



Network Video Recorder
New Web Interface
User's Manual

Rev. 1.0

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Revision History

* Rev. 1.0: Initial release.

セキュリティ基準（新規則第 34 条の 10）

「本製品は 電気通信事業者（移動通信会社、固定通信会社、インターネットプロバイダ等）の通信回線（公衆無線 LAN を含む ）に直接接続することができません。本製品をインターネットに接続する場合は、必ずルータ等を経由し接続してください。」



NOTE:

The following are the limitations for web access using the non-IE browsers:

1. Playback: fast forward, back forward, next frame buttons are not available.
2. Snapshot and Auto screen ratio not available on Safari.
3. Web browsers supported:
 - Chrome v68.0.3440 and later official version
 - Firefox v61.02 and later official version
4. OSes supported:
 - Windows
 - Windows 7, 64 bit
 - Windows 10
5. Minimum PC hardware requirements:
 1. CPU: Intel i5 4th generation and higher
 2. RAM: 4GB and higher

Limitations on text entry length:

- * User account: 64 alpha-numeric characters
- * Account password: 64 alpha-numeric characters
- * Path name: 256 alpha-numeric characters
- * Supports all printable ASCII (0x21-0x7E) characters and space (0x20) for password.
!"#\$%&\'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNPOQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{ }~
- * IP domain name: host.xxx.yyy.zzz - 63 bytes; total: 253 bytes
- * Email account: local@domain_name_part - local -63bytes
domain_name_part - 253 bytes.



IMPORTANT:

The NVR also supports the VIVOCLOUD Retail app. Please refer to the VIVOCLOUD Retail app User Guide for details.

Read Before Use

The use of surveillance devices may be prohibited by law in your country. The Network Camera is not only a high-performance web-ready camera but can also be part of a flexible surveillance system. It is the user's responsibility to ensure that the operation of such devices is legal before installing this unit for its intended use.

It is important to first verify that all contents received are complete according to the Package Contents listed below. Take note of the warnings in the Quick Installation Guide before the Network Camera is installed; then carefully read and follow the instructions in the Installation chapter to avoid damage due to faulty assembly and installation. This also ensures the product is used properly as intended.

The Network Camera is a network device and its use should be straightforward for those who have basic networking knowledge. It is designed for various applications including video sharing, general security/surveillance, etc. The Configuration chapter suggests ways to best utilize the Network Camera and ensure proper operations. For creative and professional developers, the URL Commands of the Network Camera section serves as a helpful reference to customizing existing homepages or integrating with the current web server.



NOTE:

The operating system and management software are installed on a flash memory mounted on the main board. Except for running the plug-ins for the onscreen control on a web console, there is no need to install software.

Symbols and Statements in this Document



INFORMATION: provides important messages or advices that might help prevent inconvenient or problem situations.



NOTE: Notices provide guidance or advices that are related to the functional integrity of the machine.



Tips: Tips are useful information that helps enhance or facilitate an installation, function, or process.



WARNING! or **IMPORTANT:** These statements indicate situations that can be dangerous or hazardous to the machine or you.

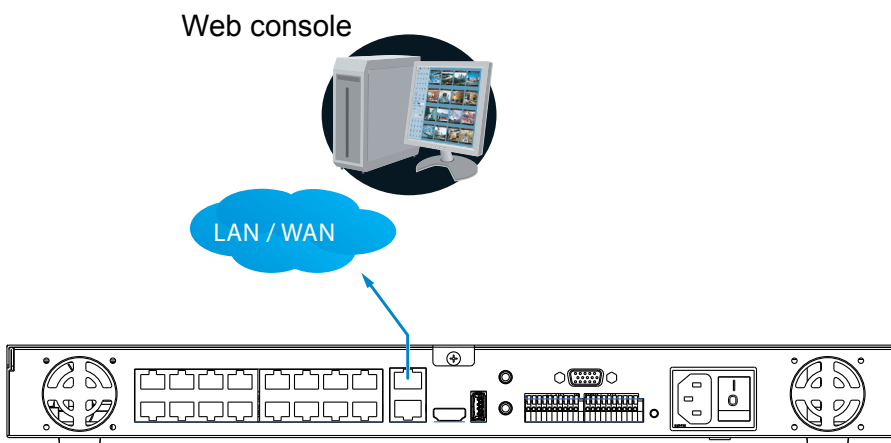


Electrical Hazard: This statement appears when high voltage electrical hazards might occur to an operator.

Management Using the New Web Console

There are two different interfaces on the system:

1. One is connecting mouse and keyboard, and an HDMI cable to a TV screen or monitor. The local management thus made is described in the **User Manual** of each NVR model.
2. The other is accessed through the Ethernet connection. Management via a web console is described in this manual.



