1 Installation

Precautions
The E-Series audio/video encoder is highly advanced surveillance equipment that should be installed with care. Please consider the following precautionary steps before installing the encoder.

- Keep all liquids away from the encoder.
- Install the encoder in a well-ventilated and dust-free area.
- Ensure environmental conditions meet factory specifications.

Installation Notes
During the installation of the encoder:

- Use brackets for rack mounting.
- Ensure there is ample room for audio and video cables.
- When installing cables, ensure that the bend radius of each cable is no less than five times its diameter.
- Connect both the alarm and RS-485 cable.
- Allow at least 2cm (0.75in) of space between rack-mounted devices.
- Ensure the encoder is grounded.
- Environmental temperature should be within the range of -10 ºC to 55 ºC (14ºF to 131ºF).
- Environmental humidity should be within the range of 10% to 90%.
- Check the power supply to avoid the damage caused by voltage mismatch.
- Keep the device horizontal and avoid installing in an environment of severe vibration.
- The dust board will cause a short circuit after damping. Use a brush to regularly remove dust from the board, connector, and chassis fan.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

Regulatory information

FCC information

FCC compliance: This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: 1.) This device may not cause harmful interference. 2.) This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement

CE

This product and -- if applicable -- the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU.

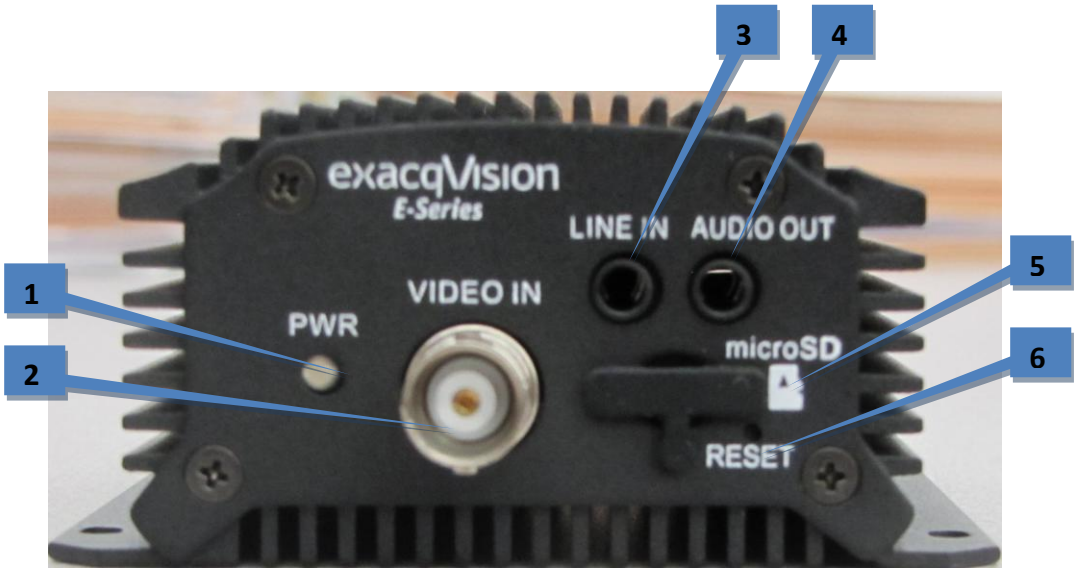
This symbol is required in accordance with the Waste Electrical and Electronic Equipment (WEEE) Directive of the European Union. The presence of this marking on the product indicates: 1.) the device was put on the European market after August 13, 2005 and 2.) the device is not to be disposed via the municipal waste collection system of any member state of the European Union.

It is very important that customers understand and follow all laws regarding the proper decontamination and safe disposal of electrical equipment. Please contact +44.1438.310163 for details on the take back program that will facilitate the proper collection, treatment, recovery, recycling, and safe disposal of the device.

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info.

