



Milesight-Troubleshooting ANPR Solution

Contents

I. What is ANPR	1
II. Why Milesight ANPR Solution	1
III. Countries/Regions that support ANPR	3
IV. How to set ANPR with Milesight Network Cameras	5
1. Settings	5
2. List Management	8
3. Black /White/Visitor List Mode	9
4. Professional LPR Liveview Interface	11
5. Smart Search	12
V. How to set ANPR with Milesight NVRs	14
1. Preparation	14
2. Settings	15
3. List Management	16
4. Black/White/Visitor List Mode	18
5. Professional LPR Liveview Interface	19
6. Set/Check ANPR Record	21
7. Check/Backup ANPR Logs	23
VI. How to set ANPR with Milesight CMS	26
1. Preparation	26
2. Settings	26
3. List Management	28
4. Black/White/Visitor List Mode	29
5. Set ANPR Record	30
6. Check/Backup ANPR Logs	31



I . What is ANPR

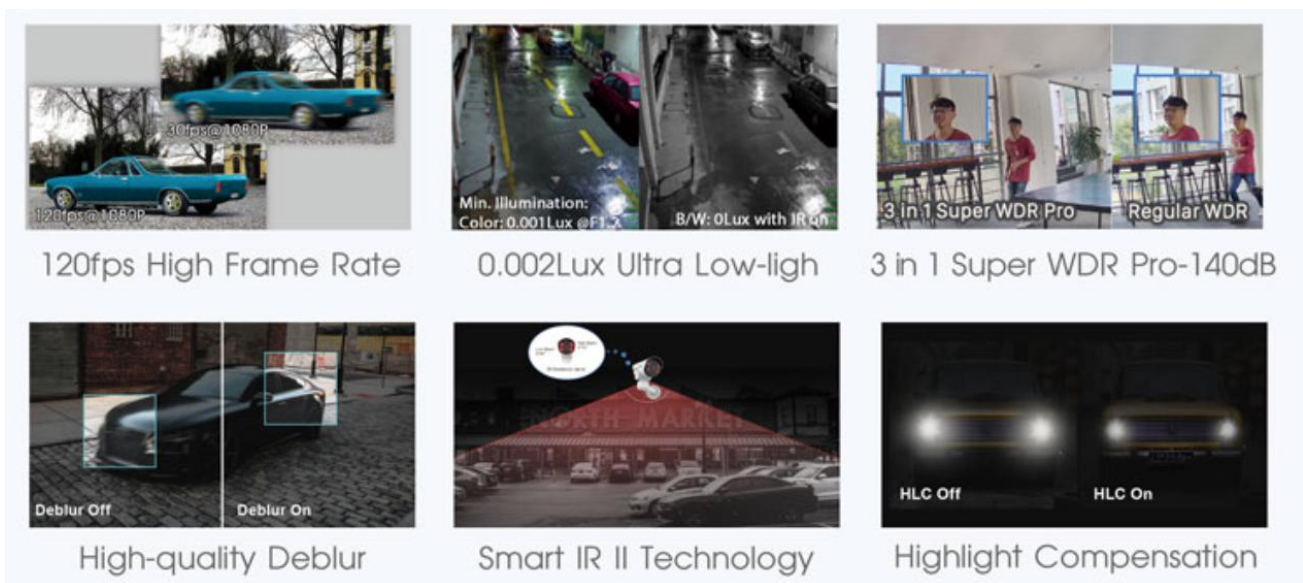
ANPR(Automatic Number Plate Recognition) is a technology that uses optical character recognition on images to read vehicle registration plates. For Milesight, the ANPR algorithm is embedded in cameras, which allows the cameras to recognize, capture and upload license plate images all alone and intelligently.



II . Why Milesight ANPR Solution

➤ Quick Capture & Accurate Recognition

- Accurate License Plate Identification Under all kinds of conditions



- High-reliability License Plate Recognition with more than 95% high performance accuracy

1. Up to 4 Detection Regions
2. Reliable Confidence Level
3. Vehicle Direction Recognition
4. Detection Regions of PTZ

5. DACH Region Recognition

➤ **Intelligent Analysis & Efficient Management**

- White and Black List Management
- A Stand-alone ANPR Solution
- Fully Integrated with Milesight NVR/CMS
- 3rd Integration: CGI

➤ **Adaptable to Most Operation Requirements**

- Max recognition speed 120 km/h
- Over 70 countries and regions
- Various options

LPR 12X H.265+ AF Motorized Pro Bullet Network Camera

LPR 12X H.265+ Mini PTZ Bullet Network Camera

LPR H.265+ ABF Pro Box Network Camera

LPR H.265+ Mini Bullet Network Camera

LPR H.265+ Vandal-proof Motorized Mini Bullet Network Camera

LPR H.265+ Motorized Pro Bullet Network Camera

! Notes

Installation Angle Considerations

To increase the accuracy of license plate recognition, be sure to install the LPR cameras properly to capture the license plates with the correct image size, lighting conditions and installation angle. The following highlights are the precautions of **installation angle**:

A. Installing the camera in front of the vehicle (Recommended):

The captured image should be filled with a full width of the vehicle.

B. Installing the camera slightly to the side:

To avoid capturing unnecessary contents in the image, the camera should be installed in a higher position (Vertical angle is less than 30°; Horizontal angle is no more than 30°; Tilt angle is less than 5°) to capture the front part of the vehicle.



Vertical angle is less than 30°



Horizontal angle is no more than 30°



Tilt angle is less than 5°

III. Countries/Regions that support ANPR

Currently, we have three kinds of LPR, including LPR1, LPR2 and LPR3. LPR1 is used in Asian region, LPR2 is for European region, and LPR3 is for Korea. It covers over 70 countries and regions.

LPR1:

Country/Region	Abbreviation	Country/Region	Abbreviation	
Angola	AGO	Macau, China	MAC	Support
Australia	AUS	Malaysia	MYS	Support
Brazil	BRA	Saudi Arabic	SAU	Support
Chile	CHL	Singapore	SGP	Support
Hong Kong, China	HKG	South Korea	KOR	Support
India	IND	Taiwan, China	TWN	Support
Indonesia	IDN	Thailand	THA	Support
Iran	IRN	Turkey	TUR	Support
Israel	ISR	United States (California Only)	USA	Support
Japan	JPN	Vietnam	VNM	Support

LPR2:

Country/Region	Abbreviation	Country/Region	Abbreviation	
Albania	ALB	Lithuania	LTU	Support
Austria	AUT	Luxembourg	LUX	Support
Belgium	BEL	Macedonia	MKD	Support
Bosnia /Herzegovina	BIH	Malta	MLT	Support
Bulgaria	BGR	Montenegro	-	Support
Croatia	HRV	Netherlands	NLD	Support
Cyprus	CYP	Norway	NOR	Support
Czech Republic	CZE	Poland	POL	Support
Denmark	DNK	Portugal	PRT	Support
Estonia	EST	Romania	ROU	Support
Finland	FIN	Serbia	SRB	Support

France	FRA	Slovakia	SVK	Support
Germany	DEU	Slovenia	SVN	Support
Greece	GRC	Spain	ESP	Support
Hungary	HUN	Sweden	SWE	Support
Iceland	ISL	Switzerland	CHE	Support
Italy	ITA	Turkey	TUR	Support
Ireland	IRL	The United Kingdom	GBR	Support
Israel	ISR	Vatican city state	VAT	Support
Latvia	LVA	-		Support

CIS (former Soviet Union)

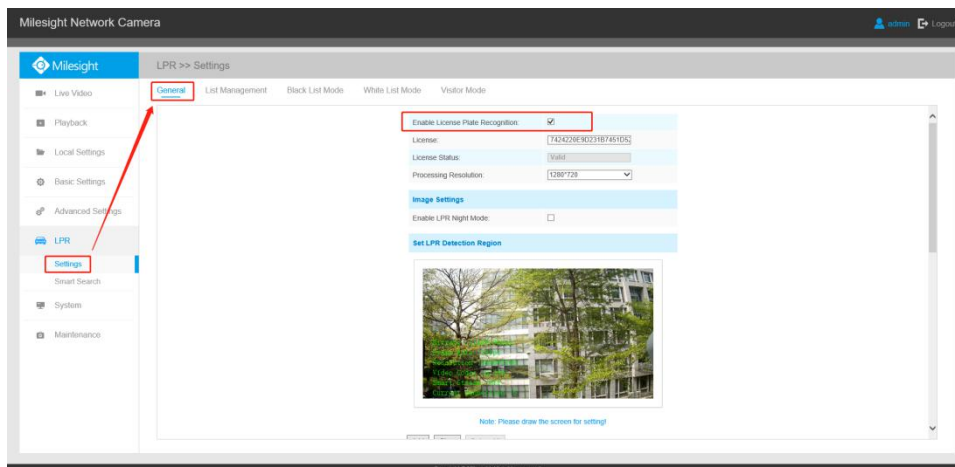
Country/Region	Abbreviation	Country/Region	Abbreviation	
Armenia	ARM	Moldova	MDA	Support
Azerbaijan	AZE	Russian Federation	RUS	Support
Belarus	BLR	Tajikistan	-	Support
Georgia	GEO	Turkmenistan	TKM	Support
Kazakhstan	KAZ	Ukraine	UKR	Support
Kirgizstan	-	Uzbekistan	UZB	Support

IV. How to set ANPR with Milesight Network Cameras

1. Settings

Step1: Go to “LPR” -> “Settings” , after log in the web.

