maintains its original compression and can be authenticated against tampering in the Avigilon Control Center Player.		
format requires the Avigilon Control Center Player to view.	<ul> <li>Select the Export the Control Center Player Installer check box if you want a copy of the Avigilon Control Center Player to be distributed with your native image file.</li> </ul>		
	<ol> <li>In the <b>Resolution</b> field, select a resolution for the video image. You can manually enter the resolution or click the drop down arrow to select a standard resolution.</li> </ol>		
PNG	<b>Note:</b> The <b>Resolution</b> field automatically maintains the image aspect ratio.		
	2. Click <b>Change Image Region</b> to only export part of the video image.		
	In the Change Image Region dialog box, move and resize the green		

	overlay then click <b>OK</b> . Only areas highlighted in green are exported.
	<ol> <li>Select the image overlays you want: Timestamp, Camera name, and Camera location.</li> </ol>
	<ol> <li>Click <b>Display Adjustments</b> to adjust the Gamma, Black Level and/or White Level.</li> </ol>
	1. In the <b>Quality</b> field, select an image quality level.
	2. Set the image <b>Resolution</b> .
JPEG	3. Click <b>Change Image Region</b> to only export a part of the video image.
	4. Select the image overlays you want.
	5. Click <b>Display Adjustments</b> to modify the image quality.
	1. Set the image <b>Resolution</b> .
	2. Click Change Image Region to only export a part of the video image.
TIFF	3. Select the image overlays you want.
	4. Click <b>Display Adjustments</b> to modify the image quality.
	1. Click <b>Change Image Region</b> to only export a part of the video image.
	<ol> <li>Click Printer Settings to change the selected printer and paper size.</li> </ol>
Print	3. Select the image overlays you want.
	<ol> <li>Click Add Export Notes to add notes about the exported image. The notes are printed below the image.</li> </ol>
	5. Click <b>Display Adjustments</b> to modify the image quality.
	1. Click <b>Change Image Region</b> to only export a part of the video image.
	2. Select the image overlays you want.
PDF	3. Click Add Export Notes to add notes about the exported image.
	4. Click <b>Display Adjustments</b> to modify the image quality.

- 4. Click Start Export.
- 5. In the Save As dialog box, name the export file and click **Save**.

The Preview area displays the snapshot you are exporting.

6. When the export is complete, click **OK**.

# Exporting Recorded Video and Images

Use the Export tab to export recorded video in different video and image formats.

Note: Only recorded video can be exported in video format.

# Accessing the Export Tab

The Export tab can be accessed in any of the following ways:

- On the toolbar, click **Export**.
- Select File > Export.
- While performing a search, select a search result and click Export this event.
- While reviewing bookmarked video, right-click a bookmark on the Timeline and select **Export**.

# Exporting Native Video

The Native (AVE) format is the recommended format for exporting video. You can export video from multiple cameras in a single file, and the video maintains its original compression. AVE video is played in the Avigilon Control Center Player, where the video can be authenticated against tampering and be re-exported to other formats.

1. Click **Export** to open the Export tab.

review		Camera to Export
2010-Aug-18	01 48 11.418 PM	Local Client Building 1 Subday 1 Subd
xport Options		
Format:	Native	Export Control Center Player Installer     Split file into sizes of:     700 (CD-ROM)   MB
	Wed 2010-08-18	Split file into sizes of: 700 (CD-ROM) WB
From: To:	Wed 2010-08-18         Image: 01:12:01:910           Wed 2010-08-18         Image: 02:25:32:063           PM         Image: 02:25:32:063	Split file into sizes of: 700 (CD-ROM) VMB
	Wed 2010-08-18 V 01:12:01:910 PM Wed 2010-08-18 V 02:25:32:063 PM	Split file into sizes of: 700 (CD-ROM) MB
From: To: Duration:	Wed 2010-08-18       Il:12:01:910       PM         Wed 2010-08-18       02:25:32:063       PM         0       1       13       30         Days       Hours       Minutes       Seco         Image       Export at       Full       image rate         Export one image every       Image       Image	Split file into sizes of: 700 (CD-ROM) MB onds 5 \$ sec
From: To: Duration:	Wed 2010-08-18       01:12:01:910       PM         Wed 2010-08-18       02:25:32:063       PM         0       1       13       30         Days       Hours       Minutes       Seco         • Export at       Full       image rate         • Export one image every       • min	Spik file into sizes of: 700 (CD-ROM) MB mage onds 5 sec Start Expor Wednesday, August 18, 2010
	Wed 2010-08-18       01:12:01:910       PM         Wed 2010-08-18       02:25:32:063       PM         0       1       13       30         Days       Hours       Minutes       Seco         • Export at       Full       image rate         • Export one image every       • min	Split file into sizes of: 700 (CD-ROM) MB onds 5 \$ sec

