ENR-100 Series

User Manual

For V4.04.36 Firmware

ENR-110
ENR-120
ENR-130
ENR-140
ENR-190

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING: Changes or modifications to the equipment that are not expressly approved by the responsible party for compliance could void the user's authority to operate the equipment.

European Community Compliance Statement

This product has been tested and found to comply with the limits for Class B Information Technology Equipment according to European Standard EN 55022 and EN 55024. In a domestic environment, this product may cause radio interference in which cause the user be require to take adequate measures.

About This Manual

Target Audience

This manual is intended for **End Users** who actually execute security tasks such as monitoring ongoing activities in the building, patrolling secured zones, searching video data and managing alarms with use of ENR surveillance system. The reader is expected to own not only the basic operation skills but permissions to access major functionalities defined by the **System Administrator**.

You may also visit **ACTi Download Center** for updates and documents:
http://www.acti.com/downloadcenter

Technical Support

If you have any questions during system installation, please feel free to contact our engineers via our **Customer Help Desk** platform http://www.acti.com/CHD.

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Introduction

Product Overview

ACTi ENRSeries (hereafter referred to as **ENR**) is a compact and reliable multi-channel standalone NVR. It features a stable embedded Linux operating system and capabilities of supporting mega-pixel resolution H.264 streaming, an HDMI output for local display, PTZ control, scheduled/event-triggered/event speed-up recording, event management, synchronized playback, time/event-based playback search and video bookmarks. Its smart Setup Wizard and intuitive user interface allow the system installer to enjoy effortless installation experience, while making it easy for new users to get acquainted with the operation by first-time use. Other than the local client, the remote PC client may access the ENR system simultaneously, and experience user-friendly web interface customized for browser-based operations.

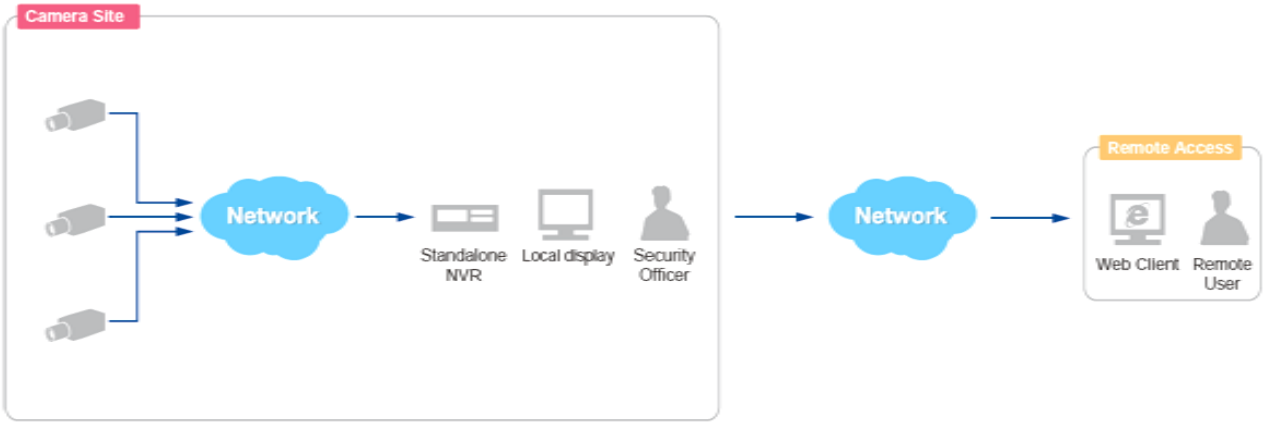
ENR Server/Client Architecture

In a video surveillance system architecture, **ENR** serves as service provider, aimed to run 24/7 non-stop a video management service for clients. An **ENR Client** makes requests for monitoring video streams or playing back recordings of **ENR**.

There are two types of **ENR** clients: **Local Client** and **Remote Client**. A client, connecting from whether a remote computer or from local, will be offered the same functionalities of ENR.

- **Local Client**: In the local site, the client user directly operates **ENR** by connecting an HDMI monitor and a USB mouse to the physical **ENR**.

- **Remote Client**: Over the TCP/IP network, the **Remote Client** communicates with **ENR** through HTTP Protocol. This client user will have to use a computer with Internet Explorer to access the **ENR** web interface, without the need of installing any client program beforehand. Logging in to **ENR** is as simple as visiting a website.

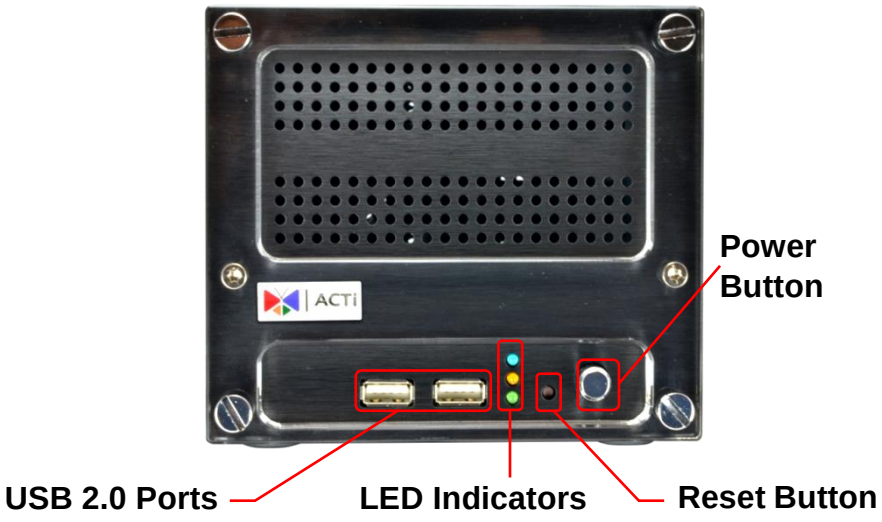


Remote User: Administrator / Supervisor / Manager / Security Officer

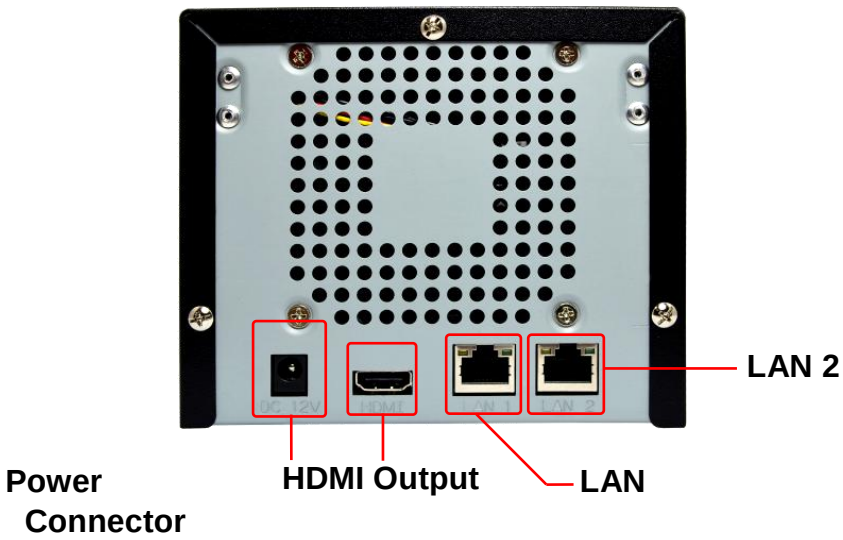
At A Glance

ENR-110/120/130

Front Panel

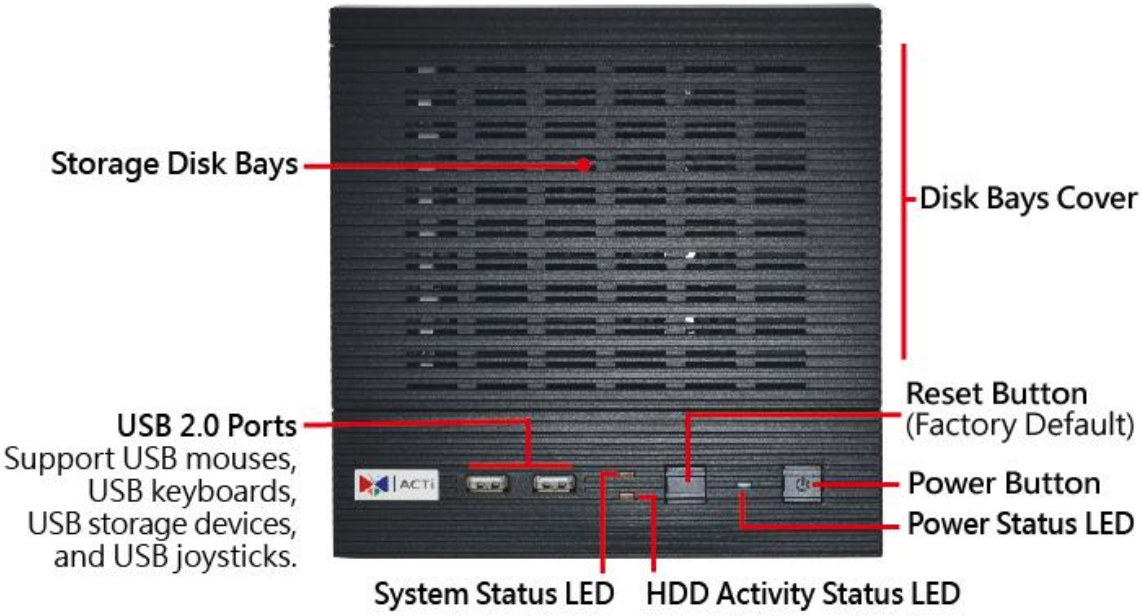


Rear Panel

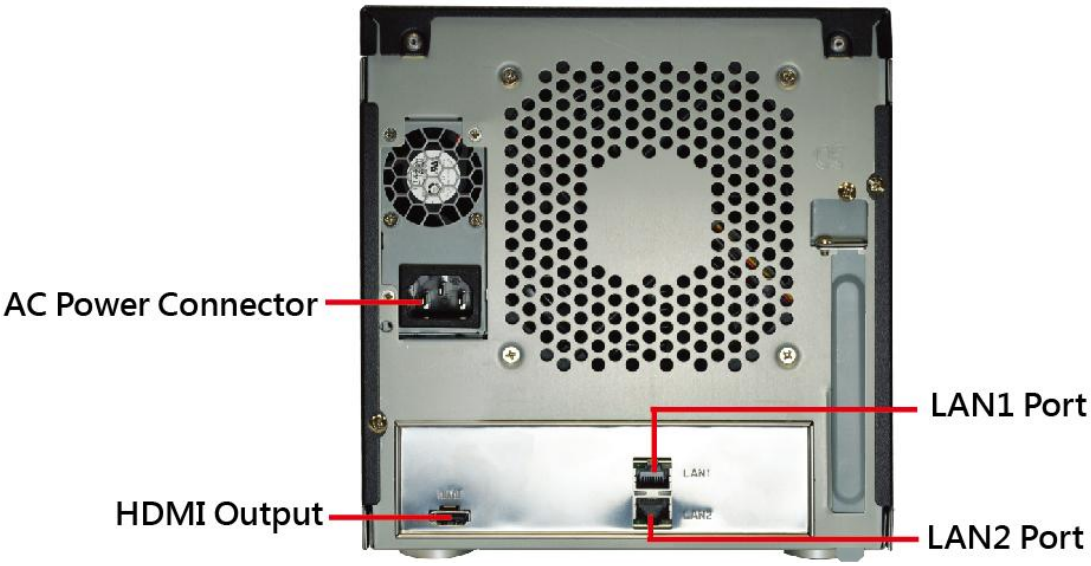


ENR-140

Front Panel

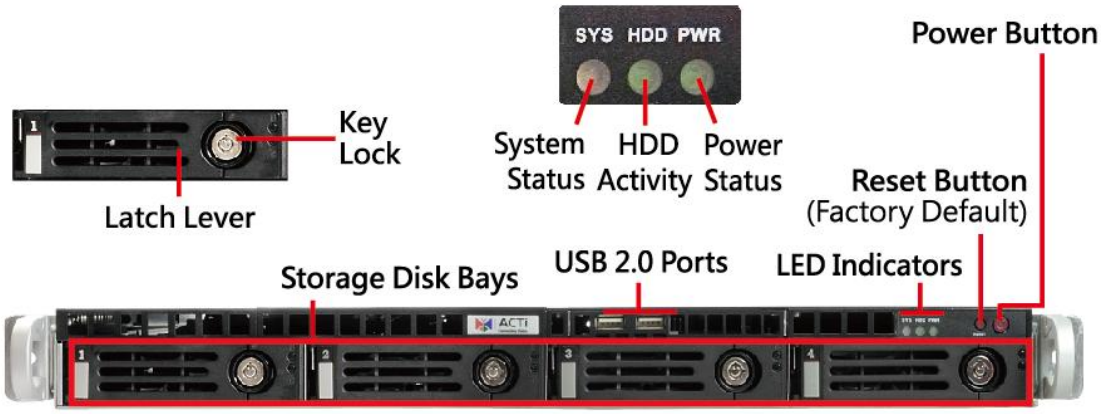


Rear Panel

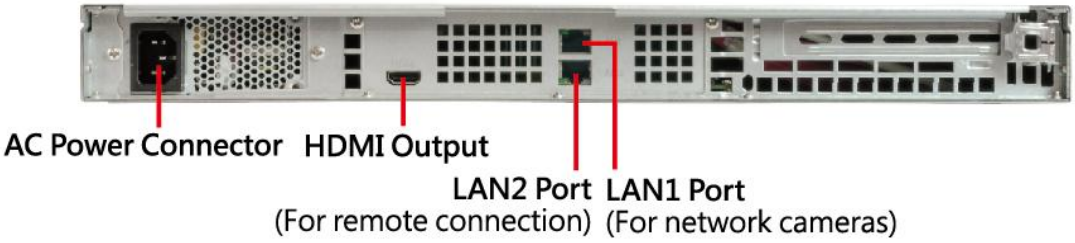


ENR-190

Front Panel



Rear Panel



Power Button & Reset Button

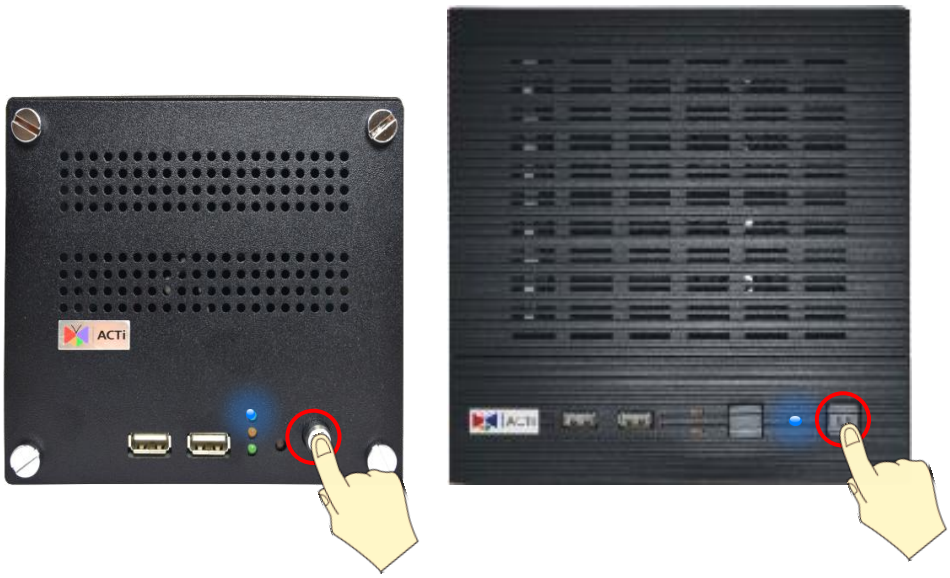
You can turn on/off the device with **Power Button**.

