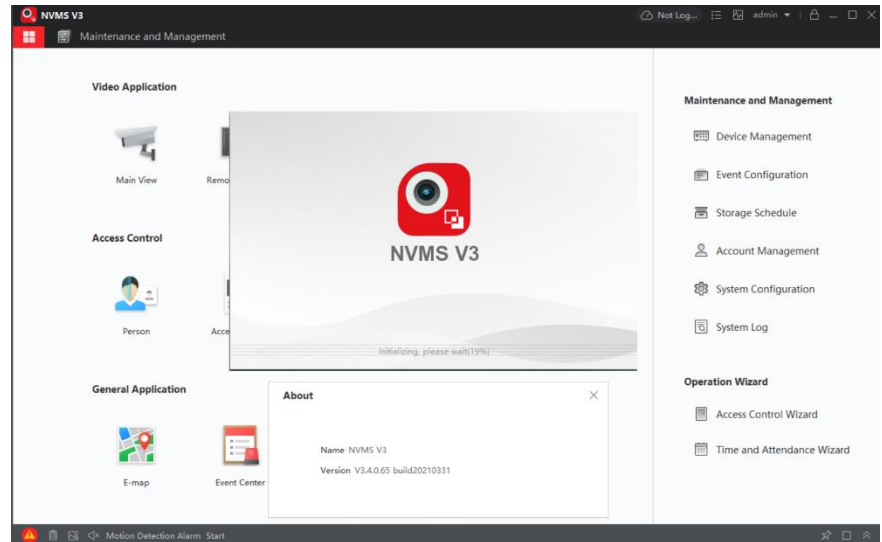This Quick Guide is designed for training purposes only. I tried to put as much info within as few of pages as possible to show all the useful tricks. Therefore, every page is super compact. If you feel this is difficult to read, please refer to the original user manual.

Official NVMSv3 User Manual

https://ltsecurityinc.zendesk.com/hc/en-us/articles/360036938213--PC-NVMS7000-v3-User-Manual-FAQ-NEW-

NVMSv3 Guide separates into 3 sections:

1. Quick Setup / Live View / Playback / Backup
2. Access Control   (not included in this KB)
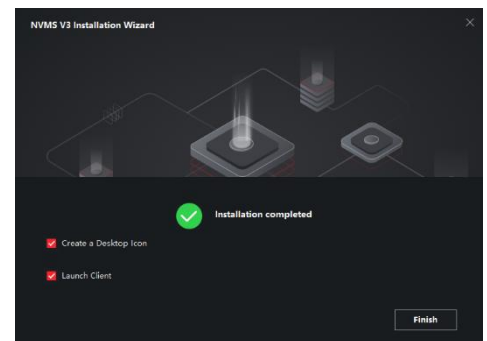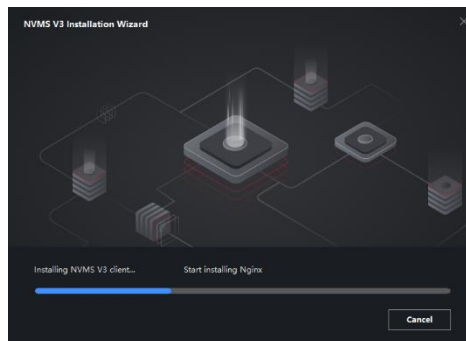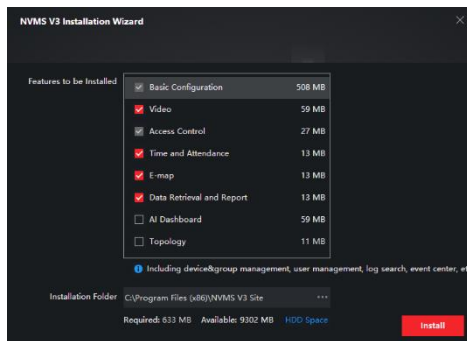3. LPR and Special Features   (not included in this KB)

Setup

You can download the **NVMSv3** software from the LTS Website.
http://www.ltsecurityinc.com/downloads

Software	Description	Version	Platform	Download
NVMS V3	Upgraded CMS client software	NVMS_V3_V3.4.0.65_20210331	Platinum Series	Windows

Installation is simple, please unzip the file and have the installation **Run as Administrator**.
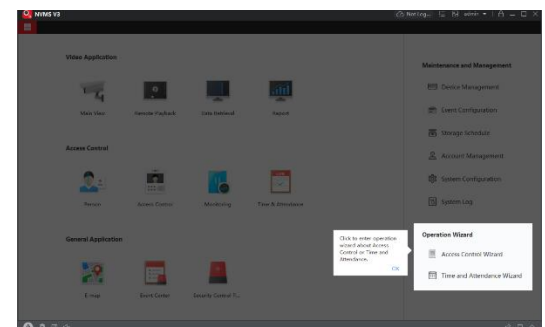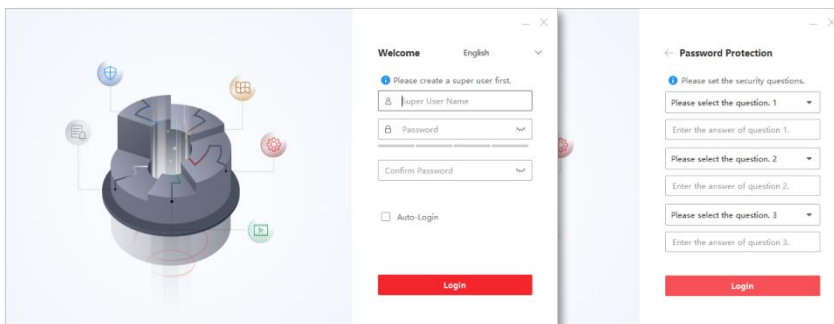
Note: Topology is not necessary; you may remove it.

First Time Run / Super User

Super User is for the NVMSv3 account permission on software on the local computer.

Create Super User Account and Password.
Enable Auto-Login (optional; but recommended)

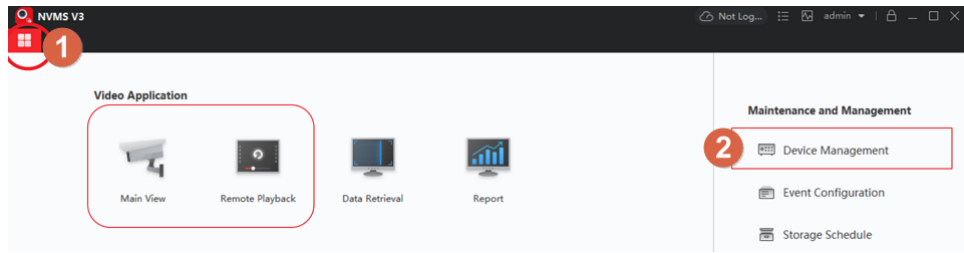Next, the Intro Wizard will pop up as below, this can be skipped.
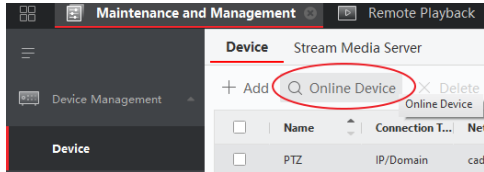
Note:
Please store the Super User password in a safe place. LTS will not provide support to reset the Super User Password (NVMS v3). For all others, please check the LTS Support Policy here.

Device Management

1. Tap the upper-left Menu button.
2. Click **Device Management**
3. Maximizing to full screen is recommended.

Search Local Network Devices

First, make sure to allow access for the firewall entry.

1. The bottom section will show up nearby devices from the local network.
2. Check the box, then click Add to the list.
3. If the camera is not activated, click Activate.
4. **If you forgot the password, click the key icon. This process will be the same as resetting a password via Platinum IP Portal.**
5. Click the Global icon to modify the network IP.
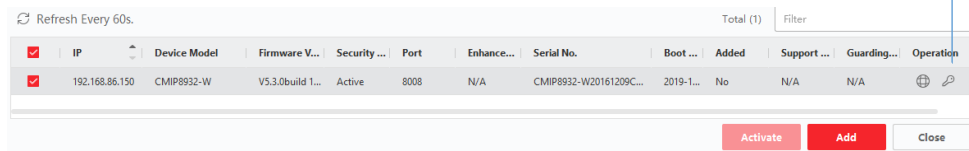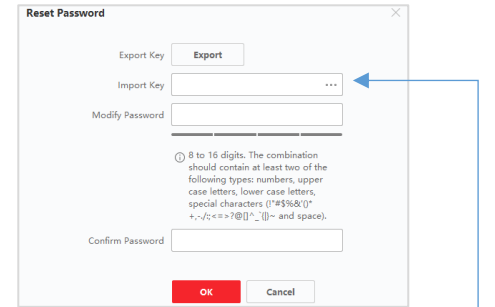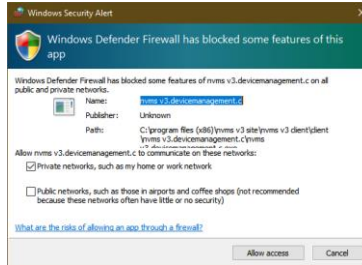
About Password Resetting

Adding Device

1. Click '+ Add', to create the new connection.
2. Select IP/Domain and fill in the yellow sections.
3. Click **Add** when finished.