Check the checkbox “Enable License Plate Recognition”, and you can draw the screen to select the areas interested. There will be shown in the blue box as below.



[License]: A license will be automatically assigned to each device.

[License Status]: This column is used to display the status of the license, “Valid” or “Invalid” .

Enable License Plate Recognition:	<input checked="" type="checkbox"/>
License:	7424220E9D231B7451D5
License Status:	Valid
Processing Resolution:	1920*1080 1280*720 640*360 320*176
Image Settings	

[Processing Resolution]: Default resolution selected is 1280*720. You can choose different resolution according to the network environment.

Set LPR Detection Region	
Effective Region Settings:	Advanced
Effective with Presets:	Preset 1 Preset 2 Preset 3 Preset 4

Set LPR Detection Region



Note: Please draw the screen for setting!

Add Clear Delete All

ID	Name	Edit	Delete
1	ROI_1		
2	ROI_2		
3	ROI_3		
4	ROI_4		

[Set LPR Detection Region]: You can set up to 4 ROI areas by drawing the screen. If you choose **Normal Mode**, it supports configuring the LPR detection regions for the current area. If you choose **Advanced Mode**(Only for PTZ series), it supports configuring different LPR detection regions for different PTZ presets(Only support Preset 1~4 so far).

! Notes

- The optimal interval of Milesight LPR cameras to recognize license plates width is within 100-200 PX.
- For better performance, please choose the appropriate resolution in advance.

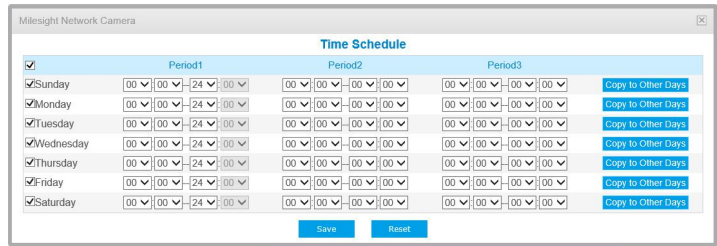
Image Settings

Enable LPR Night Mode:	<input checked="" type="checkbox"/>
Start Time:	18 00
End Time:	06 00
Level:	<input type="range" value="4"/> 4 ⓘ

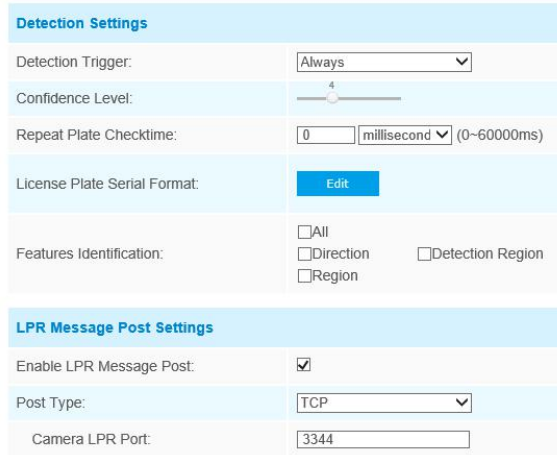
Minimum Shutter of each Level : 1- 1/250, 2- 1/500, 3- 1/750, 4- 1/1000, 5- 1/2000

[LPR Night Mode]: Achieve the best effect of LPR night recognition by adjusting different parameter levels. You can also schedule the **Start Time** and **End Time**, and adjusting the level according to the environment.

Step2: Schedule Settings. You can draw the schedule by clicking “**Edit**” button. And then click “**Save**” or “**Reset**” after finishing the setting.



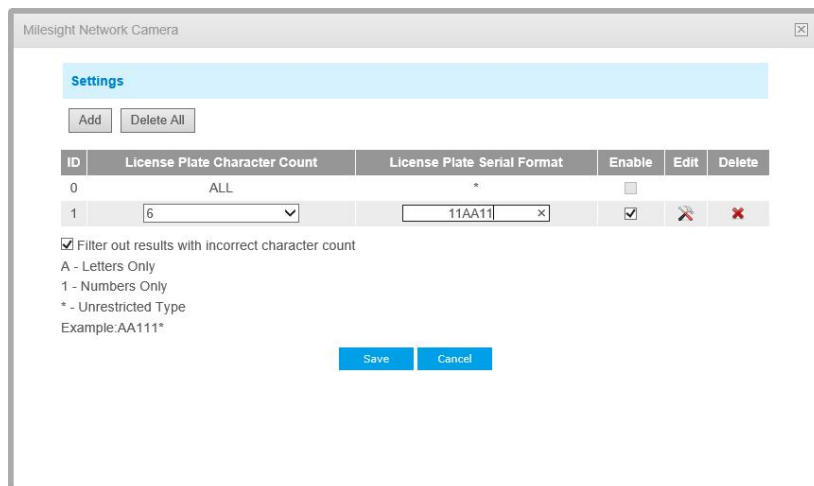
Step3: Detection Settings and LPR Message Post Settings.



[Detection Trigger]: If you choose **“Always”**, camera will always detect the license plate. If you choose **“Alarm input”**, camera will only detect the license plates when Alarm Input is being triggered.

[Confidence Level]: You can set the confidence level from 1 to 10. When the confidence level of the license plate is higher than the set confidence level, it will push the license plate image to the logs interface.

[Repeat Plate Checktime]: Set the time interval for repeatedly reading license plates to effectively avoid duplicate identification of parking vehicles.



[License Plate Serial Format]: Formulate identification rules and automatically filter wrong license plate information to achieve more intelligent and accurate license plate recognition.

[Feature Identification]: Check **Region**, **Direction**, **ROI_ID** or **All** to enable Features Identification, it will display the corresponding information on the logs interface.

Note: Region detection only supports DACH region.

[LPR Message Post Settings]: Check the checkbox to enable LPR Message Post. It will push information to some third-party devices or software that are compatible with ours.

Information can be pushed by **RTSP**, **TCP** or **HTTP**.

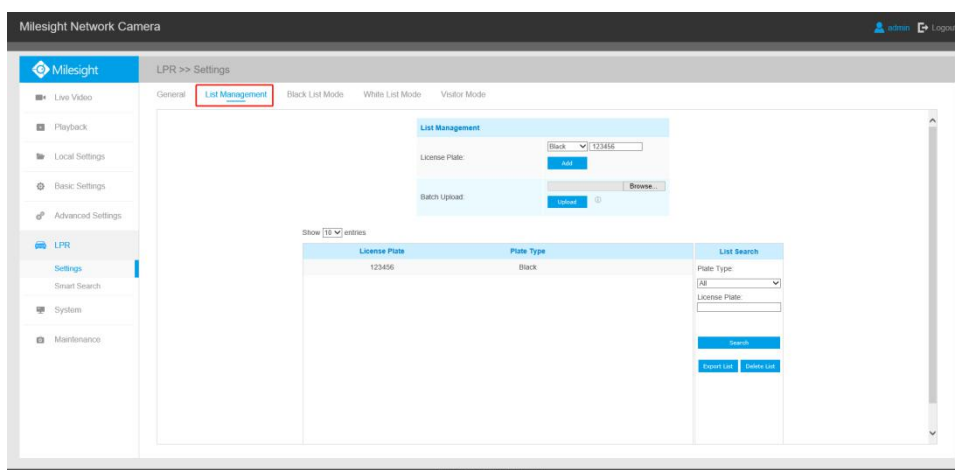
More information about LPR Message Post, please refer to

Milesight-Troubleshooting-Integration between LPR Camera and NVR(VMS).

Step4: Don't forget to click **"Save"** after finishing all settings.

2. List Management

Add the license plates to this interface as Black or White type (Black/White List), and then you can set the alarm action for these license plates in the corresponding Black list mode or White list mode interface. When these license plates are detected, the camera will respond to your settings accordingly.



[Add License Plate]: Select the license plate type as black or white, enter the license plate number, click the **"Add"** button, the license plate number will be added successfully.

[Batch Upload]: You can add a csv file of the license plates you want to add, click the **"Browse"** button to import the form to this interface, click the **"Upload"** button, the license plates will be added successfully.