Turn On the Device

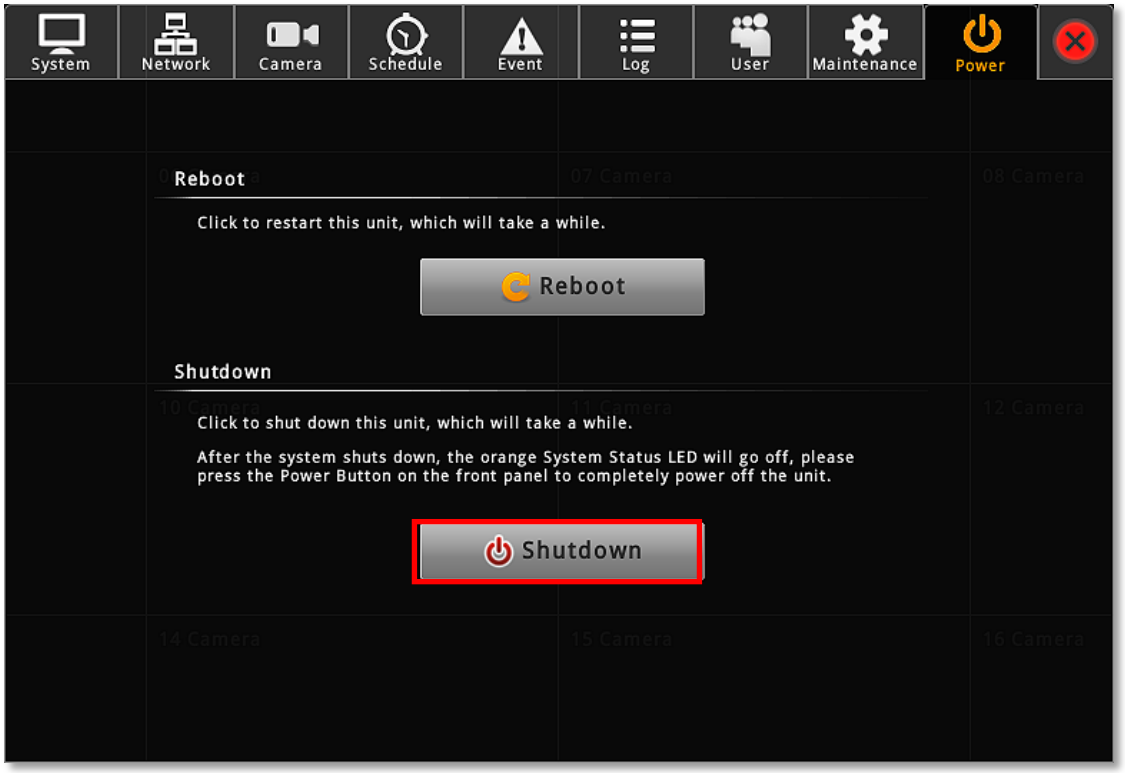
Press down the **Power Button** and release, the **Power LED** will light up and turn solid blue.

Turn Off the Device

As this unit is powered on, the **Power LED** and **System LED** are both lit, and the **Power Button** is in pressed state. To turn ENR off, please do the following:



1. On **Live** screen, click **Setup** → **Power** tab, and click "**Shutdown**".



2. The local display screen will turn black, with an information dialogue box showing up. Please observe the **System LED** on the front panel, when its orange light is off, you may press the **Power Button** to completely shut down the unit.

Reset to Factory Default

By resetting this device, all **your system settings** and **system log** will return to factory default. It is strongly recommended that you back up previous settings with **Backup** function and export the system logs before resetting to factory default.

1. To begin, turn off the device first.
2. Press down the **Power Button** to boot up the device, and immediately press and hold the **Reset Button** with a pin or clip, the System LED will light up for about 2~3 seconds, and you may release the **Reset Button** as the red light is off.

The device will enter the resetting process immediately and automatically restart.

LED Indicators

The LED indicators on front panel show the current device status:

Item	Indicator Status	Light Color	Description
Power LED	Solid	Blue (ENR-110/120/130/140) Green (ENR-190)	The device power is on.
System Status LED	Lights up for three seconds after **Reset Button** is pressed	Orange	The system resetting process is initializing.
	Solid		The system service is running.
HDD LED	Flashing	Green	The hard disk is in activity.

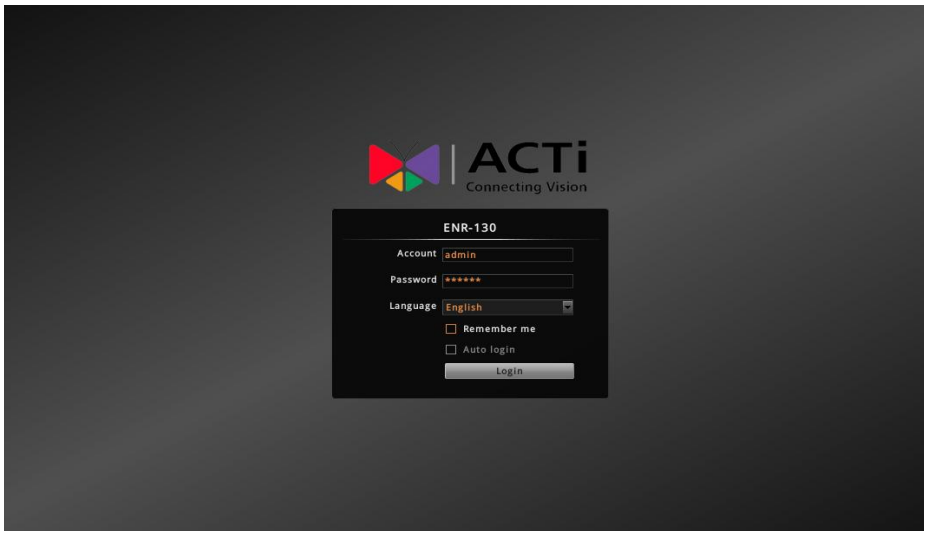
Local Client Operation

Log in to & out of ENR

To log into ENR system for the first time, you will have to key in the account name and password in Login window. Please contact your system administrator for account and password information.

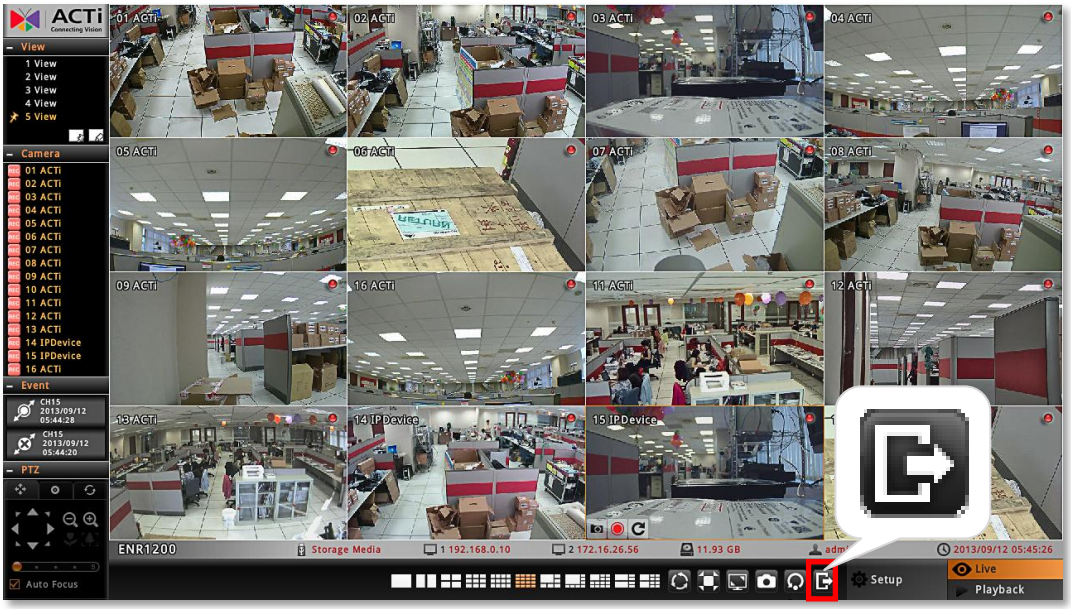
Log In

On **Login** window, click into the **Account** and **Password** fields to enter your account information.



Log Out

On **Live** screen, click on the **Logout** button.



System Overview

Main Screen Introduction

ENR local interface is composed of two main screens:

Live screen

After logging in, you will enter **Live** screen. **Live** screen is the interface where you see the live streaming from your cameras and manipulate PTZ functions.

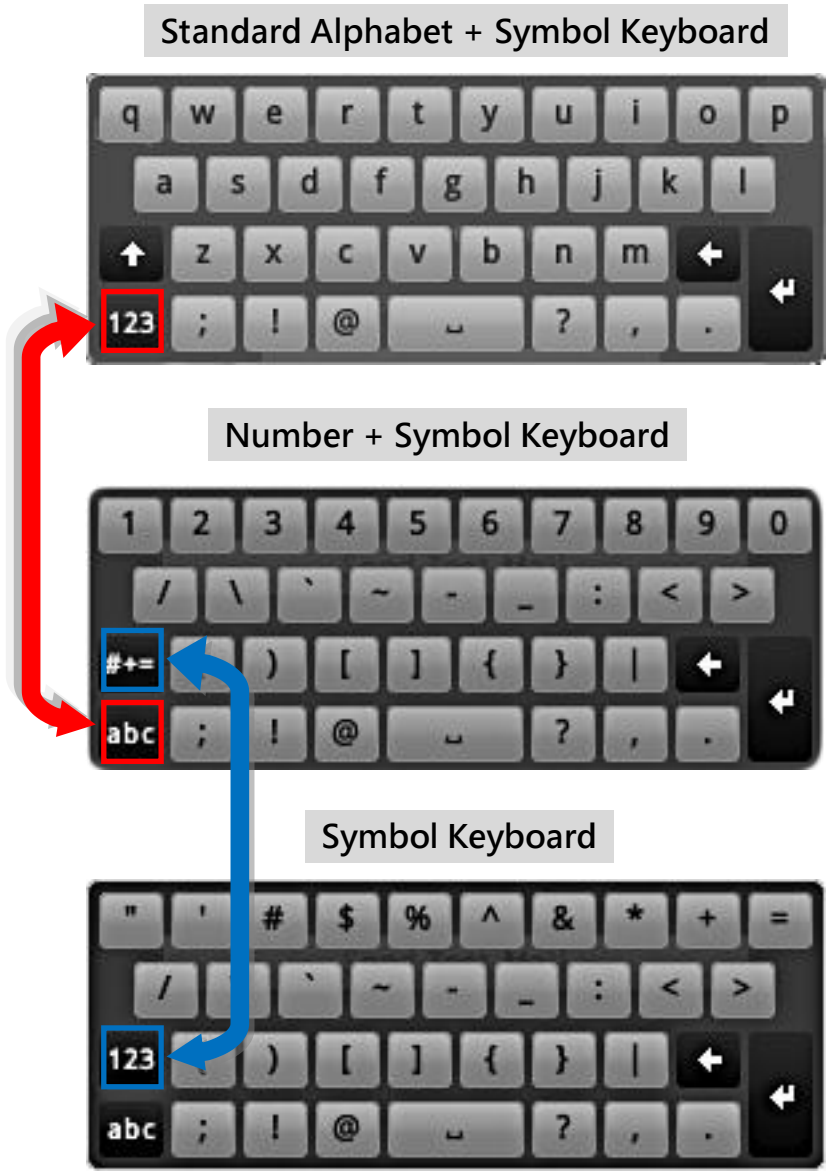
Playback screen

Where you can search the recordings, view the playback, put video bookmarks and export the video.

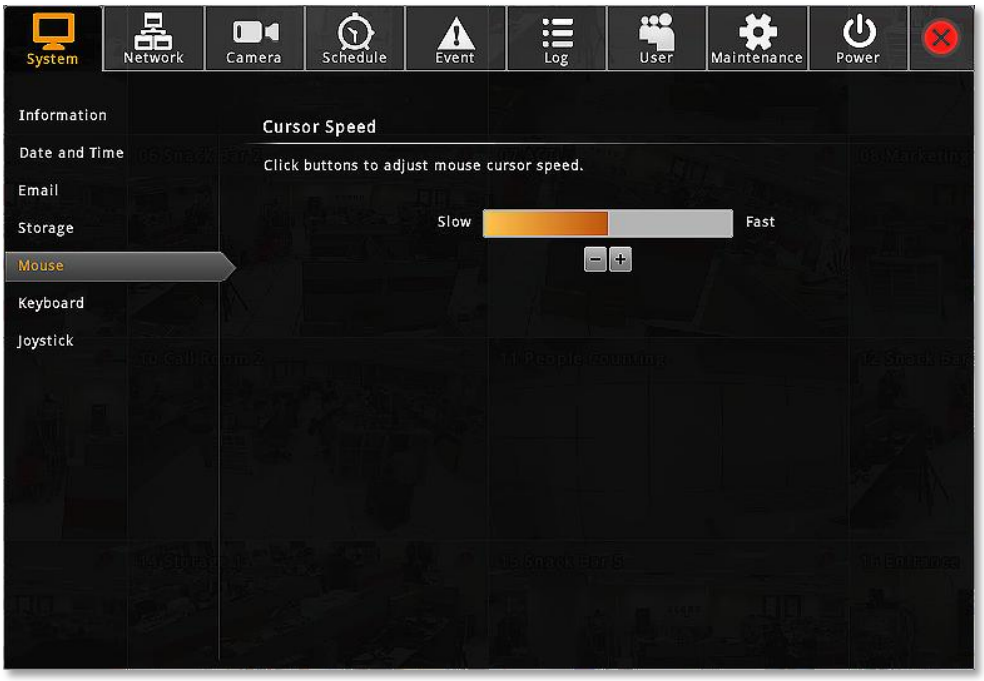
Input Devices

IN ENR system, a USB mouse is the required input device to do all the operations on user interface. All the input devices, including USB mouse, USB joystick and USB keyboard are ready to use when you connect them to ENR via USB 2.0 ports.

The onscreen keyboards allow you to input characters without using a physical one. By clicking in a character field (e.g. **Account** or **Server** name) or number field (e.g. **IP address** or **Port**), the specific onscreen keyboard will be brought up.



To disable the virtual keyboard if a physical one is already in use, on **Live** screen, click **Setup** → **System** tab → click "**Keyboard"**. Uncheck the box "**Always shows software keyboard**".