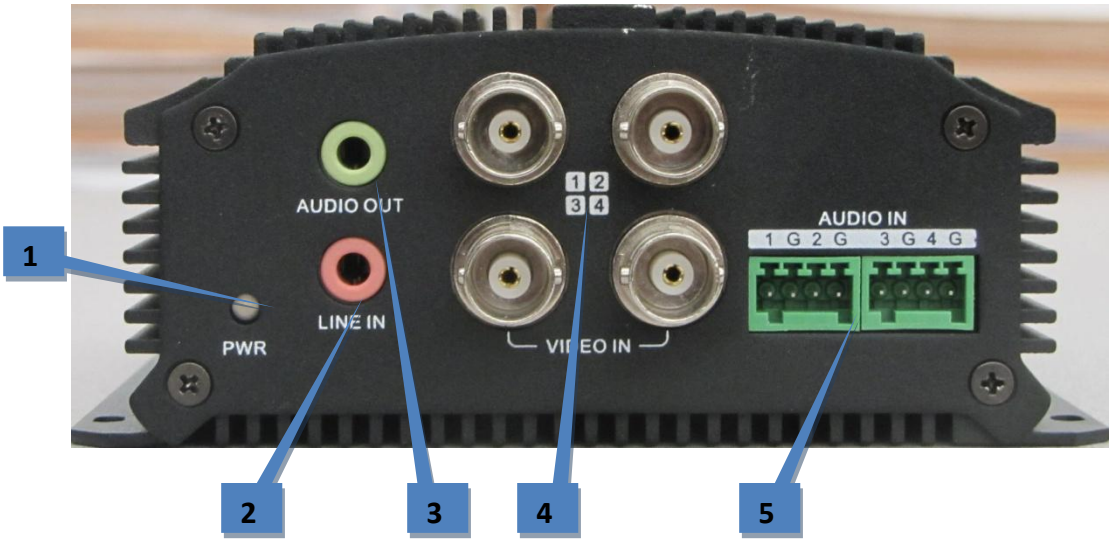
2 Front Panel

E-ADE1C FRONT PANEL



	Item	Description
1	POWER LED Indicator	Red when the device is powered on; orange when the SD card is inserted.
2	VIDEO IN	BNC connector for video input.
3	LINE IN	3.5mm interface for two-way audio input or audio input; connect to audio input device or active pick-up, microphone, etc.
4	AUDIO OUT	3.5mm interface; connect to audio output device such as loudspeaker.
5	microSD	microSD interface for log storage.
6	RESET	Hold button for more than 15 seconds after power is turned on to restore factory-default settings.

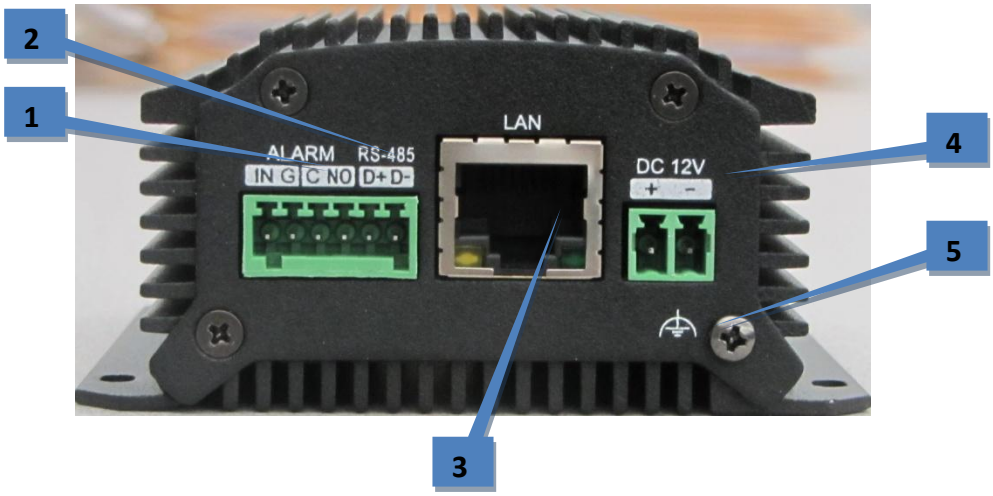
E-ADE4C FRONT PANEL



	Item	Description
1	POWER LED Indicator	Red when the device is powered on; orange when the SD card is inserted.
2	LINE IN	3.5mm two-way audio input interface; connect to active pick-up, microphone, etc.
3	AUDIO OUT	3.5mm interface; connect to audio output device, such as loudspeaker.
4	VIDEO IN	BNC interface for video input.
5	AUDIO IN	Line input interface for audio input.