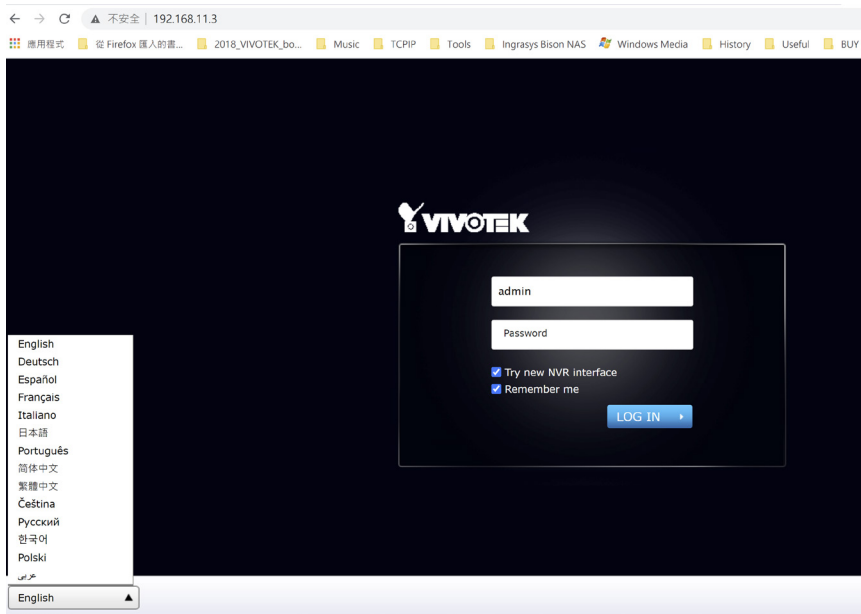
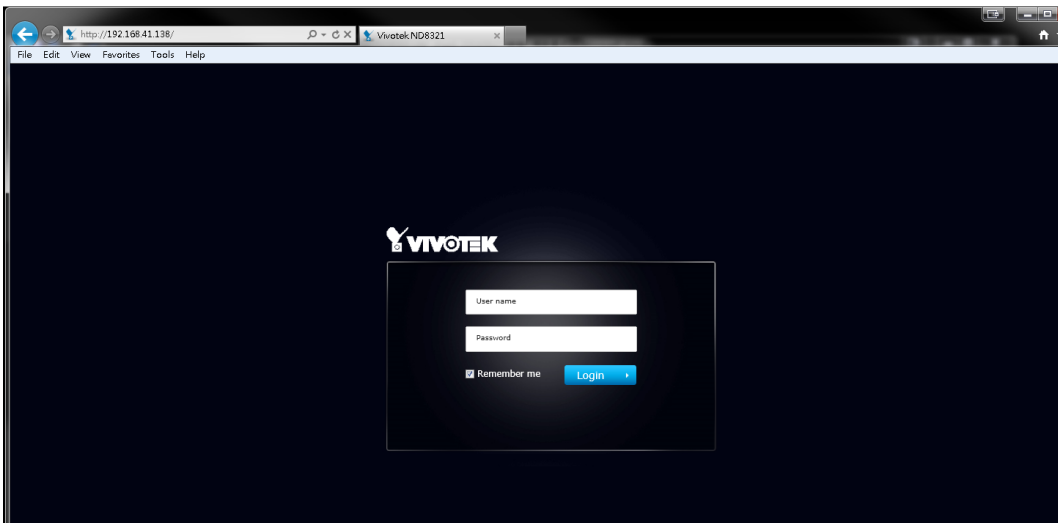
Access via an IPv6 address is supported by firmware revision 3.1. Note that for some browsers you should use the [and] brackets to surround the IPv6 address such as: [http://\[2001:db8:1234::abcd\]](http://[2001:db8:1234::abcd]).

Login and Getting Started

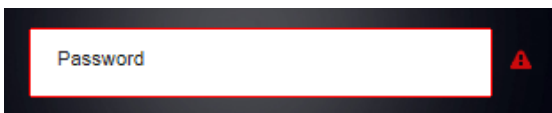
1-1. Login

This is the login page on the browser. The minimum for resolution is 1280x960.

Please use Google Chrome to access the NVR. By default, the web console opens with the new user interface.



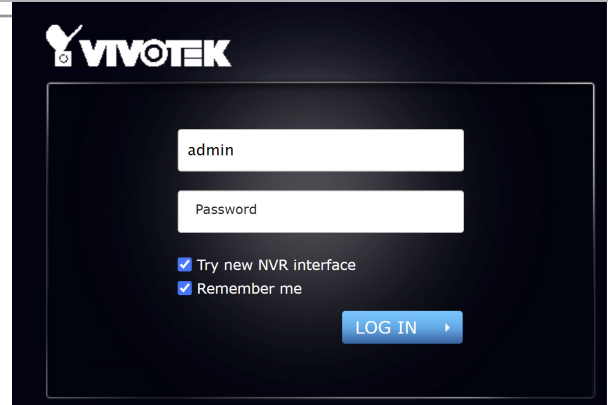
It is highly recommended that you should change the default password. Please refer to **Settings > Security > User account** page to see how to prevent unauthorized access. The system will prompt you if you entered an incorrect user name or password.



Try new NVR interface:

By default, the new interface is enabled. You will log in to the live view using the new interface.

Note that you cannot see this information if using the IE browser.



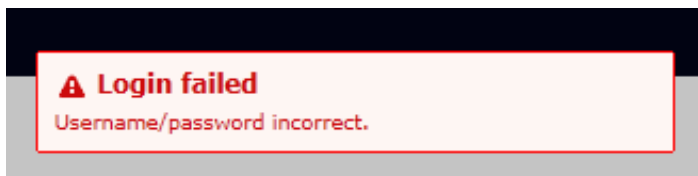
Remember me: Your user name will be preserved in browser cookies for two days if you select the Remember me checkbox. The user name will be automatically erased if you do not log in to the system for two days.

You may login to a different software utility by unfolding the side panel on the **Login** button.

You can also select a different language using the **Multilingual** selector menu on the **lower left** corner of the Login screen. The functional items, menus, and dialogues will then be displayed using the selected language.



Login errors: below are the login errors that might occur.