Figure A. Export tab for recorded video export

- 2. In the Format drop down list, select Native.
- 3. In the Camera to Export list, select the camera video you want to export.
- 4. Enter the time range you want to export. The time range is highlighted on the Timeline by black time range markers. You can also drag the time range markers to modify the time range.
- 5. Set the export image rate:

Option	Description
Export at image rate	Select this option to control how many images per second are exported. For example, the video is streaming at 30 images per second. If you select <b>1/2</b> , only 15 images for that second will be exported.

- 6. To include a copy of the Avigilon Control Center Player with your export, select the **Export the Control Center Player Installer** check box.
- 7. To automatically divide the export into separate files that can be stored on optical media (like a CD or DVD), select the **Split file into sizes of:** check box. Then, manually enter a maximum file size in MB or select a pre-configured option from the drop down list.
- 8. Click Start Export.
- 9. In the Save As dialog box, name the export file and click **Save**.

The Preview area displays the video you are exporting.

10. When the export is complete, click **OK**.

### Exporting AVI Video

Video exported in Audio Video Interleave (AVI) format can be played in most media players.

1. Click **Export** to open the Export tab.

🕡 Export  🚳	View 1				
Preview			o Export al Client BuildingA ✓ 16MP-HD-PR 2 0MP-HD-H2 2 0MP-HD-H2 3 0MP-HD-H1 3 0MP-HD-D1 € ENC-4P0RT ENC-4P0	264-82(50067) 264-D1 N N	
Export Options Format:	AVI video	Encoder: Quality:	None		~
	Wed 2011-09-07         Image of the second seco	Resolution:	1926 Change Image R Split file into size 700 (CD-ROM) Skip recording g	s of:	×
	Export one image every 0 0 min 5 0 sec	Overlays:	110	ents	art Export
Sep 4, 11 Mon, 1 12,AM	Sep 05, 2011 Tue, Sep 06, 2011 We 12 PM 12 AM 12 PM 12 AM	d, Sep 07, 201 12 PM	1 Thu, 12 AM	Sep 08, 2011 12 PM	Sep 9, 11 12 AM

Figure A. Export tab for recorded video export

- 2. In the Format drop down list, select AVI video.
- 3. In the Camera to Export list, select the camera video you want to export.
- 4. Enter the time range you want to export. The time range is highlighted on the Timeline by black time range markers. You can also drag the time range markers to modify the time range.
- 5. Set the export image rate:

Option	Description
Export at image rate	Select this option to control how many images per second are exported. For example, the video is streaming at 30 images per second. If you select <b>1/2</b> , only 15 images for that second will be exported.

Export one image every minsec	Select this option to control the time between each exported video image. For example, if you enter <i>5</i> min. <i>0</i> sec., only one image will be exported every 5 minutes.

- In the Encoder field, select the compression used. The VC-1 (Windows Media Video) compression is included by default because it is tailored for high-resolution AVI encoding.
- 7. In the Quality drop down list, select the exported image quality level.
- 8. In the **Resolution** field, select a resolution for the video image. You can manually enter the resolution or click the drop down arrow to select a standard resolution.

Note: The Resolution field automatically maintains the image aspect ratio.

For high resolution video (11MP or 16MP) the greatest resolution option will be less than the camera's actual resolution because most media players cannot play high resolution AVI files.

- To automatically divide the export into separate files that can be stored on optical media (like a CD or DVD), select the **Split file into sizes of:** check box. Then, manually enter a maximum file size in MB or select a pre-configured option from the drop down list.
- 10. Click **Change Image Region...** to only export part of the video image.

In the Change Image Region dialog box, move and resize the green overlay then click **OK**. Only areas highlighted in green are exported.

- 11. Select the **Skips recording gaps** check box to avoid pauses in the video caused by gaps in the recording.
- 12. Select the image overlays you want: Timestamp, Camera name, and Camera location.
- 13. Click **Display Adjustments** to adjust the gamma, black level and/or white level.
- 14. Click Start Export.
- 15. In the Save As dialog box, name the export file and click **Save**.