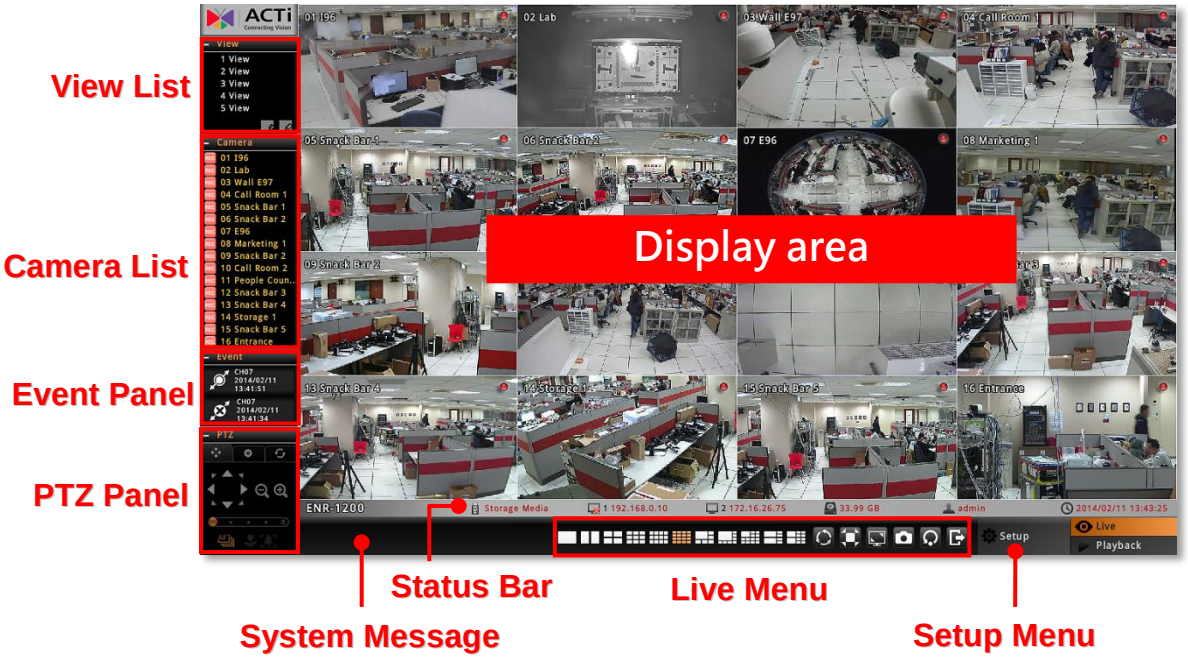
You may adjust other input devices' settings by entering "**Keyboard**" or "**Joystick**", and refer to System Administrator's Manual for further details.

Monitoring

You can perform most live monitoring tasks on **Live** screen. ENR may display all live channels on the screen, or 1x1 single channel in succession automatically.

Aside from keeping an eye on the video, you may also take snapshots, control PTZ cameras, start or stop manual recording on a selected channel. In this section, you will be given instructions on the said fundamental operations. To start, log on to the system first.

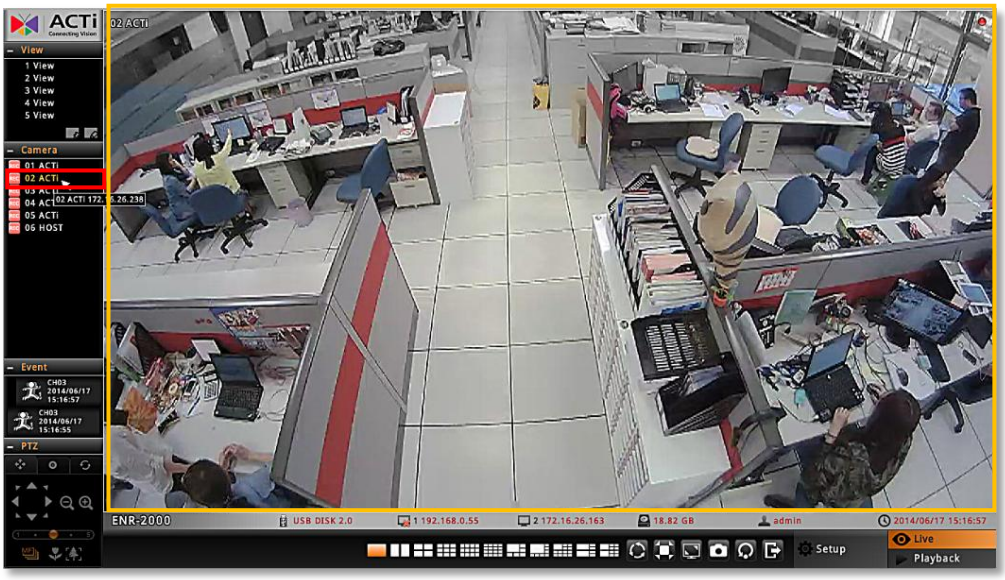
Live Screen Overview



Item	Description
View List	Lists **five** views available for customization.
Camera List	Lists all the added devices and their recording status.
Event List	Displays alerts of detected motion, recording and connection status.
PTZ Panel	Provides live onscreen PTZ controls. This panel is only enabled when a PTZ device channel is selected on live view display area.
System Message	Displays import messages to inform you of certain system conditions that require your prompt action.
Status Bar	Displays the following system status from left to right – (1) connected USB storage device, (2) **LAN1** IP address, (3) **LAN2** IP address,(4) total free disk space, (5) your user account and (6) current system time.
Setup Menu	Opens **Setup** menu.
Live Menu	Lists available layout selections and live view operation controls.

Display Your Desired Camera View

You can watch a desired camera view in 1x1 channel view by clicking on the camera name on **Cameras** list.



You can click this button on **Live Menu** to display the selected view in its native aspect ratio.

Enter Full Screen Mode

You can hide the control panels by entering full-screen mode. On **Live Menu**, click this button to enter full-screen mode; on the bottom of full screen view, click "**Exit Full Screen**" return to normal display mode.

Apply a Customized View Layout

On the **View** list is where you customize desired Views. A View profile contains the channel positions, layout style, full screen setting and sequence patrol setting. You can click on the desired View on **View** list.

Single Channel Operations

By selecting a specific channel on **Live** screen, you may perform functions below on a single channel view:

- Take a snapshot of this single channel
- Start manual recording of this single channel
- Enter Digital PTZ operation mode (for all cameras, in 1x1 layout)
- Enter Optical PTZ operation mode (for cameras with pan/tilt/zoom capabilities)

Take a Snapshot

The image (at original resolution size) of current channel will be saved as **jpg** format onto the USB mass storage, named as "Channelnumber_yyyy-MM-dd-hh-mm-ss.**jpg**". Please make sure the USB mass storage has already been connected to ENR unit.

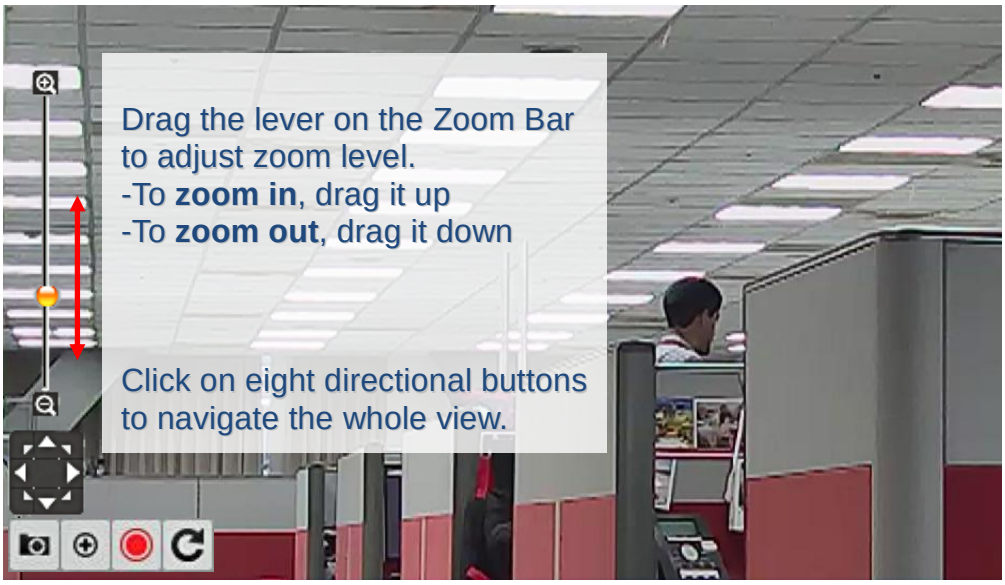
Start / Stop Manual Recording

This function is useful when you need to record a specific video when no event recording or schedule recording is proceeding. This video will be displayed as normal scheduled recording on the **Playback** time bar. As the video is being recorded, this button will appear in pressed state , click on it again to stop manual recording.

Digital PTZ Operations

Double-click on a channel to display it in 1x1 layout, and then click on it again to reveal **Single Channel Menu**.

On **Single Channel Menu**, click to enable digital PTZ controls.

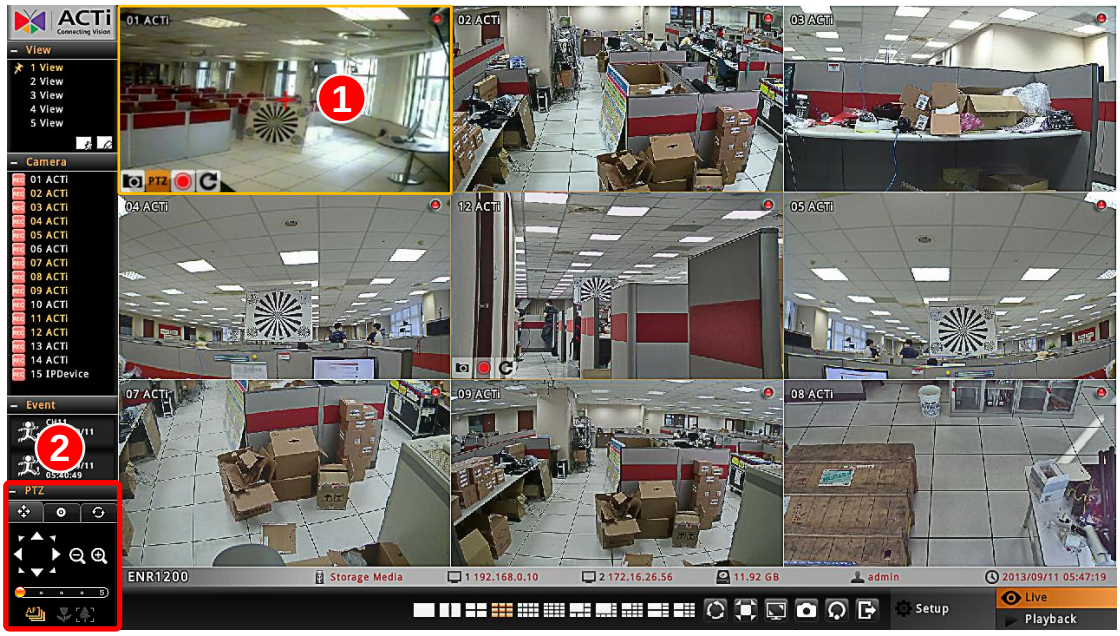


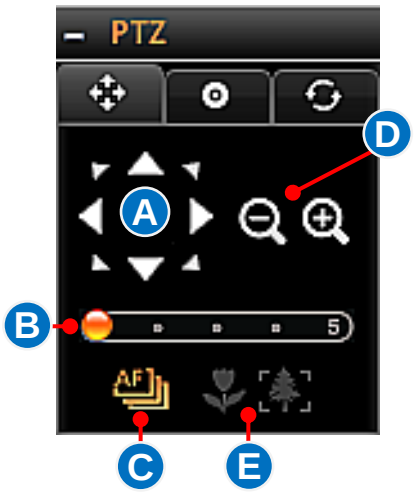
Note

To take a snapshot of a layout containing all visible channels, select the desired layout and click on **Live Menu**.

Manipulate PTZ Devices on PTZ Panel

On **Live** screen, select a PTZ channel, the PTZ panel will become enabled.





Click the tab to enter PTZ operation mode, and make make use of the device's PTZ capabilities to define a view.

No	Function
A	**Eight-direction arrow keys** Click to pan or tilt the camera (only available for camera with Pan/Tilt/ capability).
B	**Pan/Tilt/Zoom speed** Click to change the speed. Provided speed scale is from **1** to **5** (available for cameras with Pan/Tilt/Zoom capability).
C	**Auto focus** (available for cameras with auto focus capability)
D	**Zoom** (Available for cameras with a controllable zoom) Zoom in Zoom out
E	**Manual focus** (Available for cameras with a controllable focus) Near focus Far focus These buttons are enabled when the "**Auto Focus**" is disabled.

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Go to a Preset Point

Click the tab to enter **Preset Points Operation** mode, and click a red ID button.

Start PTZ Preset Tour

Click to enter **Tour** list. The ID of a saved tour will appear red. Click on it to start the tour, and click to stop.

Manipulate PTZ Devices with Mouse Controls

You may directly manipulate a camera's PTZ movements on the channel view. Select the channel and enter onscreen PTZ mode by clicking on "**PTZ**"

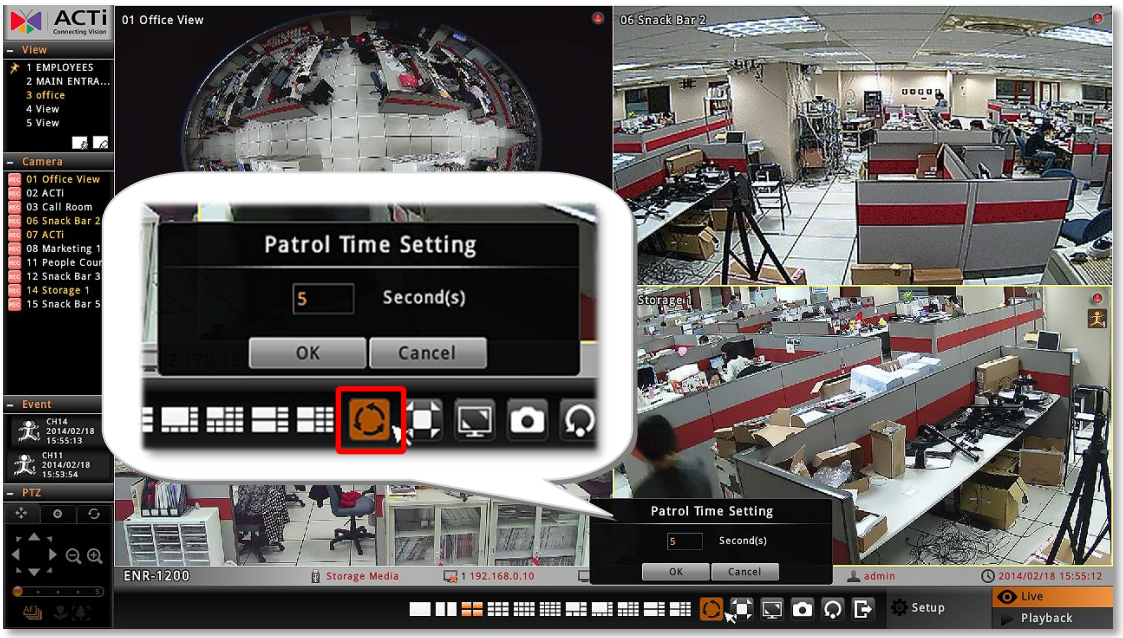
, a crosshair will appear in the middle, you mayu use the mouse to do the following PTZ operations:

1. To execute optical **Panning** and **Tilting**, click anywhere on the live window to allow the camera to move in that direction. The farther you place the cursor from the center, the faster the Pan/Tilt movement. □

2. To execute optical **Zoom in** or **Zoom out**, scroll the mouse.

Layout Patrol

By performing the **Patrol** function, all the four channels can be displayed by **1x1** layout in turns.



Understand Channel Status

On **Live** screen, it is essential to observe the system status and events, since unexpected environmental factors or human behaviors may take place, and they might pose security threats to your site. The channel status icons display important camera status and motion alerts for you.