After connected, the Status should show ✔ Online

If it is not connected, please check the setting information.
Note: Please always keep the connections in the device management to a minimum as much as possible to minimize system impact. This is because the NVMSv3 software will check each device's location connectivity when offline.
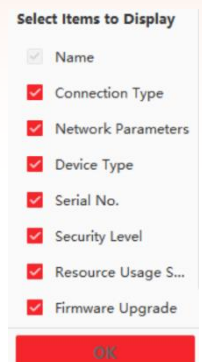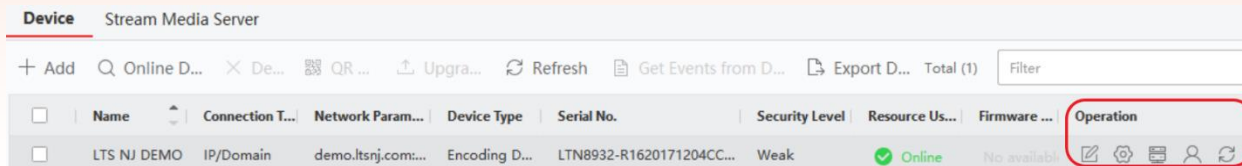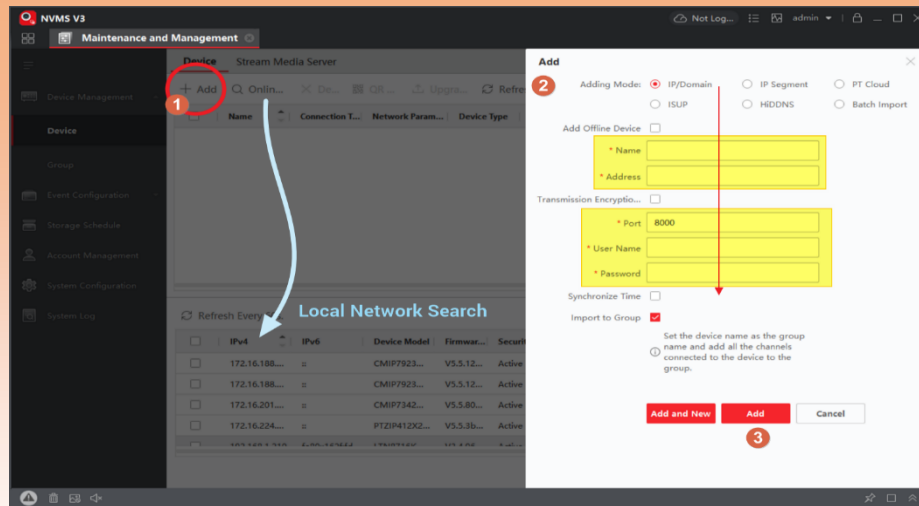
The Operation panel is a very important section. If you have a lower monitor resolution, you may not be able to see this section or you may have to scroll to the right side (hidden) to see it.
Here is the trick on how to resolve this issue.

(Tip – Editing the Device Management Columns)
Move the mouse to the column and Right-click the mouse button. The **Select Items to Display** option will pop up.
For example, Firmware Upgrade is of no use. Remove it to reduce the column until you can see the Operation column.

Group

The "Group control" is a folder for the camera list that is used in Main View.
You may import cameras from other locations/devices into the same group folder or remove any that are not needed.

Merge: In the example, I have two devices: NVR1 Apt and NVR2.
Create an empty Group folder in the Group Management and import both devices into a folder.
When I open this folder in the Main View, it will display both locations at the same time.
(Note: each PC Screen can only display/handle up to 64CH)

Auto Create Group: When you create/add the Device in the Device management, it should create a group after you save.
If you cannot connect to the device when it is added, NVMSv3 will not create a group folder. To solve this issue, make sure the device is Online first. Alternatively, use the function below to manually create the group for the device if the device was added when it was not online.

Create Group by the Device Name: If the NVMSv3 fails to add the device for the first time, then it will not automatically create the Group folder.
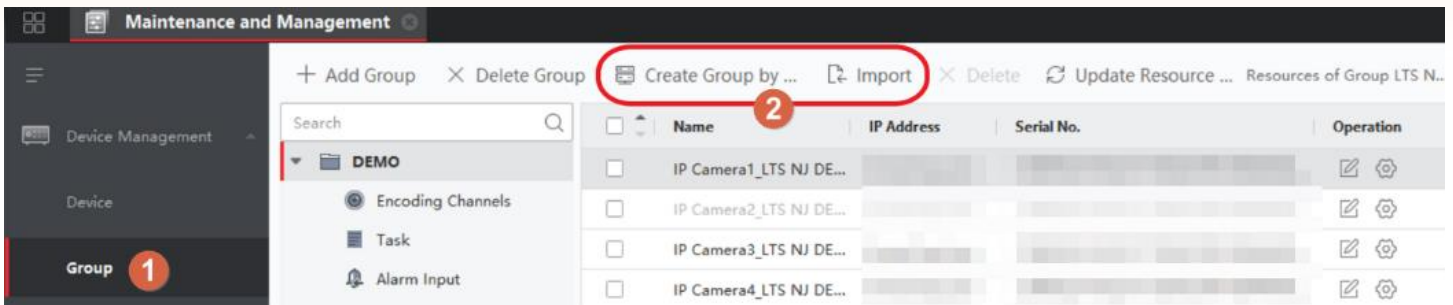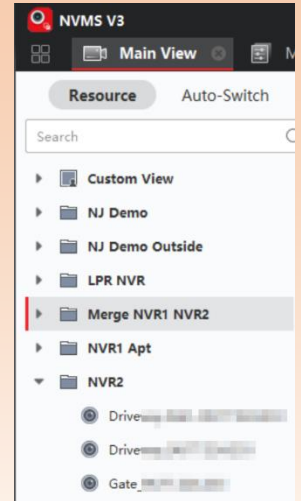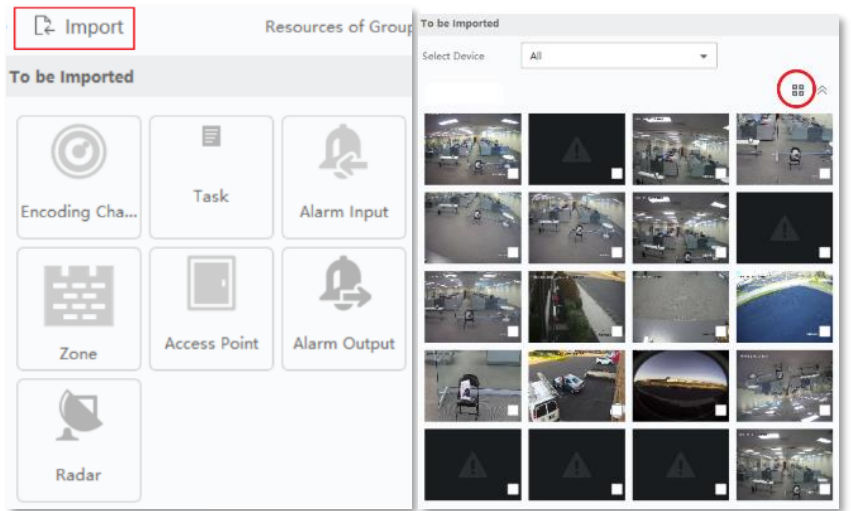
+ Add Group   This function will manually create an **empty** folder group.

Import > Encoding Channel

This function is for you to manually add each camera one by one into a group folder. Tap the thumbnail icon If you want to import with image display. (see Red Circle)
(Note: it will take some time to load the video thumbnail images)

Update Camera Name To sync the Camera Name from the device, right click the **Encoding Channel** and click '**Update Camera Name**'.

Remove Unused channel
If the channel is unused, please remove it. Offline channels will slow down the performance because NVMSv3 will keep trying to contact the offline devices until they show up as online.

1. Select the unused channel.
2. X Delete
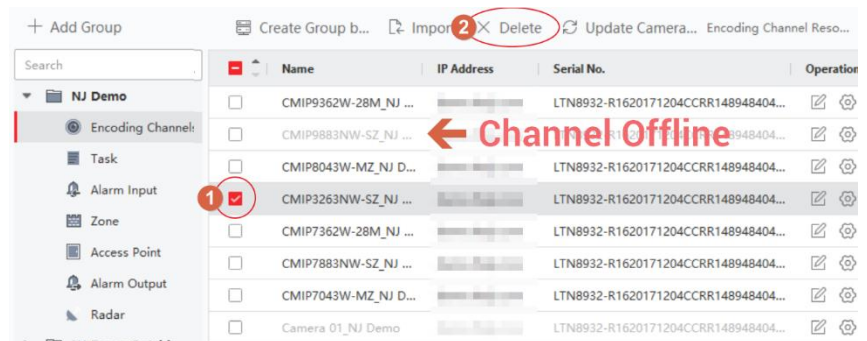
NVMSv3 - PTCloud Setup

If you do not have a PTCloud account, please register from the mobile app LTS Connect. Please see the setup article on our website: **KB - LTS Connect**
https://ltsecurityinc.zendesk.com/hc/en-us/search?utf8=%E2%9C%93&query=ltsconnect

Note:
I strongly DO NOT recommend registering from the PC.
NVMSv3 is designed for PTCloud operation, not for registration.
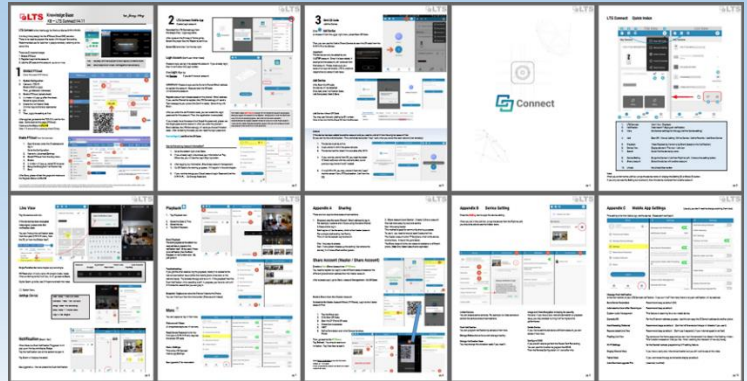
NVMSv3 - PTCloud Login

Here is login instructions if you have already connected a device to the PTCloud account.

1. Click the cloud icon on the top banner to login to a PTCloud account.

2. Click 'Yes'.

Enter the PTCloud email address or phone#
(make sure to put a '1' before the 10-digit phone#)

After successful login, you should see a login message.