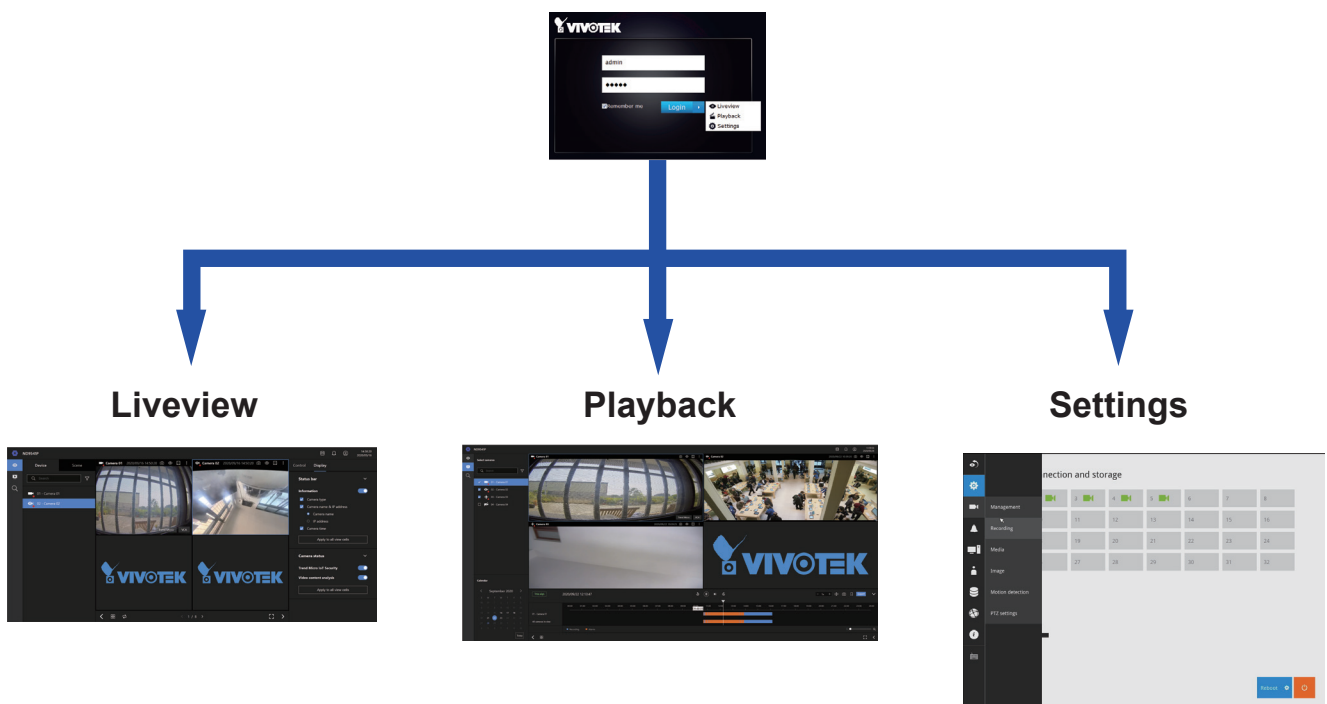


A Login failure can result from the incorrect user name and passwords.

Login options:

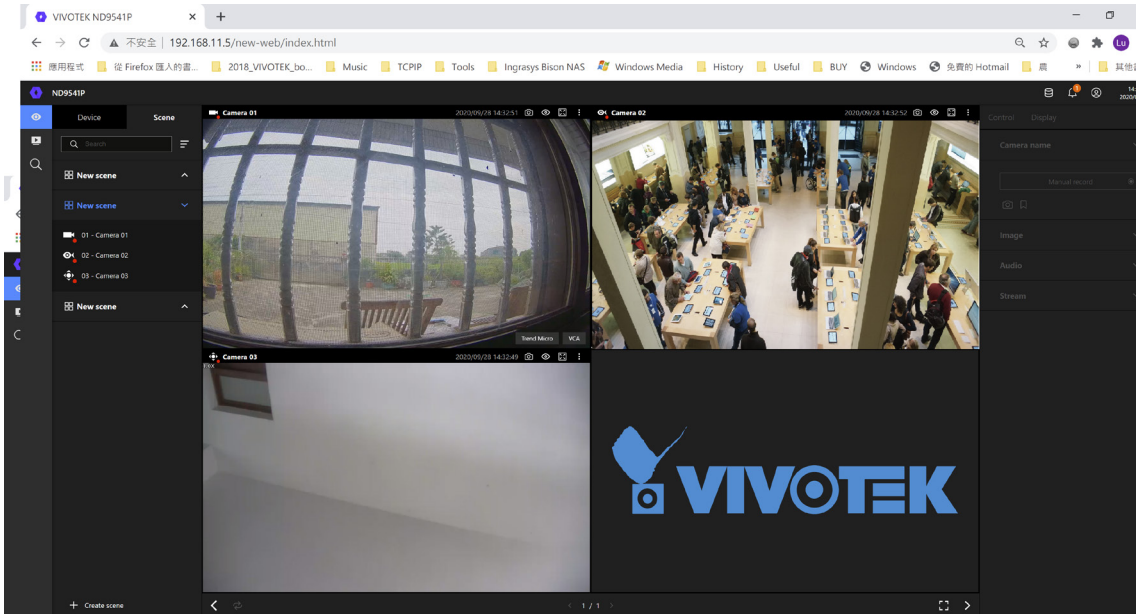
You may also mouse over the Login button to display the login options. You can then enter the Liveview, Playback, or Alarm search window.

The NVR system features a simple UI structure which consists of a Liveview window, a Playback utility, and a system Settings window. Once logged in, you can move from one window to another by selecting the hot link buttons on the upper right of the screen.



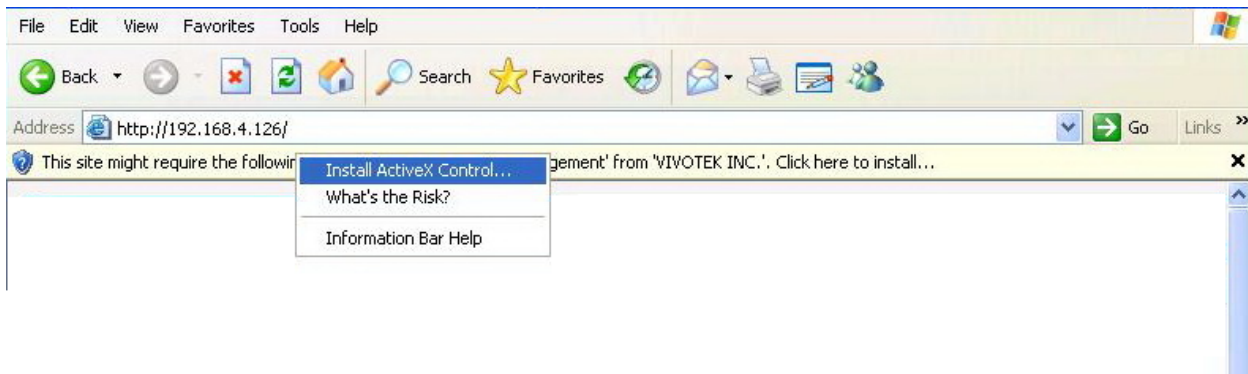
NOTE:

The NVR supports plug-in-free web sessions using Chrome browsers.

