



ENR-1000

User's Manual

For V1.00.02 Firmware

Legal Notice

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Regulatory Compliance Information

Federal Communications Commission Statement



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, as the access rights are based upon different user roles defined by the **System Administrators**.

You may also check the product page <http://www.acti.com/ENR1000> for updates and documents.

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 ENR-1000 (hereafter referred to as ENR) is a compact, delicate and reliable 2-bay 4-channel standalone NVR for small-medium sized IP video surveillance system. It features a stable embedded Linux operation system and capabilities of supporting mega-pixel resolution H.264 streaming, an HDMI output for local display, full PTZ control, video motion detection, scheduled / event-triggered/ event speed-up recording, event management and synchronized playback, time/event-based playback search and video bookmarks. Its smart setup wizard and intuitive user interface allow the system installer enjoy effortless plug&play 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 experiences user-friendly web interface customized for browser-based operation.

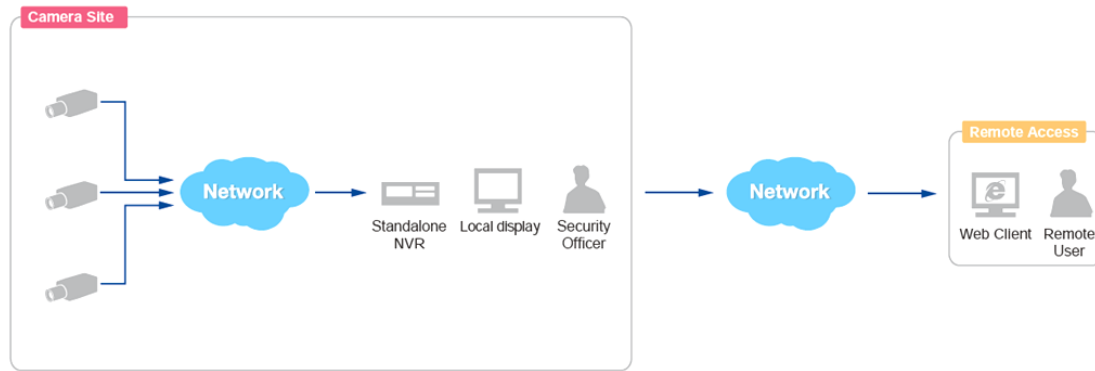
ENR Server / Client Architecture

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

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 accessibilities of ENR functions.

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

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



Remote User: Administrator / Supervisor / Manager / Security Officer

Remote Client PC Requirements

ENR itself is a self-contained unit. The table below provides basic guidelines only for selecting proper hardware for the remote PC client.

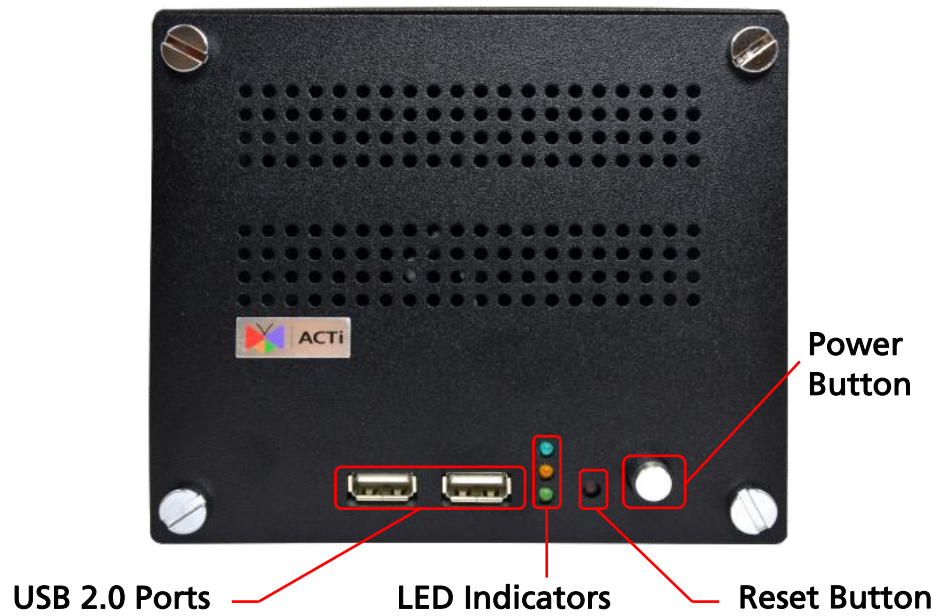
| PC Spec (*1) | Minimum Requirements |
|--------------------|------------------------------------|
| CPU Processor | Intel Core 2 Quad 2.66 GHz |
| RAM | 4GB |
| Network | Ethernet (1000 Base-T recommended) |
| Operation System | Windows 7 (all versions) (*2) |
| Display Resolution | 1080p |
| Browser | Internet Explorer 9.0 |

*1 PC Spec requirements are the same for 32-bit and 64-bit systems.

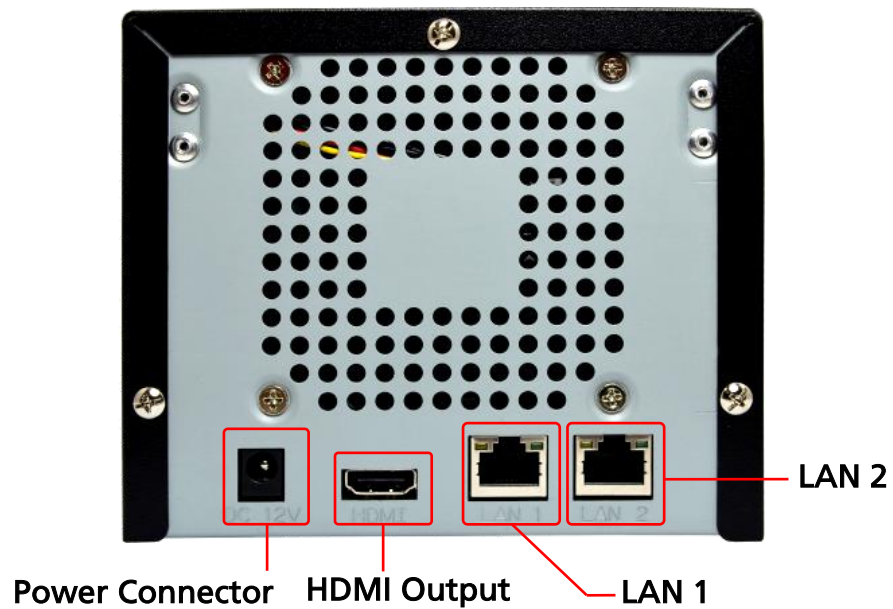
*2 Please make sure your operation system is fully patched with the latest service packs.

At A Glance

Front Panel



Rear Panel



Power Button & Reset Button

You can turn on/turn off the device with **Power Button**; with **Reset Button**, you may restore the device to factory default settings.