When you play a channel for the first time, it will ask you for a Stream key. Enter the PTCloud verification Code as the Stream Key and you should be able to view it then.

If you do not know where the PTCloud verification code is, please see below.
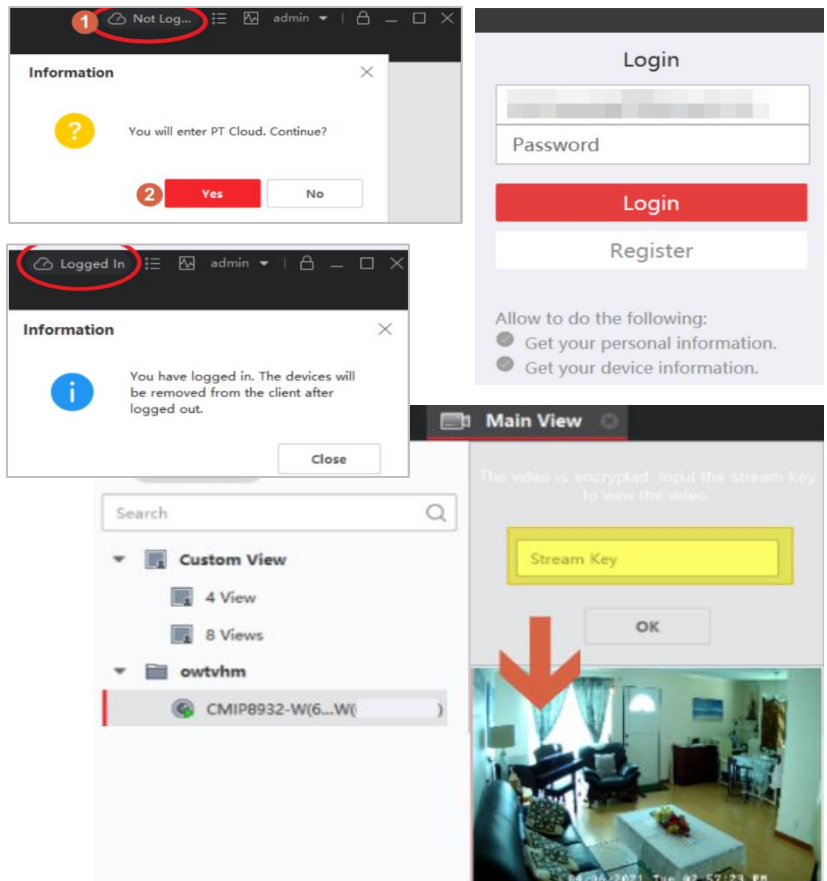
Video Stream Encryption

There is no setting in the NVMSv3 software to pre-input the Encryption key. Or maybe there is but I cannot find the place. When the video stream is encrypted, the software will pop up a message stating the stream is Encrypted. After entering the correct PTCloud Verification Code, you need to close the video and restart the camera stream. The software should apply the Stream Key to all channels.
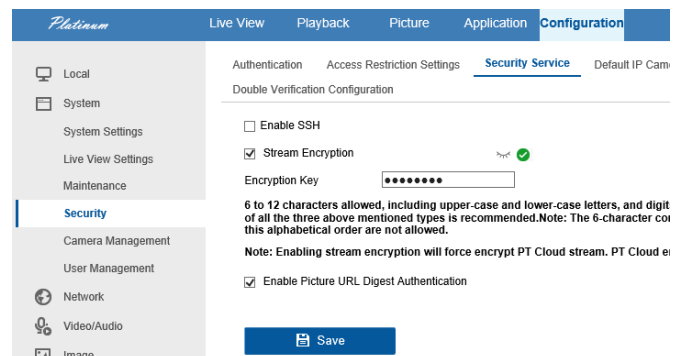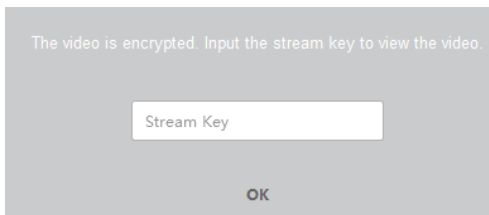
Main View

Open ▦ Menu, then the Main View button

1. Double-clicking the **Folder** will display all cameras in this folder onto the window divisions.

2. Alternatively, you can drag each camera individual into the window to view.
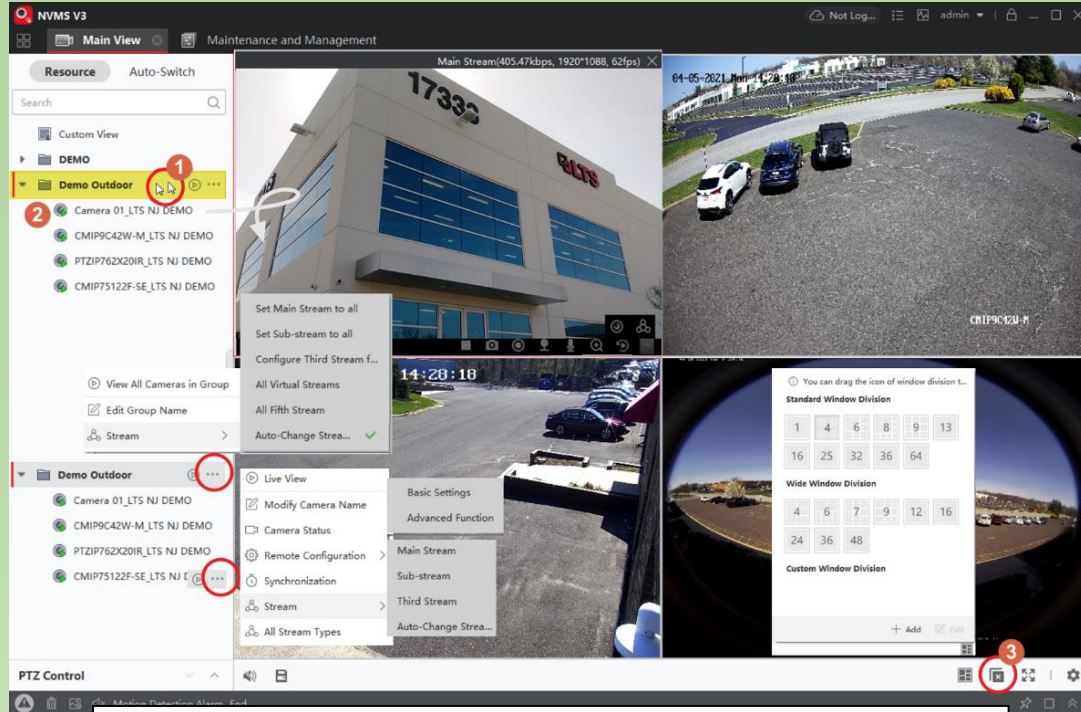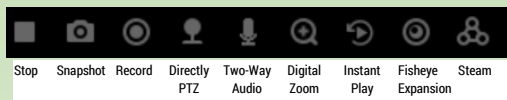   If the camera is offline, the label/icon will show a light gray color.
   Tapping … allows you to view more options.

3. Tapping the **Stop** button will stop all streams on the screen.

Move the cursor on top of the video. The black function bar will appear at the bottom of the image.

Stop | Snapshot | Record | Directly PTZ | Two-Way Audio | Digital Zoom | Instant Play | Fisheye Expansion | Steam Expansion

Right clicking the mouse cursor on the video will show more options. Each function should be self-explanatory. Please check the User Manual for more details if needed.

Custom View

Defines the camera display in the order that you want.

1. First, select the Window Division to be displayed.

2. Next, drag each camera from the list into the window that is preferred.
   Tech Note: You may drag different location cameras from different groups into the same custom view. However, it takes more bandwidth when viewing. It is recommended reduce to a minimal number of cameras when connected.

3. Click the Save View button.

4. A Save window will appear.
   Provide a name for the custom view and click save.
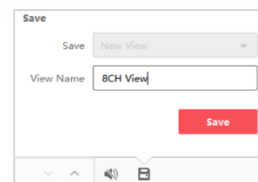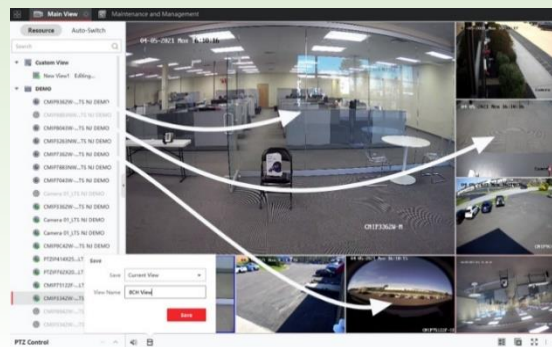
5. When you Double-Click the custom view from the list, it will bring back the saved view.
   For information on the **Auto-Switch** feature, please see the end of this document; Appendix page.

If you have a 3rd party ONVIF camera or a camera with sub channels (like fisheye camera) which do not support a Sub-Stream, you may need to stop playing the video, unlock the Auto-Change Stream Type from the System Configuration first, then click … to change the stream type. Finally, restart the camera stream (or double click the camera in the list)

Sound | Save | Window | Stop | Full

Please keep in mind the custom view is considered a folder as well.
If you use the Auto-Switch feature, the switching will be based on each custom view that is defined.