The Preview area displays the video you are exporting.

16. When the export is complete, click **OK**.

### Exporting PNG, JPEG or TIFF Images

Video can be exported as a series of still images in PNG, JPEG, or TIFF format.

1. Click **Export** to open the Export tab.

review				Camera t	o Export		
					al Client BuildingA C 16MP-HC 2.0MP-H 2.0MP-H 2.0MP-H 3.0MP-H C 5.0MP-H C 5.0MP-H	D-H264-82(5006 D-H264-D1 D-DN D-DN	
<b>Rport Options</b> Format	JPEG images		<b>~</b>	Quality: Resolution:	Low 1926	× 1280	×
From:	Wed 2011-09-07	08:48:21:16	0 AM		Change Ima	ge Region	
Τα	Thu 2011-09-08	07:12:06:68		Overlays:	Timestamp     Camera nan	ne	
Duration:			45 😂		Camera loca	ation	
	Days Hours Export at Full	Minutes image rate	Seconds		Display Adj	ustments	
	O Export one image		min 5 C s	ec			
	Export at most	images					
							Start Expo
							<u> </u>
						•	
				and the second sec	4	Den 00 01	)11 Sep
ep 4, 11 Mon, 12 AM	, Sep 05, 2011 12 PM 1	Tue, Sep 2 AM 12		Wed, Sep 07, 201 AM 12 PM	12 AM	Thu, Sep 08, 20 12 PM	12 AM

Figure A. Export tab for still image export

- 2. In the Format drop down list, select PNG Images, JPEG Images, or TIFF Images.
- 3. In the Camera to Export list, select the camera video you want to export.
- 4. Enter the time range you want to export. The time range is highlighted on the Timeline by black time range markers. You can also drag the time range markers to modify the time range.
- 5. Set the export image rate:

Option	Description
	Select this option to control how many images per second are exported.
Export at image rate	For example, the video is streaming at 30 images per second. If you select <b>1/2</b> , only 15 images for that second will be exported.

|--|

- 6. Select the **Export at most** \_\_\_ **images** check box and enter a number to limit the amount of images that are exported.
- 7. (JPEG only)

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

8. In the **Resolution** field, select a resolution for the video image. You can manually enter the resolution or click the drop down arrow to select a standard resolution.

Note: The Resolution field automatically maintains the image aspect ratio.

9. Click Change Image Region... to only export part of the video image.

In the Change Image Region dialog box, move and resize the green overlay then click **OK**. Only areas highlighted in green are exported.

- 10. Select the image overlays you want: Timestamp, Camera name, and Camera location.
- 11. Click **Display Adjustments** to adjust the gamma, black level and/or white level.
- 12. Click Start Export.
- 13. In the Save As dialog box, name the export file and click Save.

The Preview area displays the video you are exporting.

14. When the export is complete, click **OK**.

### Exporting PDF and Print Images

Video can be exported as still images for printing or in PDF format.

1. Click **Export** to open the Export tab.

💿 View1 🔲 🕢 Export 区	
Preview	Camera to Export
2010-Aug-18 01:48:11.418 PM 11MP2HDEPRO-C (unspecified location)	Local Client Building 1 Construction of the state of th
Export Options Format: Print Image Time: Wed 2010-08-18  08:46:17:845 PM	Change Image Region  Printer: \\Grandcentral\\HP LasesJet 4th Floor Paper: Letter  Printer Settings  Overlays:  Timestamp Camera name Camera location
	Add Export Notes Display Adjustments
	🏟 Start Export
0 🖸 Wedn	esday, August 18, 2010
● ● ■ 1:15 PM 1:30 PM 1:45 PM	2:00 PM 2:15 PM 2:30 PM 2:45 PM

Figure A. Export tab for still image export

- 2. In the Format drop down list, select Print Image or PDF File.
- 3. In the Camera to Export list, select the camera video you want to export.
- 4. In the **Time** field, enter the exact date and time of the video image you want to export.
- 5. Click Change Image Region... to only export part of the video image.

In the Change Image Region dialog box, move and resize the green overlay then click **OK**. Only areas highlighted in green are exported.

- 6. (Print Image only) Click **Print Settings** to change the printer and paper size that the image is printed on.
- 7. Select the image overlays you want: Timestamp, Camera name, and Camera location.