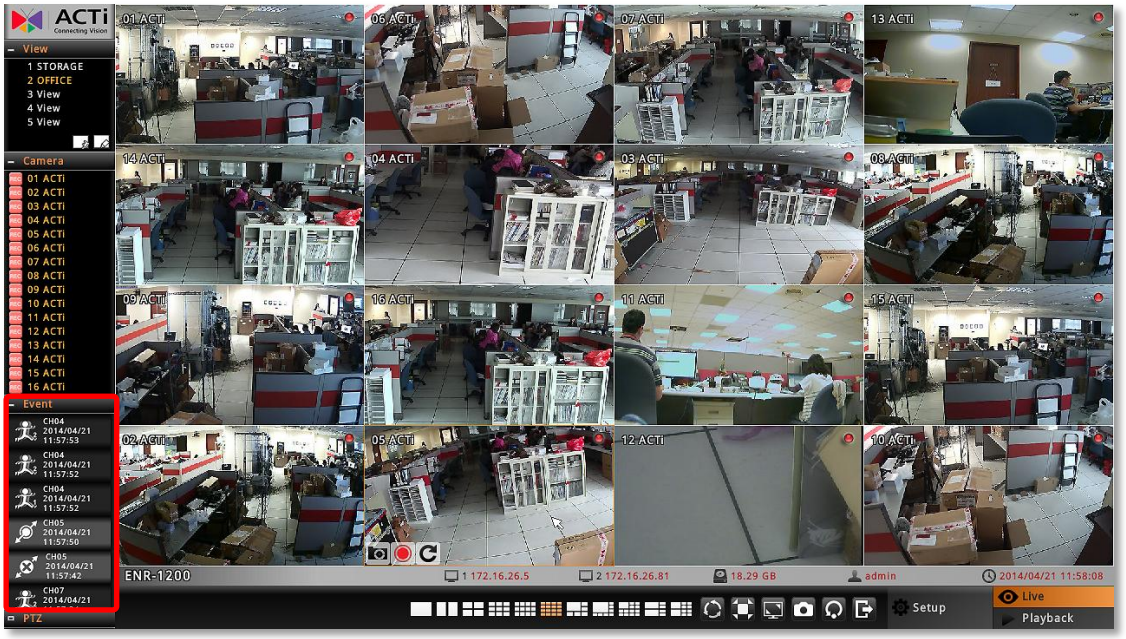
Channel Status

On top of each channel window displays certain status information of this device.

No	Description
1	**Camera Name**
2	**Digital Input Motion Alert** This will flash along with the channel outline border when the digital input device detects motion on camera site.
3	**Video Motion Alert** This will flash along with the channel outline border when the camera detects video motions on camera site.
4	**Recording Status** This will appear when ENR is recording this channel by schedule, event or user's manual control. Manual recording is proceeding Scheduled recording is proceeding

Understand Event Notifications

On **Live** screen, the **Event Panel** displays the latest camera status alerts including digital input detection, motion detection, network loss, or network recovery. By clicking on the event notification card, you will be brought to the playback of this very event.



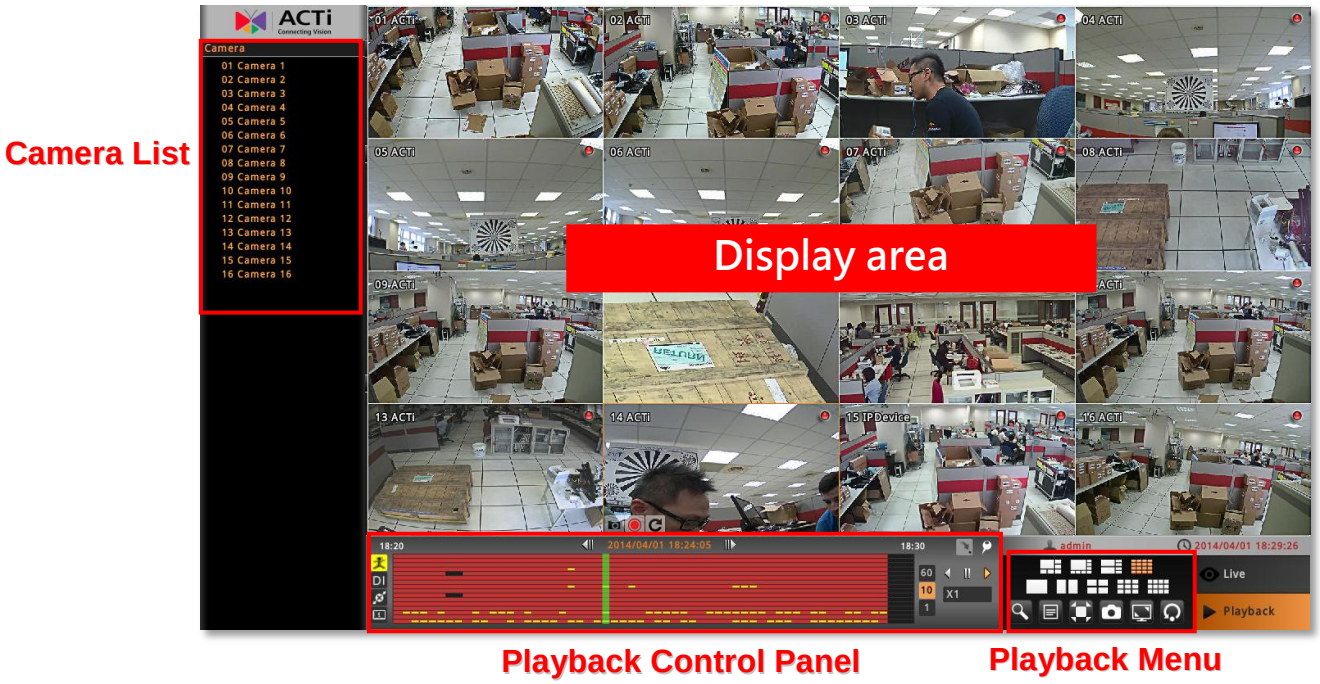
Playback

Playback is the service that processes recorded video clips. You may search by time. by event or the bookmarks you have set. **Playback** may include multiple-channel synchronized playback. Video clips may also be exported in either RAW or AVI formats.

On **Live** screen, click Playback on **Live** menu to enter **Playback** screen.

Playback Screen Overview

Upon entering **Playback** screen, you will enter 16-channel synchronized playback.

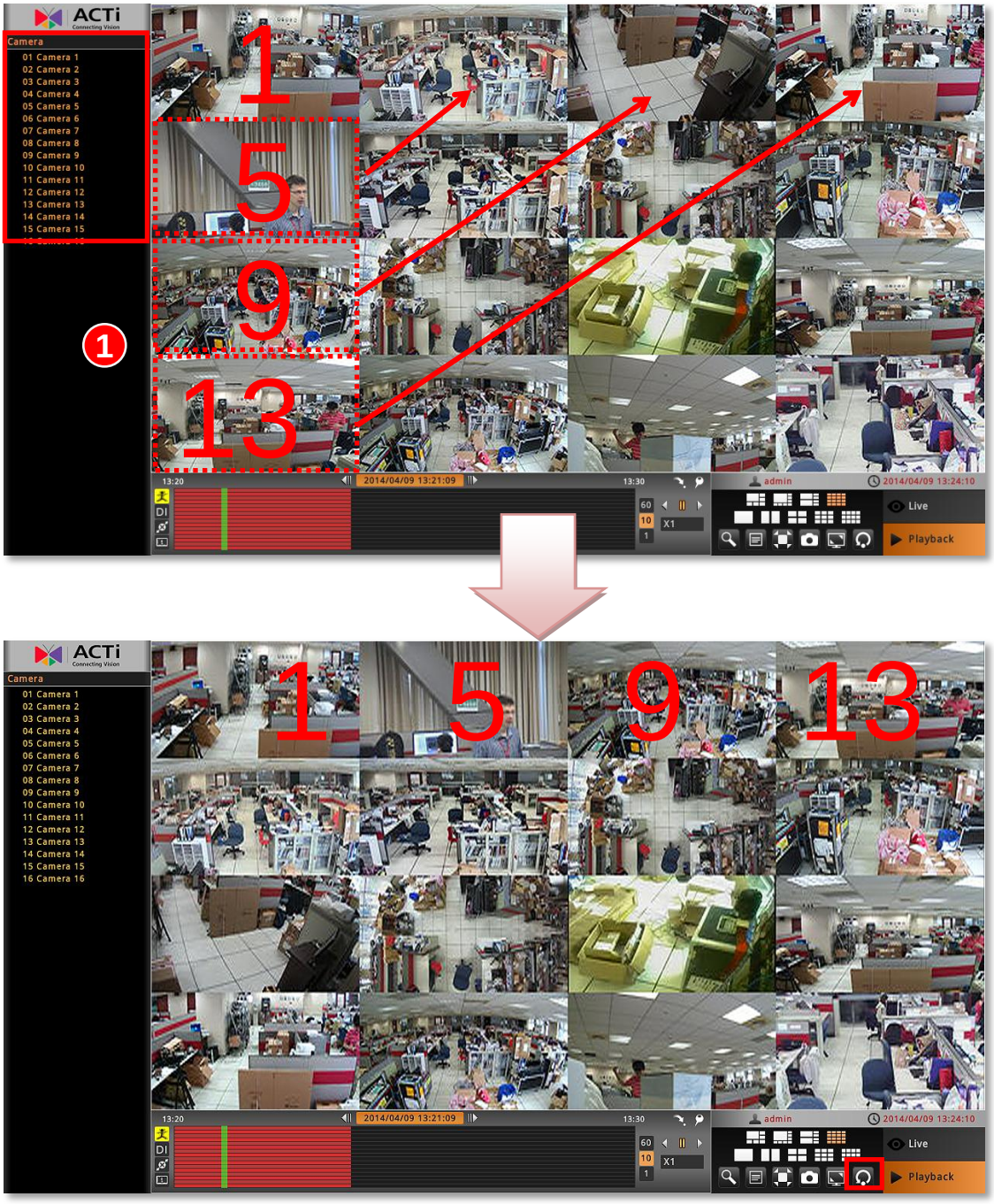


Item	Description
Camera List	Lists all channels
Playback Control Panel	Provides controls that help you search through the recorded footages easily.
Playback Menu	Lists available layout selections and playback related controls.

To play back certain channels synchronizedly, please do the following:

1. Move your desired channels up. For example, you want to see Channel **1**, Channel **5**, Channel **9** and Channel **13** to be played at the same time in a **2x2** layout. Drag these channels to the top.

You can play certain channel in 1x1 layout by double-clicking this camera on Camera list.



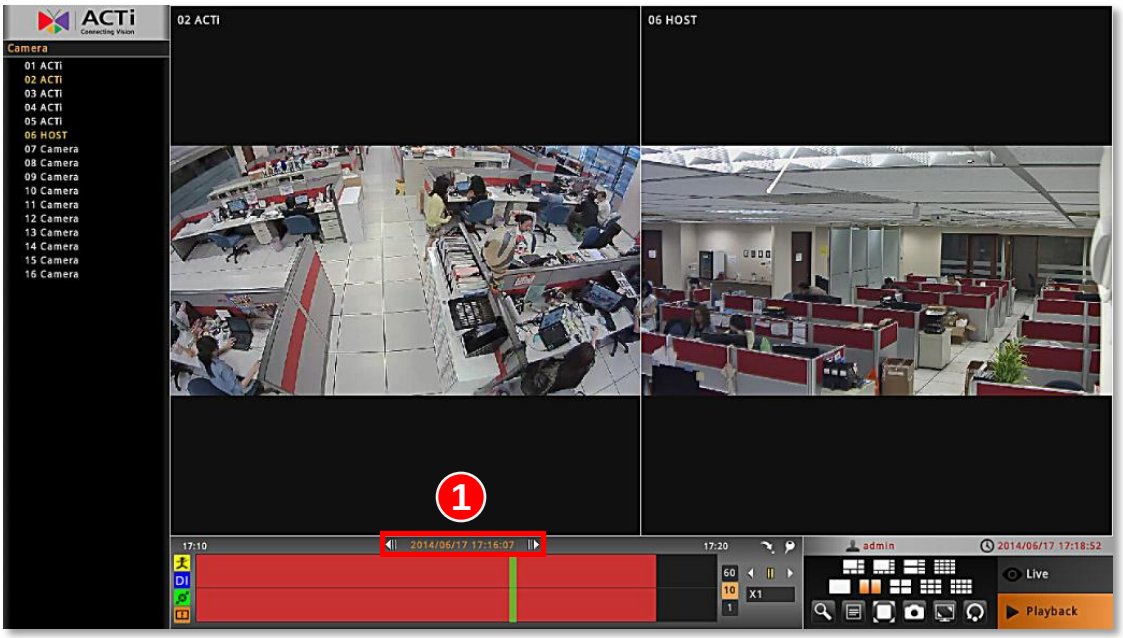
To restore all the channels back to their original positions, click this button.

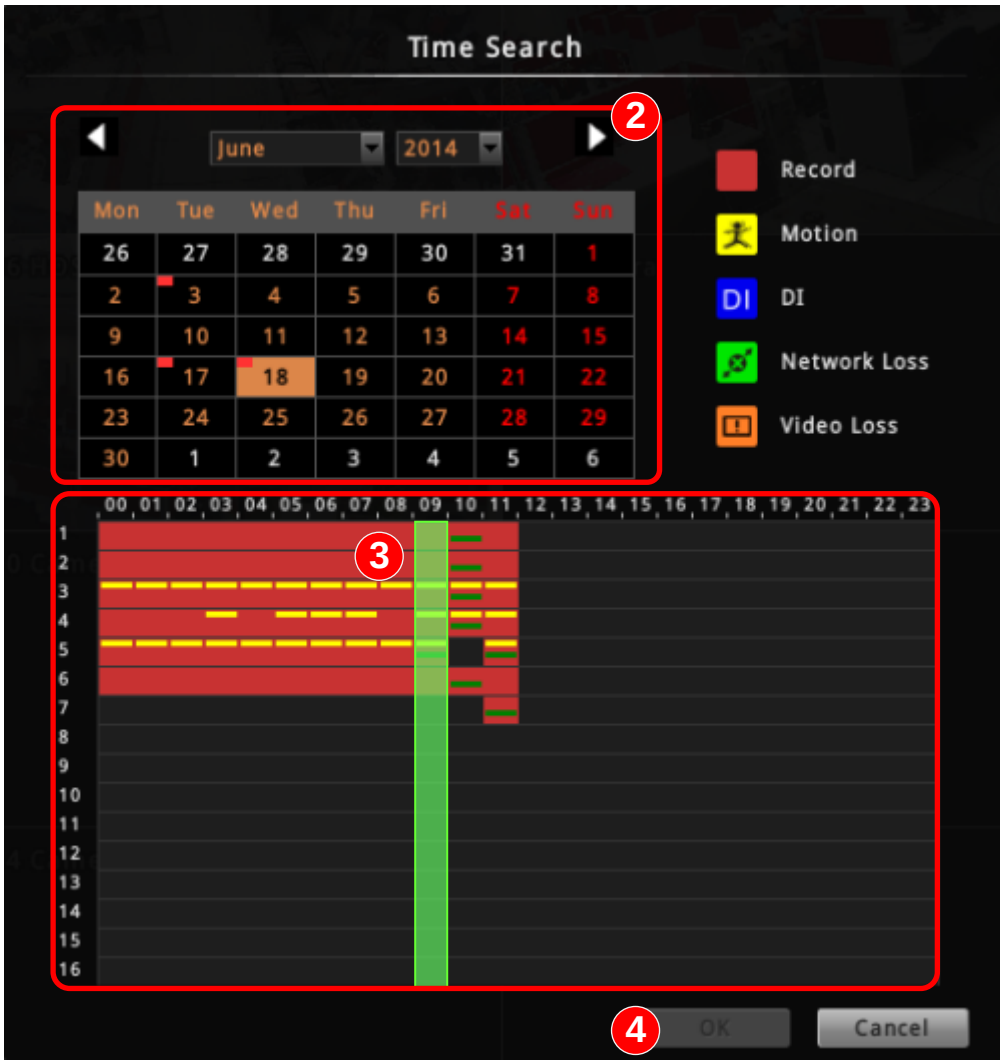
2. On layout selection panel, select

Start Time Search

If you know the specific time of the event, you may start from choosing the precise, date and the hour.