Main View – PTZ

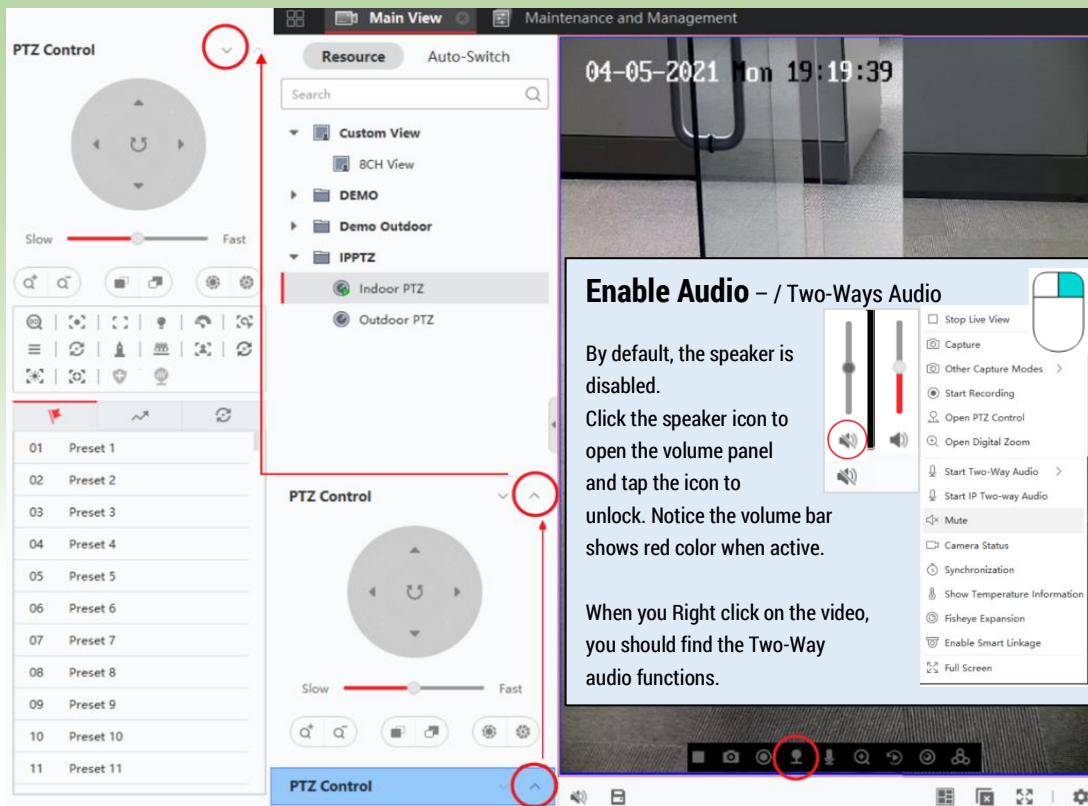PTZ Control panel is located in the bottom left corner. The first time the control is opened, it only displays the most commonly used features. You can expand to the full operation panel by clicking the up arrow. Here you will find the Preset button list.

When you use the On-Screen PTZ button from the video bottom function bar (black bar), after enabling it, just click and drag to the direction you want the PTZ to move. You can use the Mouse Scroll wheel to control zooming in/out.

Usually, the PTZ display with the Sub-stream is significantly faster than the mainstream (due to bandwidth). If you want to program a smoother precise panning pattern, you might consider using the sub-stream first. Then, switch back to the mainstream to view once the path is saved.

Enable Audio – / Two-Ways Audio

By default, the speaker is disabled.
Click the speaker icon to open the volume panel and tap the icon to unlock. Notice the volume bar shows red color when active.

When you Right click on the video, you should find the Two-Way audio functions.

NVMSv3 Menu – (See Red Circle)

> **Note:** Please check the Appendix page for more information. (For example: Import/Export Configuration)
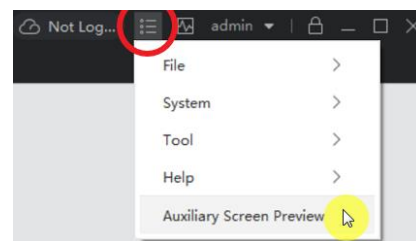
Main View – Multiple Monitor Display Support

Go to the **Menu** icon (Red Circle) > click **Auxiliary Screen Preview**
Auxiliary Screen Preview supports up to 4 windows (Main window + 3 additional instances).
Total possible Cameras to display is up to 256 Cameras. (64 cameras max per window)
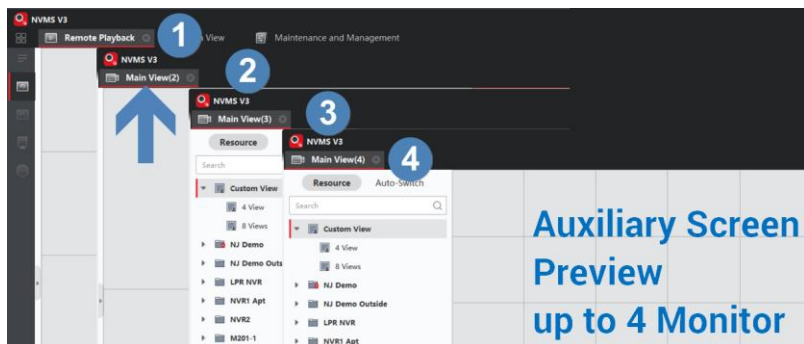
Resource Overview

Resource	Used	Total
Encoding Device	4	256
DeepinMind Server	0	1
Security Control Panel	0	16
Security Radar	0	8
Video Intercom Device (Ind...	0	256
Switch	0	16
Person	0	2000
Group	6	256
Camera	61	1024
Task	0	64
Alarm Input	101	1024
Alarm Output	44	1024
	0	2048
	0	8
	0	50

> **Important Note:**
> Please always make sure to **Stop the Live View before closing the tab** for each Auxiliary Screen Preview Window!!! Otherwise, there is high possibility that the Live Video will still be running in the background.
> It is highly recommended to use a high-end graphics card with Hardware Decoding feature turned On for Multiple Monitor Display. This will ease the load on the CPU of the computer.
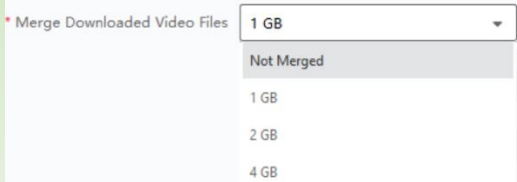
NVMSv3 Configuration

| Sound Mute | Save View | | Window Division | Stop All | Full Screen | Configure |

Merge Download Video Files

By default, the video recorded will be downloaded into several video files just like the originals. With this function, it merges all videos into one video file automatically of the designated size. This compresses the files to make it easier to search through them for an event.
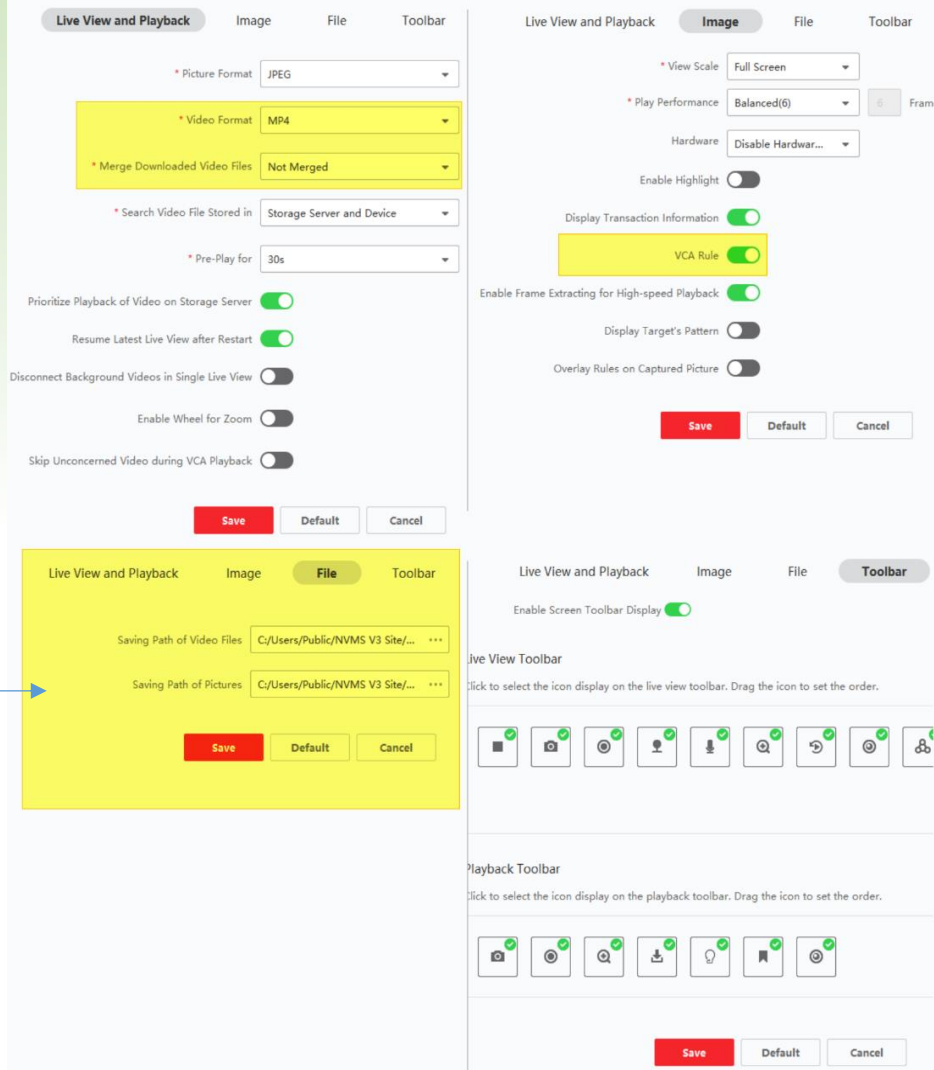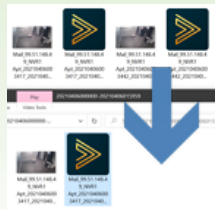
Video Format (MP4 / AVI)

By default, the download video format is set to MP4. You can use this function to automatically change to the AVI format for the downloaded video clip(s).