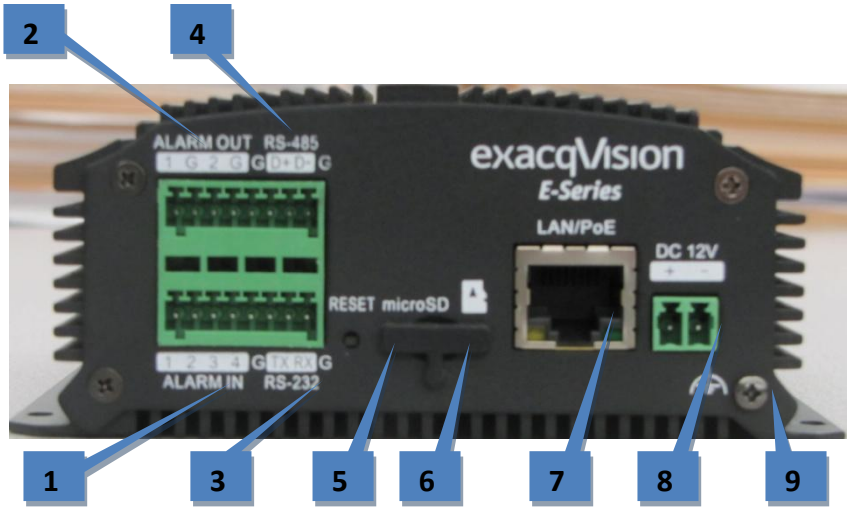
3 Rear Panel

E-ADE1C REAR PANEL



	Item	Description
1	ALARM IN /OUT	Relay alarm input/output. (JP2 pin not available on output.)
2	RS-485	RS-485 serial interface; connect to pan/tilt unit, speed dome, etc.
3	LAN	10M/100Mbps adaptive Ethernet interface (PoE). Right LED indicator lights in green when the network cable is connected; left LED indicator blinks in orange when data is transmitting/receiving.
4	DC12V	12V DC power supply.
5	GND	Grounding.

E-ADE4C REAR PANEL



	Item	Description
1	ALARM IN	Relay alarm input.
2	ALARM OUT	Relay alarm output.
3	RS-232	Serial interface for configuration of device's parameters; or used as transparent channel.
4	RS-485	RS-485 serial interface; connect to pan/tilt unit, speed dome, etc.
5	RESET	Hold button for more than 15 seconds after the device is turned on to restore factory-default settings.
6	microSD	microSD interface for data storage.
7	LAN	10M/100Mbps adaptive Ethernet interface (PoE). Right LED indicator lights in green when the network cable is connected; left LED indicator blinks in orange when data is transmitting/receiving.
8	DC12V	12V DC power supply.
9	GND	Grounding.

4 Specifications

Model		E-ADE1C	E-ADE4C
Video/ Audio input	Video	H.264/MPEG4/MPEG2/MJPEG	
	Video input	1 channel	4 channels
		BNC (1.0 Vp-p, 75 Ω)	
	Audio	G.711u	
	Audio Input	1 channel	4 channels
		1-channel, 3.5mm interface (2.0 Vp-p, 1 kΩ) (LINE IN)	Line input interface (2.0 Vp-p, 1 kΩ)
	Two-way audio input	1 channel, 3.5mm interface (2.0 Vp-p, 1 kΩ) (LINE IN)	1 channel, 3.5mm interface (2.0 Vp-p, 1 kΩ)
Video/ Audio output	Audio output	1-ch, 3.5mm interface (Linear, 600 Ω)	
	Recording resolution	4CIF / 2CIF / CIF / QCIF	
	Frame rate	H.264/MPEG4/MPEG2 encoding: 25 fps (P) / 30 fps (N); MJPEG encoding: 15 fps	
	Video bit rate	32 Kbps ~ 3072 Kbps, or user defined (Max. 8192 Mbps)	
	Audio bit rate	64 Kbps	
	Dual Stream	Support	
	Stream Type	Video / Video & Audio	
External interface	Network interface	1 RJ-45 10 M / 100 Mbps adaptive Ethernet interface (PoE)	
	Protocols and Service	IPv4/v6, HTTP, HTTPS, QoS layer3 DiffServ, FTP, SMTP, Bonjour, UPnP™, Multicast, SNMPv1/v2c/v3(MIB-II), DNS, DynDNS, HiDDNS, NTP, RTSP, RTP/RTCP,TCP, UDP, IGMP, ICMP, DHCP, ARP, SOCKSv4/v5, PSIA, ONVIF, HIKCGI, netFilter	
	Serial interface	1 half-duplex RS-485 interface	1 half-duplex RS-485 interface; 1 RS-232 interface
	Alarm in	1	4
	Alarm out	1	2
General	Power	12 VDC	
	Power	≤ 6W	≤ 8W
	Working temp.	-10°C ~ +55°C	
	Working humidity	10% ~ 90%	
	Dimensions	80 × 39 × 90 mm	114 × 48 × 128 mm
	Weight	≤ 0.5 Kg	≤ 1 Kg