- 8. Click **Add Export Notes** to add notes about the exported image. The notes are added below the image.
- 9. Click **Display Adjustments** to adjust the gamma, black level and/or white level.
- 10. Click Start Export.
- 11. In the Save As dialog box, name the export file and click **Save**.

The Preview area displays the video you are exporting.

12. When the export is complete, click **OK**.

# Appendix

## Accessing the Web Client

You can also access your Avigilon High Definition Surveillance System through the Web Client. The Web Client is a simplified version of the Client software. It allows you to monitor your surveillance system, search for video events and export recorded video outside the Client software. Be aware that you cannot modify any system settings through the Web Client.

#### **Note:** The Web Client is only compatible with the Internet Explorer browser.

To access the Web Client, you need the Avigilon server's IP address and port number. This information is available in the Avigilon Control Center Admin Tool installed on the server. See the *Avigilon Control Center Server User Guide* for more information.

1. To access the Web Client, open Internet Explorer and enter the following address: http://<server ip address>:<port number>/ (For example, http://192.168.2.62:50083/)

If you have not accessed the Web Client before, you may be prompted to install the required plug-in software before the Web Client will open.

2. When the login screen appears, enter your username and password for the server.

The Web Client is opened in your browser, and you can access the video and cameras connected to the server.

Note: You can only access one server at a time through the Web Client.

Avigilon Web Client - Microsoft Internet Explorer				
Address 1 http://192.168.2.62:50083/		🖌 🎅 Go 🛛 🍕 Convert 🔹 🛃 Select		
Live Recorded Alarms	🛛 😡 Search 😱 Export 🛛 👌 🖑 🍳	Q · • · · · · · · · · · · · · · · · · ·		
System Explorer 5.0MP-HD-DN(3209)	🔊 View 1 🔟	G		
ENC-4PORT-2AI(6708:1)	avigilon	avigilon		
	avigilon	avigilon		
🛃 Done		Internet		

Figure A. Avigilon Control Center Web Client

## Updating the Client Software

Avigilon Control Center Client software updates are typically included with the Avigilon Control Center Server update packages. When you first open the Client software, the following dialog box will appear if a Client software update is available:



Figure A. Update Control Center Client

 Click the Update button to allow the Client software to update. The software update is automatically downloaded. The following dialog box will appear to show the download progress:

🕘 Update Control Center Client 📃 🗖 🔀
💭 Downloading Control Center Client Update
<u>C</u> ancel



When the update has finished downloading, click **Update Control Center**. When the installation wizard appears, follow the prompts to complete the update.

Click **Do Not Update** to continue working with the Client software without updating. The Client software will not be updated, and you can continue working with software as before.

The Client software can also be downloaded from the Software Download page of the Avigilon website: <u>http://avigilon.com/#/support-and-downloads/for-software/software-updates-and-downloads/</u>

## **Events and Descriptions**

**Note:** Some features are not displayed if the server does not have the required license, or if you do not have the required user permissions.

The options available for each of the following features are listed with their descriptions.

## Group Permission Descriptions

The following table shows the options that are available when you set up a permission group. For more information about setting up a permission group, see <u>Adding Groups</u>.

Group Permissions View live images		Description		
		Allows users to watch a camera's live video stream in a View.		
	Use PTZ controls	Allows users to use a camera's PTZ controls.		
	Lock PTZ controls	Allows users to lock a camera's PTZ controls.		
	Trigger manual recording	Allows users to trigger manual recording while watching video in a View.		
	Listen to microphones	Allows users to listen to microphones that are connected to a camera.		
	Broadcast to speakers	Allows users to broadcast audio through speakers that are connected to the camera.		
View record	ed images	Allows users to watch a camera's recorded video in a View.		
	Export images	Allows users to export recorded images.		
	Backup images	Allows users to backup recorded images.		
Connect and disconnect cameras		Allows users to connect and disconnect cameras to servers.		
Setup came	ras	Allows users to configure cameras.		
	Setup general settings	Allows users to edit the camera's General dialog box.		
	Setup network settings	Allows users to edit the Network dialog box.		
	Setup image and display settings	Allows users to edit the Image and Display dialog box.		
	Setup compression and image rate	Allows users to edit the Compression and Image Rate dialog box.		
	Setup image dimension settings	Allows users to edit the Image Dimensions dialog box.		