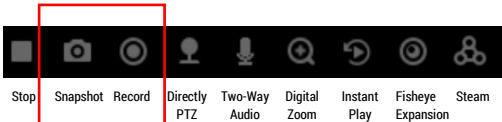## Snapshot / Record / Download Path

| Stop | Snapshot | Record | Directly PTZ | Two-Way Audio | Digital Zoom | Instant Play | Fisheye Expansion | Steam |

This is the default video file path.
C:\Users\Public\NVMS V3 Site\UserData\Video

You can change the saving location to an easy to find location, if preferred.

VCA Rule

By default, the VCA lines are shown automatically.

VCA lines are a special Platinum camera device feature.
The NVMSv3 will display either the Line for Line Crossing or, an intrusion box on top of the video overlay. This can be turned off in the configuration by toggling the VCA Rule option under **System Configuration > Image.**

After disabling/re-enabling the setting, you will need to stop the video display first, then re-enable the video into the window before the setting takes effect.
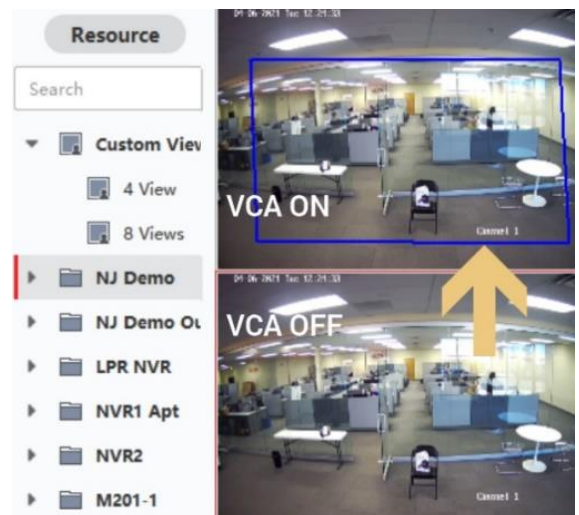
Remote Playback
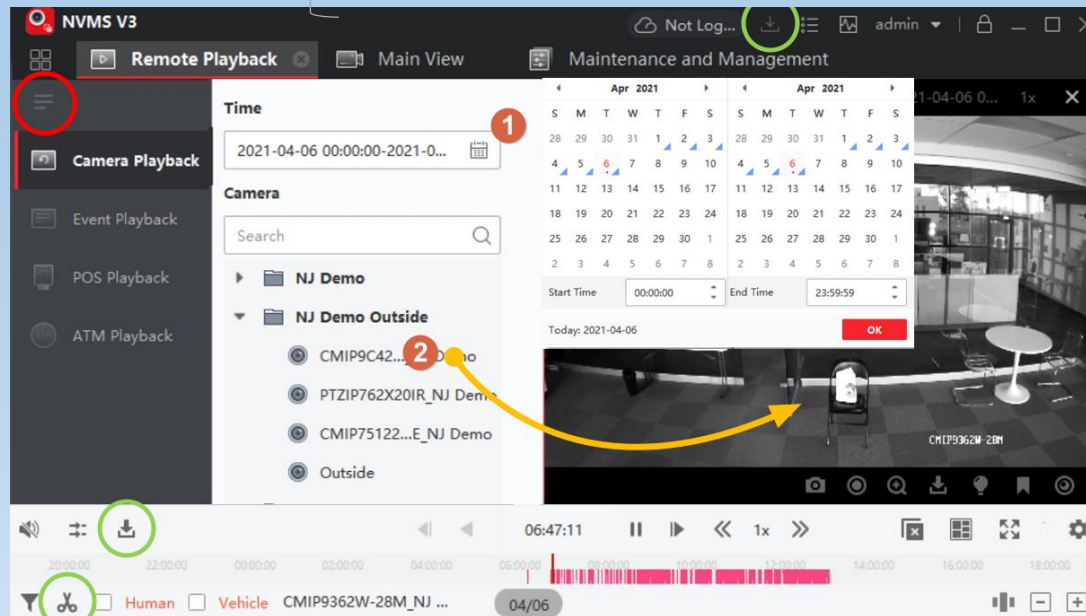
Open ▦ **Main Menu** > **Remote Playback**.

The ▦ icon (Red Circle) toggles the menu.
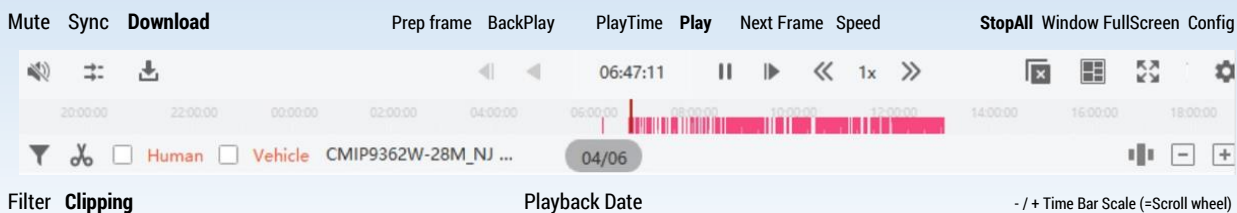By default, **Camera Playback** is selected.

1. Select Time and date.
    Define the Start / End Time.
    (Note: A Blue tag on a date on the calendar indicates record(s) found. Selecting more days will take more time to search.)
    Make sure the Timeframe is correct.
    Click OK.

2. Simply drag the desired camera into the window

3. The playback should start automatically.

**Important Note:** Most PTCloud playback is locked down to only 1x Playback speed.

| Mute | Sync | **Download** | | Prep frame | BackPlay | | PlayTime | **Play** | Next Frame | Speed | | **StopAll** | Window | FullScreen | Config |

Filter **Clipping** Playback Date - / + Time Bar Scale (=Scroll wheel)

3 Ways to adjust Current Playing Time

(while playing)

1. Drag the Time Bar
2. Tap the current Play Time. (see right picture, yellow section)
3. Right-click on the video > Accurate Positioning
(This function is designed for multiple day ranges within the search range)
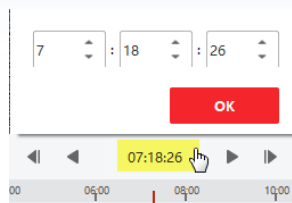
Synchronous

(Synchronous [default] / Asynchronous Playback)

The Asynchronous function sets two things.
1. For each window, the Playback Time runs independently.
2. This mode supports the Reverse Playback function.

You will notice after changing to Async Mode, the Right click menu is different.

Tag Control: (aka Bookmark)

1. Right-click on top of the video while playing.

2. Go to Tag Control.

3. Choose Add Default Tag or
    Add Custom Tag to define the tag event.

4. After added the Tag, it will show a very thin, yellow line on the red/blue time bar.

5. Open Edit Tag.
    Double click the location to jump to the scene.
   Or use it to edit and adjust the name/time.
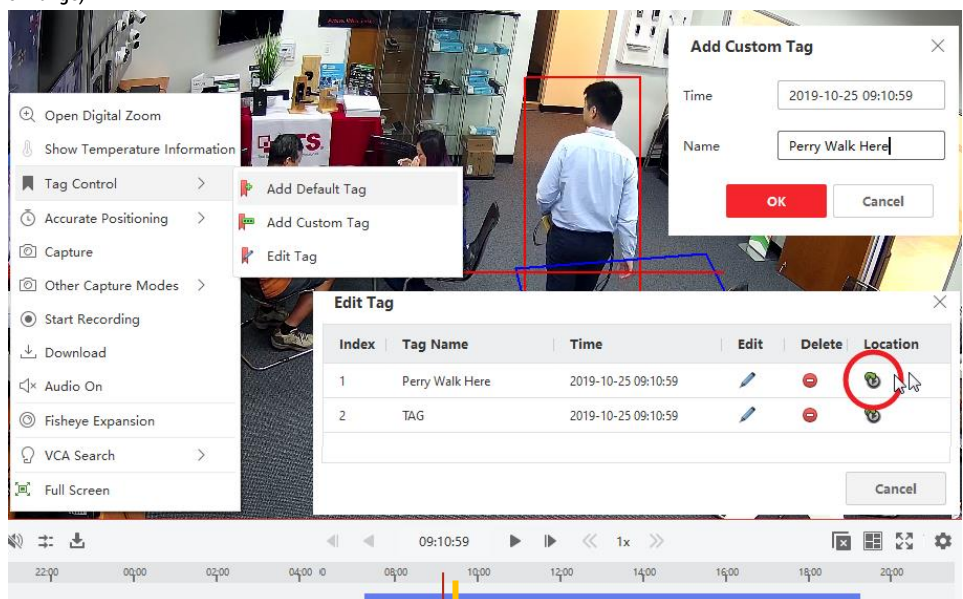
BACKUP Remote Playback Video

Download Clipping

- Download the video.
- Clip a video.
- Where is the backup video?
- How to play the downloaded video file? Use VSPlayer.
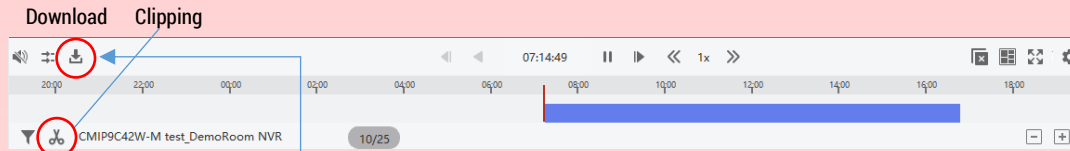
Download   (Only available for Camera Playback)

1. Go to the Remote Playback (aka Camera Playback).
2. See Page 7 for Remote Playback instructions.
   Select Time & Drag the Camera to play the video first.

3. **While the video is playing**, click the **Download** button.

4. Select the channel you want to download.
5. Adjust the Start Time / End Time.
   Note: The Start Time/End Time must be in the time range
   initially set in the playback setup.