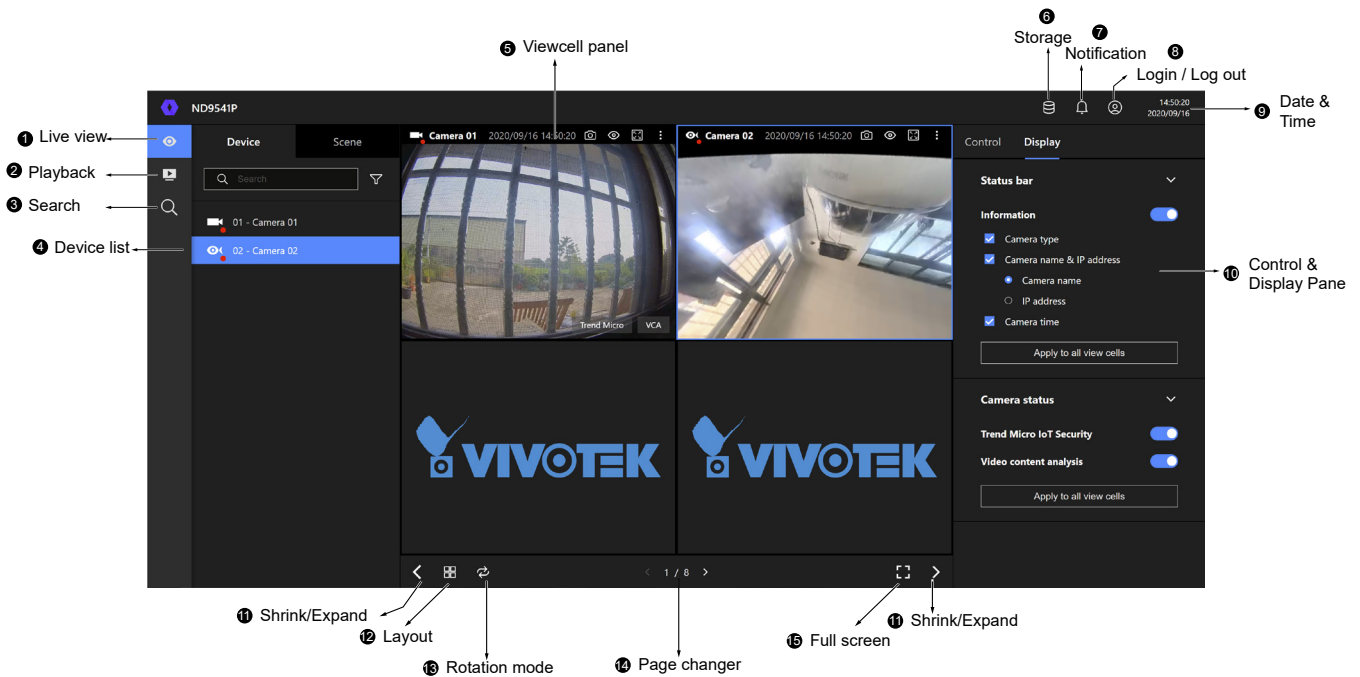


IMPORTANT:

1. Before operating the NVR, make sure you have properly installed hard drives and configured the storage volumes. Otherwise, you will not be able to operate some of the system's functionality.
2. When you log in to the Liveview or Playback interface to stream a live or recorded video, install the ActiveX plug-ins. If it does not prompt when you log in, install plug-ins when you try to playback a recorded video. You may then need to re-start the IE browser console.



1-2. Graphical Layout and Screen Elements - Liveview



Once you log in, the system defaults to the Liveview page, which provides access to other configuration utilities, live view screen, and other functional panels. The screen elements are described as follows:

Item	Name	Description
1	Live view	Provides a glimpse of all cameras inserted into your configuration.
2	Playback	Provides access to camera recordings.
3	Search	Provides access to the Alarm search panel.
4	Device list	All devices (cameras / video servers) that have been recruited into the configuration will be listed.
5	View cell panel	The video feeds from cameras will be placed into view cells.
6	Storage	Provides a glimpse of current storage usage.
7	Notification	System notifications including system events and alarm notifications.
8	Login/Log out	You can log out and log in again using another user role. You can switch to the original interface from here, too.
9	Date & Time	Displays date and time. You can click to enter the date and time setting page.
10	Control & Display pane	When a view cell is selected, the camera-specific control (such as PTZ) and display options will be available here.
11	Shrink / Expand	You can display or hide the side panes.
12	Layout	Provides functions to extend, rotate, and redo the layout.
13	Rotation mode	Click to enter the Rotation mode.

Item	Name	Description
14	Page changer	Click to move to the other layout page when your live views are distributed over many pages.
15	Full screen	Enters the full screen with only the live views.

Each panel will be described in further discussions.