Notes

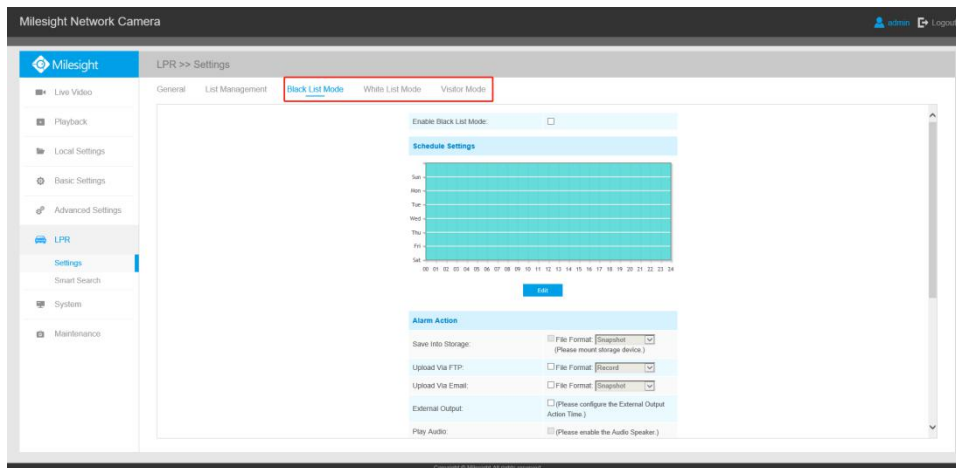
- You can firstly download the template as a reference in this interface.
- It allows to add 1000 license plates to Black and White List.

[List Search]: Select Plate Type or directly enter the license plate number, click the “Search” button, the corresponding license plate will be displayed in the list as below.

[Export List]: Click the “Export List” button to export the license plates in the current list as a csv file locally.

[Delete List]: Click the “Delete List” button to delete all the license plates in the current list.

3. Black /White/Visitor List Mode



Step1: Check the checkbox to enable Black List Mode.

Step2: Schedule Settings. You can draw the schedule by clicking “Edit” button.

Step3: Set Alarm Action.

Alarm Action	
Save Into Storage:	<input type="checkbox"/> File Format: Snapshot (Please mount storage device.)
Upload Via FTP:	<input type="checkbox"/> File Format: Record
Upload Via Email:	<input type="checkbox"/> File Format: Snapshot
External Output:	<input type="checkbox"/> (Please configure the External Output Action Time.)
Play Audio:	<input type="checkbox"/> (Please enable the Audio Speaker.)
Alarm to SIP Phone:	<input type="checkbox"/> (Please open the SIP.)
HTTP Notification:	<input type="checkbox"/>

Table 1 Description of the buttons

Parameters	Function Introduction
Save Into Storage	Save alarm recording files into SD Card/NAS. When NAS and SD cards are both added to camera, storage priority will be given to NAS.
Upload Via FTP	Upload the recording files via FTP
Upload Via SMTP	Upload the files via SMTP
External Output	If the camera equips with External Output, you can enable the action after configuring the trigger duration
Play Audio	If the camera equips with Speaker, you can enable the action after configuring the audio speaker
Alarm to SIP Phone	Support to call the SIP phone after enabling the SIP function.
HTTP Notification	Support to pop up the alarm news to specified HTTP URL.

Step4: Set Alarm Settings.

Alarm Setting

Record Video Sections:

Pre-record:

Snapshot Type:

Snapshot:

Snapshot Interval:

External Output Action Time:

Audio Action Settings:

Play Audio Interval:

Table 2 Description of the buttons

Parameters	Function Introduction
Record Video Sections	Six different periods are available(5, 10, 15, 20, 25, 30 sec)
Pre-record	Reserve the record time before alarm, 0~10 sec
Snapshot Type	The type of Snapshot, License Plate, Full Snapshot or All.
Snapshot	The number of snapshot, 1~5
Snapshot Interval	It cannot be edited unless you choose more than 1 to Snapshot
External Output Action Time	Duration of an alarm. It cannot be edited unless you enable the External Output on the Alarm Action firstly.

Audio Action Settings

Set the audio schedule to trigger different audio files for different alarm actions.

Note: The audio files you can upload in **“Audio File Manager”** interface.

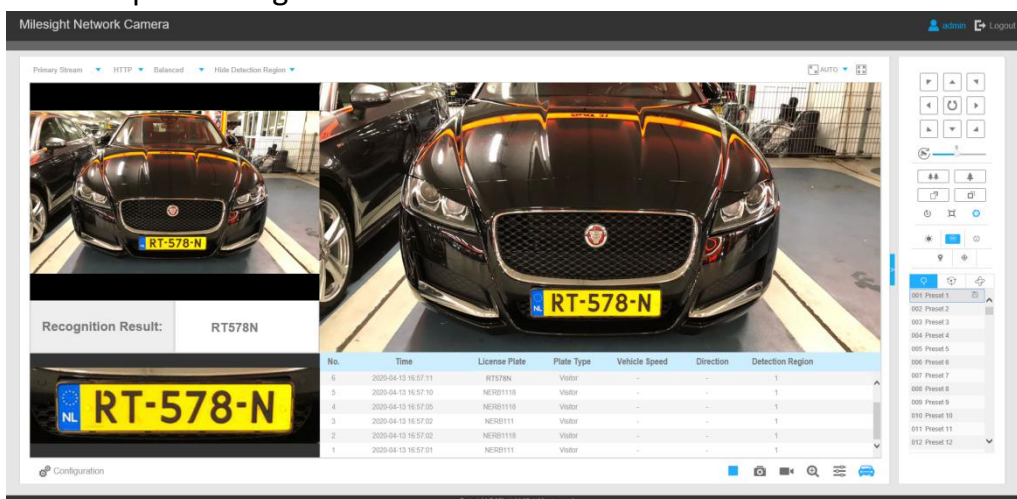
Play Audio Interval

Auto/ 10 seconds/ 30 seconds/ 1 minute/ 5 minutes/ 10 minutes are available.

After that, when a license plate marked as **“Black”** , **“White”** , **“Visitor”** is detected, the camera will respond accordingly to your settings.

4. Professional LPR Liveview Interface

Milesight LPR camera supports professional LPR Live View interface. You can see the real-time license plate recognition results.



Note:

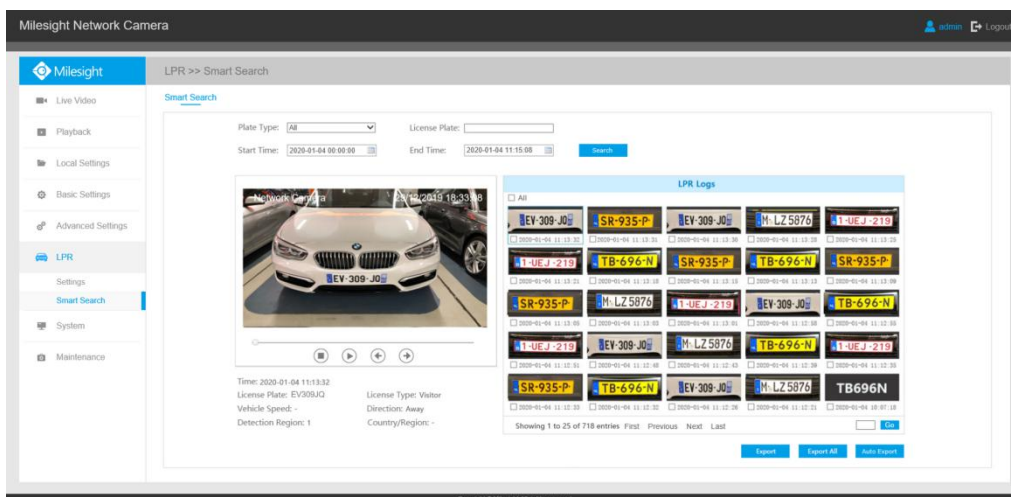
① Upgrade your device to corresponded firmware version.

Camera: V4X.7.0.74 or above.

Firmware download link: <http://www.milesight.com/support/download#firmware>

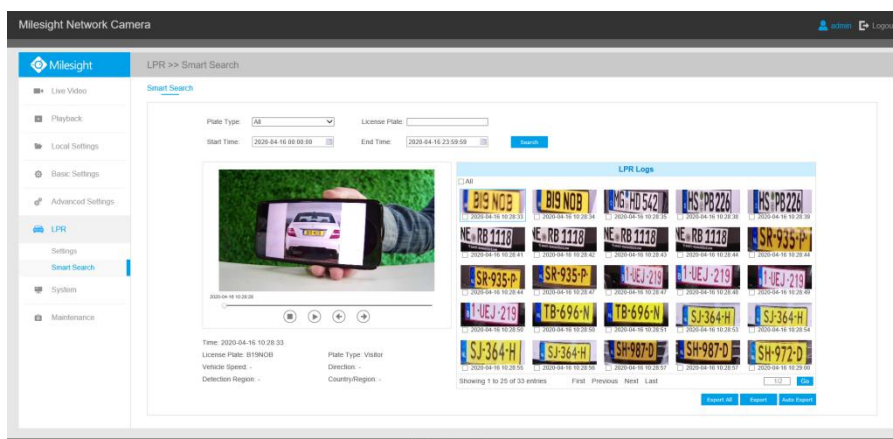
- ② If there is no SD card or NAS as the storage space, the snapshots of license plate will be temporarily stored locally on the PC, cleared after logging out, and do not support Smart Search which will be introduced in the next part.

5. Smart Search



Step1: Select Plate Type or directly enter the license plate number.

Step2: Select Start Time and End Time, click the **“Search”** button to achieve fuzzy search, then the corresponding license plates or license plates containing search keywords will be shown on the logs while the complete video and license plate information will be shown on the left of the interface.



There are two methods to backup LPR logs.

- ① Backup license plates you want.