Turn On the Device

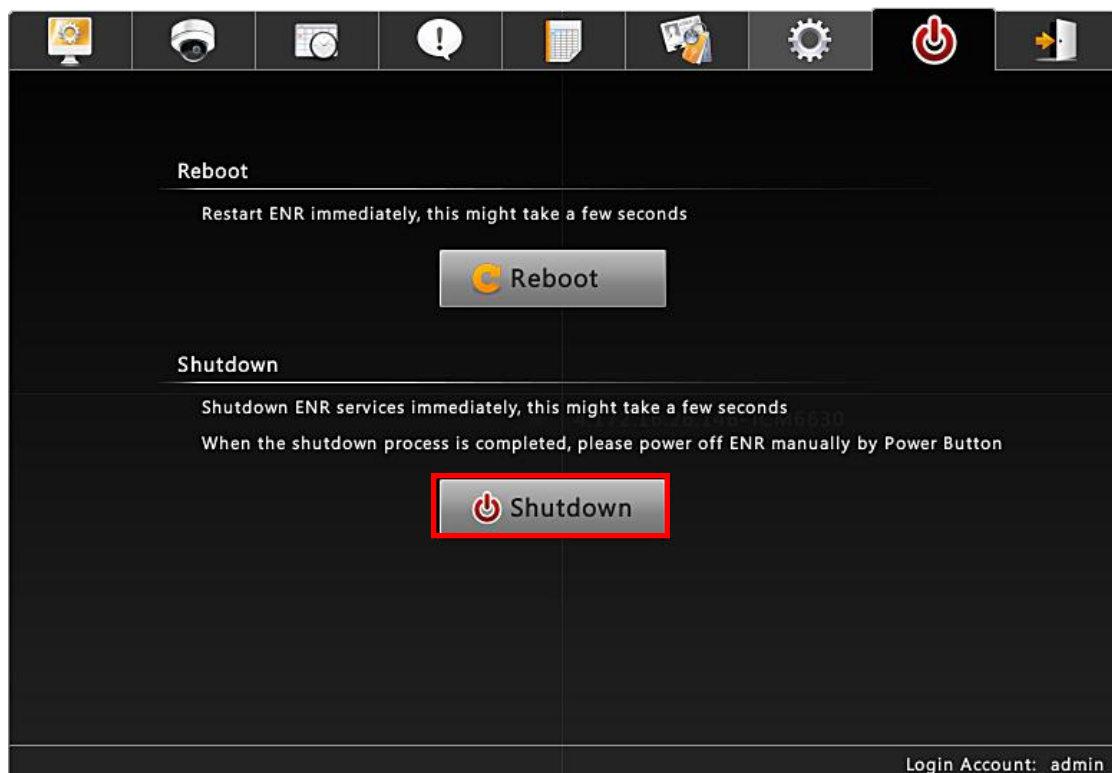
Press down the **Power Button** and release, the **Power LED** will light up and turn solid blue.

Turn Off the Device

As the device 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 View** screen, right-click to bring up **Live View Menu**, select **Setup Menu** → **Reboot/ Shutdown** 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 front panel, when its orange light is off, you may press the **Power Button** to completely shut down the device.

Reset to Factory Default

By resetting this device, all your system settings will return to factory default, while the previous recording files and system logs are still kept on storage disks. It is strongly recommended that you back up previous settings with **Backup** function before resetting to factory default.

1. To begin, please 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 red 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.



After the device automatically reboots, the resetting process is done and you may log in.

LED Indicators

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

| Item | Indicator Status | Color | Description |
|--------------------------|---|-------|---|
| Power LED | Solid | Blue | The device power is on. |
| System Status LED | Lights up for three seconds after Reset Button is pressed | Red | The system resetting process is initializing. |
| | Solid | | The system service is running. |
| HDD LED | Flashing | Green | The hard disk is recording. |

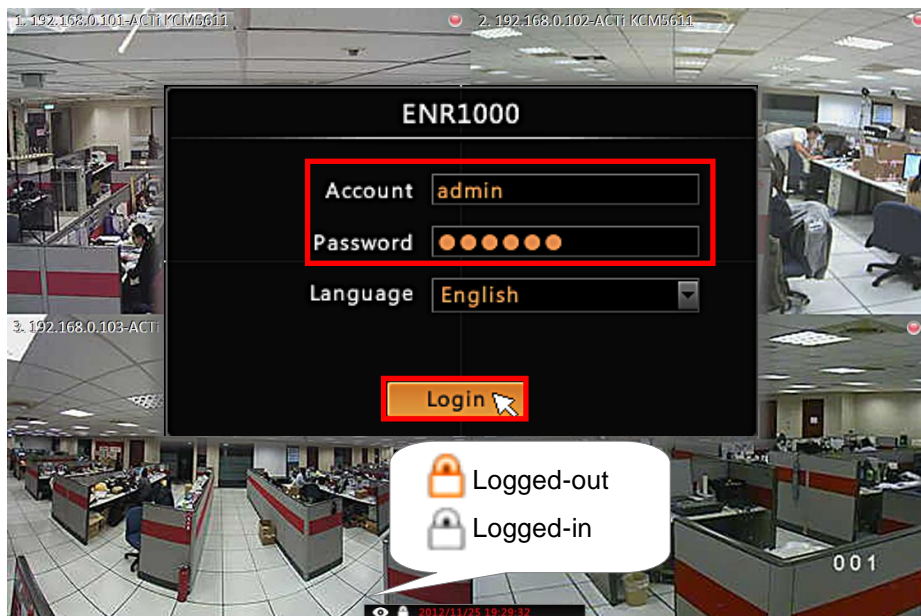
Login & Logout

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

To enter **Live View** screen:

1. Click on screen to bring up the **Login** window.
2. Fill in the **Account** and **Password** fields. The window will remember the user account that last logged in to the system.



Log Out

On **Live View** screen, right-click anywhere to bring up the **Live View** menu, click the  icon.