5 Configuring Network Parameters

There are two ways an IP address can be assigned to the encoder:

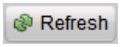
- If a DHCP server is available, an IP address will be assigned to the encoder automatically. You can then locate the encoder in exacqVision using the Find IP Cameras feature (see section 6 of this document for more information).
- If a DHCP server is not available, the encoder will default to a link-local address.

In either case, you can use the E-Series IP utility to find and configure the IP address and other network parameters.

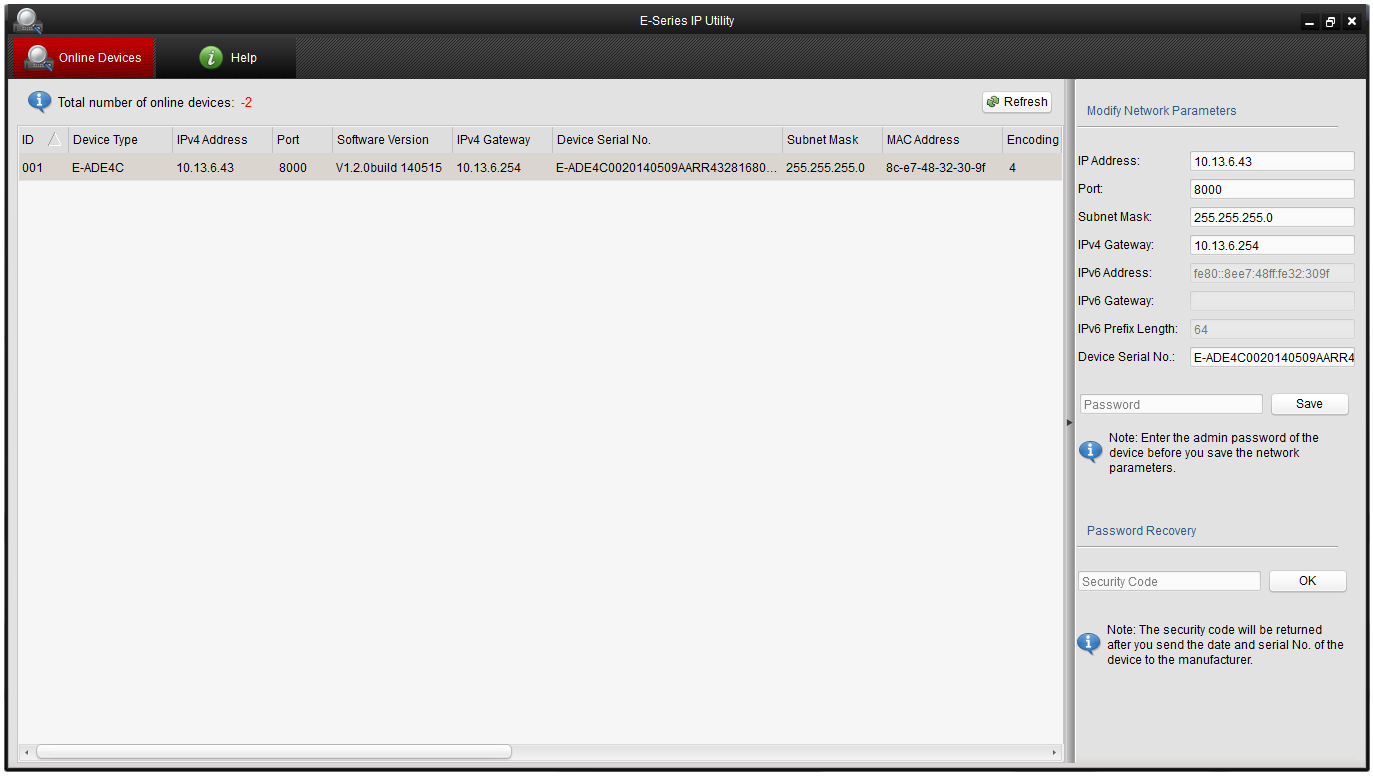
Searching Online Devices

Click 

to run the IP utility. It automatically searches online devices every 15 seconds on the computer's subnet. It displays the total number of located devices in the **Online Devices** interface. Device information such as device type, IP address, port number, and gateway are displayed.

Click 

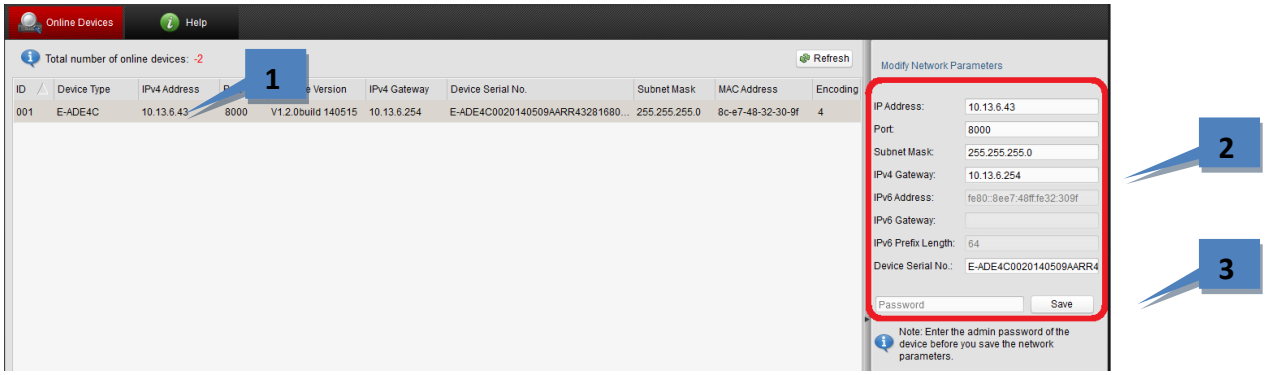
to refresh the online device list manually. Any newly searched devices are added to the list. Devices can be searched and displayed in the list within 15 seconds of connection, and they are removed from the list within 45 seconds after going offline.



Modifying Network Parameters

1. Select the device to be modified in the device list.
2. Network parameters of the selected device are displayed in the **Modify Network Parameters** panel. Edit the modifiable network parameters as needed.
3. Enter the password of the admin account of the device in the **Password** field and click Save to save the changes.

NOTE: To modify the network parameters of multiple devices simultaneously, select all the devices to be modified before editing the parameters. The IP address entered is incremented by one for the additional selected devices; that is, if you enter 10.13.6.43 for the first selected device, the next device will be assigned 10.13.6.44, and so on until each selected device is assigned an address.



Restoring Default Password

It is recommended that you change the admin password. Default credentials for the encoder are as follows:

- **Username:** admin
- **Password:** admin256

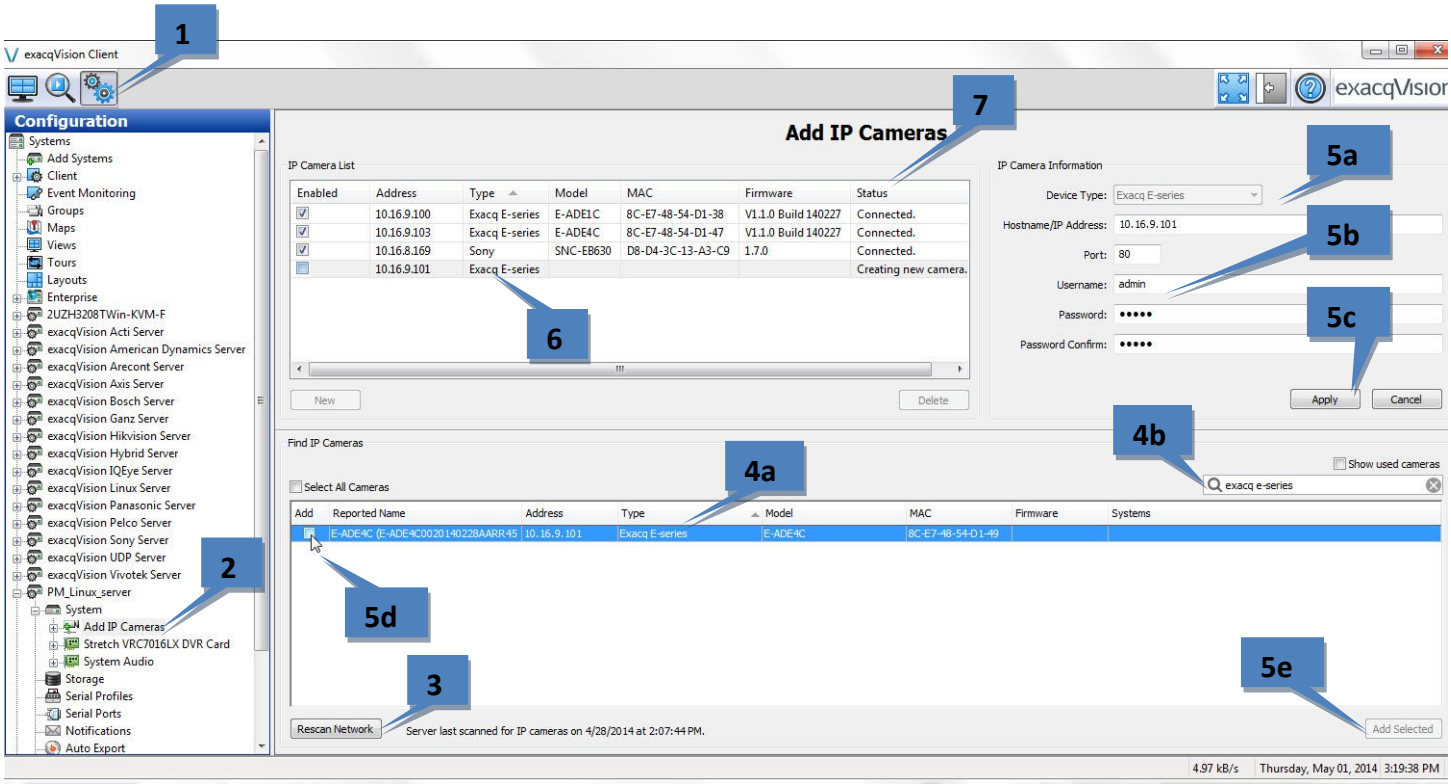
If you need to restore the default password, contact technical support to obtain a security code. Enter the security code and click OK.

6 Connecting to an exacqVision System

NOTE: The latest version of exacqVision Client can be downloaded from https://exacq.com/support/downloads.php.

Initiating the Connection

To add the encoder to the exacqVision system using exacqVision Client, complete the following steps:



1. Open exacqVision Client and select the Config (Setup) page.
2. In the site tree, find the exacqVision server that the encoder will be associated with. Expand the server until you can select Add IP Cameras.
3. Click Rescan Network to ensure all cameras and encoders are displayed in the Find IP Cameras list.
4. Locate the encoder in the Find IP Cameras list (4a). To narrow the list, type information about the encoder, such as “E-Series” or the IP address, in the search box (4b).
5. Select the encoder entry in the list to display the encoder in the IP Camera Information section (5a). Enter the username and password (5b), and then click Apply (5c).