	Setup motion detection settings	Allows users to edit the Motion Detection dialog box.
	Setup privacy zone settings	Allows users to edit the Privacy Zone dialog box.
	Setup manual recording settings	Allows users to edit the Manual Recording dialog box.
	Setup digital input & output settings	Allows users to edit the Digital Inputs and Outputs dialog box.
	Setup microphone settings	Allows users to edit the Microphone dialog box.
	Setup speaker settings	Allows users to edit the Speaker dialog box.
Setup server	'S	Allows users to configure servers.
	Setup general settings	Allows users to edit the server's General dialog box.
	Setup schedule settings	Allows users to edit the Recording Schedule dialog box.
	Setup recording and bandwidth settings	Allows users to edit the Recording and Bandwidth dialog box.
	Setup user and group settings	Allows users to edit the Users and Groups dialog box.
	Setup alarm management settings	Allows users to edit the Alarms dialog box.
	Setup scheduled backup settings	Allows users to edit the Scheduled Backups dialog box.
	Setup POS transaction settings	Allows users to edit the POS Transactions dialog box.
	Setup LPR settings	Allows users to edit the License Plate Recognition dialog box.
	Setup email settings	Allows users to edit the Email Notification dialog box.
	Setup rule engine settings	Allows users to edit the Rules dialog box.
	View system log	Allows users to view the System Log.
		·

## Email Descriptions

The following table shows the email notification trigger options that are available when you set up an email notification. For more information about setting up an email notification, see <u>Configuring Email</u> <u>Notification</u>.

Email Notification Trigger	Description
System event	Email notifications are sent when one of the following rule events occur:
	<ul> <li>Server application starting up</li> </ul>
	<ul> <li>Server application shutting down</li> </ul>
	<ul> <li>Server application terminated unexpectedly</li> </ul>
	<ul> <li>Server application low on resources</li> </ul>
	<ul> <li>Server application installation error</li> </ul>
	<ul> <li>Licensed feature expires soon</li> </ul>
	<ul> <li>Licensed feature expired</li> </ul>
	<ul> <li>Database error</li> </ul>
	<ul> <li>Data initialization error</li> </ul>
	<ul> <li>Data volume size reduced</li> </ul>
	<ul> <li>Data write error for any camera</li> </ul>
	<ul> <li>Data upgrade started</li> </ul>
	<ul> <li>Data upgrade completed</li> </ul>
	<ul> <li>Data upgrade failed</li> </ul>
	<ul> <li>Volume failed</li> </ul>
	<ul> <li>Volume recovered</li> </ul>
	<ul> <li>Network connection found</li> </ul>
	<ul> <li>Network connection lost</li> </ul>

	Network error	
	<ul> <li>Network error resolved</li> </ul>	
	Email send error	
	Server hardware error	
	<ul> <li>Device connected to standby server</li> </ul>	
	<ul> <li>Device disconnected from standby server</li> </ul>	
	Device connection error	
	<ul> <li>Device connection error resolved</li> </ul>	
	<ul> <li>Data packets lost</li> </ul>	
	<ul> <li>Data packets recovered</li> </ul>	
	Recording interrupted	
	Recording resumed	
	<ul> <li>Firmware upgrade failed</li> </ul>	
Motion detection	An email notification is sent when camera motion detection has started. You can select the camera.	
Digital input activated	An email notification is sent when a digital input has been triggered. You can select the digital input.	
POS transaction exception	An email notification is sent when a POS transaction exception occurs.	

## **Reporting Bugs**

If an error occurs in the Avigilon Control Center, you can contact Avigilon Support at <u>support@avigilon.com</u> or +1.888.281.5182.

To help diagnose your problem, the Avigilon Support team may ask you to provide a System Bug Report. The System Bug Report is a zip file generated by the Avigilon Control Center Client software that contains the system log and error reports for each of the servers you have access to.

1. Select Help > System Bug Report....

- 2. When the Download System Bug Report dialog box appears, click **Download**.
- 3. In the Save As dialog box, name the file and click **Save**.
- 4. Once the System Bug Report has downloaded successfully, click **Close**.

## Keyboard Commands

Use any of the keyboard commands below to help you navigate the Avigilon Control Center Client software.

The Key Combination column shows the commands used on a standard keyboard, while the Keypad Combination column shows the commands used on an Avigilon USB Professional Joystick Keyboard.