1. Click on the **current-time indicator** above the time bar





22 Recording exists 22 No recording exists

2. Specify the date on the calendar.
3. Choose the hour from the 24-hour time bar. Special recorded events are indicated in different colors.

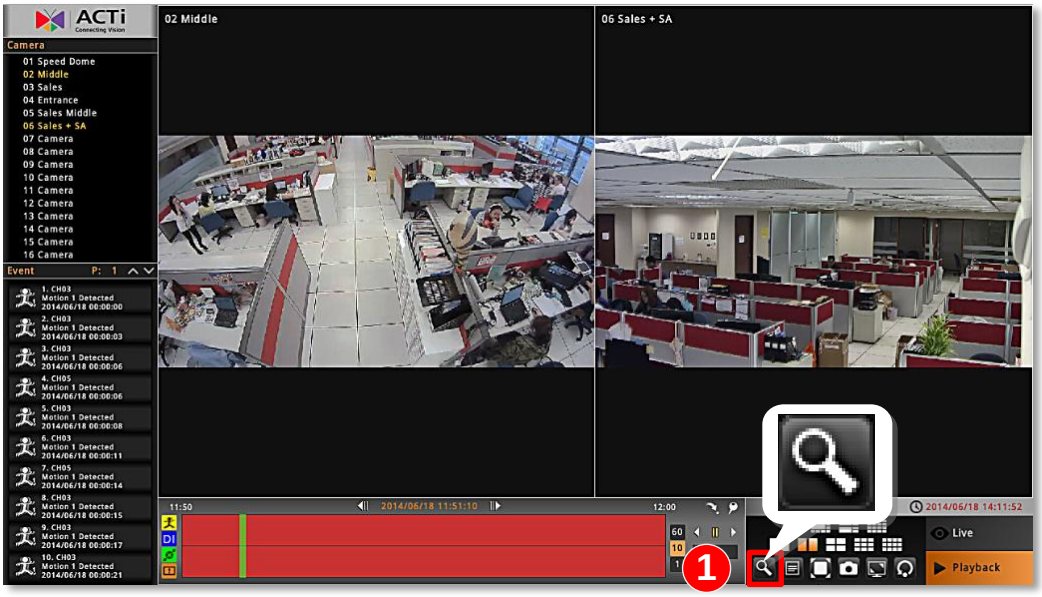
Color	Description
	Full-time or manual recording
	The camera's video motion detection function had been enabled, and the camera detected motion events during this period.
	The digital input device (e.g. PIR sensor) connected with the camera detected motion events during this period.
	ENR lost network connection with this camera during this period.
	Video encoder loses the signal from this camera

4. Click "**OK**" to close the window.

Event Search

If you want to filter the recording by **Event Type**, you may perform an event search to locate the desired video footage.

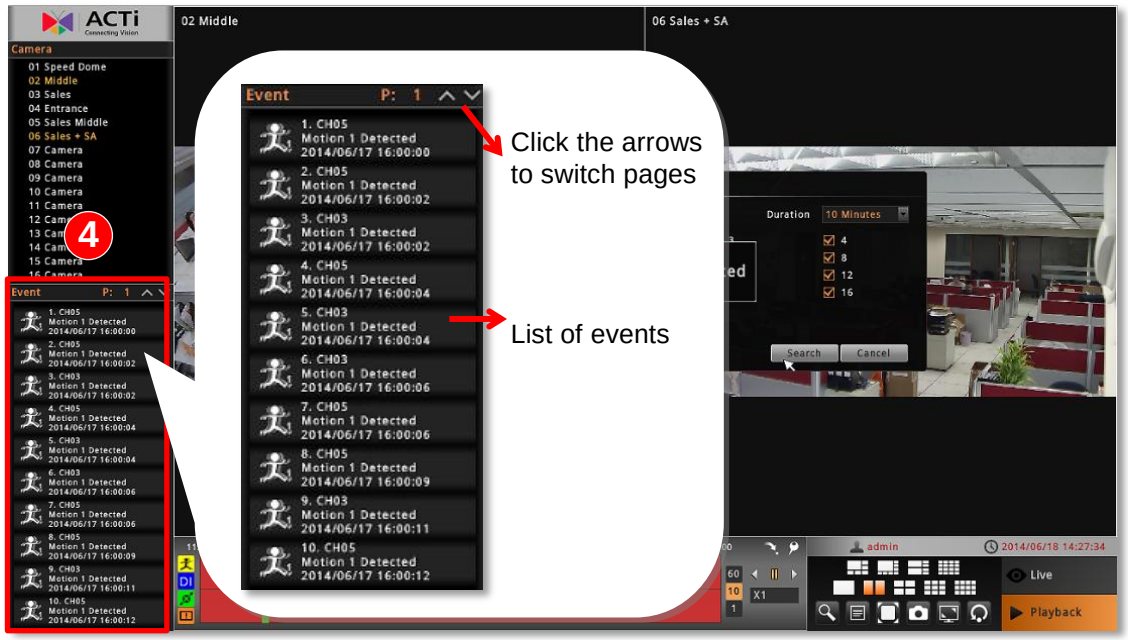
1. Click on the "**Event Search**" button on **Playback Menu**.



2. On **Event Search** window, define the **Search Time**, **Duration**, **Cameras** and **Event Type** then click "**Search**".

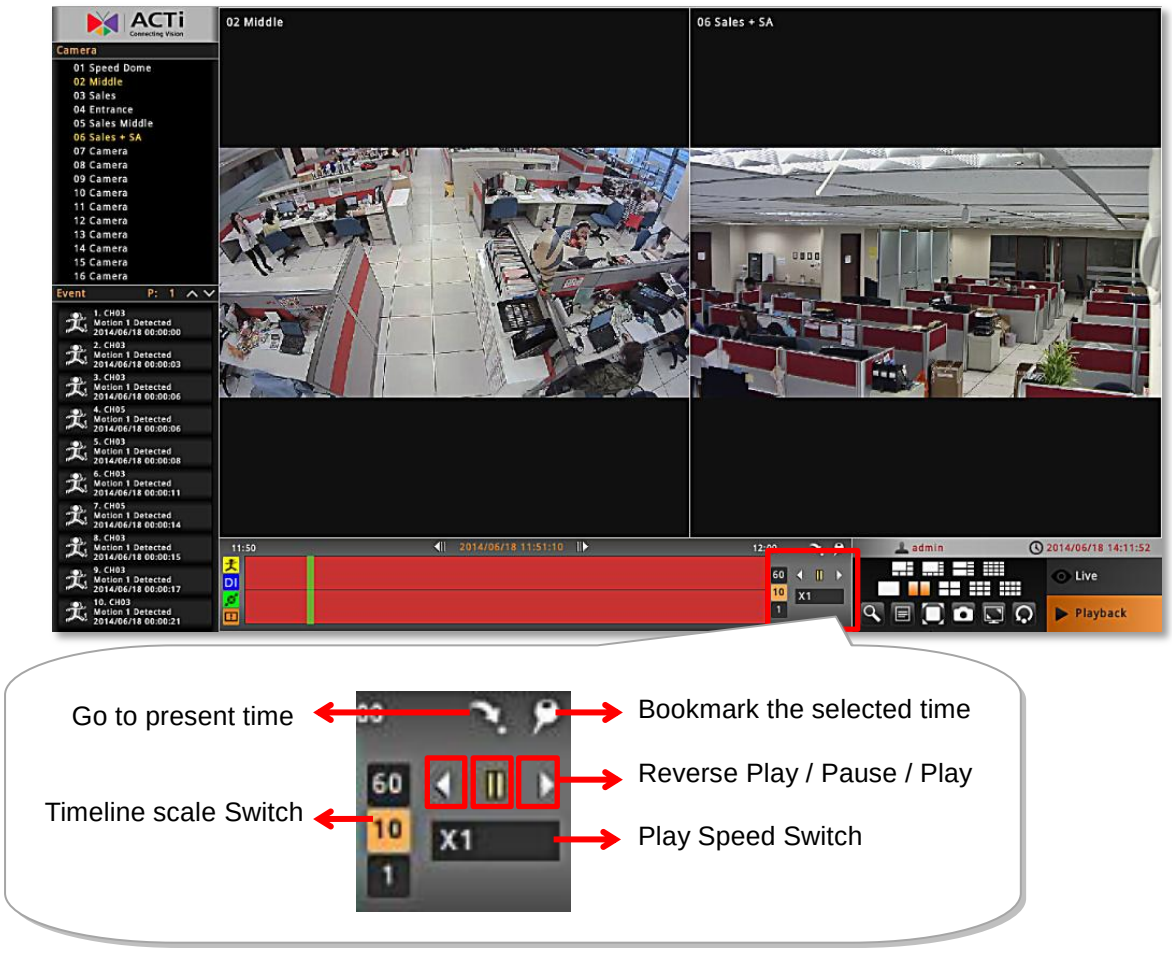
3. After the search is completed, click "**Cancel**" to close this window.

4. The search result will be displayed on the left. Click on an event to enter the playback in 1x1 view.



Play the Video Footage

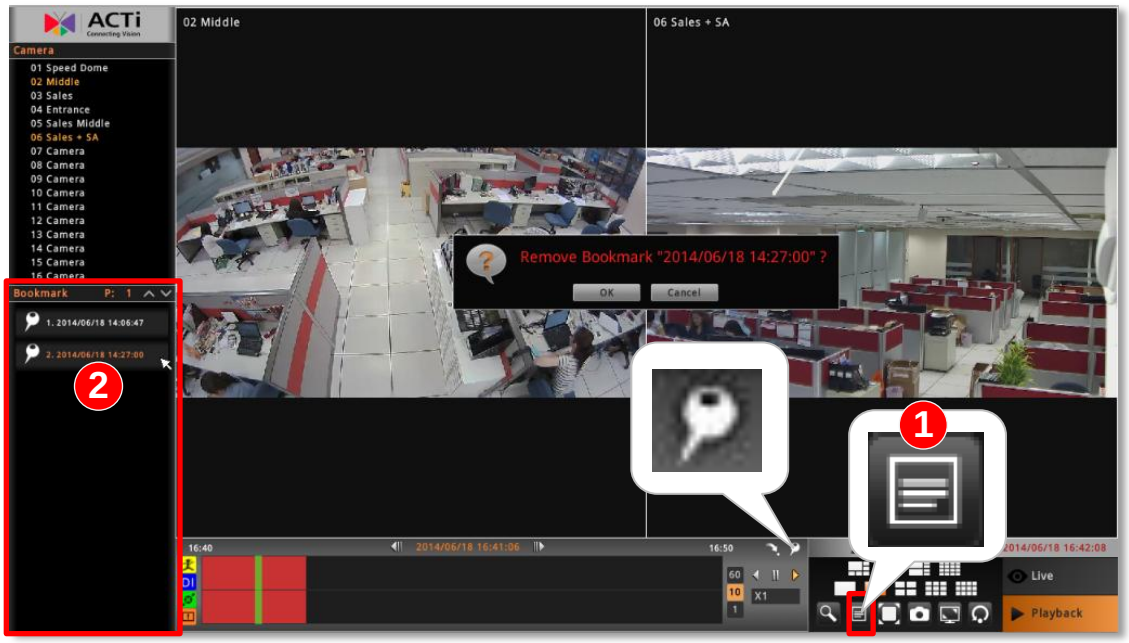
Use the buttons on **Playback Control Panel** to play your desired video footages.



Add and Search Bookmarks

You can bookmark a time position on the timeline by clicking on on **Playback Menu**.

1. Make sure the camera channels you desire to watch are all in display area. On **Playback Menu**, click on the "**Bookmark List**" button.
2. The bookmarks will be shown on the left, click any bookmark to go to the saved time position.
3. To delete a bookmark, simply right-click on it to being up the confirmation window, click "**OK**" to delete the selected bookmark.

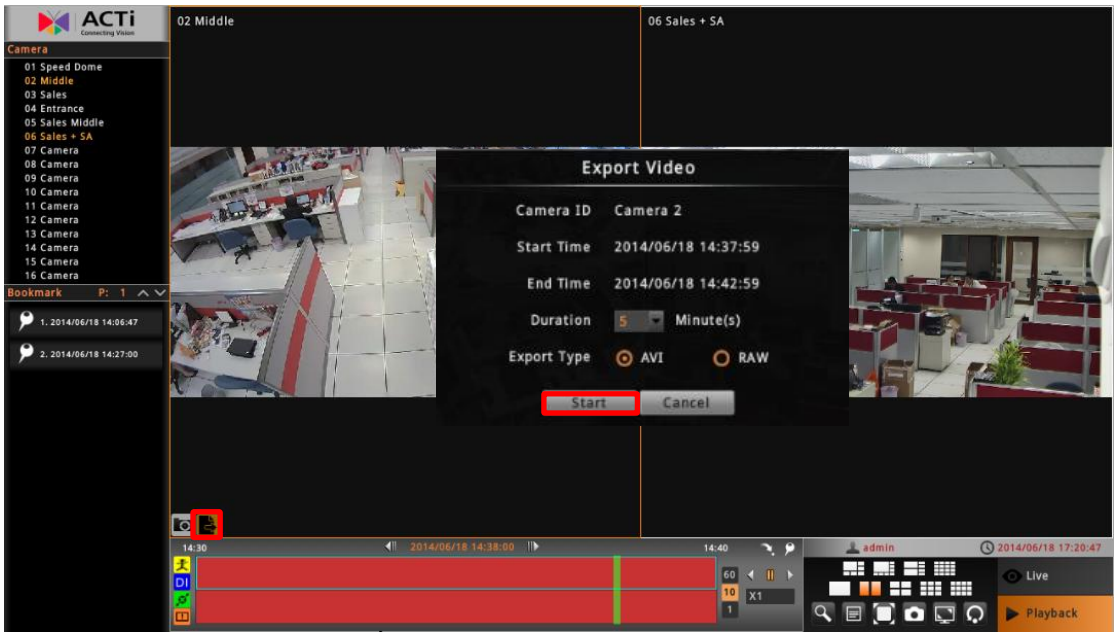


Take a Snapshot

You can take a snapshot of current layout view containing all the currently displayed channels by clicking on **Playback Menu**, this image will be saved as jpg format onto the USB mass storage. Please make sure the USB mass storage has already been connected to ENR. If you want to get a snapshot of certain channel in its full resolution size, select the channel and click

Export Video

You may crop and export video of the selected channel to **.avi** or **.raw** file. The provided exported video duration is from 1 minute ~ 30 minutes.



1. Select a channel and click
2. Select the **Export Duration** and **Export Type**, and click "**Start**".

The exported video will be saved onto the USB mass storage. Please make sure the USB mass storage has already been connected to ENR device and the available storage space is enough.