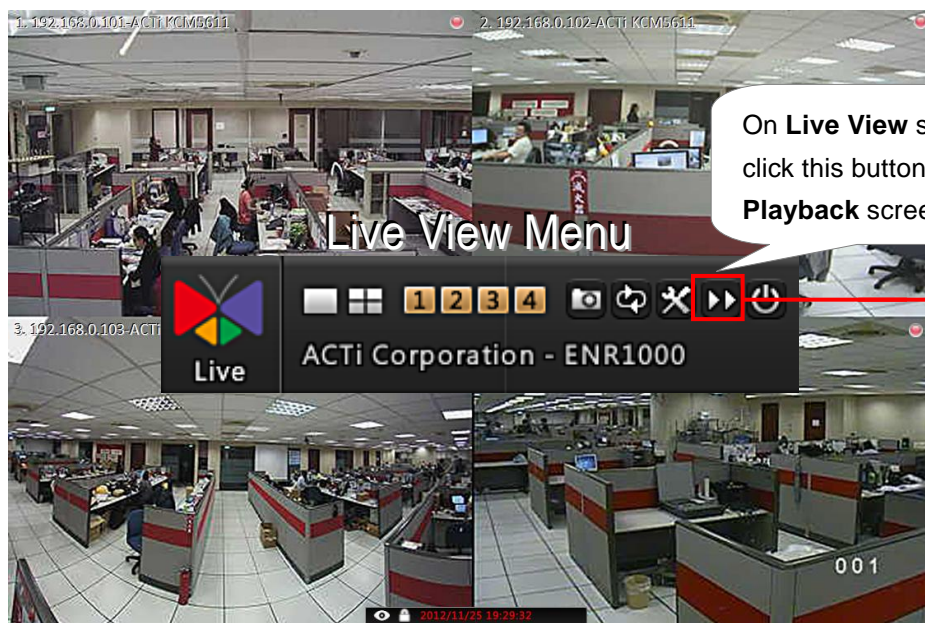


System Overview

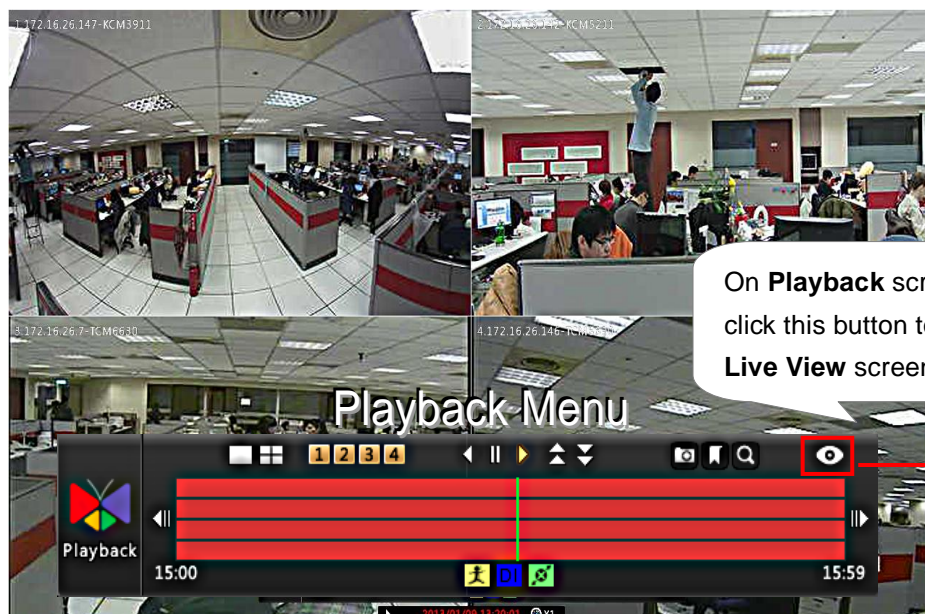
Main Screens Introduction

ENR system has two main screens:

● **Live View** screen, which you will immediately see after logging in. You may watch live streaming, operate the PTZ cameras, take live view snapshots, execute manual recording and access the **Setup Menu**.



● **Playback** screen, where you can search the recordings, view the playback, put video bookmarks and export the video.

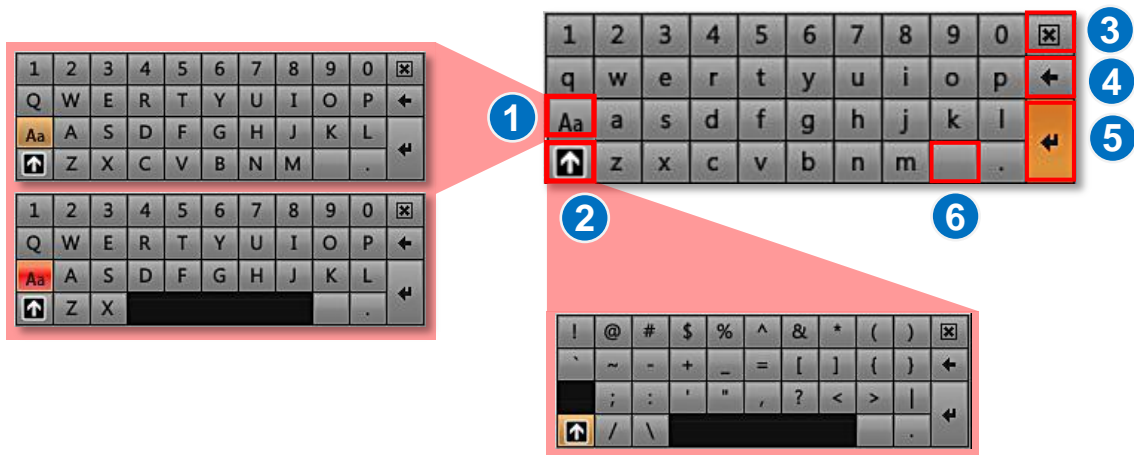






Input Devices

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 and USB keyboard are ready to use when you connect them to ENR via USB 2.0 ports. You may adjust the mouse's cursor speed via the path below: on **Live View** screen, right-click to bring up **Live View** menu → Select **Setup Menu** → click **System Settings** tab → click **Mouse** or **Keyboard**.

Virtual Keyboard Overview

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.



| No | Description |
|----|--|
| 1 |  →  Press once to change a single input to uppercase. |
| |  →  Long press to set the default input mode in which typed letters are uppercase. |
| 2 | Press once to switch to symbol characters page. |
| 3 | Close onscreen the keyboard. |
| 4 | Delete one character backwards. |
| 5 | Confirm the input and close the onscreen keyboard. |
| 6 | Space |

Monitoring

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

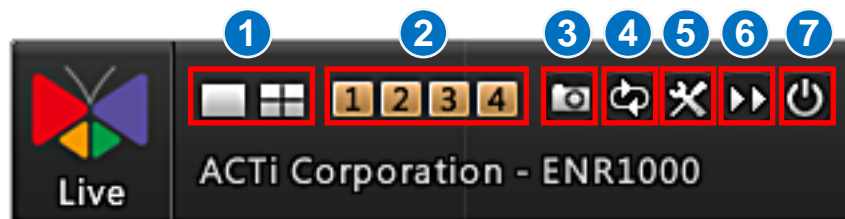
Aside from keeping an eye on the video, you may also take snapshots, control PTZ cameras, start or stop manual recording on a selected channel. In this section, you will be given instructions on the said fundamental operations. To start, log on to the system first.

Live View Menu

Live View menu is a toolbar listing the most used functions required for live view operations and system setup.



You can always bring it up on **Live View** screen by right-clicking anywhere on screen.



| No | Description |
|----------|--|
| 1 | Layout Styles Click to switch layout styles |
| 2 | Single Channel Switch Click to switch to a specific channel in 1x1 layout |
| 3 | Take a snapshot The image of current live view layout will be saved as jpg format (at 720x480 resolution) onto the USB mass storage. Please make sure the USB mass storage has already been connected to ENR device. |
| 4 | Patrol (only enabled on 1x1 screen layout) |
| 5 | Setup Menu |
| 6 | Playback screen |
| 7 | Logout |