Step1: Tick license plates you want to backup and click **“Backup”** button ;

Step2: Select the export file type, video stream type and video file format, then click **“Export”** button.

Export

Export File: Plate List Video Picture

Video File Format:

② Backup all.

Step1: Click “**Export All**” button;

Step2: Select the export file type, video stream type and video file format, then click “**Export**” button.

You can also click the “**Auto Export**” button to automatically export the logs to FTP, SMTP or Storage.

Milesight Network Camera

Log Settings

Enable Auto Export Logs:

Day:

Time:

Export Time Range:

Export to: FTP SMTP Storage

Note:

① Insert available SD card or add NAS to camera as storage. Otherwise, you can't check the LPR recording and snapshots.

② Upgrade your device to corresponded firmware version.

Camera: V4X.7.0.74 or above.

Firmware download link: <http://www.milesight.com/support/download#firmware>

V. How to set ANPR with Milesight NVRs

1. Preparation

Here are some notes you should notice before using ANPR function.

- ① Insert available HDD or add NAS to NVR as storage. (Otherwise, you can't check the recording and logs.)
- ② Upgrade your device to corresponded firmware version.

Camera: V4X.7.0.72-r16 or above.

NVR: V7X.9.0.7-r7 or above.

Firmware download link: <http://www.milesight.com/support/download#firmware>

- ③ Ensure your device support LPR/ANPR function.

Model of NVR:

- MS-N1009-UT / MS-N1009-UNT
- MS-N5008-UT / MS-N5016-UT
- MS-N7016-UH / MS-N7032-UH (16 ANPR Channels)
- MS-N8032-UH / MS-N8064-UH (16 ANPR Channels)
- MS-N1009-UPT
- MS-N5008-UPT / MS-N5016-UPT
- MS-N7016-UPH / MS-N7032-UPH (16 ANPR Channels)

Name of LPR Camera:

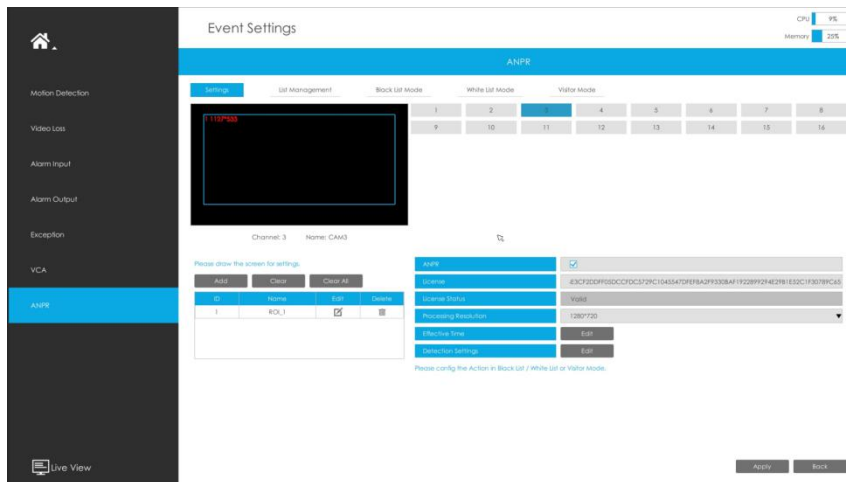
- LPR H.265+ Mini Bullet Camera
- LPR H.265+ Vandal-proof Motorized Mini Bullet Camera
- LPR H.265+ Pro Box Camera
- LPR H.265+ Motorized Pro Bullet Camera
- LPR 12X H.265+ AF Motorized Pro Bullet Camera
- LPR 12X H.265+ Mini PTZ Bullet Camera

- ④ Ensure that NVR can get license plate information. Please set TCP as Post Type which is the default mode. It can be set in Camera web page -> Advanced Settings -> ANPR -> Settings interface.

LPR Message Post Settings	
Enable LPR Message Post:	<input checked="" type="checkbox"/>
Post Type:	TCP
Camera LPR Port:	3344

2. Settings

Step1: Go to “Event” -> “ANPR” , select a channel and enable ANPR function.



[License]: A license will be automatically assigned to each device.

[License Status]: This column is used to display the status of the license, “Valid” or “Invalid” .



[Processing Resolution]: Default selected resolution is 1280*720. Users can choose different resolution according to the network environment.

Step2: Set ANPR function effective time. You can draw the schedule by clicking “Edit” button. Draw the schedule and then click “OK” or “Apply” after finishing setting.



Step3: Set detection parameters including Detection Trigger, Repeat Plate Checktime and Features identification.

[Detection Trigger]: Always and Alarm Input are available. It will only detect when alarm input is triggered if you select Alarm Input.

[Confidence Level]: You can set the confidence level from 1 to 10. When the confidence level of the license plate is higher than the set confidence level, it will push the license plate image to the logs interface.

[Repeat Plate Checktime]: The same license plate information won't be received on NVR within the time you set.

[Feature Identification]: Check **Region**, **Direction**, **ROI_ID** or **All** to enable Features Identification, it will display the corresponding information on the logs interface.

Note: Region detection only supports DACH region.

Detection Settings

Detection Trigger: Always

Repeat Plate Checktime: 2 Minute (0~60min)

Features Identification: All

Direction ROI_ID

OK Cancel Apply

Step4: Set the detected ROI region which can be up to 4 regions. License plate will only be detected in the ROI regions.



Please draw the screen for settings.

Add Clear Clear All

ID	Name	Edit	Delete
1	ROI_1		

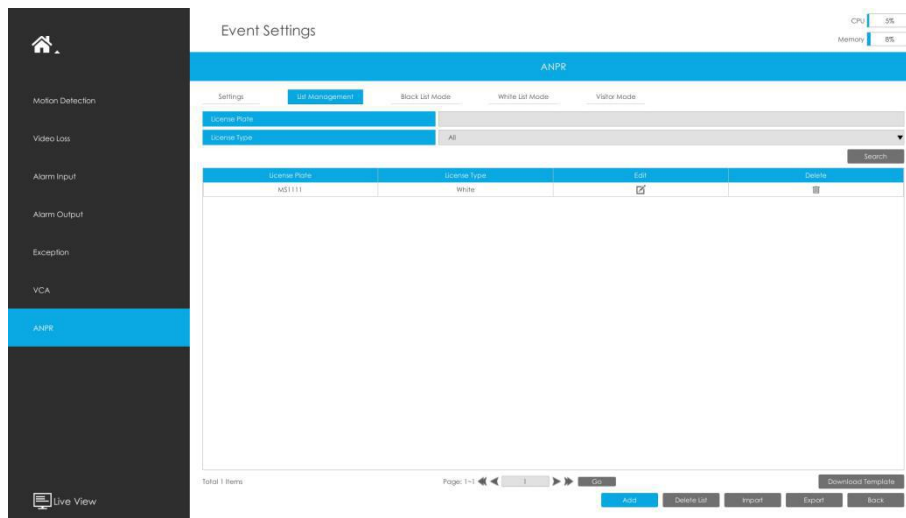
3. List Management

Make a license plate list for your own NVR ANPR system.

Upload license plates and set them with different license type here. 10000 License plates


can be added at most.

Kindly note that the list is exclusive for NVR, working with all LPR cameras you add. It won't synchronize with the list on camera side.



There are two methods to add license plates:

① Add one by one.


Step1: Click Add button .

Step2: Input the license plate and select license type.

Step3: Click OK and then the license plate will be added into the list.




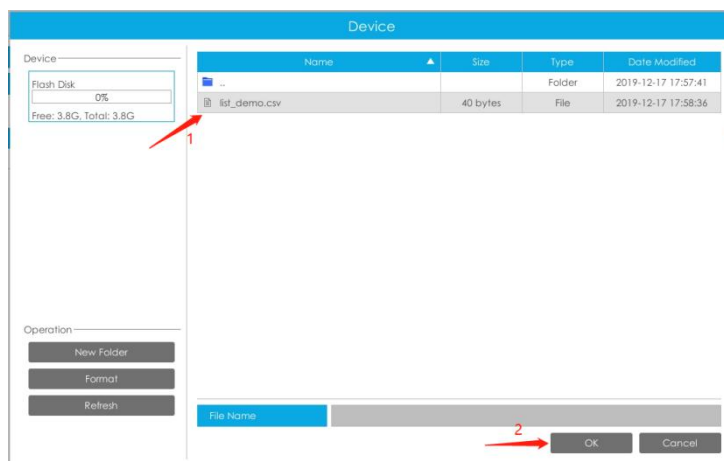
② Batch upload by importing template.

Step1: Click Download Template button , select USB device folder and click OK to download Template.

Step2: Input all license type and license plate number as Template shows.

	A	B
1	Type	Plate
2	White	2008ZGZ
3	Black	34AB1234
4		
5		
6		
7		
8		
9		
10		
11		
12		

Step3: Click Import button , select the file and click OK to add all license plates into list.