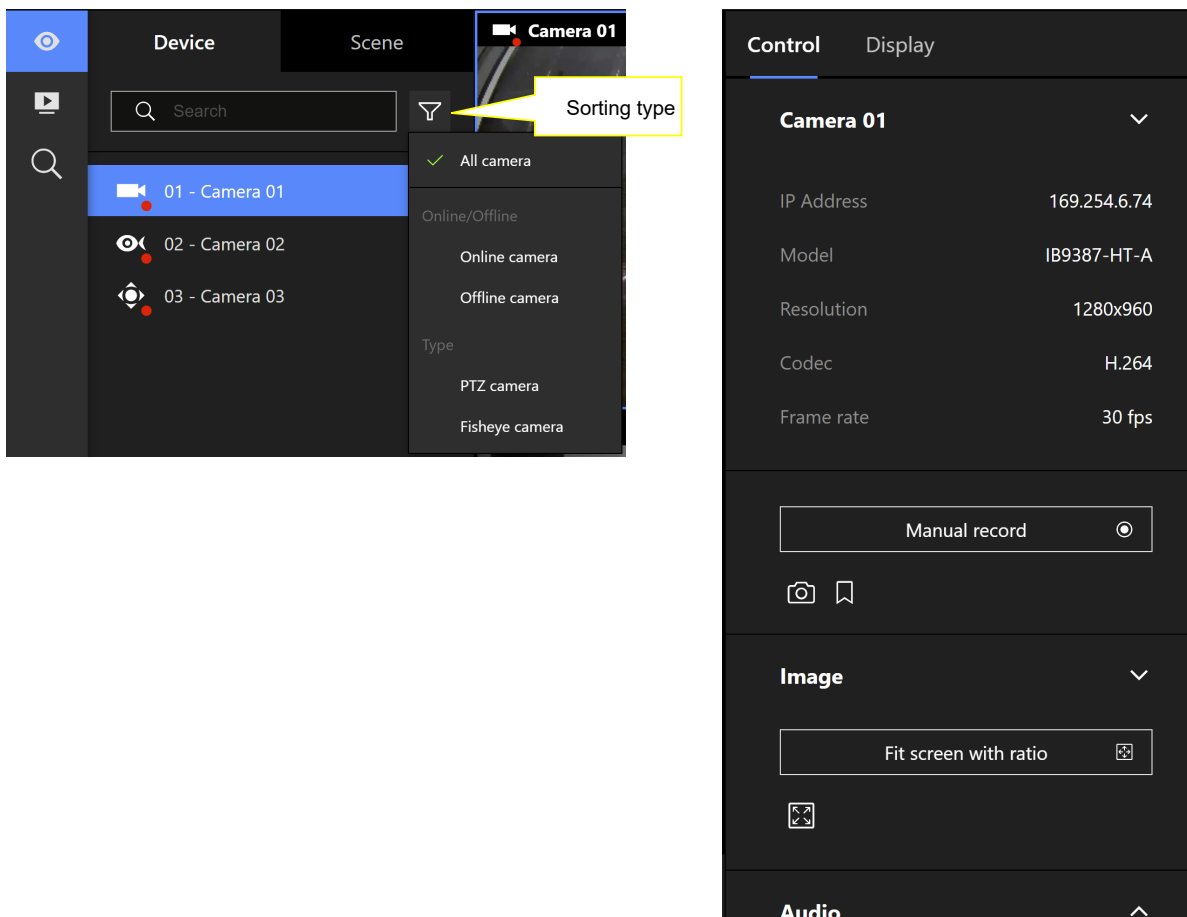
1-2-1. Device List Panel

The Device list displays the recruited cameras by the sequential numbering order you configured in the System Settings utility.

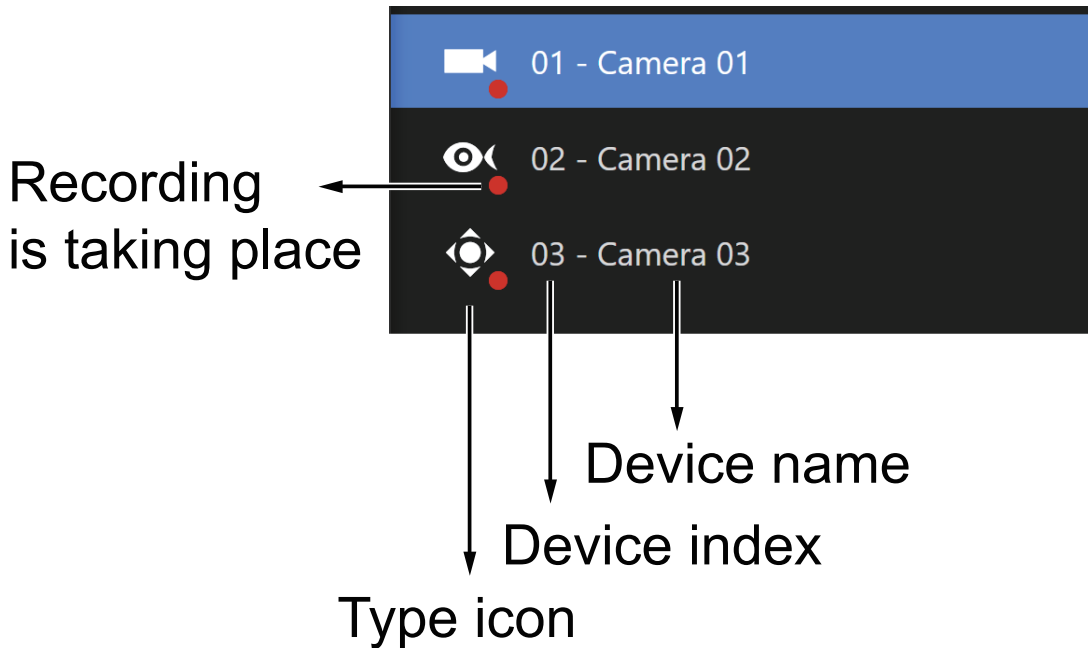
If a user logged in using a credential of a limited access, he may only see cameras that he can access instead of all of the cameras.

Camera Icon:



A mouse click on the camera name on the Device list brings forth the summary of IP address, model name, recording setup, DI/DO information, and other control elements on the right pane.



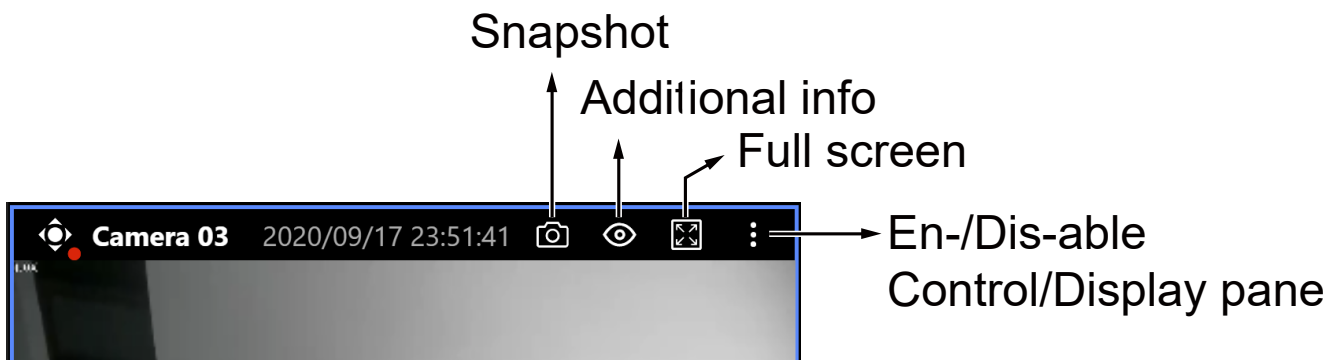
Once devices are added to the NVR, they will be listed. The device type will be automatically detected. Different types of devices will be given different types of device icons.