Change Live View Layout

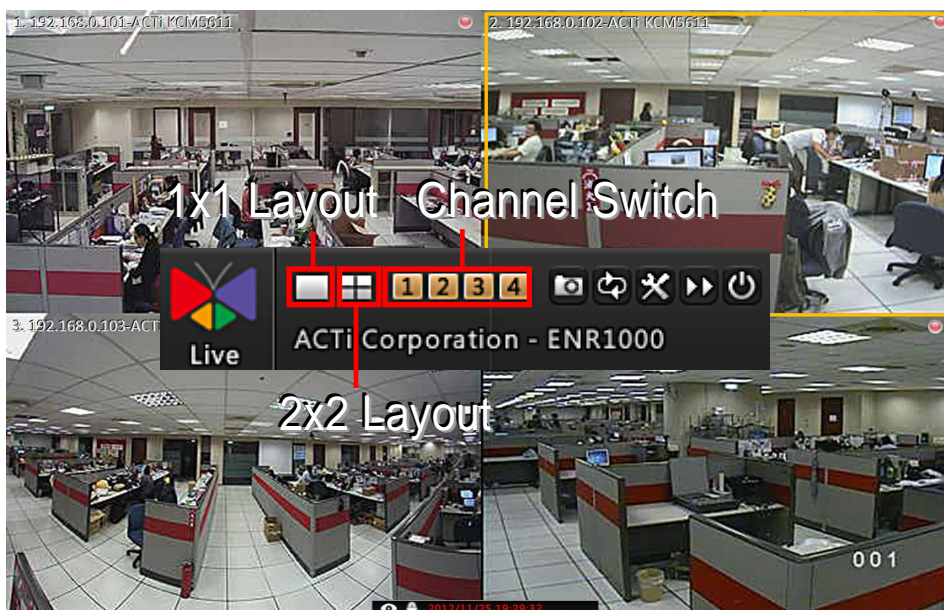
ENR provides **1x1** and **2x2** layouts for monitoring.

Watch All Channels

2x2 layout is used by default. You may double-click on a specific channel to watch it in full screen, and double-click again to return to **2x2** layout.




Watch a Single Channel

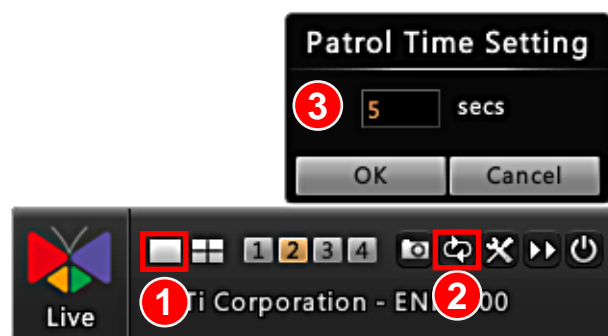
On **Live View** menu, click to switch to **1x1** layout. By clicking the **Single Channel Switch** **1 2 3 4** , you may watch desired channel in full screen.



Layout Patrol

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

1. On **Live View** menu, click  to switch to **1x1** layout.
2. Click .
3. On **Patrol Time Setting** window, input the patrol interval (the maximum value is 999 seconds), and the click **OK**.
4. To exit **Patrol** mode, click .



Single Channel

On **Live View** screen, you may select a channel to perform below functions on a single channel:

- (1) Take a snapshot of this single channel
- (2) Start manual recording of this single channel
- (3) Enter PTZ operation mode



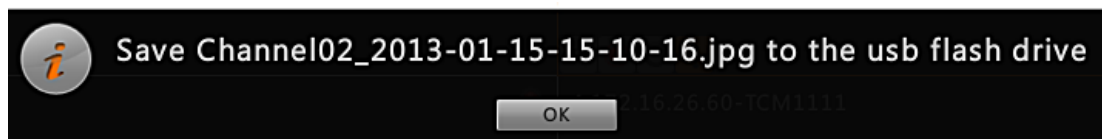
Single Channel Menu

To start, select a channel by mouse, and the channel menu will appear:



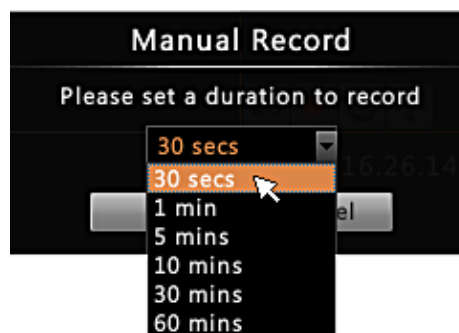
1 Take a Snapshot

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



2 Start 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 bar. You will have to set a length for this recording, and ENR will automatically stop when the duration ends.




3 Reconnect this camera

4 Enter / Exit PTZ mode

This button is enabled when this camera supports PTZ function. You may enter PTZ operation mode by clicking this button to bring up the PTZ panel, and click it again to close the panel. (Please refer to **Operate PTZ Camera** on page 21 for PTZ operation instructions)

Note

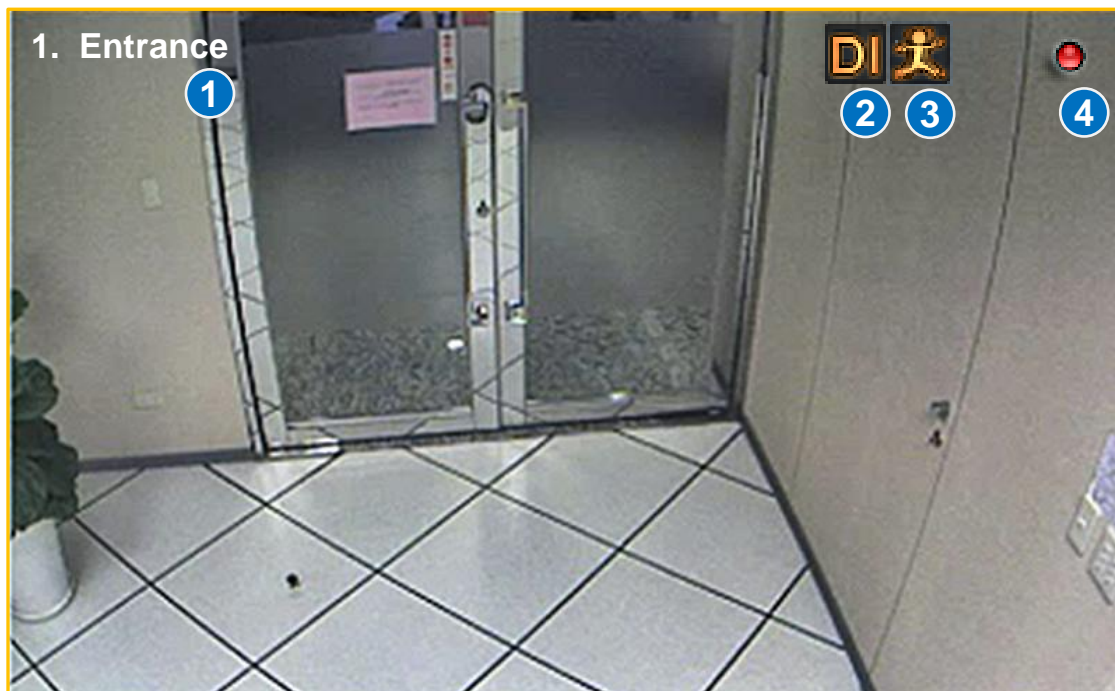
To take a snapshot of **2x2** layout, please make sure your current layout is **2x2**, and then click  on **Live View** menu.

Acknowledge Channel Status

On **Live View** screen, it is essential to observe the system status 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.