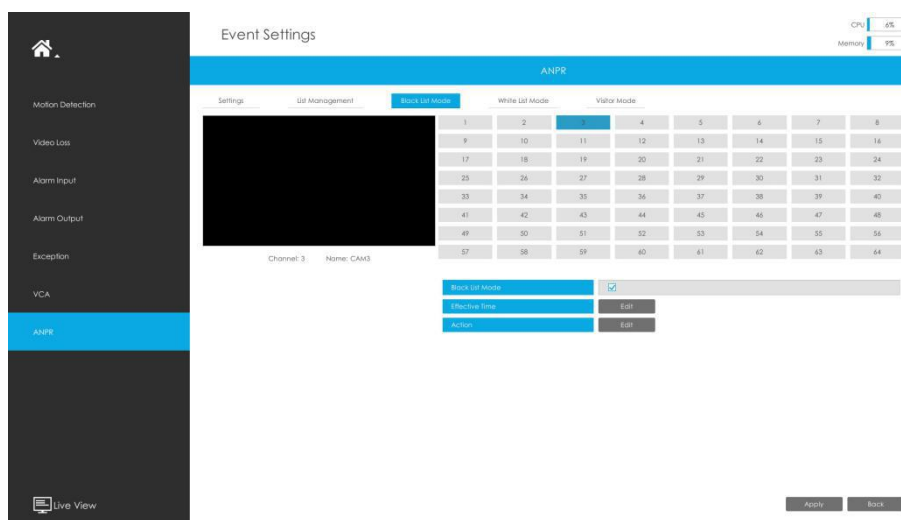
4. Black/White/Visitor List Mode

We provide you three modes for better event management.

Black List Mode: Manage event for license plates in black list.

White List Mode: Manage event for license plates in white list

Visitor Mode: Manage event for those license plates do not have license type.

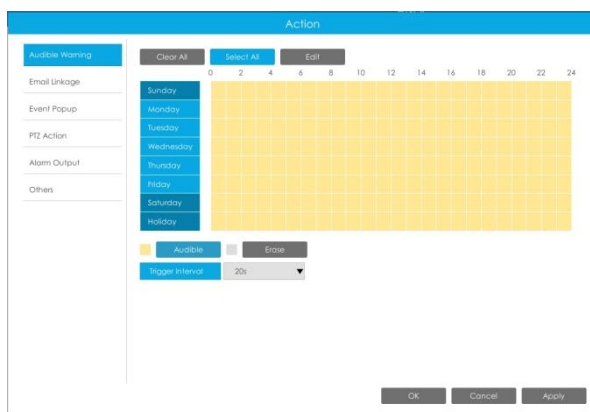


Steps for settings:

Step1: Enable Black List Mode/White List Mode/Visitor Mode as your demand.

Step2: Set effective time for the mode to work.

Step3: Set actions you need including Audible Warning, Email Linkage, Event Popup, PTZ Action, Alarm Output and Trigger Channels Record.



Note:

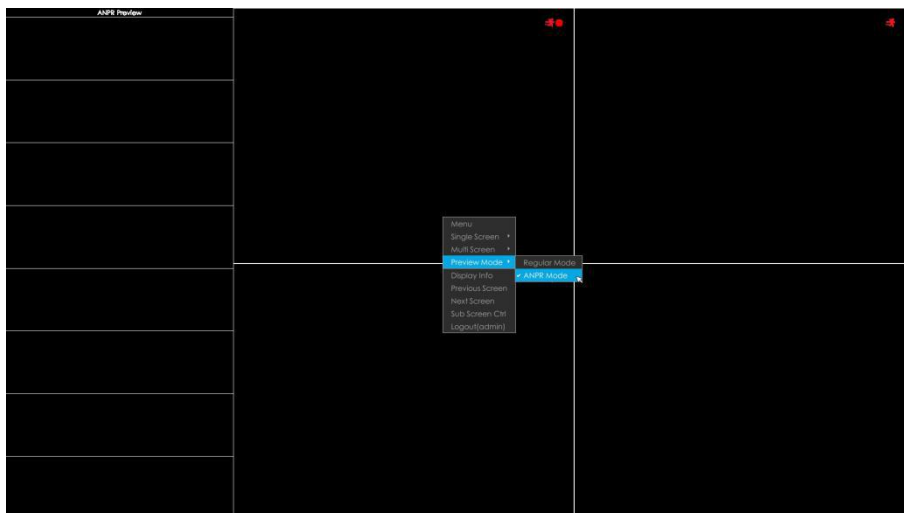
Do not forget to enable these modes, set effective time and record action for corresponded mode, so that you can get real-time video when license plate is detected (Effective time and record action is enabled by default.). You can refer to **How to check ANPR record** part for detailed record settings.

5. Professional LPR Liveview Interface

At the beginning, you need to switch the preview mode to ANPR mode.

There are two methods to enter live view ANPR Mode:

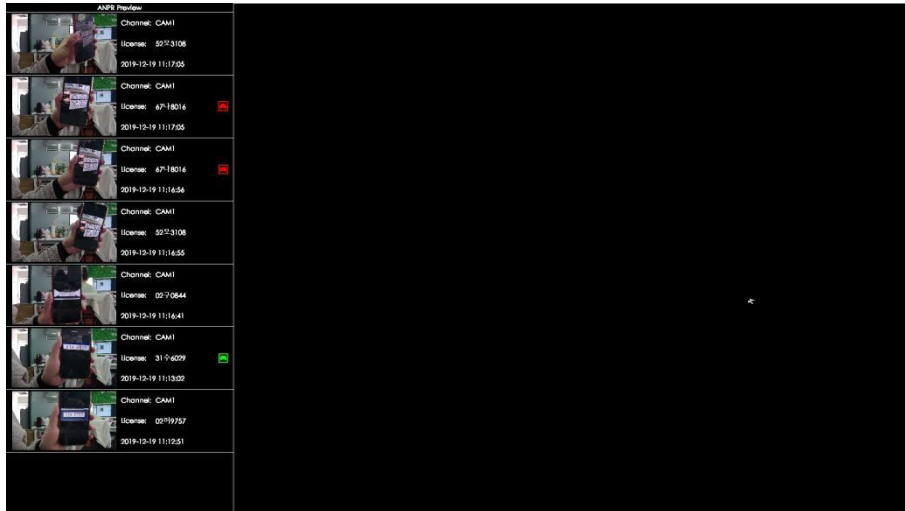
- ① Right click the mouse and select ANPR Mode as preview mode.



- ② Select ANPR Mode on live view bottom tool bar.



After entering ANPR mode, the real-time license plate information will be shown on the left of the interface once it get detected.



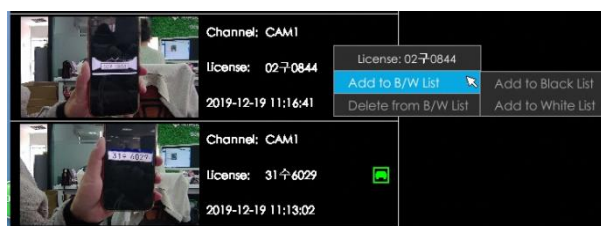
License plate information includes Plate Snapshot, Channel Name, License Plate Number, Detected Time and Plate Type.

Two License types:

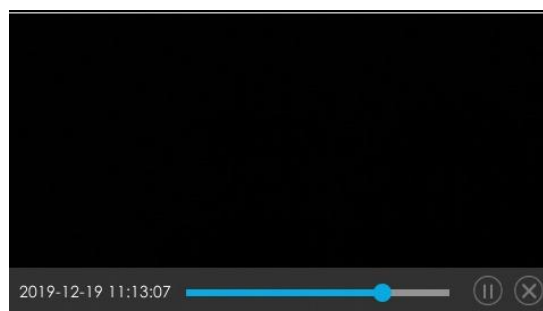
- License plate from Black List
- License plate form White List



No License plates type will be shown if the license plate does not exist in Black/White list. However, you can right click the license plate information to quick add it to Black/White list or delete it from Black/White list.



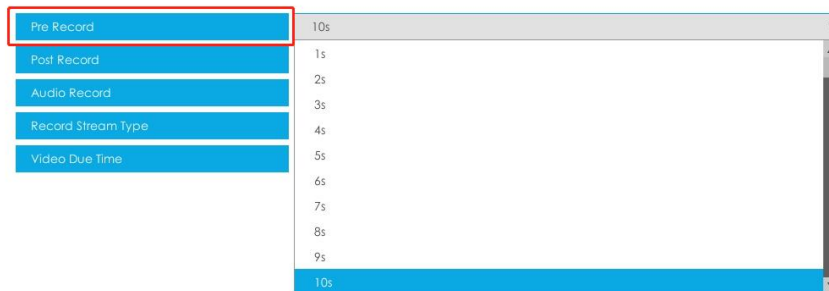
Besides, you can click the license plate information to check the latest X seconds (10s~20s) video.



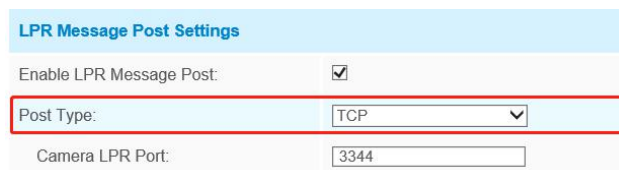
Note:

- $X = 10 + \text{Pre Record Time}$

You can set Pre Record Time in Storage -> Video Record -> Record Settings interface.