Different types of devices will be given different types of device icons. For example,

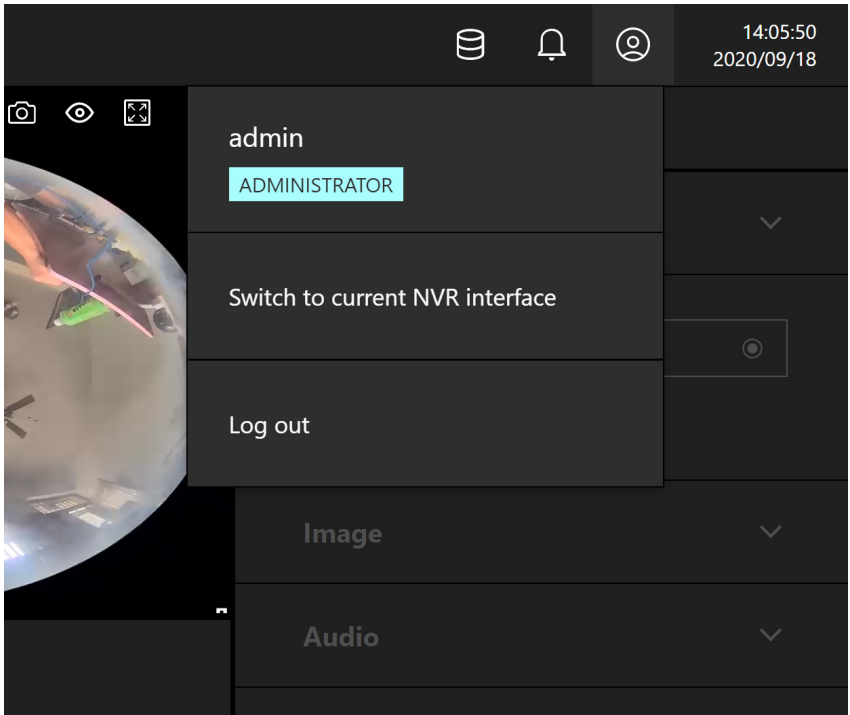
	Box or Bullet cameras.
	Fisheye cameras.
	PTZ cameras.

View Cell elements:



Currently this revision does not support the access to the Settings pages. Use Login > [Switch to current NVR interface](#) to access the Settings.

You can also access the Settings pages through the local console.



1-2-2. Layout

The screenshot shows a 'Layout template' dialog box with a grid of 18 layout options. The '2x2' option is selected. To the right of the dialog is a list of available layout templates.

1x1
2x2
3x3
4x4
1M+5
1M+7
1M+12
1P+3
1P+6
2P+3
1V+6
2V+3
3V

1x1
2x2
3x3
4x4
1M+5
1M+7
1M+5
1M+7
1M+12
1P+3
1P+6
2P+3
1V+6
2V+3
3V

Only an administrator can change and preserve a custom layout, and every user can designate a specific layout to be displayed when he/she logs in. The default layout for each user is stored in a browser's cookies.

The available layouts are categorized into 4 types: Equal, Panorama, Focus, and Vertical.

Equal: 1x1, 2x2, 3x3, 4x4.

Panorama: 1P(Panoramic)+6, 2P+3. (applies to fisheye cameras)

Focus: 1M+5, 1M+7, 1M+12.

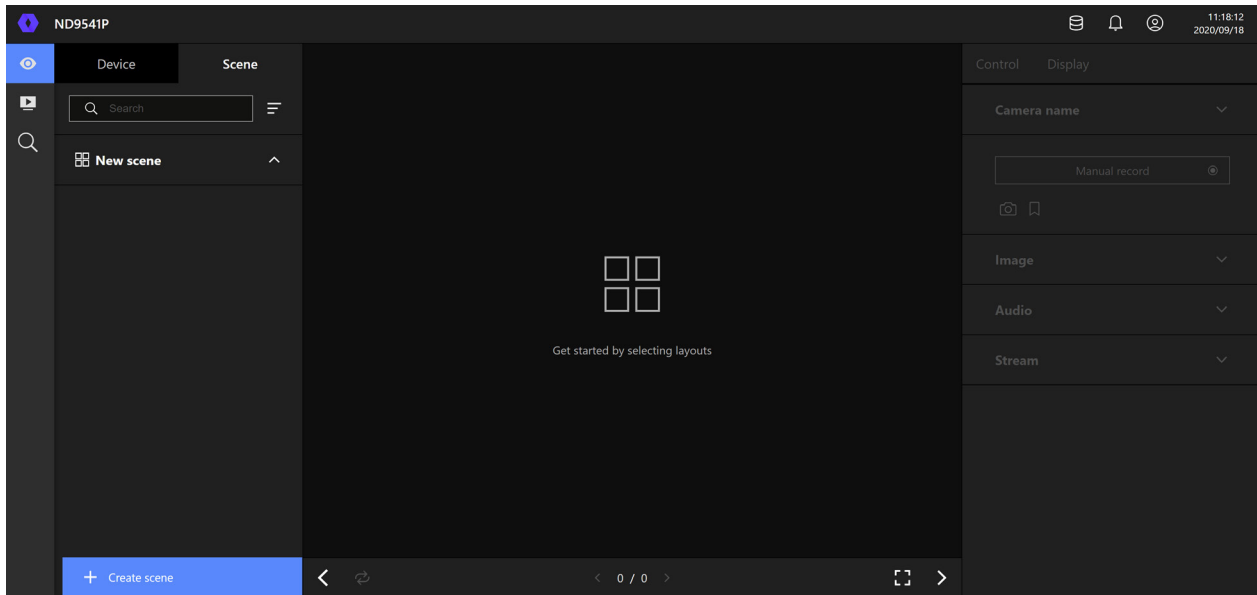
Vertical: 1V+6, 2V+3, 3V. (applies to corridor view)

Note that a user who did not log in as an administrator can change a layout, but his configuration changes (with cameras placed on view cells) **will not** be saved.