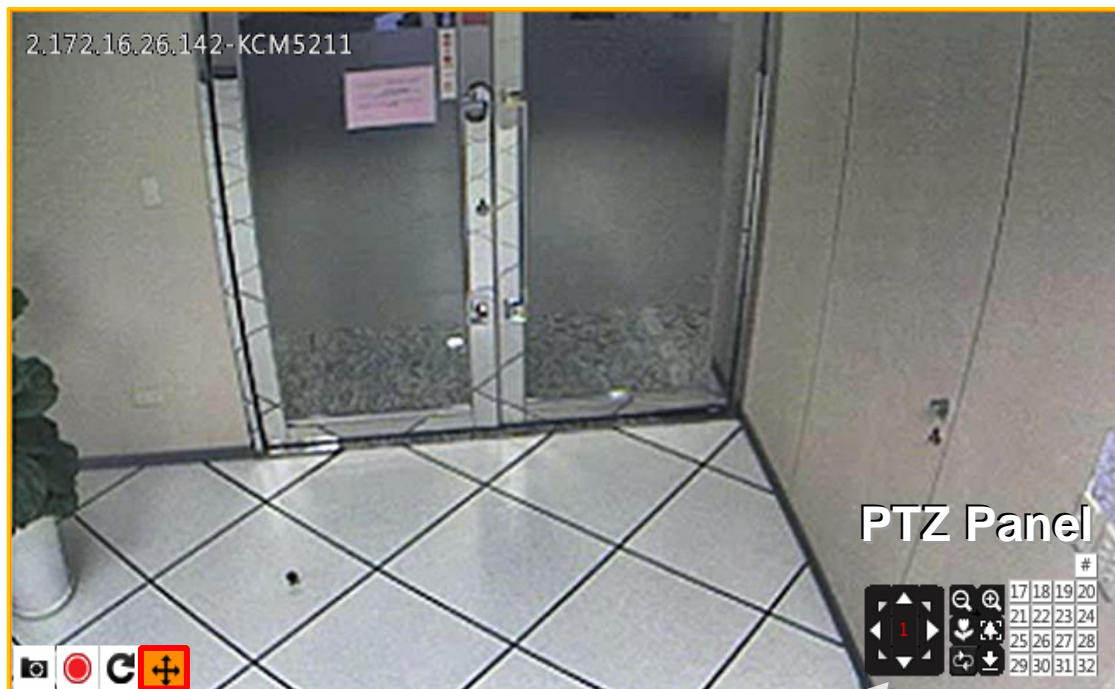
| No | Description |
|----|---|
| 1 | Camera Name |
| 2 | Digital Input Motion Alert This will flash along with the channel outline border when the digital input device detects motion on camera site. |
| 3 | Video Motion Alert This will flash along with the channel outline border when the camera detects 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. |

Operate PTZ Camera

On ENR **Live View** screen, you may also use the UI controls to perform PTZ navigation. The preset points move the camera to see pre-defined views; a preset tour is a combination of preset points, which can perform an auto-scan tour.

Open PTZ Panel

1. Click to select the PTZ camera channel, and then click .
2. The **PTZ Panel** will appear on bottom right.



| No | Function |
|----|--|
| 1 | 8 directional arrow keys: Click to pan or tilt the camera. (only available for cameras with Pan/Tilt/ capability) |
| 2 | 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) |

| | |
|---|---|
| 3 | Zoom out (available for cameras with a controllable zoom) |
| 4 | Zoom in (available for cameras with a controllable zoom) |
| 5 | Near focus (available for cameras with controllable focus) |
| 6 | Far focus (available for cameras with controllable focus) |
| 7 | Start/Stop Preset Tour |
| 8 | Previous / Next 32 Preset Points |
| 9 | Preset Point ID: Click to go to this point. |

Go to a Preset Point

Click the preset point ID on **9**

Start/Stop a Preset Tour

Click **7** to enter Tour mode, click "**Stop**" to stop the tour

| Stop | # | | |
|------|----|----|----|
| 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | 32 |

Close PTZ Panel

To exit PTZ operation mode, click .

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 channels synchronized playback. Video clips may also be exported in either RAW or AVI formats.

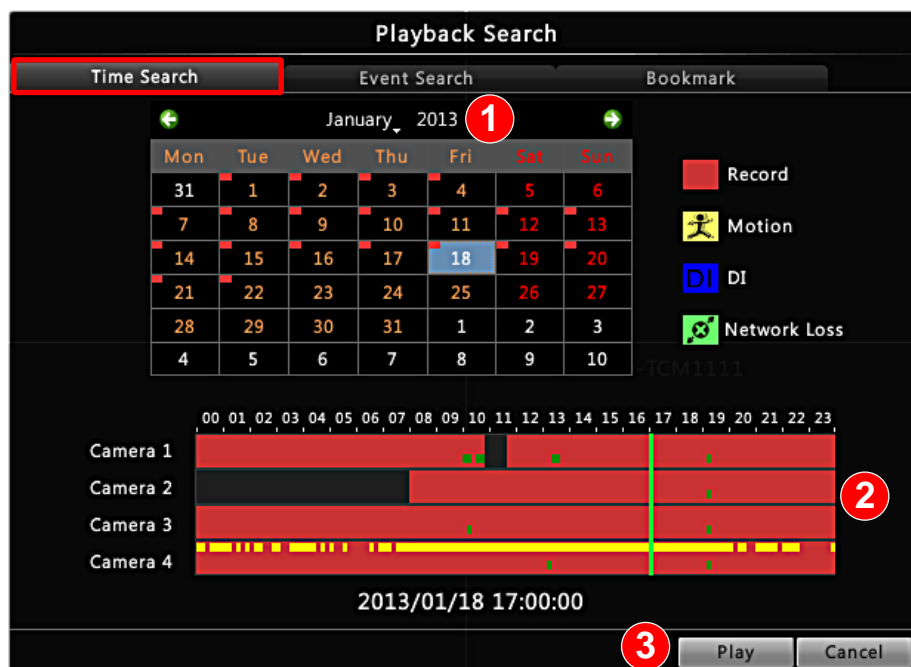
On **Live View** screen, click  on **Live View** menu to enter **Playback** screen.

Search Video

Upon entering **Playback** screen, you will have to choose a search method to start searching. On **Playback Search** window are three search methods: **Time Search**, **Event Search** and **Bookmark** search.

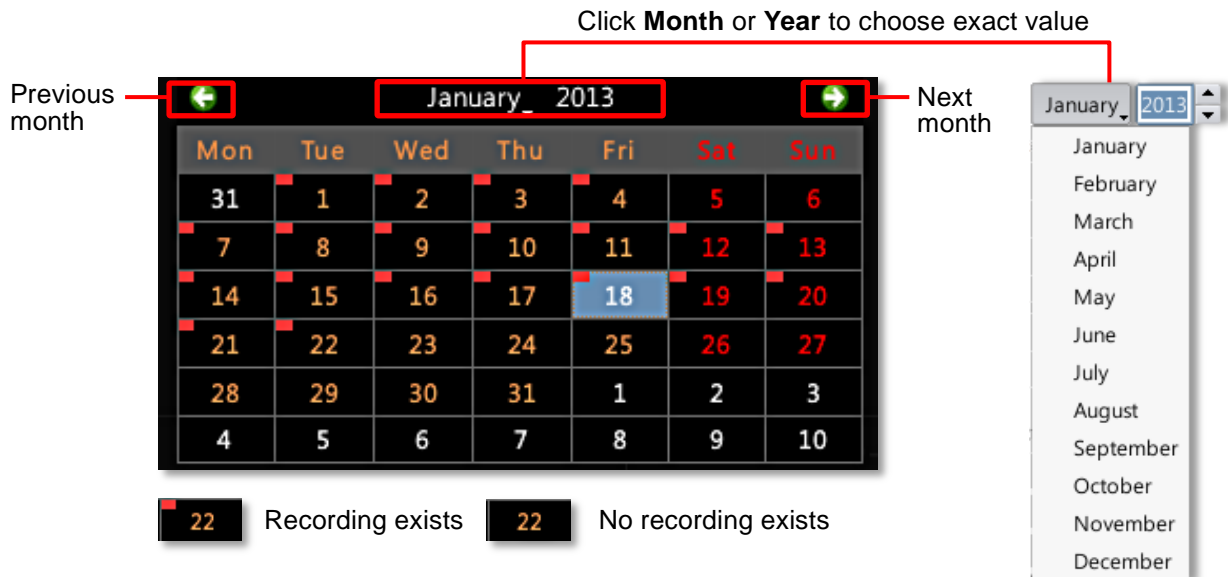
Time Search

If you have known the specific time of the recording, you may start from choosing the precise, date and the hour.