- Make sure that HDD is available on NVR and correct record settings is made, so that you can check the record on live view. Please refer to **How to check ANPR record** part for detailed record settings.
- Make sure that NVR can get the license plate information. Please set TCP as Post Type which is the default mode. It can be set in Camera web page -> Advanced Settings -> ANPR -> Settings interface.

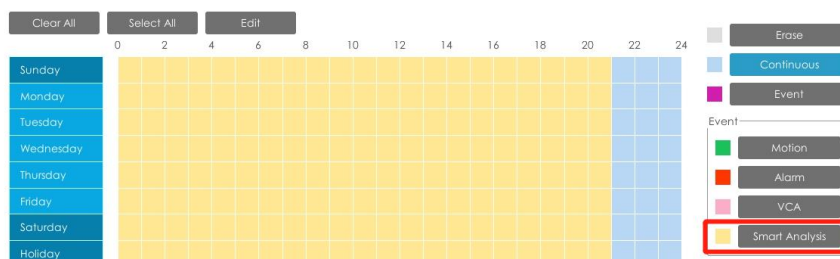


6. Set/Check ANPR Record

Before checking recording files, please make sure that you have proceed correct settings to make record action work.

① Set Recording

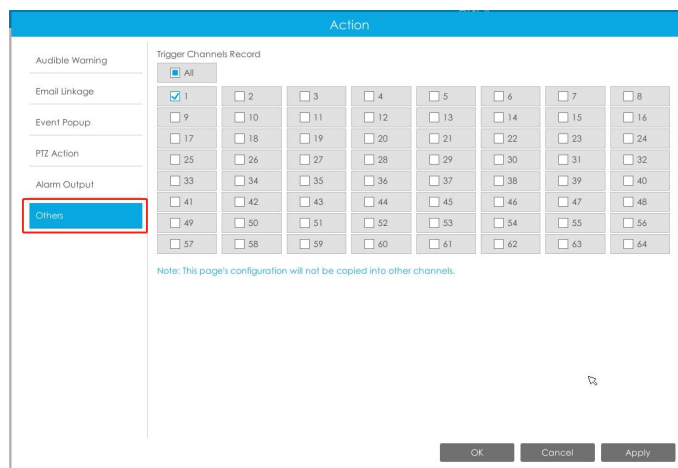
Step1: Set Smart Analysis as Record Type in **Storage -> Video Record -> Record Schedule** interface.



Step2: Enable Black List Mode / White List Mode / Visitor Mode as your demand.

Step3: Set Effective time and Trigger Channels Record action of your selected mode (Full

effective time and trigger channel record are set by default).



Then NVR will record when license plate is detected .


Note:

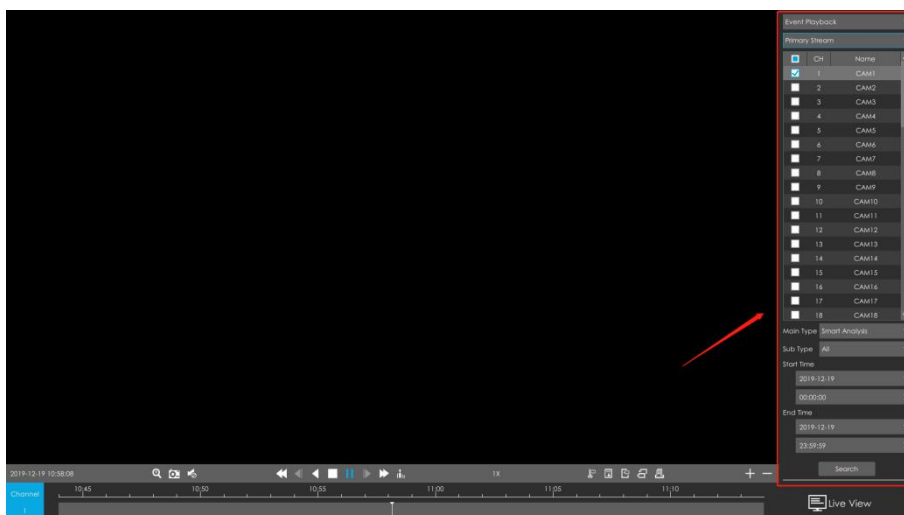
Generally, record action is triggered by event. If you just enable ANPR function without enabling Black List/White List/Visitor modes nor setting record action, it means you just enable the function while record action is not set. Then no record will be triggered. **So it is necessary to do all above three steps if you want to trigger record action.**

② Check recording

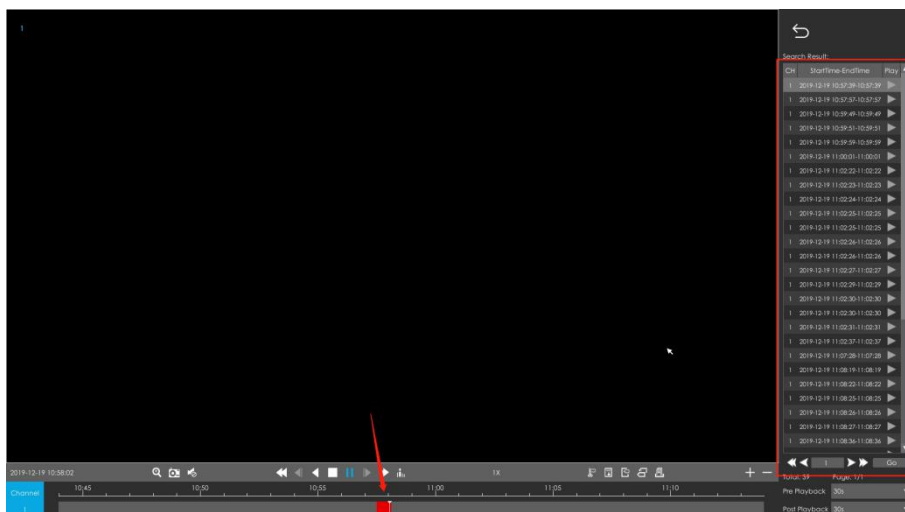
➤ In Playback

Step1: Entering Playback -> Event Playback -> Smart Analysis interface.

Step2: Input corresponded information and click search button  to search.

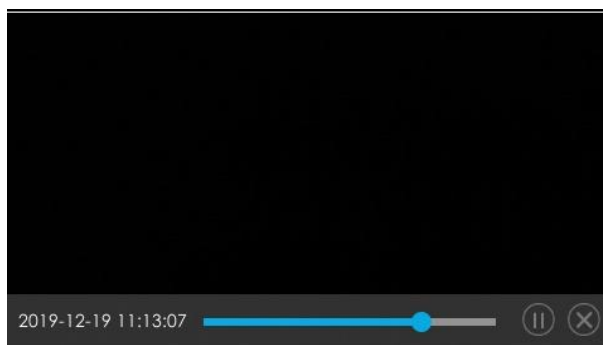


Step3: Click record to play the video searched out .



➤ **In Live View**

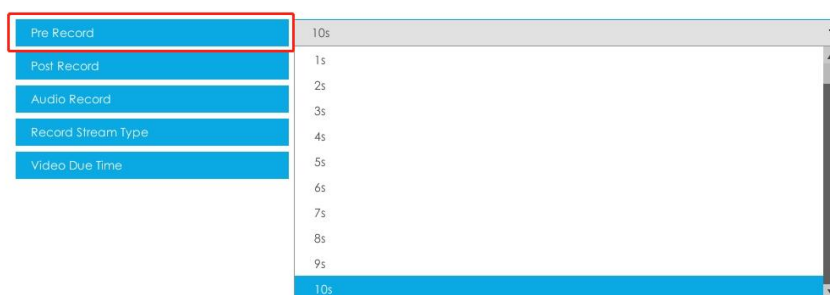
Click the license plate information to check the latest X seconds (10s~20s) video.



Note:

- X = 10 + Pre Record Time

You can set Pre Record Time in Storage -> Video Record -> Record Settings interface.



- Make sure that HDD is available on NVR on NVR and correct record settings is made so that you can check the record on live view interface. Please refer to **How to check ANPR record** part to check if record action is correctly set.

7. Check/Backup ANPR Logs

① **Check ANPR logs**

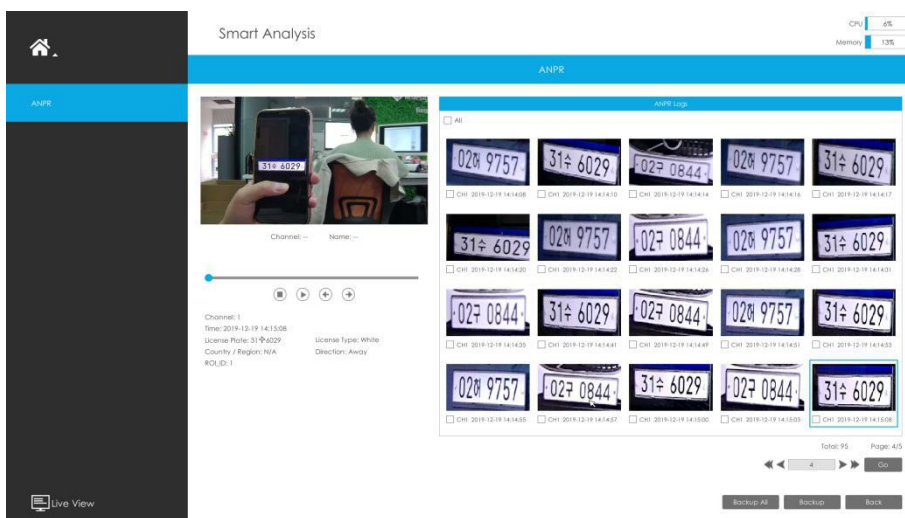
Step1: Search on Smart Analysis interface.