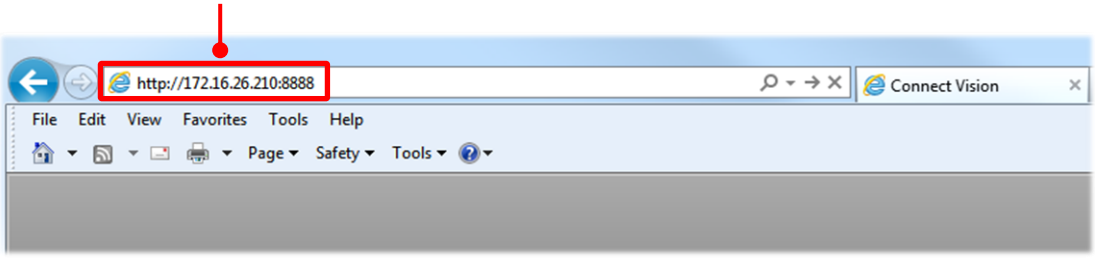
Remote Client Operation

Access ENR Server

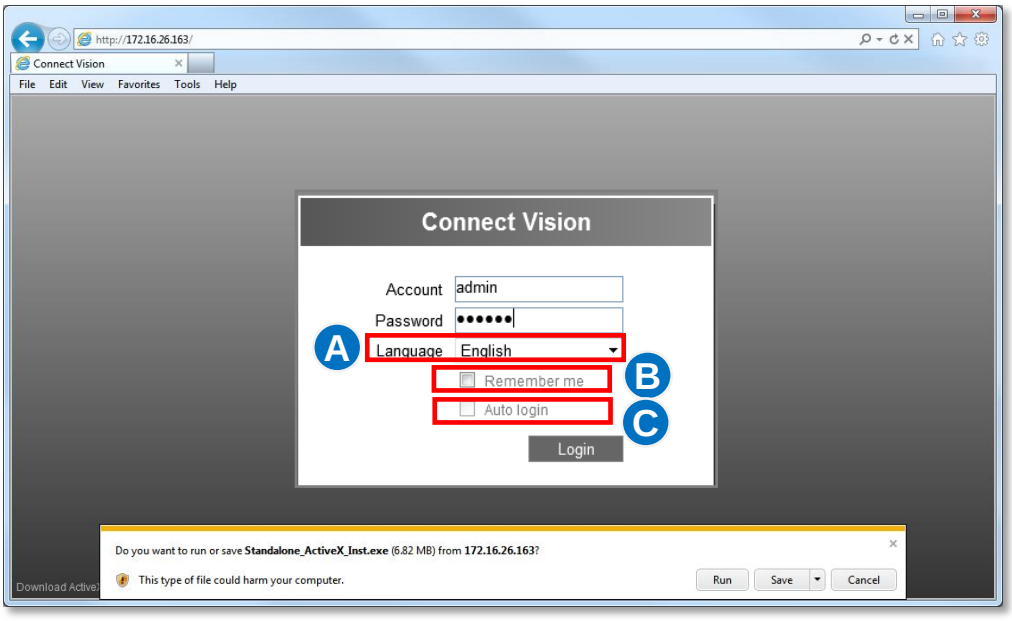
To log into ENR system for the first time, you will have to key in the account name and password in Login window. Please contact your system administrator for account and password information.

Type in the IP address and port number directly into Internet Explorer. Sample IP will look like this: **http://220.228.146.21:1000** or domain name **http://enr.acti.com**. If the port number is **80**, you do not need to append it when typing the address.

http://ip address:port number



Log In



Enter Account & Password

●**Account** (non case-sensitive)**: Your User Account**

●**Password** (case-sensitive): **Your User Password**

Change UI language A

To change UI language, select the desired language from "**Language**" dropdown list.

Remember Login Information B

To have the server remember your **Account**, **Password** and language setting for future, check "**Remember me**".

Auto-login C

By enabling Auto-login function, you can enter ENR **Live** screen directly without inputting user account and password next time.

Log Out

On the bottom of **Live** screen, click on .

Monitoring

You can perform most live monitoring tasks on **Live** screen. ENR may display all live channels on the screen, or 1x1 single channel in succession automatically.

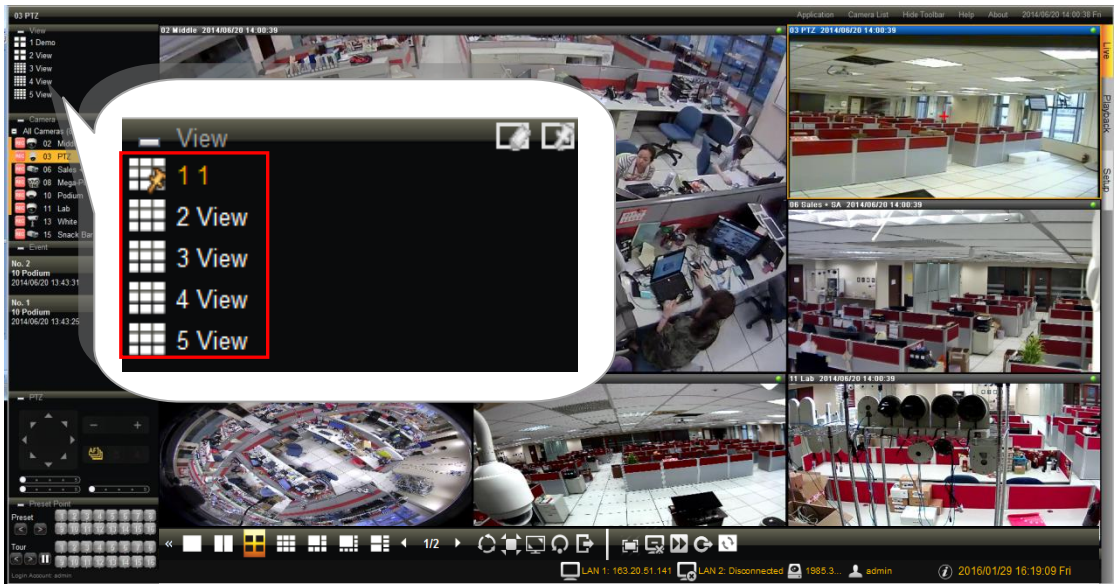
Aside from keeping an eye on the video, you may also take snapshots, control PTZ cameras, start or stop manual recording on a selected channel. In this section, you will be given instructions on the said fundamental operations. To start, log on to the system first.

Live Screen Overview

Item	Description
View List	Lists **five** views available for customization.
Camera List	Lists all the added devices and their recording status.
Event List	Displays alerts of detected motion, recording and connection status.
PTZ Panel	Provides live onscreen PTZ controls including **Preset Points** and **Tour** controls. This panel is only enabled when a PTZ device channel is selected on live view display area.
Live Screen Menu	Lists available layout selections and live view operation controls.
Screen Switch	Click the tabs to enter other screens: **Playback** and **Setup**

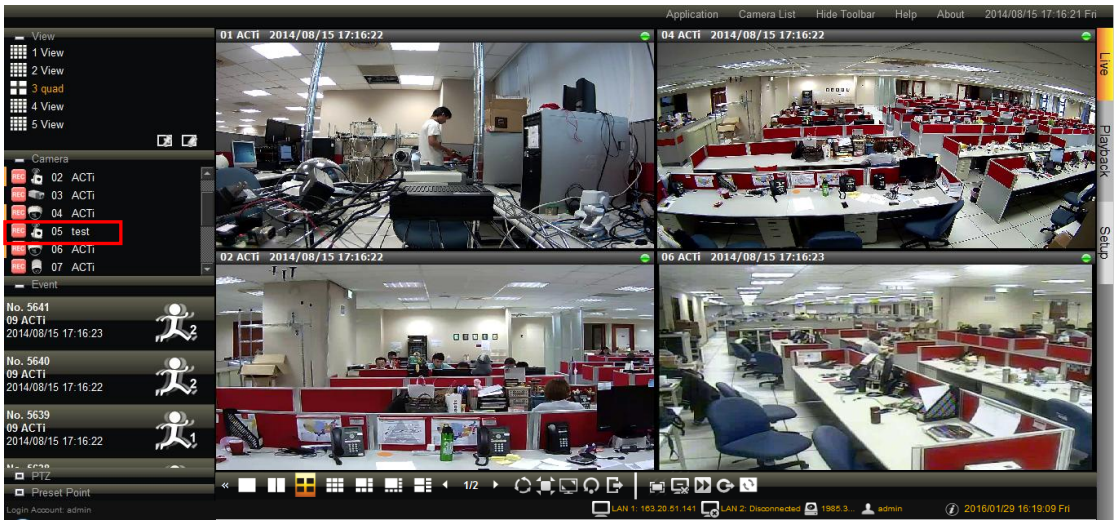
Select a Customized Layout

You can switch you current view to another pre-set custom layout by clicking on the layout name.



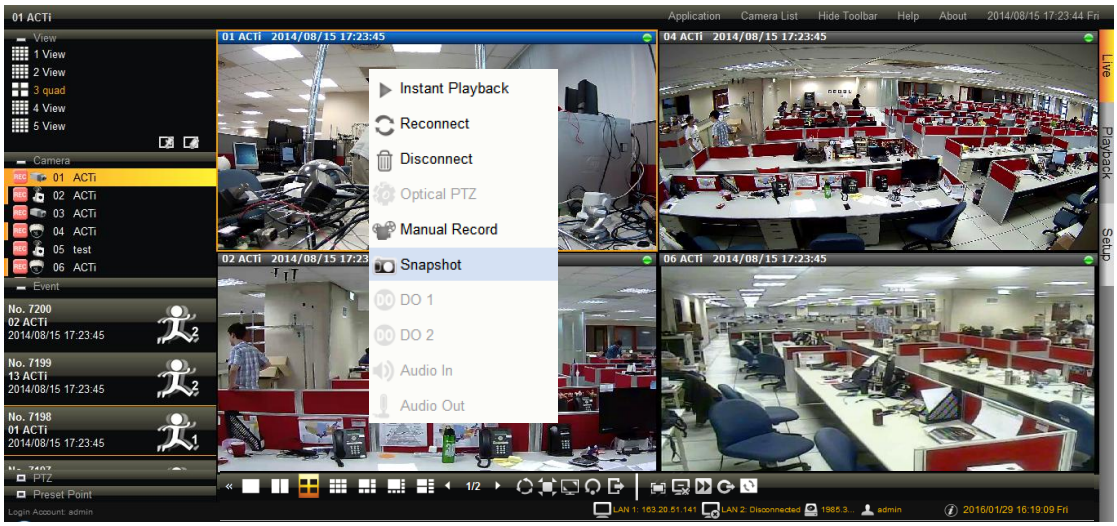
Watch a Specific Camera View

To watch a certain camera view which is not in your current layout, double-click on it on Camera list, the new channel will be added to your current layout.



Take a Snapshot

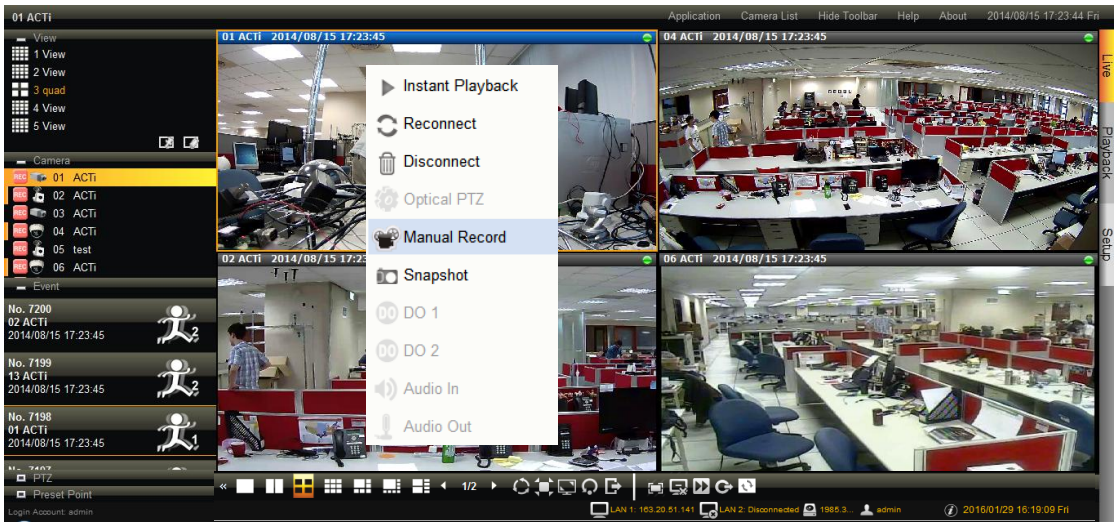
You can take a snapshot of a current live channel by right-clicking on it and selecting "**Snapshot**". This image will be saved to **Clipboard**. You have to open an image editing tool and use "**CTRL+V**" command to view this image.



Manual Record

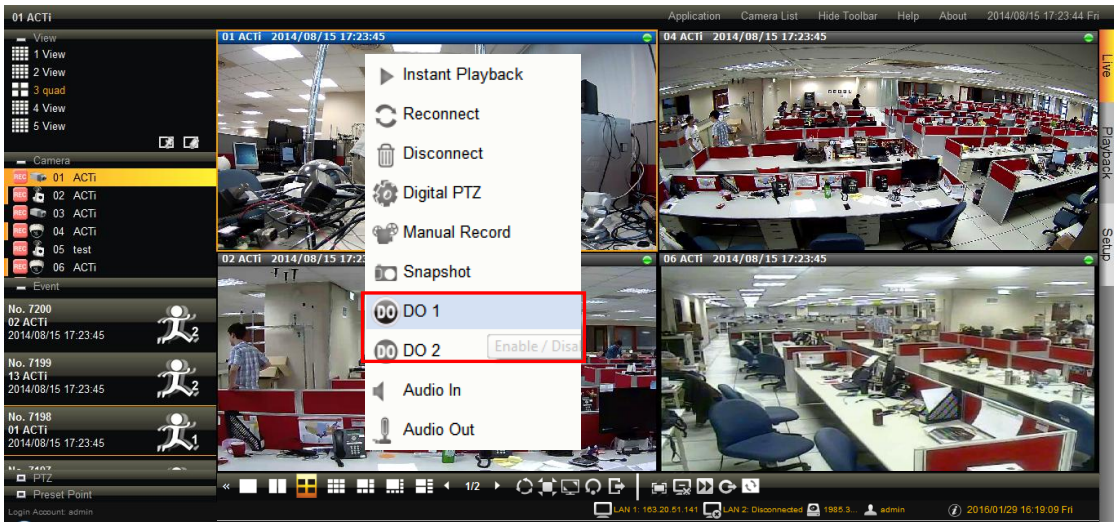
To record the live stream of a channel, right-click on it and then select "**Manual Record**". As the manual recording proceeds, a hand icon will appear right on this channel on **Camera** list.

To stop recording, right-click on the channel and select "**Manual Record**" again.