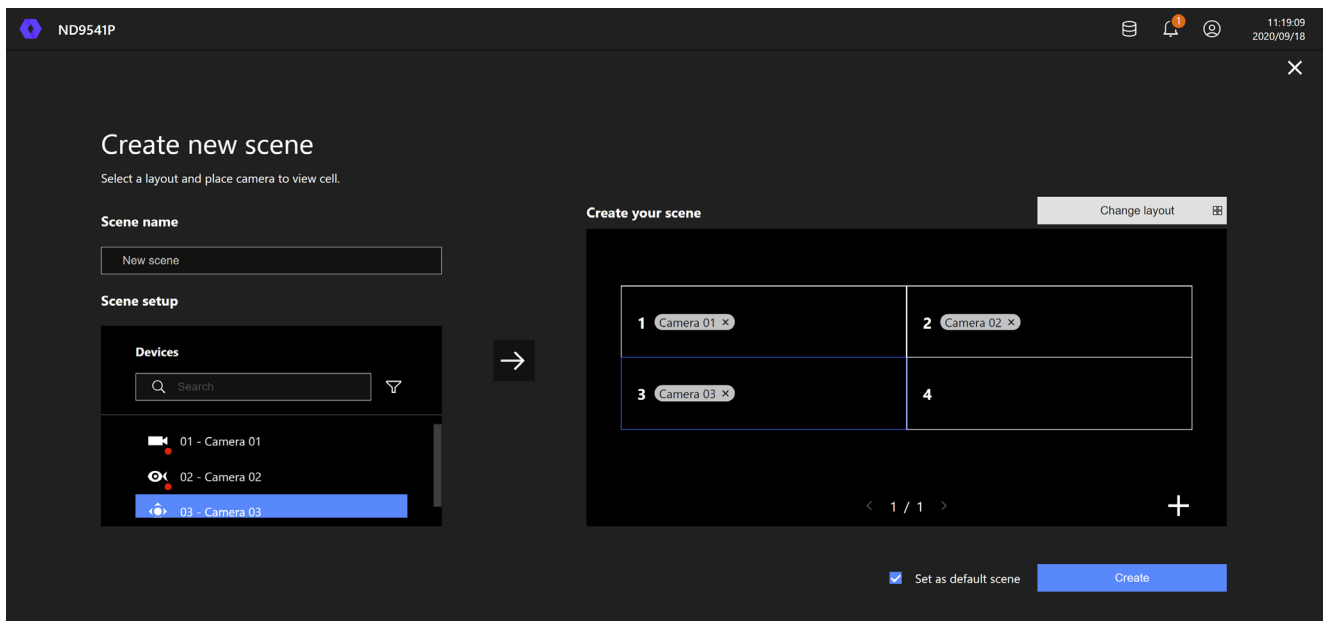
1-2-3. Scene

A scene allows users to gather the live views from multiple cameras together into a comprehensive glimpse of view. For example, several cameras may have been installed to cover a specific area.

To create a new scene, click on the Create scene button.



You can change layout, enter a name for the new scene, and click and drag cameras into the layout. When done, click the Create button.



In the Scene view, you can place 1 camera into multiple view cells. This applies when using cameras with a wide coverage area, such as fisheye or multi-lens cameras.


1-2-5. View Cell panel

A single view cell is shown below. Each view cell contains a video stream display area, information, and functional buttons. A view cell is displayed in Normal, Focused, or Maximized mode.

1. **A single click** selects a view cell from the View Cell panel, enables its function buttons, and turn it into the Focused mode.
2. **A double-click** maximizes the size of the view cell to the full of the panel.
3. **The 2nd double-click** shrinks the maximized view back into the focused mode.



Although the system automatically selects the video stream to display on the view cell, you can still manually select a different video stream from the Stream tab below.

To deselect a view cell and return to the normal view, click on the **Restore**  button at the lower screen.

Adding Cameras to View Cells

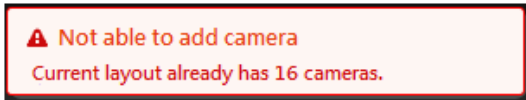
1. Click and drag a camera from the Device list to an unoccupied view cell.
2. Double-click a camera on the camera list. The camera will be added to the first available view cell.

To deselect a view cell and return to the normal view, double-click on the view cell. You can also click on another view cell to continue adding other cameras.

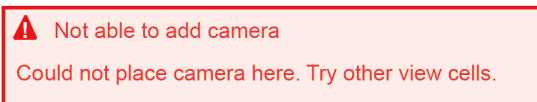
The system automatically adds cameras into view cells by their index numbers. If you prefer a different order and placement, use the **Scene** mode to create different placements.

Sometimes network problems can cause a view cell to be attempting to connect to a network camera. If the connection attempt takes a long time, it may result from network problems or incorrect configuration with video streaming. For example, you may have configured the camera to be streaming a 5MP stream. The NVR uses video stream #1 for recording, and stream #2 from cameras for live viewing. You should then open an individual web console to the network camera to change its video streaming configuration.

If the current layout already contain the max. number of cameras, e.g., 16 for the ND9441, the following message will prompt.



If you are using the 16-CH ND9441, there can be more than 16 view cells across multiple layout pages, e.g., on the second page of the 1M+12 layout. Placing a camera in the 17th to 18th view cells will bring out the following message.