6. Click the **Download** button to continue.
   After successful download, use 'Open Folder' to locate the file.

7. By default, the download folder is
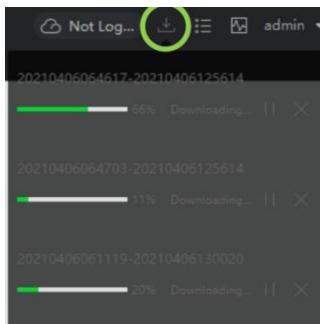   C:\Users\Public\NVMS V3 Site\UserData\Video
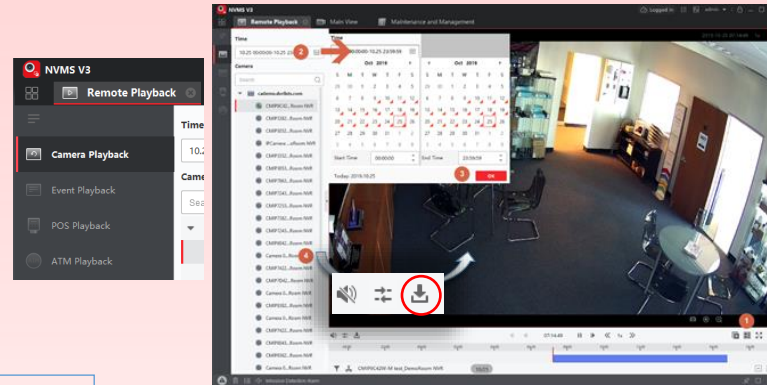
   Please read Page 7 about NVMSv3
   Configuration to change the saving path.
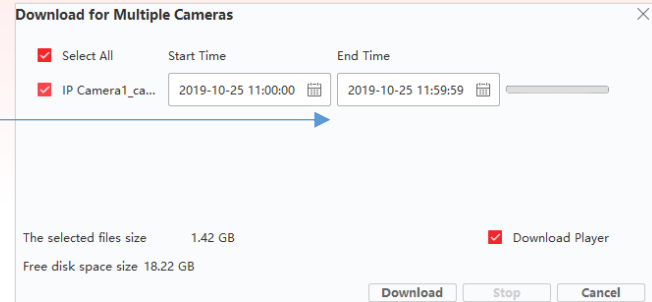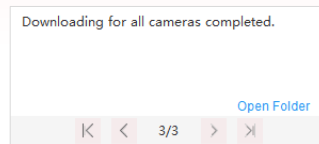
Download - Clipping

1. While the video is playing, tap the **Clipping** icon.

2. Define the Start/End Time.
   The time bar will show the clipping area in red.
   Note: Clipping Start/End Time must be within the blue bar time range
   that is set initially on playback setup.

3. Click **OK** when Ready.
   **NVMSv3 will not appear to do anything
   at the moment. Because,**
   the download progress will show in the
   download tray. (Check the Green Circle area)
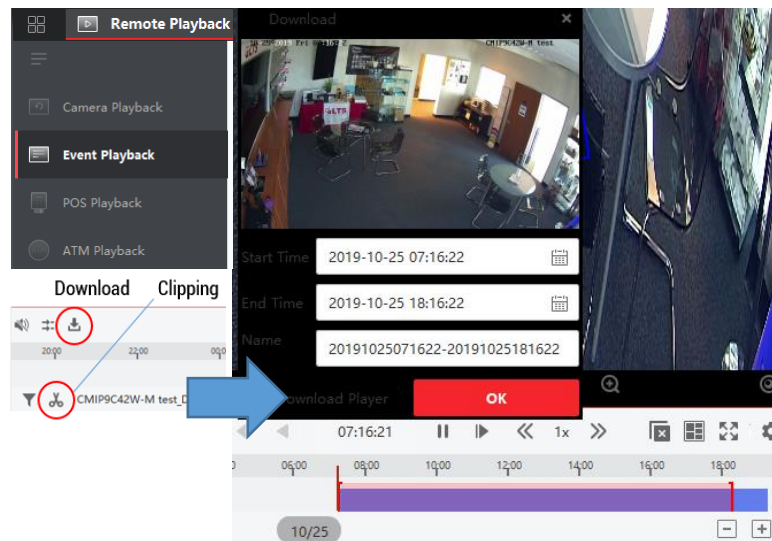
4. Please wait until the download finishes.

The default download path is C:\Users\Public\NVMS V3 Site\UserData\Video
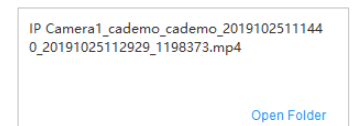
Appendix

Recommended Running Environment

Operating System: Microsoft Windows 7/8.1/Windows 10.

CPU: Intel Core i5 3.5 GHZ or above. (Minimal Core i3)

Memory: 8G or above

Video Card: RADEON / Nvidia or above

GPU: 512 MB or above

Network Speed: Gigabit LAN (recommend)

Remote Playback Event Playback

The Event Playback helps you narrow down the event when searching.
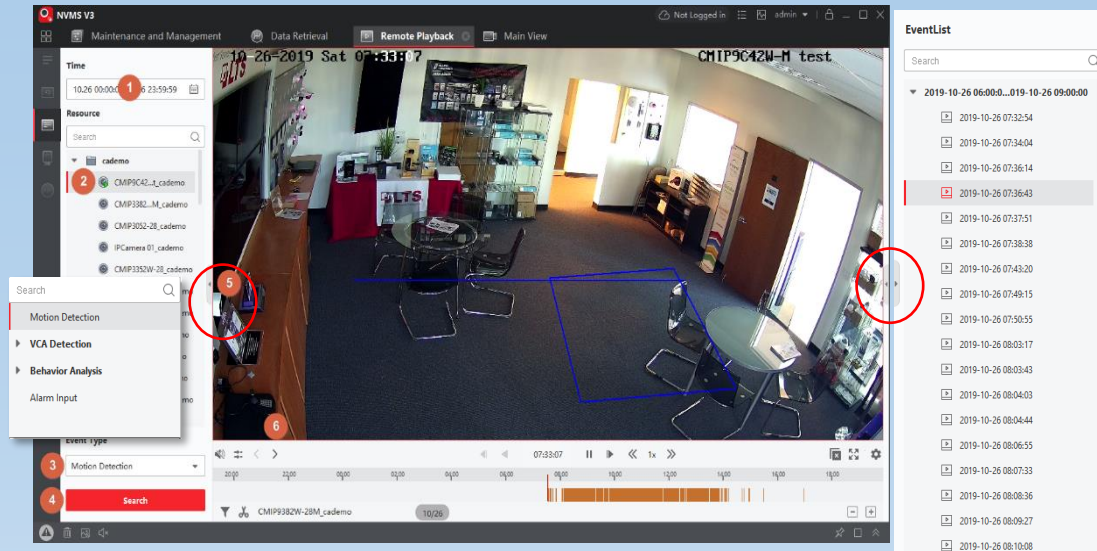
1. Select the Date/Time
2. Select Camera Channel
3. Choose Event Type (Motion/VCA)*

4. Click 'Search'.

5. You can click the Show/Hide Panel button to show the Event List. Then switch to a different camera & click Search again.

6. Use < > to jump to the next/previous event, or double click an event from the file list on the right-hand side panel.

Note: There is no download button in section or from the toolbar. However, you can Right-click on the video and find the download option there.
Alternatively, you still can use the Clipping tool to download the currently playing video event.
* Behavior Analysis requires a special camera with Event Recording. If you want to do more expanded analysis, use the Data Retrieval or the Report function.

Remote Playback VCA Search

VCA Search is based on your currently playing video to do further deep analysis searching. Most times, VCA search is supported on the DVR/NVR with newer firmware (v4.0+). For the searching on NVMSv3, it requires more CPU usage, more RAM & LAN bandwidth than performing the search directly on the DVR/NVR.


1. While the video is playing, right-click on the video stream. You should see the VCA Search option.

2. Select either Motion / Line Crossing Detection / Intrusion Detection from the Menu (Circled in Red on the Right)
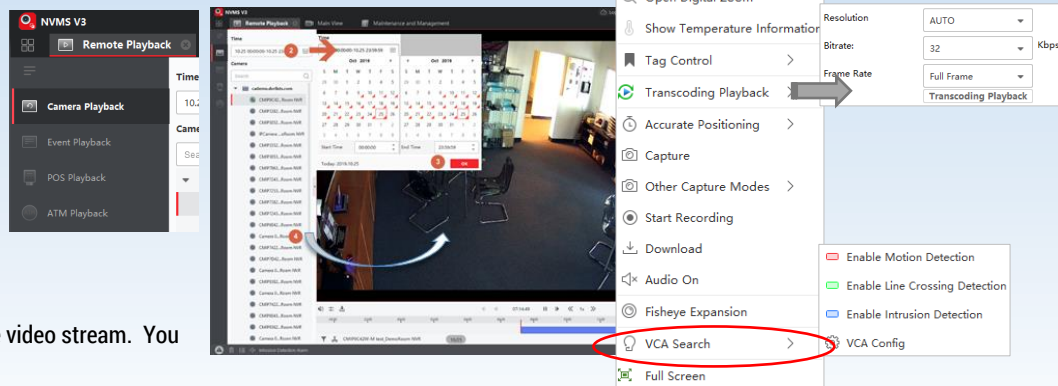
3. In this example, Motion is selected. Draw the Motion Area on
   1. top of the video (Red Color Grid), or define the Line Crossing
   2. or the Intrusion box in the Video.

4. Then, you will see the video processing. It takes some time to search. (Note: It is recommended to make the Date/Time Range as short as possible before searching to minimize processing time.)

5. Finally, the VCA search will show events matching the parameters in Red color on the time bar. Use < > to jump to the next/previous event.