1. Select **Time Search** tab, and specify the date. In the beginning, your current system time is selected.

Click **Month** or **Year** to choose exact value



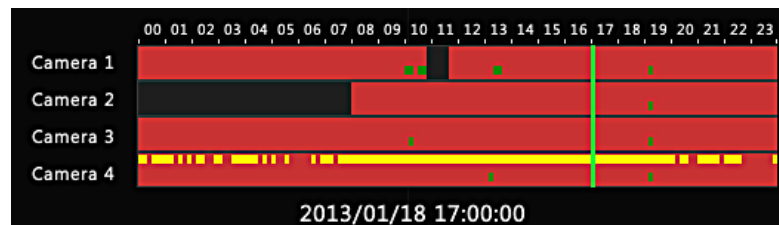
Previous month





Next month

Recording exists

No recording exists

- As the date has been selected, choose the hour from the 24-hour time bar. The color represents the event type of the recording.

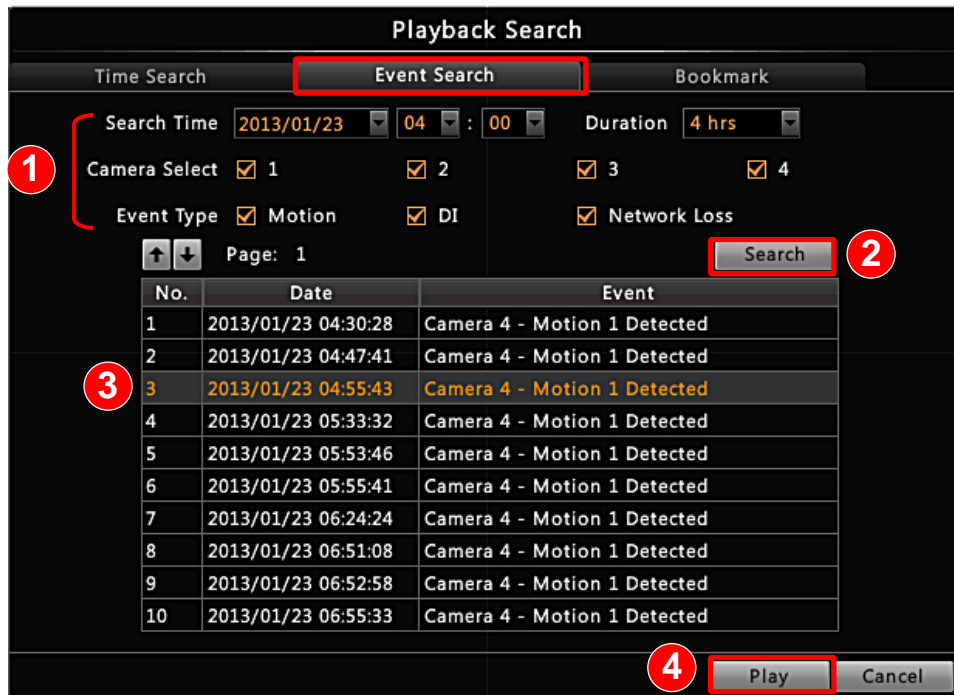


| Color | Description |
|---|--|
|  | Full-time or manual recording |
|  | The camera's video motion detection function had been enabled, and the camera detected motion events during this period. |
|  | The digital input device (e.g. PIR sensor) connected with the camera detected motion events during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

- Click **Play** to start the playback.

Event Search

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

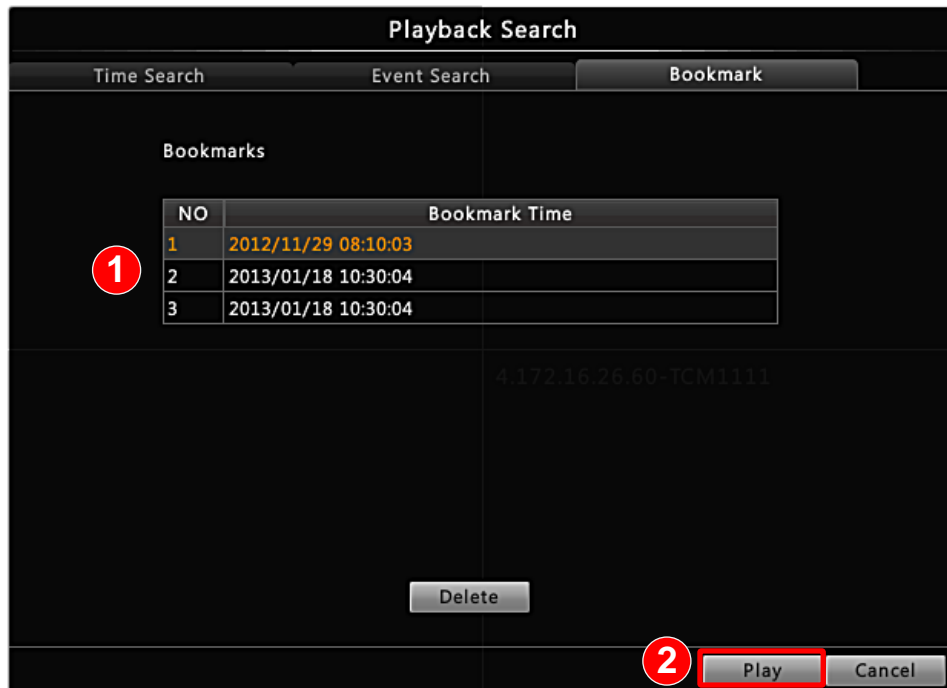


1. Select **Event Search** tab, and define the start time and a search duration (In the example below, ENR will search recording from **2013/01/23 04:00** to **08:00**.) the **Cameras** and **Event Type**.
2. Click "**Search**".
3. On search result list, select an entry.
4. Click "**Play**" to start the playback.