### Image Panel & Camera Commands

Command	Key Combination	Keypad Combination (Image Panel buttons)
Select an image panel Image panel # are displayed after pressing the first key.	* + <image #="" panel=""/> + Enter	SELECT + <image #="" panel=""/> + ENTER
Add a camera to View The camera <u>logical</u> <u>ID</u> is required.	/ + <logical id=""> + Enter</logical>	+ <logical id=""> + ENTER</logical>
Select the next image panel	Tab	
Select the previous image panel	Shift + Tab	
Clear image panel selection	* + 0 + Enter	

Remove camera from the selected image panel	Backspace	CLOSE
Maximize/Restore the selected image panel	Ctrl + E	
Replay 30 seconds	Ctrl + ,	
Replay 60 seconds	Ctrl + .	
Replay 90 seconds	Ctrl + /	
Add bookmark for selected camera <b>Note:</b> For recorded video only.	Ctrl + B	
Start/Stop manual recording for selected camera	R	RECORD
Take a snapshot of the selected image panel	F4	

## View Commands

Command	Key Combination	Keypad Combination (View buttons)
Select the next View	Ctrl + Tab	NEXT 2

Select the previous View	Ctrl + Shift + Tab	PREV 1
Jump to View	Ctrl + 1 to 9	
Start/Stop cycle Views	Ctrl + Y	CYCLE
Create new View	Ctrl + T	
Close current View	Ctrl + W	CLOSE 6
Open a new window	Ctrl + N	
Switch current View to display live video	Ctrl + L	
Switch current View to display recorded video	Ctrl + P	RECORDED
Remove all cameras from the current View	Ctrl + Backspace	
Full screen a View End full screen	F11	FULLSCREEN

### View Layout Commands

**Note:** Customized View layouts are linked to their position in the Layouts list. For example, if your custom layout is placed at the top of the Layouts list, you can use the keyboard command for layout 1 to select the custom layout.

Command	Key Compligation	Keypad Combination (View buttons)
Change to layout 1	Alt + 1	LAYOUT 4 + PREV 1

Change to layout 2	Alt + 2	LAYOUT 4 + NEXT 2
Change to layout 3	Alt + 3	LAYOUT 4 + OPEN 3
Change to layout 4	Alt + 4	LAYOUT 4 + LAYOUT 4
Change to layout 5	Alt + 5	LAYOUT 4 + 5
Change to layout 6	Alt + 6	LAYOUT 4 + CLOSE 6
Change to layout 7	Alt + 7	LAYOUT 4 + 7
Change to layout 8	Alt + 8	LAYOUT 4 + 8
Change to layout 9	Alt + 9	LAYOUT 4 + 9
Change to layout 10	Alt + 0	LAYOUT 4 + 0
Change to next layout	Alt + ]	
Change to previous layout	Alt + [	

## Playback Commands

	Command	Key Combination	(Timeline buttons)
--	---------	-----------------	--------------------