6. **To Exit the VCA search.**
   You need to Right-click to get the VCA Search Menu and
   disable the VCA Search. You can also click the Red X on top of the video.
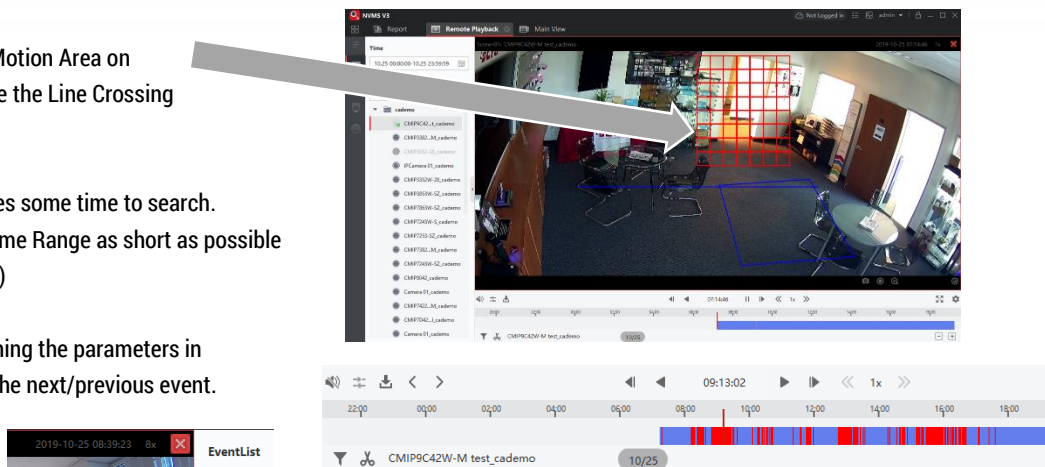
Main View   Auto-Switch

Auto-Switch (aka Screen Touring) feature provides an unlimited camera view within a single monitor.
Just like the keyword – Touring – the function will switch from one camera view to another camera view.

There are three different kinds of Screen Touring.

1. All Camera Auto-Switch   (aka All Group Devices View Touring)
2. All Views Auto-Switch   (aka Custom View Touring)
3. Single-Screen Auto Switch
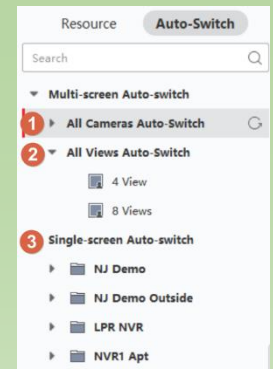
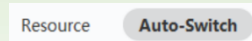## All Camera Auto-Switch (All Group View Touring except the Custom View)

Just like the keyword, all group device touring, the feature switches from one Group to another Group.
In Example, I have used these devices (Group; highlighted yellow) in the main view.
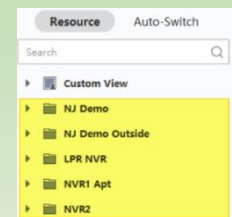
1. Pre-Select/Define the Screen Layout first. For example, **9 views**

2. Then, Switch to the Auto-Switch Tab

3. Tap the **Circle** icon
4. You will notice from the first NJ Demo Group camera
   (Cam 1-9) fill into 9 View display, and after 20sec. it switches to Cam10-18, etc.…
5. When all the NJ Demo camera views are cycled, it will jump to the Next Group NJ Demo Outside and continue displaying 9 cameras at a time…
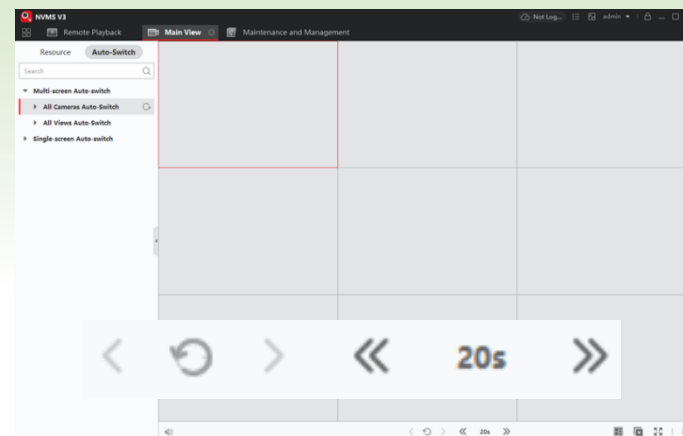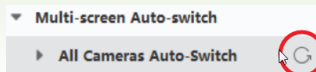
6. In other words, **All Camera Auto-Switch** = displaying all the DVR/NVR cameras in the pre-defined window layout and by switching camera sets.

All Views Auto-Switch   (Custom View Touring)

Unlike the "All Camera Auto-Switch", the All Views Auto-switch is focused on the Custom Views only. You must define several Custom Views first.

When the auto-switch is enabled, you will notice the screen layout switches from one custom view layout to another.
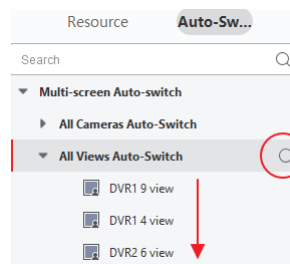
Single Screen Auto-Switch   (Note: Advance Skill)

This feature is simple. But I will show you the advanced way to use this feature.
You can mix the regular view with Single Screen Auto-Switch.

1. Display you preferred view on the screen first.
2. Highlight one of the windows by left clicking the window.
3. Switch to the Auto-Switch Tab.
4. Select Single-screen Auto-Switch and click the circle icon.
5. Now, you will have video touring on one of the windows, but the rest will remain as normal windows.
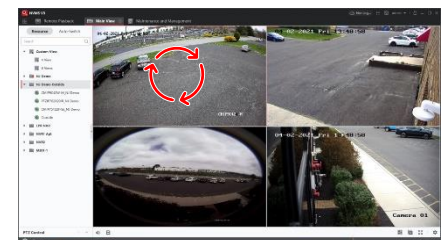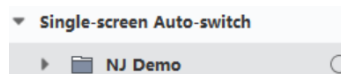
Main View   Fisheye Expansion

Fisheye Expansion only supports LTS Platinum Fisheye Cameras.

For first time use, please download and install the DirectX2010 SDK program before launching NVMSv3.

If fisheye expansion failed, please go to https://www.microsoft.com/en-us/download/details.aspx?stat=1&id=8109

Close

Remember:
Fisheye cameras only support Mainstream video on the primary channel and the Fisheye Expansion function only supports the primary channel (Secondary ePTZ views are not supported).

For the ePTZ function, you can drag the camera in a different direction.
(see the Red, Green, Blue box)

EXAMPLE

FISHEYE EXPANSION
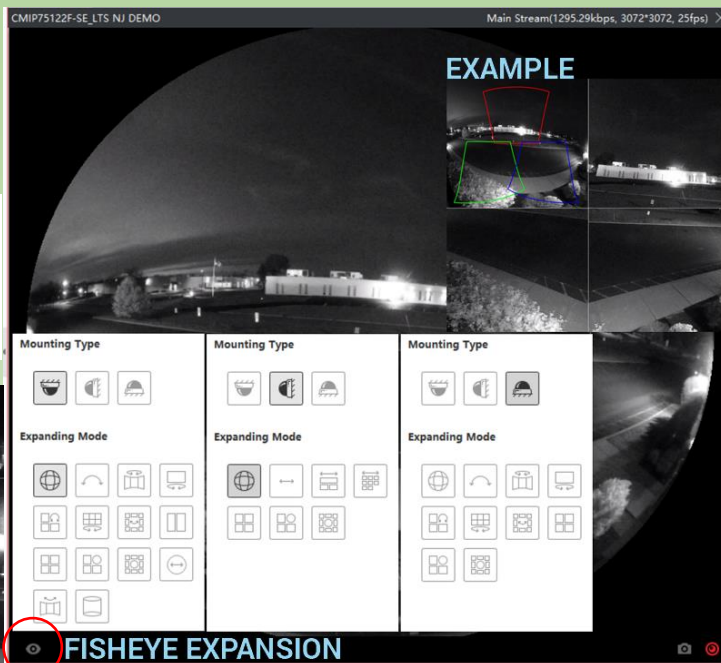
Device Management – Remote Configuration

If you need to remotely configure the device parameters, you can use the Remote Configuration function.

(Requires device **admin** account login)

Device Management > Device >
Gear icon ⚙ > Basic Settings

The Basic Settings is similar to the remote login from the Internet Browser configuration. It is using the NGINX proxy to communicate. Therefore, the HTTP port needs to be open for this to function. If you do not understand this section, please read the Port Forwarding from our website. See Here

Some features you see on the device may not be available.

 For example, the POS feature is only compatible with a device that has the POS feature.