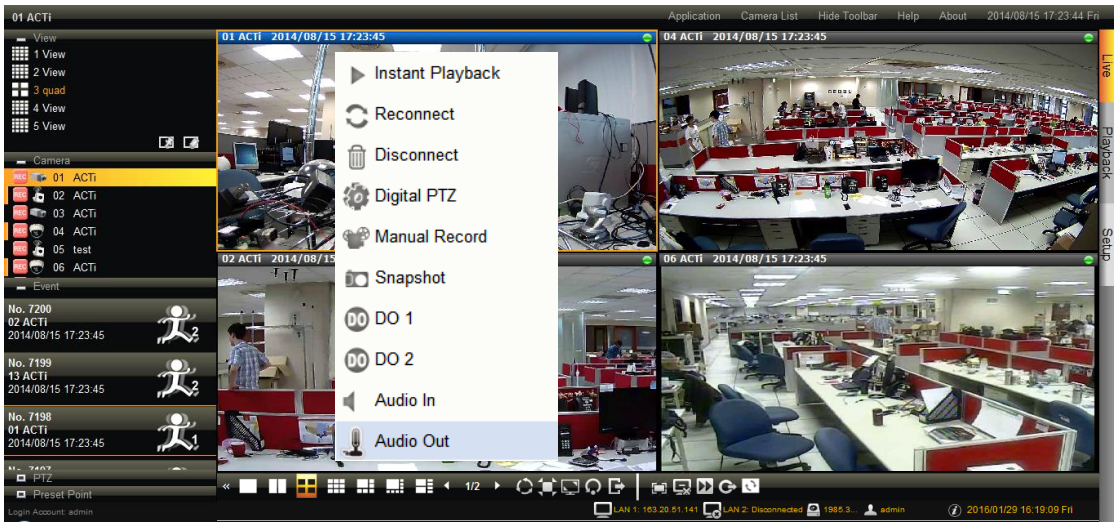
Trigger Digital Output

You can trigger a digital output connected to a camera via remote client interface. Right-click on the channel and select the DO you want to trigger.



Send Audio Signal to a Camera

If a camera is connected with an audio-out device(e.g. a speaker), you can make use of the audio-in device (e.g. a microphone) to send the audio signal to the camera side. To do this, right-click on the channel and select "**Audio Out**".



Digital PTZ Navigation

Digital PTZ allows you to zoom into part of the video and enlarge it to display on screen. This PTZ function is applied to every camera model. On the channel, click and drag a highlight rectangle over any channel, and the area highlighted will be displayed in the full live video window. In this mode, a picture-in-picture view will show in the lower right of live view window. A red rectangle will mark the currently enlarged view area within the full size video. You may click and drag the red rectangle to see another area. To go back to the original full video view, just right-click on the minimized Picture in Picture view.

If this camera has optical PTZ feature, you will have to right-click on the channel and select "**Digital PTZ**" to start digital PTZ navigation.

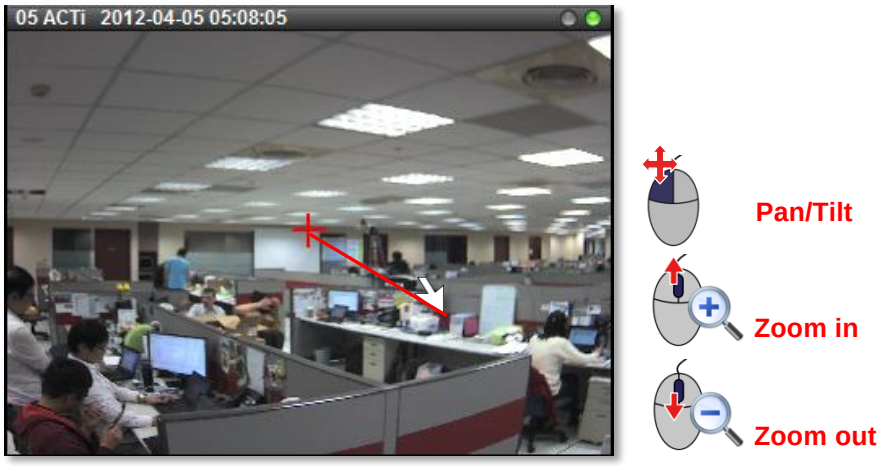
Optical PTZ Navigation

If this camera has optical PTZ feature, you can directly operate the PTZ movements on the channel. First, focus this channel on display area,

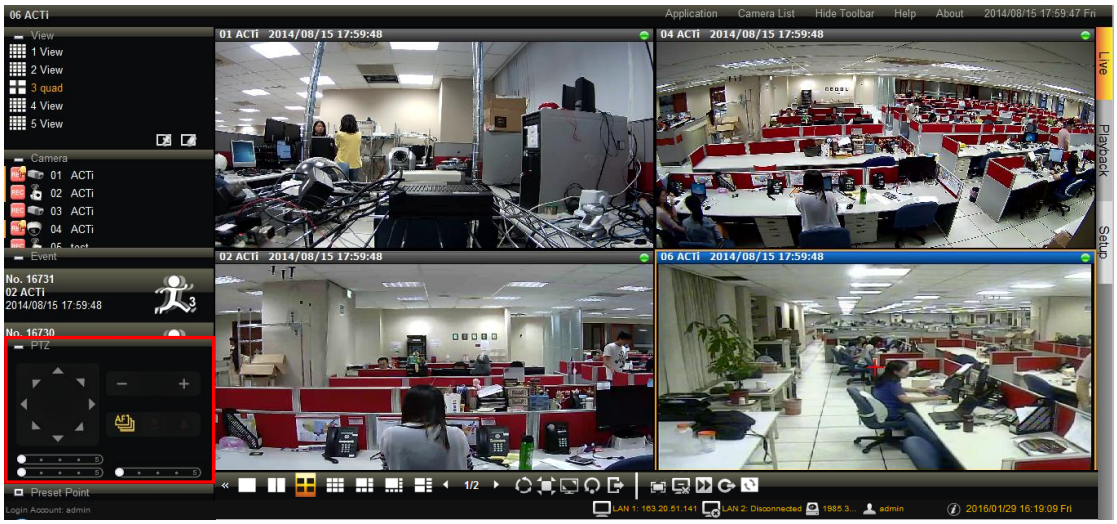
- Use the mouse to do the following PTZ operations:

  ●To execute optical **Panning** and **Tilting**, click anywhere on the live window to allow the camera to move in that direction. The length of the direction indicator is proportional to the Pan and Tilt speed. The farther you place the cursor from the center, the faster the Pan/Tilt movement.

  ●To execute optical **Zoom in** or **Zoom out**, scroll the mouse wheel forward to zoom in; scroll the mouse wheel backward to zoom out.



- Use onscreen controls to operate PTZ movements:



Open the **PTZ panel** on the left, and click on the controls the functions of which are explained below:

Note

1. The zoom buttons are only applicable for those devices supporting optical zooming.
2. The focus buttons are only applicable for devices with controllable zoom lens, e.g. KCM5211. Please remember to turn off the autofocus mode on device firmware before using these buttons.
3. Make sure PTZ mode appears as "**Digital PTZ**" on right-click channel menu.

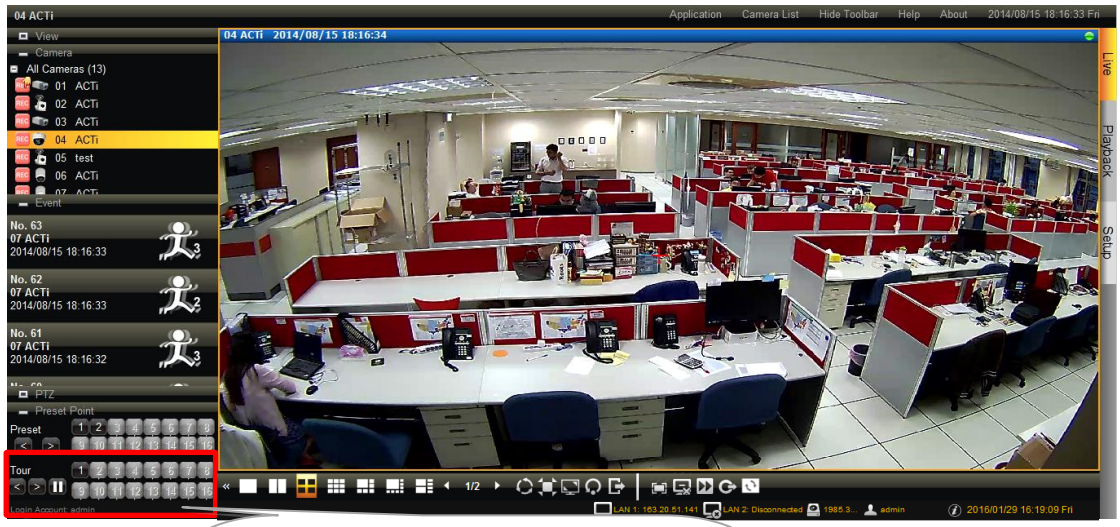
Go to a Preset Point

If the system administrator has previously defined certain PTZ preset points, you can directly click on a preset button to have the camera find the corresponding view.

The executable preset point buttons appear as buttons 1 and 2 below:

Start / Stop a Tour

If the system administrator has previously defined certain PTZ tour, you can directly click on a preset tour button to have the camera execute the tour. To stop the tour, click on the "**Pause**" button.



The executable preset tour buttons appears as buttons 1 below:

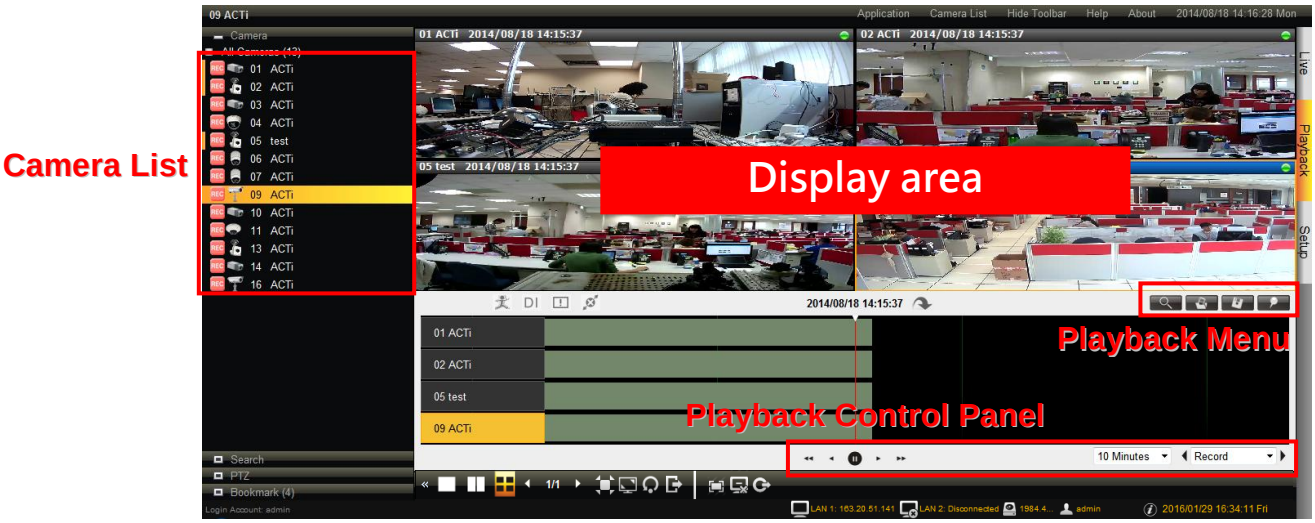
Playback

Playback is the service that processes recorded video clips. You may search by time. by event or the bookmarks you have set. **Playback** may include up to 4-channel synchronized playback. Video clips may also be exported in either RAW or AVI formats.

On **Live View** screen, click Playback to enter **Playback** screen.

Playback Screen Overview

Upon entering **Playback** screen, you will enter 16-channel synchronized playback



Item	Description
Camera List	Lists all channels
Playback Control Panel	Provides controls that help you search through the recorded footages easily.
Playback Menu	Lists available layout selections and playback related controls.

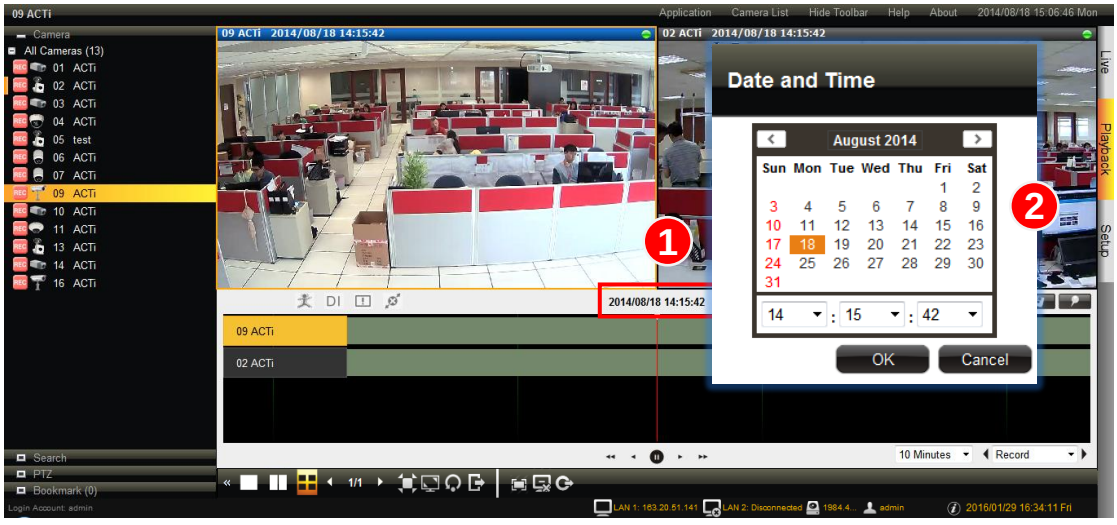
To play back certain channels synchronizedly, please do the following:

1. Select a layout.
2. Drag the desired camera channels from **Camera** list to the display window.
3. On **Playback Control Menu**, click to start playing.

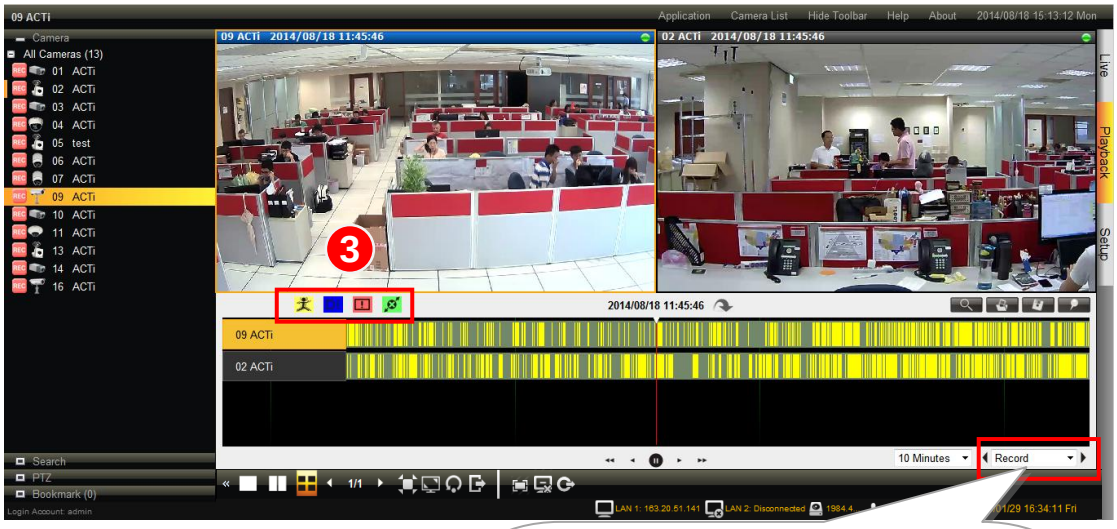
Start Time Search

If you know the specific time of the event, you may start from choosing the precise, date and the hour.

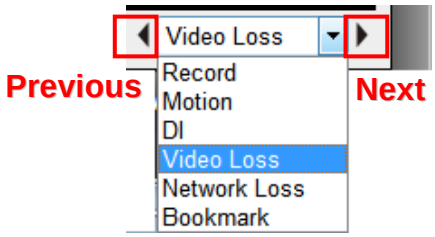
1. Click on the **current-time indicator** above the time bar.
2. Specify the date on the calendar, and click "**OK**".