Bookmark Search

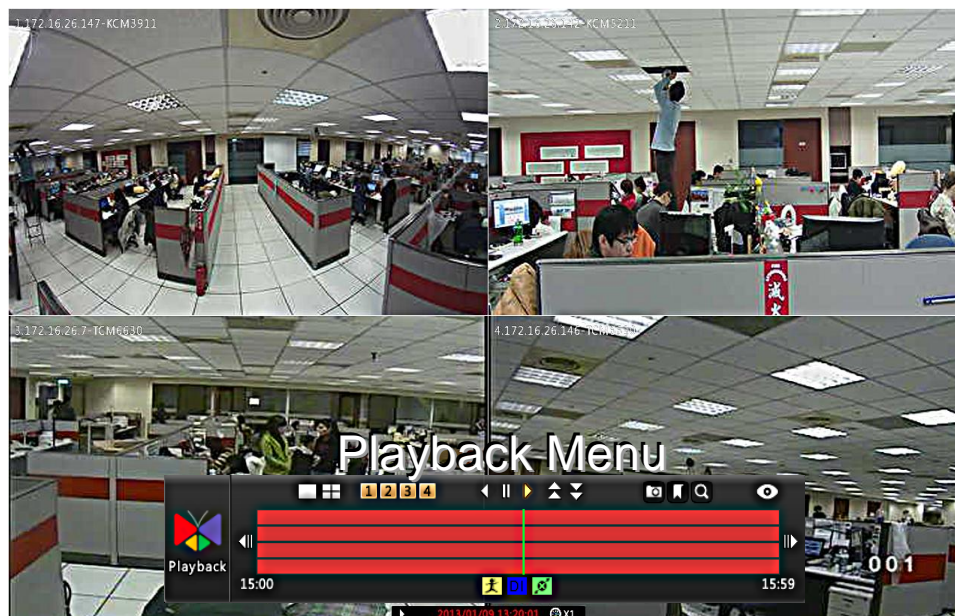
If you have previously set bookmarks on certain video time spot, these bookmarks are listed here. For instructions on how to set a bookmark on video, please refer to **Set Video Bookmark** on page 30.

1. Select **Bookmark** tab, on bookmarks list, click an entry.
2. Click "**Play**" to start the playback.



Play Back Video

ENR will start playing back the video after you click **"Play"** on **Playback Search** window.



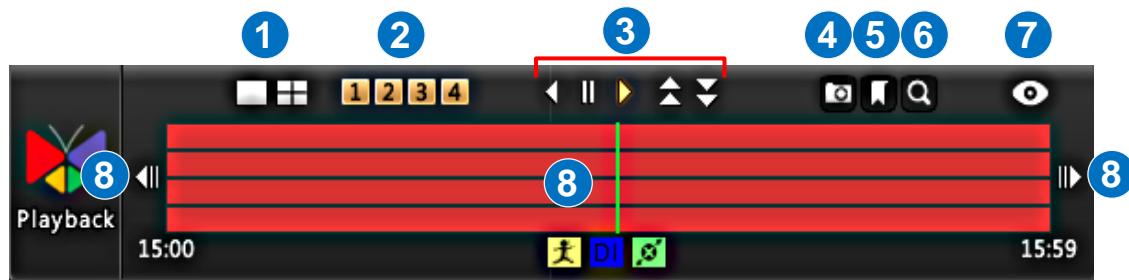
2013/01/09 13:20:01 **X1**

Current Playback Time

Current Play Speed

Playback Menu

On **Playback** screen, right-click anywhere on screen to bring up the **Playback Menu**.



| No | Description |
|----|--|
| 1 | Layout Styles Provided layout styles are 1x1 / 2x2 screen |
| 2 | Single Channel Switch |
| 3 | Playback Controls ◀ Reverse Play Pause ▶ Play ⏏ Increase Play Speed ⏏ Decrease Play Speed |
| 4 | Take a Snapshot |
| 5 | Add Bookmark |
| 6 | Playback Search window |
| 7 | Live View screen |
| 8 | ▶▶ Next Hour ◀◀ Previous Hour |
| 9 | Time Bar From top to bottotom display timebars of Camera 1 ~ Camera 4 . The green indicator display current time position. |

Video Playback Controls

When the video is playing, you may use the playback controls on **Playback** menu to find your interested spot.

Pause the playing

To pause the video playing, click **||** . You may continue playing later by clicking **▶** .



Play the video


Click **▶** to play the video. During the playback, you will see the current time on bottom of the screen is moving forward.

Reverse playback

Click **◀** to play the video in reverse. During the playback, you will see the current playback time on bottom of the screen is moving backward.

Change play speed

Increase the play speed by clicking  , and decrease the speed by clicking .

The provided speed rates are 1/2x, 1x, 2x, 4x, 8x, 16x and 32x. The current play speed will be shown on bottom of the screen  x1 .

Change Screen Layout


2x2 layout is used by default, once you start playing back, all the four channels will be played synchronisedly.


To watch a single channel playback, click  on **Playback** menu to switch to **1x1** layout. By clicking the **Singe Channel Switch**  , you may watch desired channel in full screen.

If there is no recording of certain channel at the time position you select, the channel will appear blank while playback is proceeding.



Take a Snapshot

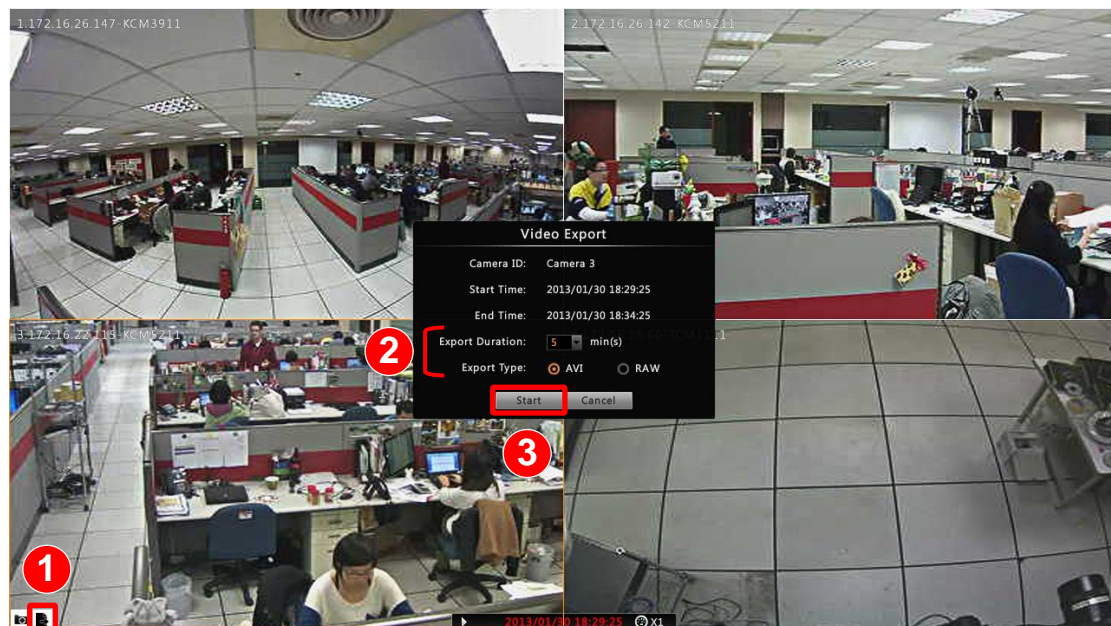
On **Playback** menu, click , the image of current screen will be saved as jpg format (at 720x480 resolution) onto the USB mass storage. Please make sure the USB mass storage has already been connected to ENR device.