Play/PauseSpacebarImage UpIncrease playback speedPage UpDecrease playback speedPage DownStep to next frameShift + IStep to previous frameShift + IGo to next eventAft + IGo to previous eventCtrl + IGo forward ne secondCtrl + Shift + IGo back one secondCtrl + Shift + IGo back five secondsCtrl + Shift + IGo back five secondsCtrl + Shift + ICom in on the TimelineCtrl + Aft + ICom out on the TimelineCtrl + Aft + I			
Page UpDecrease playback speedPage DownStep to next frameShift + →Step to previous frameShift + →Go to next eventAtt + →Go to previous eventAtt + →Go forward one secondCtr + →Go forward five secondsCtr + Shift + →Go back one secondCtr + Shift + →Go back five secondsCtr + Shift + →Corn in on the TimelineCtr + Att + +Zoom nut on the TimelineCtr + Att + +	Play/Pause	Spacebar	
Page Down         Step to next frame       Shift + →       Image: Comparison of the second of t	Increase playback speed	Page Up	
Step to previous frame       Shift + ←       Image: Comparison of the second         Go to next event       Att + →       Image: Comparison of the second         Go forward one second       Ctrl + →       Image: Ctrl + Shift + →         Go back one second       Ctrl +        Image: Ctrl +          Go back one second       Ctrl +        Image: Ctrl +          Go back five seconds       Ctrl +        Image: Ctrl +          Coom in on the Timeline       Ctrl + Att +        Image: Ctrl +          Zoom out on the Timeline       Image: Ctrl +        Image: Ctrl +	Decrease playback speed	Page Down	
Smith + ←Image: Constraint of the secondImage: Constraint of the secondGo to previous eventAtt + ←Image: Constraint of the secondGo forward one secondCtrl + →Image: Ctrl + Shift + →Go forward five secondsCtrl + Shift + →Image: Ctrl + Shift + →Go back one secondCtrl + ←Image: Ctrl + Shift + →Go back five secondsCtrl + Shift + →Image: Ctrl + Shift + →Constraint on the TimelineCtrl + Att + +Image: Ctrl + Att + +Zoom out on the TimelineImage: Ctrl + Att + +Image: Ctrl + Att + +	Step to next frame	Shift + →	
Att + →         Go to previous event         Att + ←         Go forward one second         Ctrl + →         Go forward five seconds         Ctrl + Shift + →         Go back one second         Ctrl + Shift + →         Go back five seconds         Ctrl + Shift + ←         Zoom in on the Timeline         Zoom out on the Timeline	Step to previous frame	Shift + ←	
Att + $\leftarrow$ Go forward one second $Ctrl + \rightarrow$ Go forward five seconds $Ctrl + Shift + \rightarrow$ Go back one second $Ctrl + \leftarrow$ Go back five seconds $Ctrl + \leftarrow$ Go back five seconds $Ctrl + Shift + \leftarrow$ Zoom in on the Timeline $Ctrl + Alt + +$ Zoom out on the Timeline $\Box$	Go to next event	Alt + →	
$Ctrl + \rightarrow$ $\bigcirc$ Go forward five seconds $Ctrl + Shift + \rightarrow$ Go back one second $Ctrl + \leftarrow$ Go back five seconds $Ctrl + \leftarrow$ Go back five seconds $Ctrl + Shift + \leftarrow$ Zoom in on the Timeline $Ctrl + Alt + +$ Zoom out on the Timeline $\Box r r + Alt + +$	Go to previous event	Alt + ←	
$Ctrl + Shift + \rightarrow$ Go back one second $Ctrl + \leftarrow$ Go back five seconds $Ctrl + Shift + \leftarrow$ Zoom in on the Timeline $Ctrl + Alt + +$ Zoom out on the Timeline $Ctrl + Alt + +$	Go forward one second	Ctrl + →	Ð
Go back five seconds     Ctrl + Shift + ←       Zoom in on the Timeline     Ctrl + Alt + +	Go forward five seconds	Ctrl + Shift + →	
Zoom in on the Timeline       Ctrl + Alt + +       Image: Ctrl + Alt + +         Zoom out on the Timeline       Image: Ctrl + Alt + +       Image: Ctrl + Alt + +	Go back one second	Ctrl + ←	
Zoom out on the Timeline	Go back five seconds	Ctrl + Shift + ←	
Zoom out on the Timeline	Zoom in on the Timeline	Ctrl + Alt + +	€
	Zoom out on the Timeline	Ctrl + Alt + -	Q

Scroll forward on the Timeline	Ctrl + Alt + →	
Scroll backward on the Timeline	Ctrl + Alt + ←	
Go to start of the Timeline	Ctrl + Alt + Home	
Go to end of the Timeline	Ctrl + Alt + End	
Center the Timeline on the time marker	Ctrl + C	

## PTZ Commands (Digital and Mechanical)

Command	Key Combination	Keypad Combination (PTZ buttons)
Toggle PTZ controls	Ctrl + D	◆ ◆ ◆ PTZ
Zoom in	+	
Zoom out	-	

Pan left	←	
Pan right	$\rightarrow$	
Tilt up	<u>↑</u>	
Tilt down	Ļ	
Increase PTZ speed	Shift + ↑	The farther the joystick is from center, the faster the speed.
Decrease PTZ speed	Shift + ↓	The closer the joystick is to center, the slower the speed.
Open iris	Home	OPEN
Close iris	End	CLOSE
Focus near	Insert	NEAR

Focus far	Delete	FAR
PTZ menu left	←	
PTZ menu right	$\rightarrow$	
PTZ menu up	<u>↑</u>	
PTZ menu down	Ļ	
Activate preset	Q + <preset #&gt;</preset 	PRESET + <preset #=""> + ENTER</preset>
Run pattern		PATTERN + < Pattern #> + ENTER
Start auxiliary	W + <aux #=""></aux>	+ <aux #=""> + ENTER</aux>
Stop auxiliary	E+ <aux #=""></aux>	STOP + <aux #=""> + ENTER</aux>

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