Step2: Input corresponded information and click search button  to search.



Then you will get a whole ANPR logs list.

License plate snapshot will be shown on the logs list while the complete image video and license plate information will be shown on the left of the interface.



Step3: Click  to play the video.



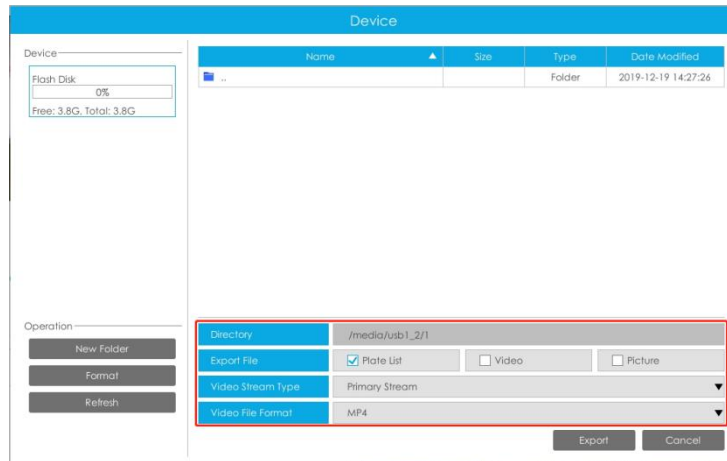
② Backup ANPR logs

Two methods are available after searching ANPR logs out .


➤ Backup license plates you want.

Step1: Tick license plates you want to backup and click backup button .

Step2: Select the export file type, video stream type and video file format, then click export button.



➤ Backup all.

Step1: Click backup all  button.

Step2: Select the export file type, video stream type and video file format, then click export button.

Then you will get corresponded file as selected export file type.

 Picture	12/19/2019 6:49 AM	File folder
 Plate List	12/19/2019 6:48 AM	File folder
 Video	12/19/2019 6:49 AM	File folder

VI. How to set ANPR with Milesight CMS

1. Preparation

- ① Refer to the NVR section
- ② Upgrade your CMS to corresponded version.

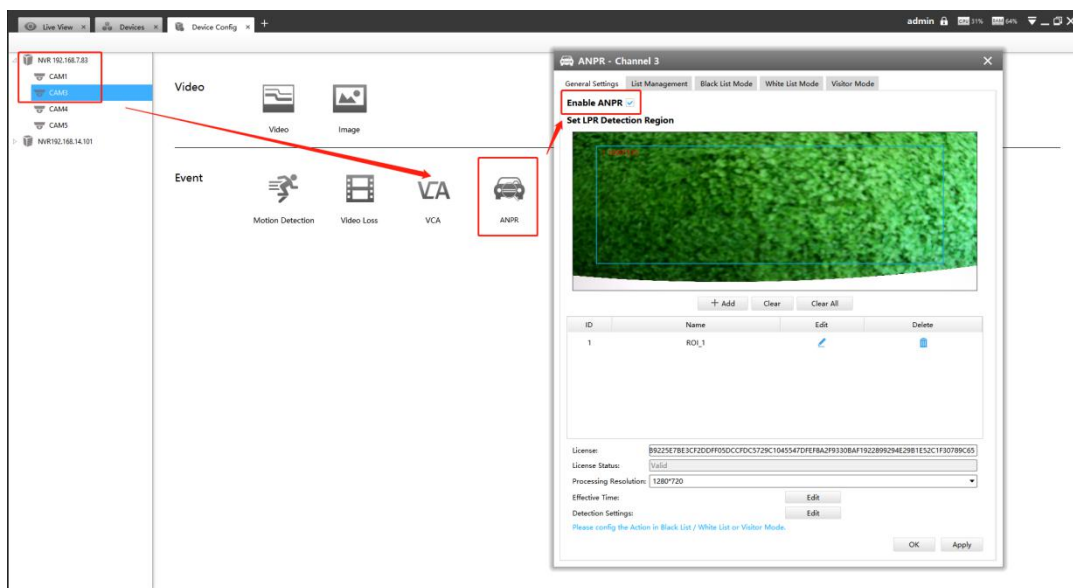
CMS: V2.4.0.7 or above

Download link: <http://www.milesight.com/support/download#software>

2. Settings

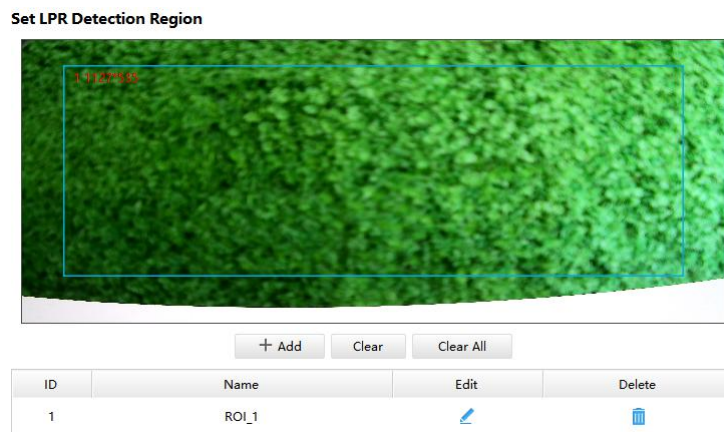
Step1: Add NVR to CMS.

Step2: Go to “**Device Config**”, select a NVR and the channel, then enable ANPR function.



[License]: A license will be automatically assigned to each device.

[License Status]: This column is used to display the status of the license, “Valid” or “Invalid” .



[Set LPR Detection Region]: You can set up to 4 ROI areas by drawing the screen. License

plate will only be detected in the ROI regions.

Processing Resolution:	1280*720
Effective Time:	1920*1080 1280*720
Detection Settings:	640*360 320*176

Please config the Action in Black List / White List or Visitor Mode.

[Processing Resolution]: Default selected resolution is 1280*720. Users can choose different resolution according to the network environment.

Step2: Set ANPR function effective time. You can draw the schedule by clicking “**Edit**” button. Draw the schedule and then click “**OK**” or “**Apply**” after finishing setting.

Day	0	2	4	6	8	10	12	14	16	18	20	22	24
Sunday	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Monday	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Tuesday	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Wednesday	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Thursday	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Friday	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Saturday	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
Holiday	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active

Step3: Set detection parameters including detection trigger, repeat plate checktime and features identification.

[Detection Trigger]: Always and Alarm Input are available. It will only detect when alarm input is triggered if you select Alarm Input.

[Confidence Level]: You can set the confidence level from 1 to 10. When the confidence level of the license plate is higher than the set confidence level, it will push the license plate image to the logs interface.

[Repeat Plate Checktime]: The same license plate information won't be received on NVR within the time you set.

[Feature Identification]: Check **Region**, **Direction**, **ROI_ID** or **All** to enable Feature Identification, it will display the corresponding information on the logs interface.

Note: Region detection only supports DACH region.

Detection Settings

Detection Trigger: Always

Confidence Level: 1

Repeat Plate Checktime: 0 Milliseconds (0~60000ms)

Features Identification: All Region Direction ROI_ID

OK Apply

3. List Management

Make a license plate list for your own NVR ANPR system.

Upload license plates and set them with different license type here. 10000 plates can be added at most.

Kindly note that the list is exclusive for NVR, working with all LPR cameras you added. It won't synchronize with the list on camera side.

ANPR - Channel 3

General Settings | List Management | Black List Mode | White List Mode | Visitor Mode

License Plate: Plate Type: All Search

License Plate	Plate Type	Edit	Delete
134W221	White		
134WE21	Black		
2008ZGZ	White		


Total:3 1/1 Go Page 1/1

Add Delete List Import Export

Please upload csv format file(utf-8) for batch import. [Click here to download the template.](#)

There are two methods to add license plates:

① Add one by one.

Step1: Click Add button .

Step2: Input the license plate and select license type.


Step3: Click OK and then the license plate will be added into the list.

② Batch adding by importing template.

Step1: Click Download **Template**, select folder and click OK to download Template.

Step2: Input all license type and license plate number as Template shows.

	A	B
1	Type	Plate
2	White	2008ZGZ
3	Black	34AB1234
4		
5		
6		
7		

Step3: Click Import button , select the file and click OK to add all license plates into list.

4. Black/White/Visitor List Mode

We provide you three modes for better event management, which is based on two license types.

Black List Mode: Manage event for license plates in black list.