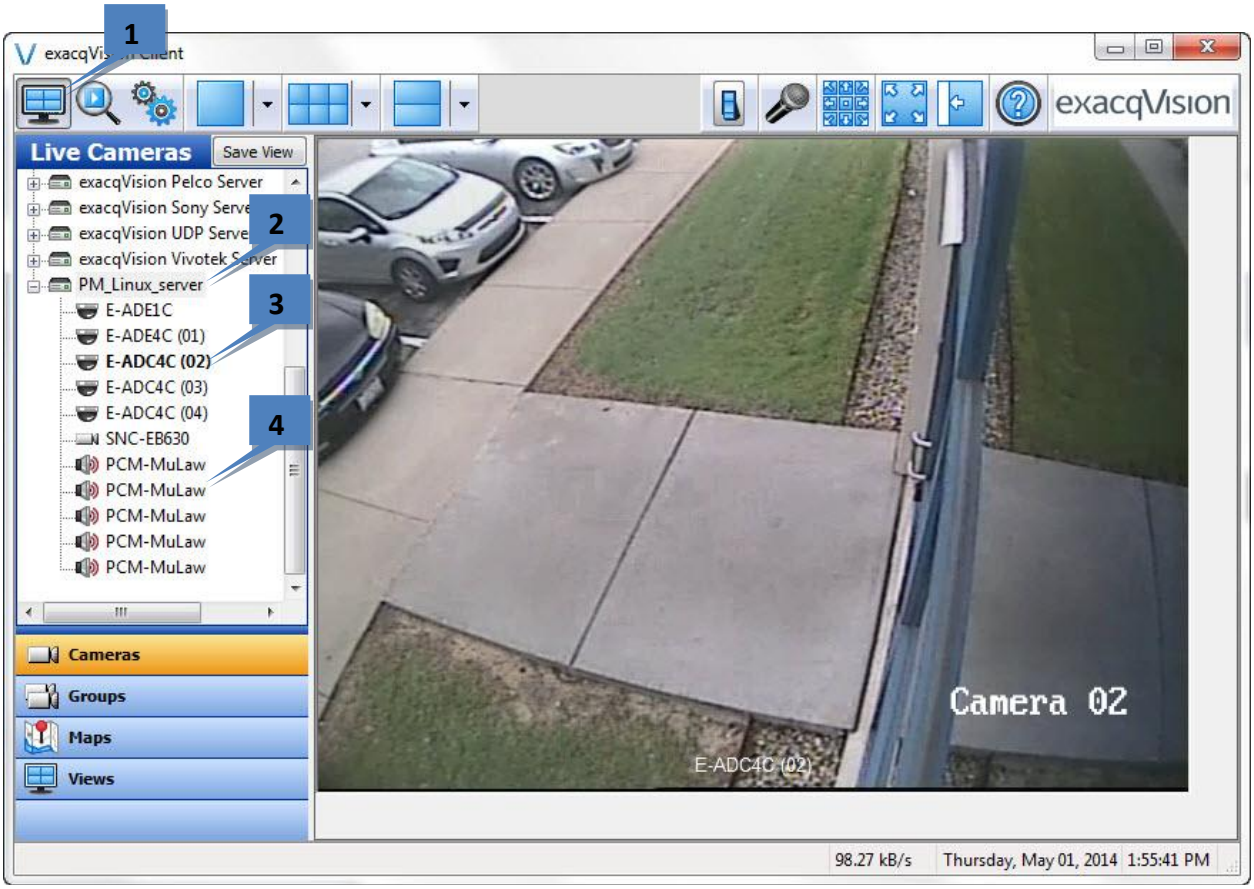
   NOTE: Alternatively, you can select Add (5d) next to the encoder’s entry, click Add Selected (5e), enter the username and password of the encoder in the pop-up box, and click OK.

6. Verify that the encoder has been added to the IP Camera List.
7. Look at the Status column to ensure the encoder is detected and connected.

Verifying the Connection

To verify that the encoder is transmitting video and audio from its cameras to the exacqVision server, complete the following steps:

1. Open the exacqVision Client live page.
2. Expand the server in the site tree.
3. Select an encoder/channel combination to display video from the camera in the playback window.
4. If audio is connected, drag an audio channel into the playback window to verify the audio connection and transmission.



For complete information about exacqVision Client, click the Help button or download the user manual from https://exacq.com/support/specsheets.php?perma=exacqVision+User+Manuals.