If you want to get a snapshot of certain channel in its full resolution size, select the channel and click 



Export Video

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




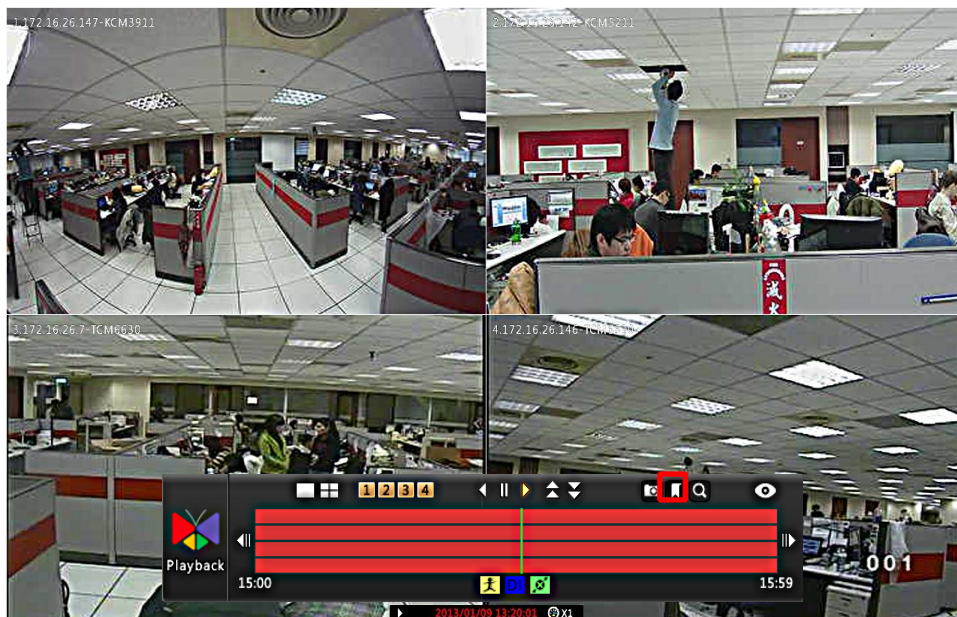
1. Select a channel and click 
2. Select the **Export Duration** and **Export Type**.
3. Click **"Start"**


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.

Set Video Bookmark

When the video is playing, you can set a bookmark on current playback time for later quick retrieval.

To set a bookmark, make sure the green indicator is on your desired time position, and then click 



You may view or delete the saved bookmarked video spots in **Bookmark** list. To enter **Bookmark** list, click  on **Playback** menu, and select **"Bookmark"** tab on **Playback Search** window.

System Log

The activities performed by logged-in Users are recorded on server as **System Log**. With the access permission to **Setup** (for how to change the user group permissions, please refer to the **User Group** section in ENR1000 System Administrator Manual), a user may view, search and export this record for analysis or investigation.

ENR keeps the system log of last 45 days on the storage disk. Both a local client user's and a remote client user's behaviors will be recorded

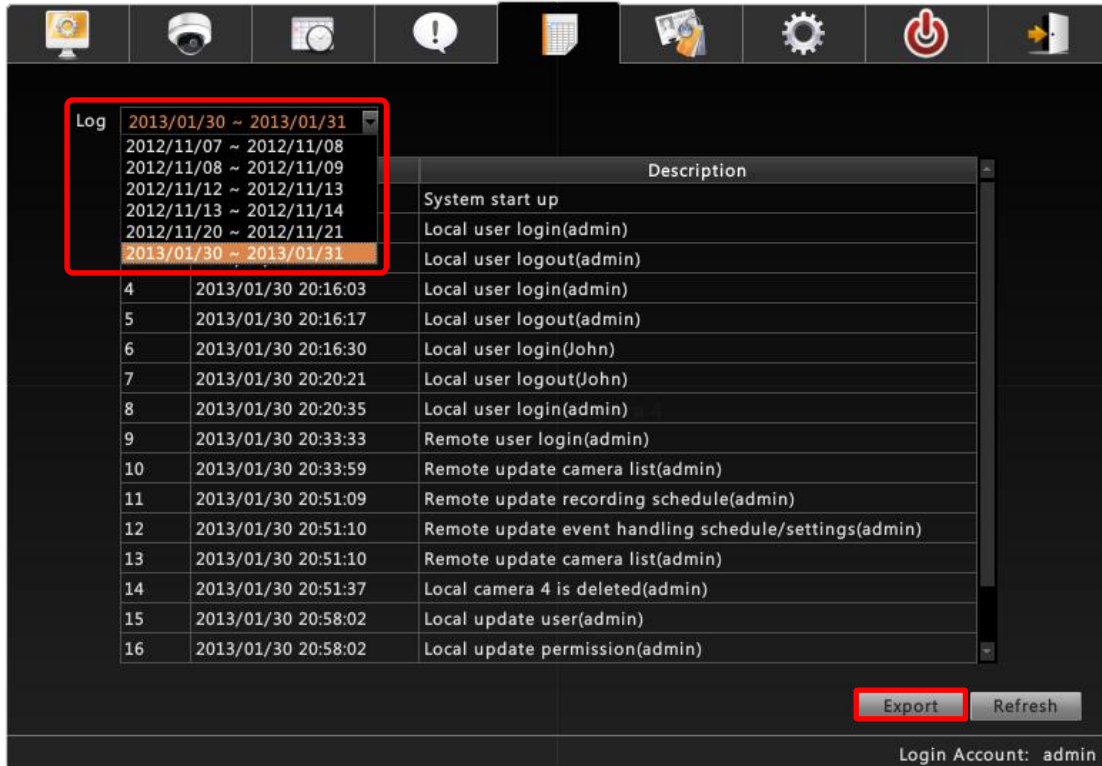
| Client Type | Behaviors |
|---------------|--|
| Local | Login, Logout, Shutdown / Reboot the system |
| | Add / Delete cameras, Update camera configurations |
| | Update recording schedule |
| | Update User / Group permissions |
| | Upgrade the firmware |
| | Backup / Restore system configurations |
| | Update event handling list |
| | Format hard disks |
| | Update system time, e-mail server configurations, system information, network settings |
| Remote | Login, Logout, Reboot the system |
| | Update camera list / configurations |
| | Update recording schedule |
| | Update User / Group permissions |
| | Upgrade the firmware |
| | Backup / Restore system configurations |
| | Update event handling list |
| | Format hard disks |
| | Update system time, e-mail server configurations, system information, network settings, and workspace parameters |

To enter **System Log**, please right-click on screen to bring up **Live View** menu →Select “**Setup Menu**” →click **System Log** tab.

Search Log

To search the log of certain time period, select the date from **Log** dropdown list, the result list will immediately be refreshed. Each log entry will display [time + client type + behavior + user name].For example, this entry shows that the **Local** user logged in as **Admin deleted Camera 4** at **2013/01/30 20:51:37**.

| | | | | |
|----|---------------------|-------|---------------------|-------|
| 14 | 2013/01/30 20:51:37 | Local | camera 4 is deleted | admin |
|----|---------------------|-------|---------------------|-------|



Export Log

You may export the system log of selected time period as .txt file onto the USB storage disk by clicking “**Export**”.