White List Mode: Manage event for license plates in white list

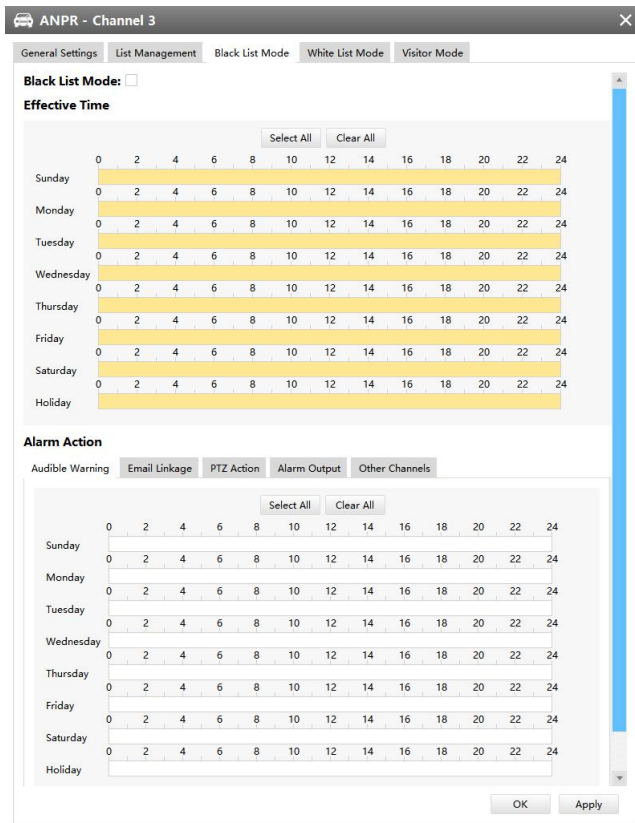
Visitor Mode: Manage event for those license plates do not have license type.

Steps for settings:

Step1: Enable Black List Mode/White List Mode/Visitor Mode as your demand.

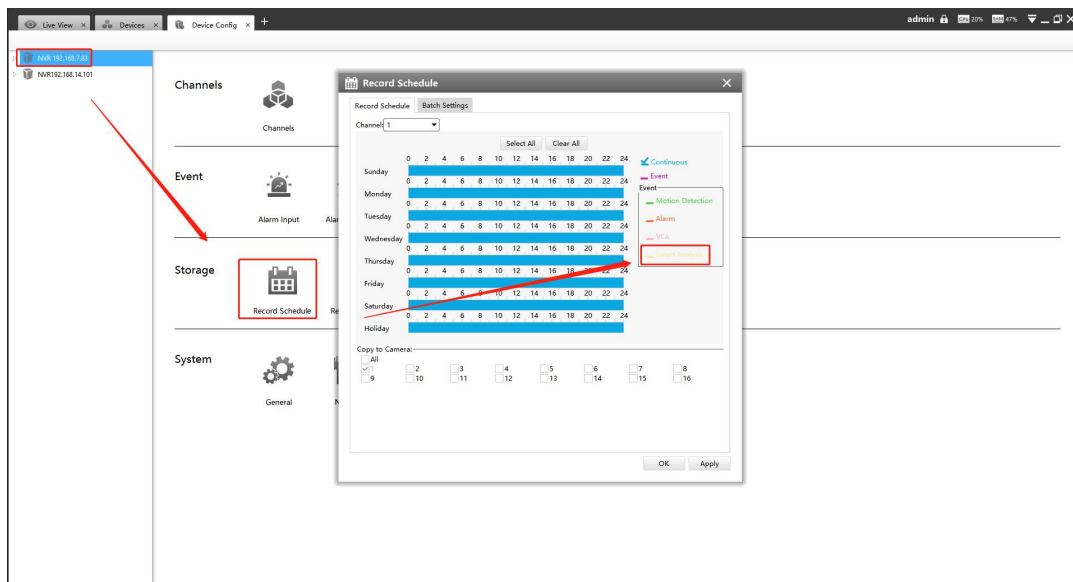
Step2: Set effective time which means Mode works during that.

Step3: Set action including Audible Warning, Email Linkage, PTZ Action, Alarm Output.



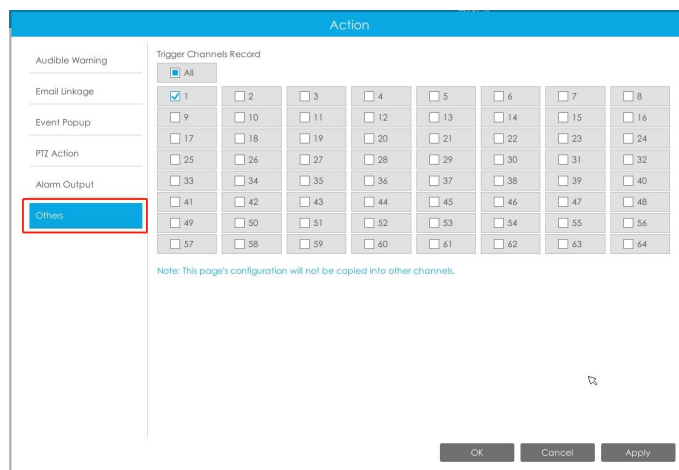
5. Set ANPR Record

Step1: Set Smart Analysis as Record Type in Device -> Select NVR -> Record Schedule interface.



Step2: Enable **Black List Mode / White List Mode / Visitor Mode** as your demand.

Step3: Set Effective time and Trigger Channels Record action of your selected mode(Full effective time and trigger channel record are set by default).



Then NVR will record when license plate is detected .

Note:

Generally, record action is triggered by event. If you just enable ANPR function without enabling Black List/White List/Visitor modes nor setting record action, that means you just enable the function while record action is not set. Then no record will be triggered. **So it is necessary to do all above three steps if you want to trigger record action.**

6. Check/Backup ANPR Logs

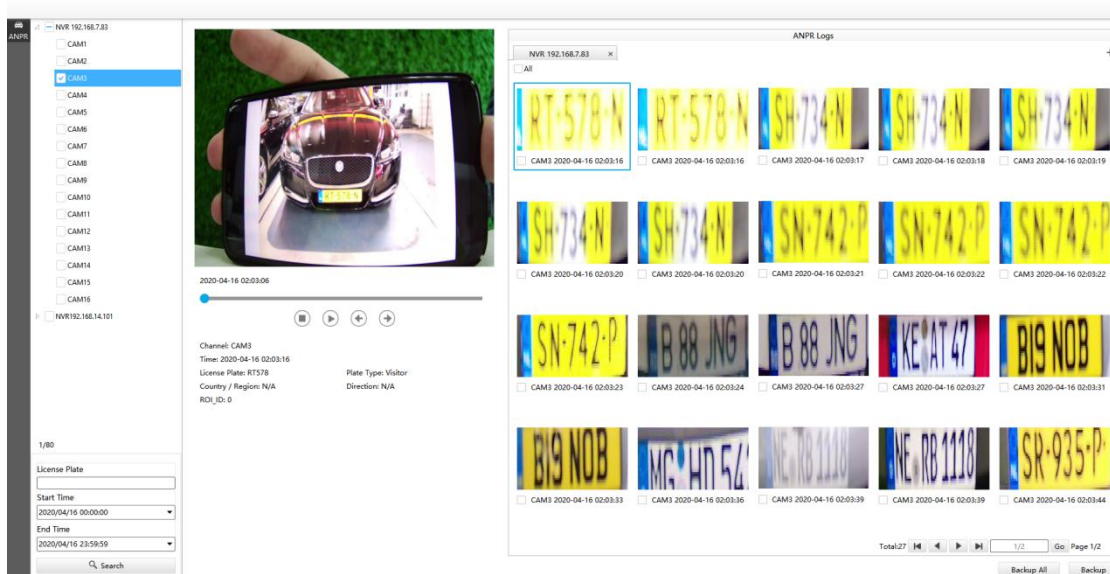
① Check ANPR logs


Step1: Search on Smart Analysis interface.

Step2: Input corresponded information and click search button  to search.

Then you will get a whole ANPR logs list.

License plate snapshot will be shown on the logs list while the complete image video and license plate information will be shown on the left of the interface.



Step3: Click  to play the video.



② Backup ANPR logs

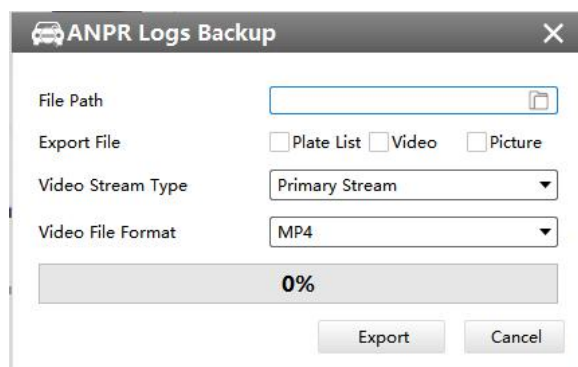
Two methods are available after searching ANPR logs out .

➤ Backup license plates you want.

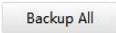
Step1: Tick license plates you want to backup and click backup button



Step2: Select the Export File Path, File Type, Video stream type and Video file format, then click export button.



➤ Backup all.

Step1: Click backup all  button.

Step2: Select the export file type, video stream type and video file format, then click export button.

Then you will get corresponded file as selected export file type.