Basic Settings

Advanced Functions
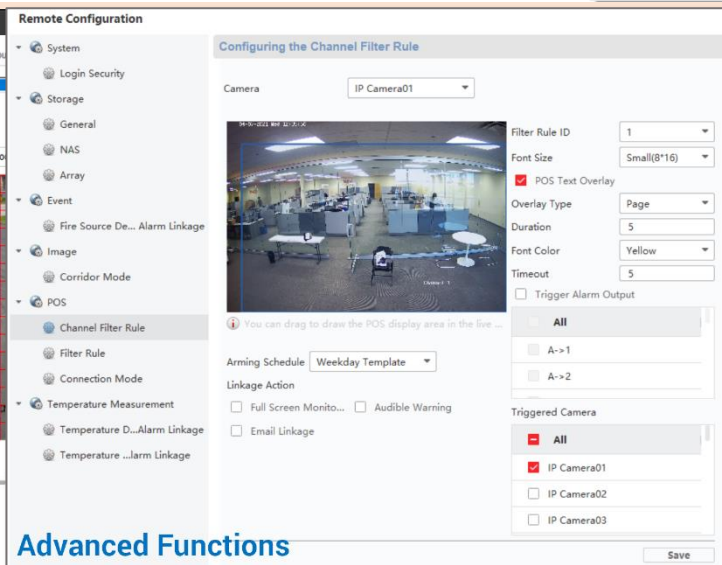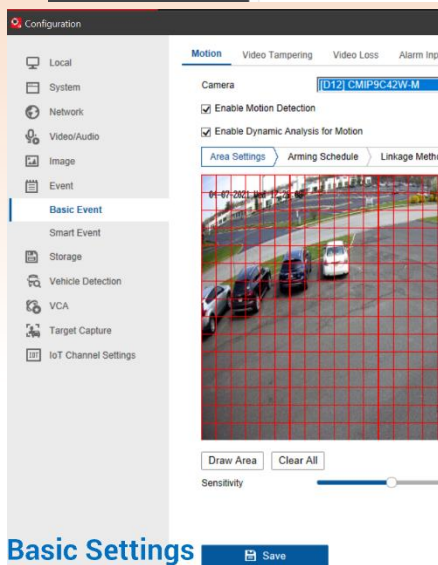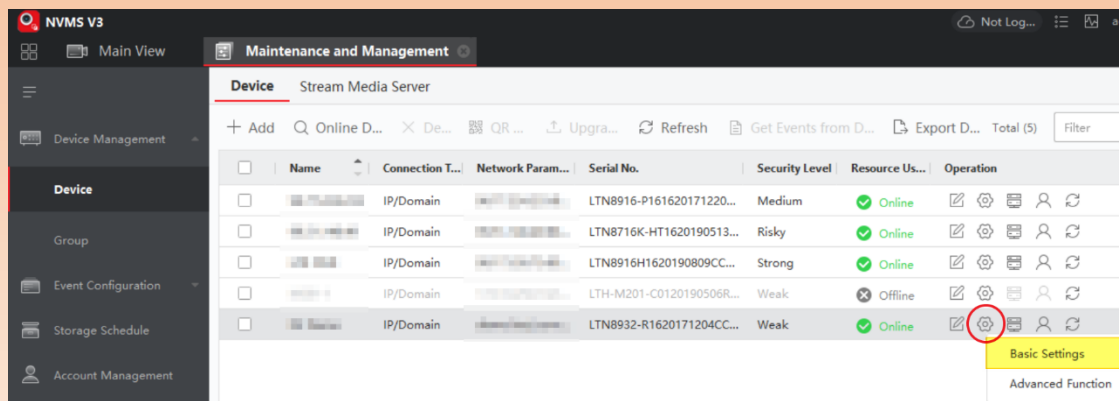
NVMSv3 Menu – Import / Export Configuration

You will find AutoBackup features in there, however, I still recommend you back up the configuration occasionally.

Backup – Export Configuration

Menu > System > Export Configuration File

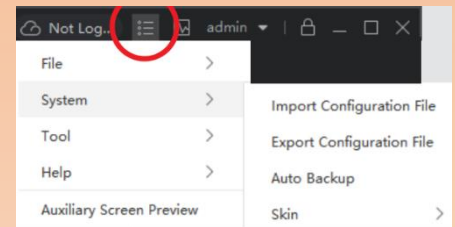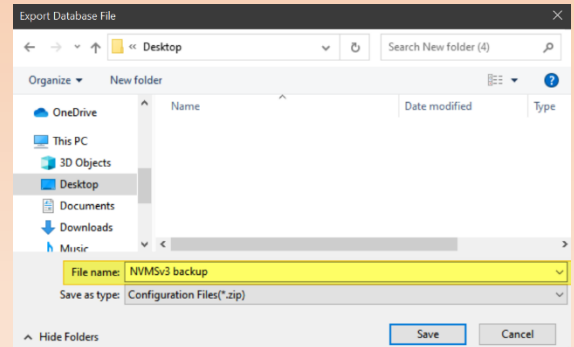1. Export Database file window will pop up.
2. Please select the destination folder location.
3. Give the backup a name (highlighted Yellow)
4. Click 'Save'

Backup – Import Configuration

Menu > System > Import Configuration File

1. **Import Configuration will overwrite the existing configuration.** Please be careful about this.
3.

   This includes restoring the NVMSv3 Login password, Device Management, and many other settings.
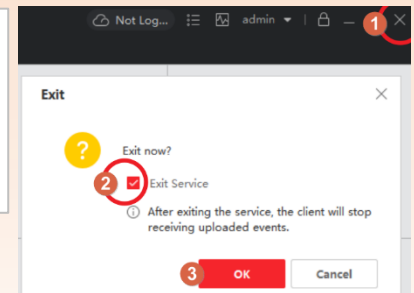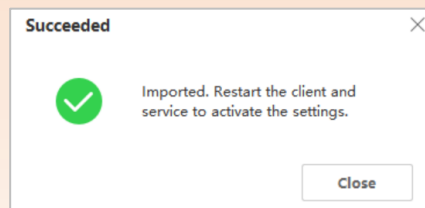
2. Select Database file
3. Pop up Message will say - Imported. Restart Client **& Service** to activate the settings.
   This means you need to close NVMSv3 ❶, and ❷ make sure **Exit Service** is checked. ❸ OK

4. After the NVMSv3 starts up again, the configuration will be restored to the backup configuration.
   (Note: If you did not exit the Service, this won't take effect properly)

Backup – Import Configuration from Auto Backup

Menu > System > Auto Backup
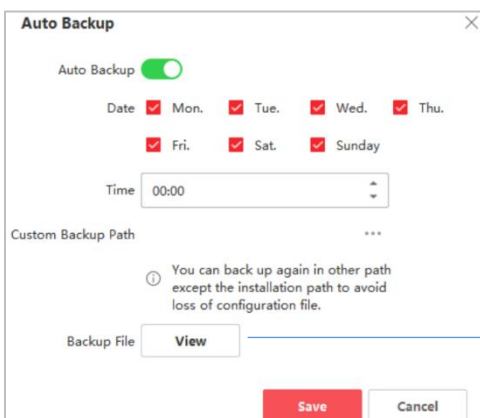
You can use Auto Backup function to Restore the Configuration from a previous backup. Please make sure to Exit the Service and then Re-Run NVMSv3 again.

Here is the default backup Path: C:\Users\Public\NVMS V3 Site\UserData\Backup\AutoBackup

FAQ (Frequently Asked Questions)

Here are some frequently asked questions when operating the client software.

Question   **During live view, why is there an error message with error code 91 prompts?**
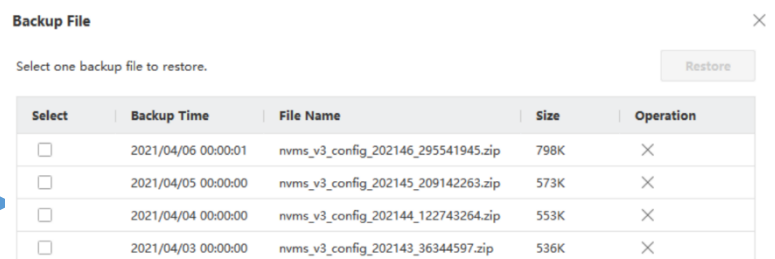
Answer

When live viewing camera streams, the channel may not support a sub stream. You should disable the Auto-change Stream Type function in System Configuration → Image and select the appropriate steam type for live view by clicking the … next to the camera in the camera list.

Question   **During live view, why is the image blurry or not fluent even in Mainstream?**

Answer

Check the driver of the video card. We highly recommend you update the driver of the video card to the latest version. You may also want to make sure the bitrate for the mainstream on the camera is > 512kbps.

Question   **Why does the client crash after running for a while?**

Answer

In the installation directory of the client software, open the Setup.xml file with Notepad and modify the value of EnableNetandJoystickCheck to false. Restart the client, and if the problem is still not solved, contact our technical support.

Question   **If the network bandwidth is low, how do I get better performance on live view and playback?**

Answer

This function should be supported by the device.

You can perform the following operations to perform live view in low bandwidth situations:

Setting the streaming protocol

- Firstly, after adding the encoding devices to the client, you need to set the camera's streaming protocol.
- Enter Device Management → Group
- Select the camera in the Encoding Channel list and click.
- In the Edit Camera window, set the Protocol Type (for live view) and Playback Protocol Type (for playback) as Adaptive UDP.
- Click OK to save the settings.

Disabling Auto-change Stream type for live view

- You then need to disable the Auto-change Stream Type function.
- Enter System Configuration → Image.
- Disable the Auto-change Stream Type function and save.

Selecting stream type for live view

- Enter Main View module.
- In the device list on the left, move the cursor to the camera name and click … then → Stream and select the desired stream type.
- For network camera, set the stream type as Third Stream. For DVRs or NVRs, set the stream type as Virtual Stream (if it supports this function).
- Start live view.

Troubleshooting

Here are some common symptoms and suggestions when operating the client software.

Failed to get the live view of a certain device.

Possible Causes

- Unstable network or network performance is not adequate.
- The device is offline.
- Too many clients accessing the remote device can cause the load of the device to be too high.
- The current user has no permission for live view.
- The version of the client software is below the needed version.

Solutions

- Check network status and disable other idle processes on your PC.
- Check the device network status.
- Restart the device and/or disable other devices from remotely accessing the device.
- Log in with the admin user and try again.
- Download the latest version of the client software.

Failed to download the video files or the downloading speed is too slow.

Possible Causes

- Unstable network or network performance is not adequate.
- The NIC type is not compatible.
- Too many clients accessing the remote device.
- The current user has no permission for playback.
- The version of the client software is below the required version.

Solutions

- Check network status and disable other idle processes on your PC.
- Directly connect the PC running the client to the device to check the compatibility of the PC NIC card.
- Restart the device or disable other devices from remotely accessing the device.
- Log in with the admin user and try again.
- Download the client software of the latest version.