3. To search for footage of a specific event, click on the event filter to highlight those special events in different colors.



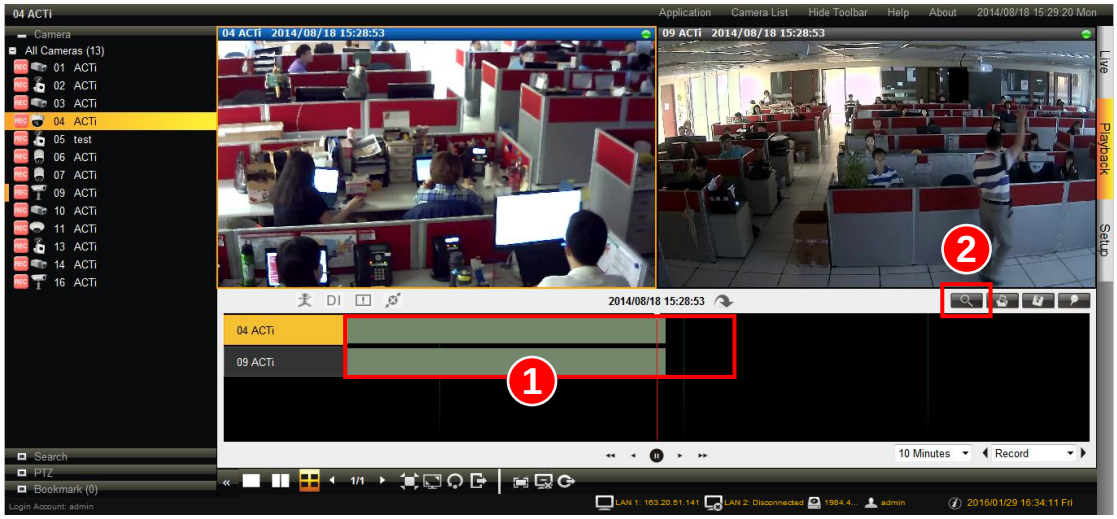
When there are multiple events, you can use the event finder to jump to the previous or the next event directly.



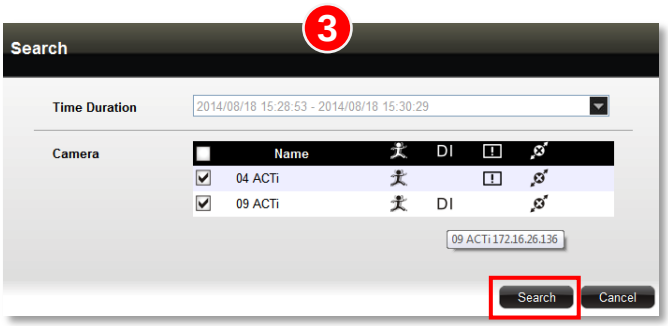
Event Search

If you want to filter the recording by **Event Type**, you may perform an event search to locate the desired video footage.

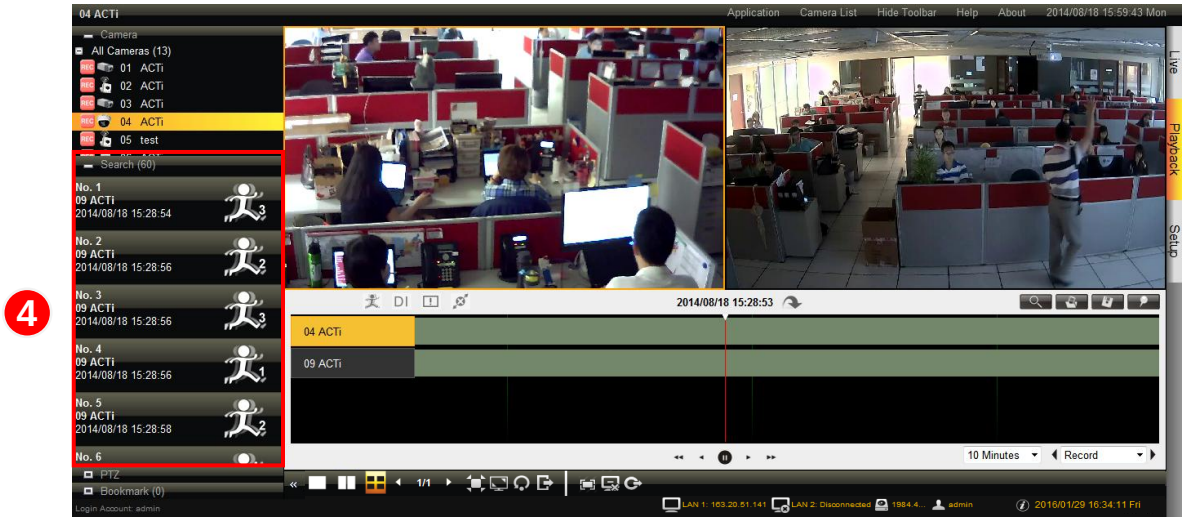
1. Scroll the time bare to your desired position.
2. Click on the "**Search**" button on **Playback Menu**.



3. On **Search** window, select the cameras and specify the event indicators for each camera and click "**Search**".

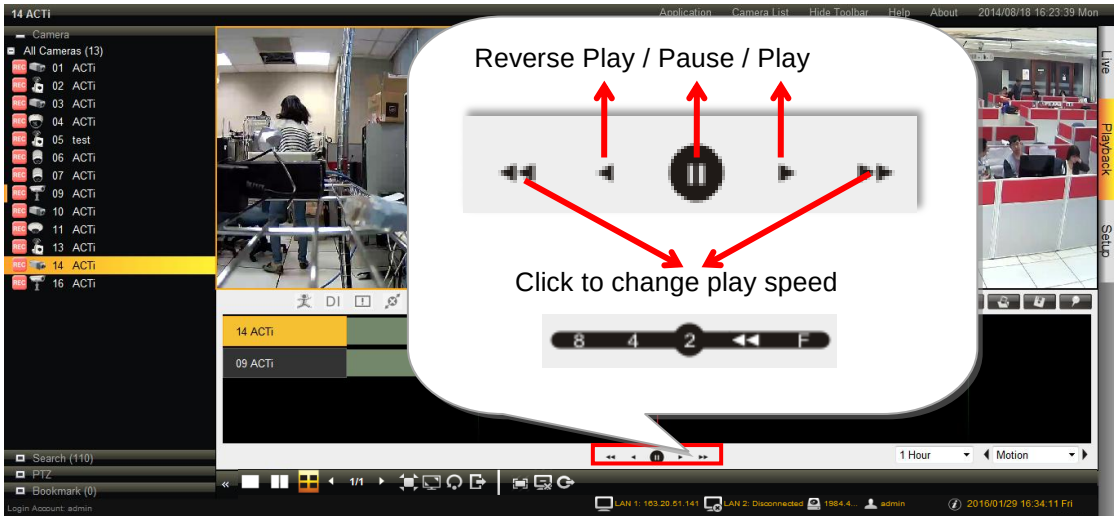


4. The search result will be display on the **Search Result** panel. Click on an event to jump to the time spot.

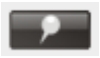


Play the Video Footage

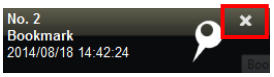
Use the buttons on **Playback Control Panel** to play your desired video footages.

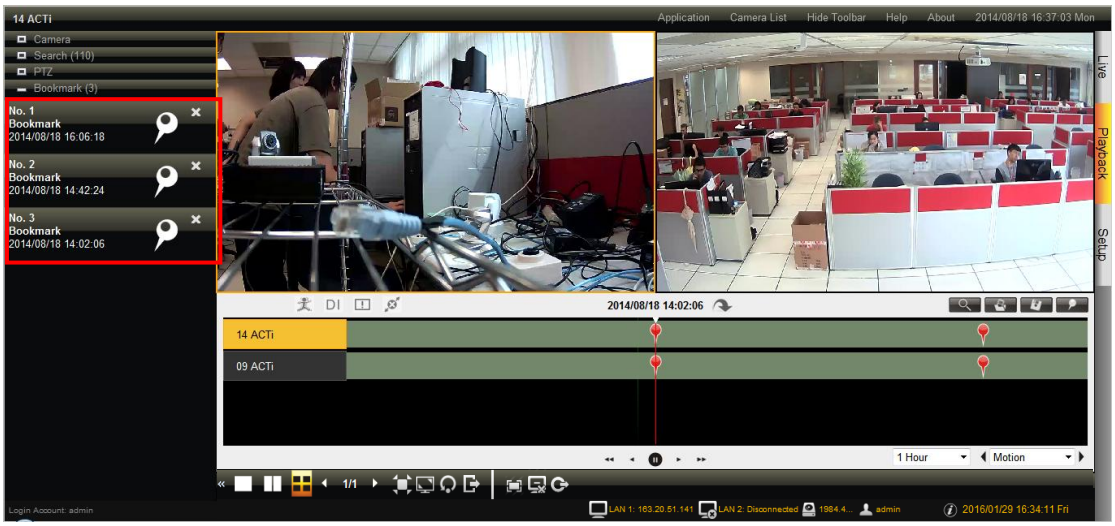


Add and Search Bookmarks

You can bookmark a time position on the timeline by clicking on  **Playback Menu**.

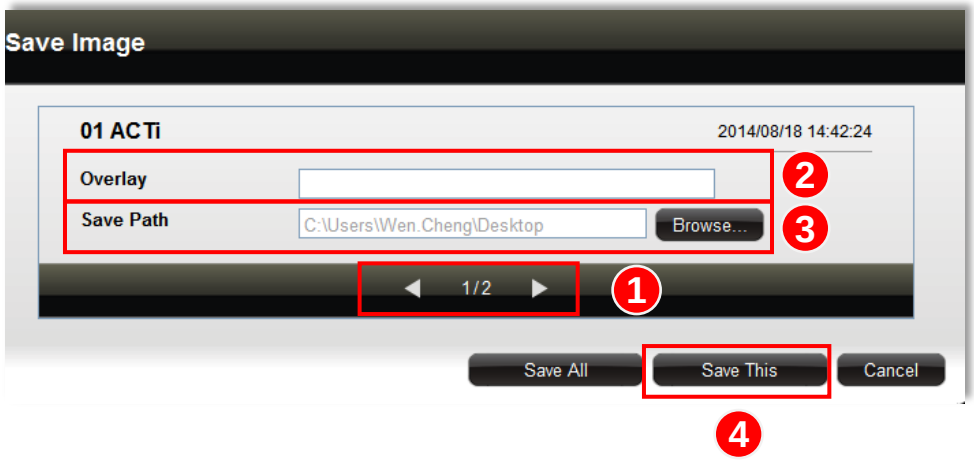
1. Make sure the camera channels you desire to watch are all in display area and open the **Bookmark** list panel.
2. The bookmarks will be shown on the left, double-click on any bookmark to go to the saved time position.
3. To delete a bookmark, simply click on the "**X**" icon on the bookmark entry.





Take a Snapshot

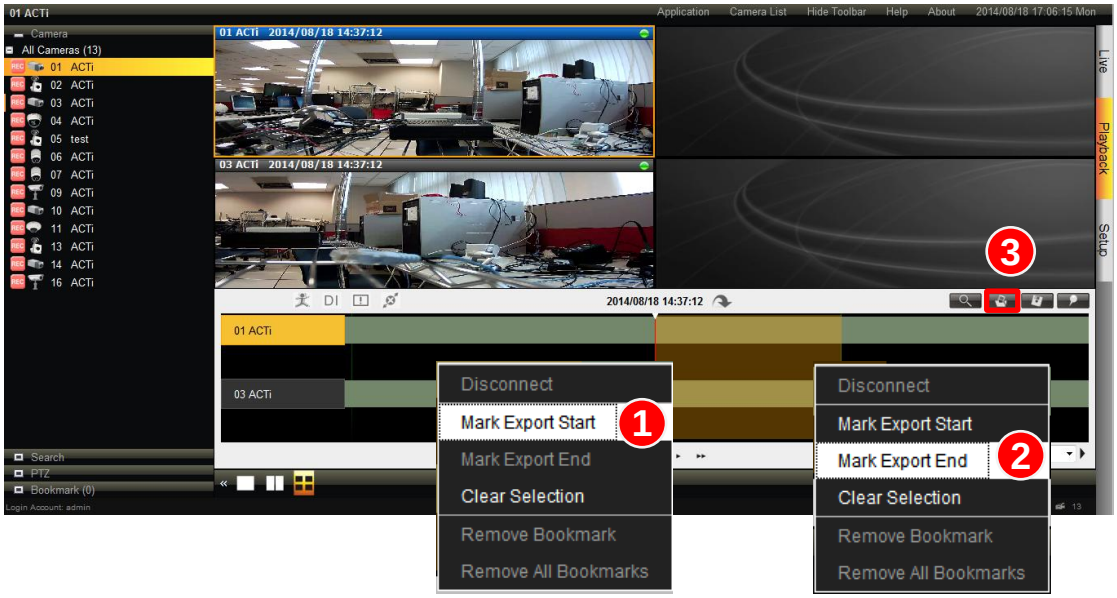
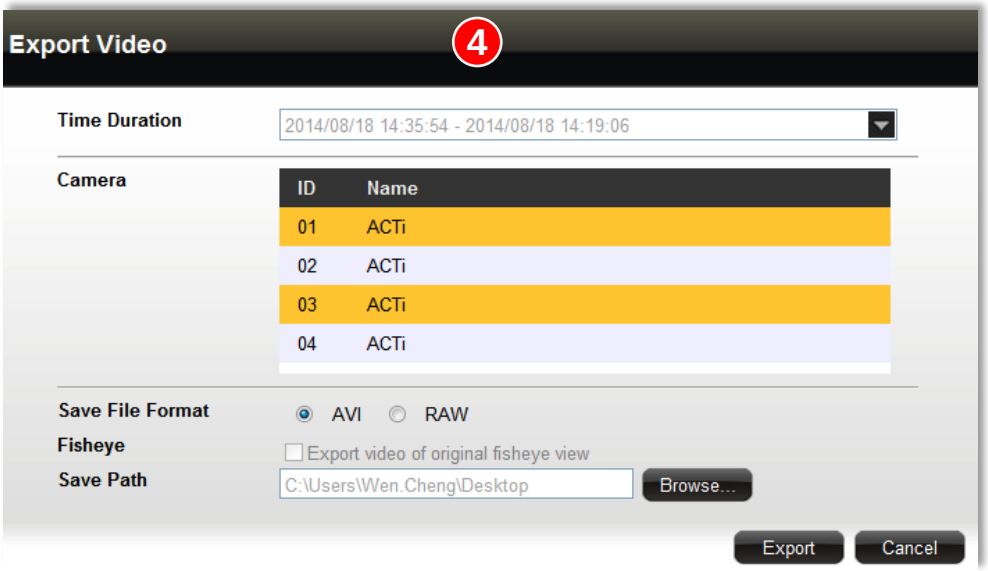
You can take a snapshot of the currently-displayed image of a channel and save it as a JPG file on your computer. On **Playback Menu**, click . Select the camera channel, input the overlay text (optional), select the destination folder to save the file and click "**Save This**" to export this image.



Export Video

You may crop and export video of the selected channel to **.avi** or **.raw** file. The provided exported video duration is from 1 minute ~ 60 minutes.

1. Drag the time bar to the start point of the footage, right-click on the time bar and select "**Mark Export Start**"
2. Drag the time bar to the end point of the footage, right-click on the time bar and select "**Mark Export End**"
3. Click on the **Playback Menu**.



4. On **Export** window, select the channels, file format and the destination folder, and then click "**Export**".