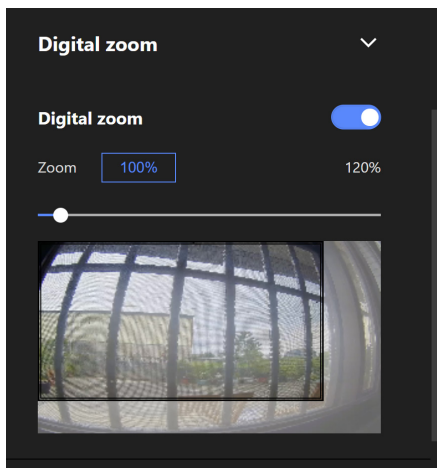
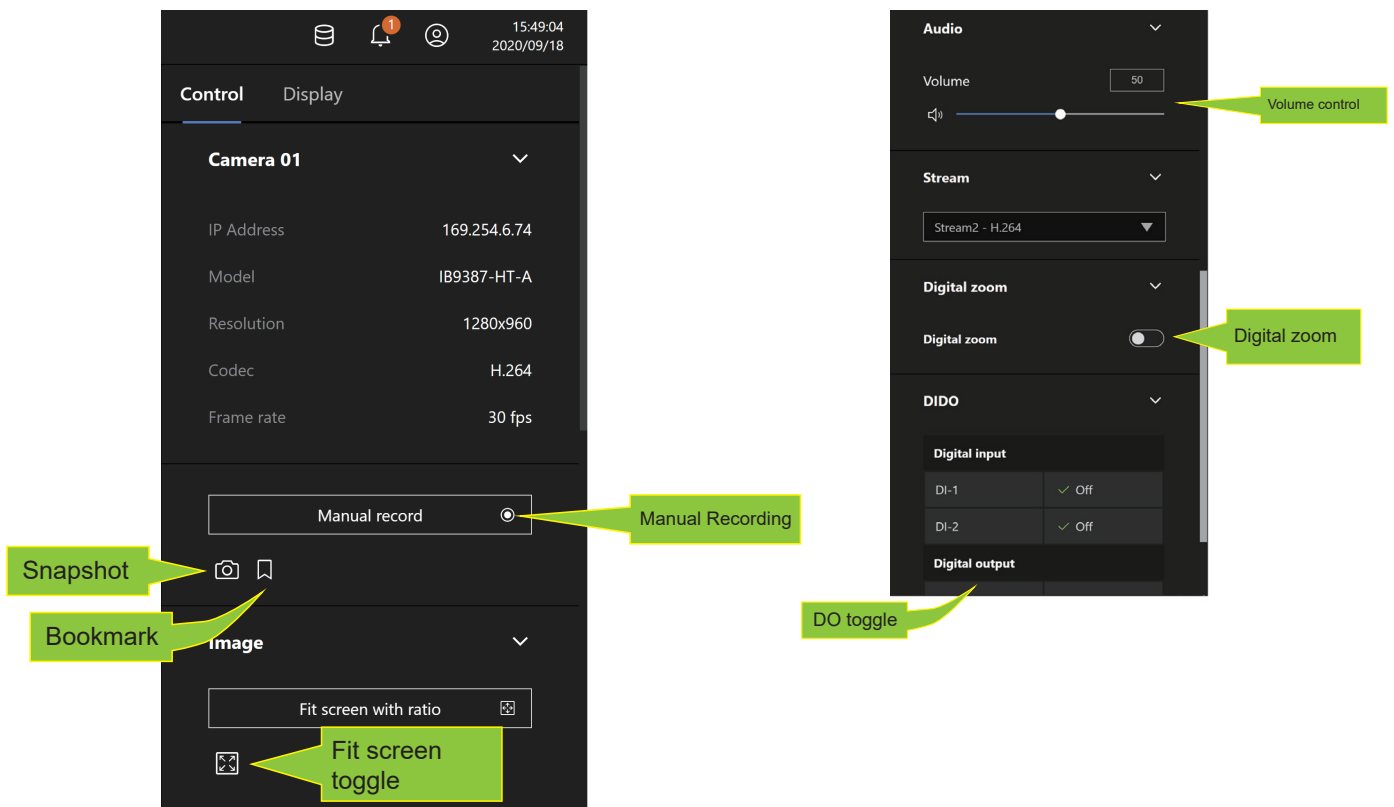


Control Pane

Click to select any of the view cells to activate its Control and Display panes.

You can exert the following:

1. View basic information such as the IP address, Model name, etc.
2. Start a manual recording.
3. Take a snapshot.
4. Place a bookmark if you find something of your interest. The bookmark is preserved as a one-minute footage along with a short description of a particular incident. The precondition of using this function is that the video stream, while you are watching it on the view cell, must be recorded to the NVR at the same time.
5. Tune the audio volume.
6. Select a different stream.
7. Enable the Digital Zoom (using the mouse wheel).
8. Manually toggle the Digital Output.

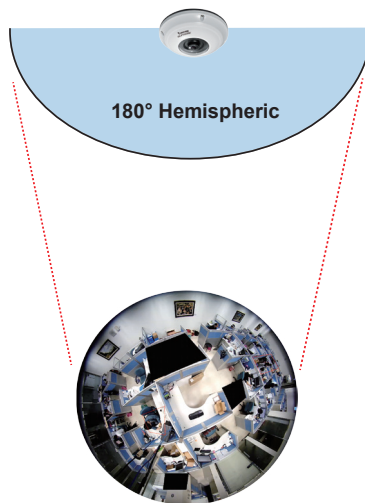


* For a **fisheye** camera, you can select a dewarp mode as a Regional view or a Panoramic view.

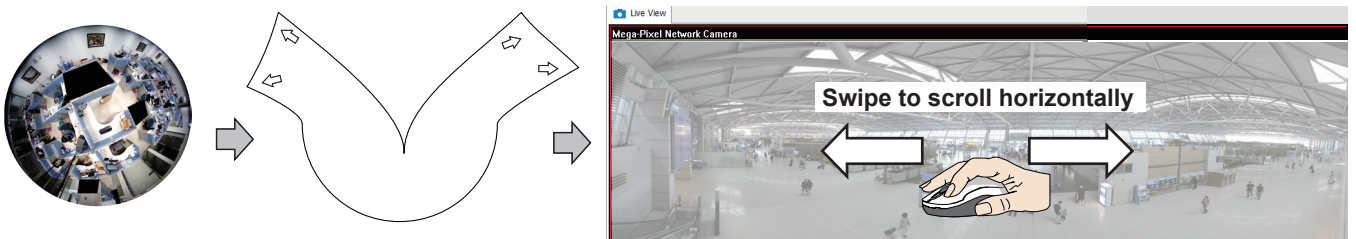


1O (Original view)

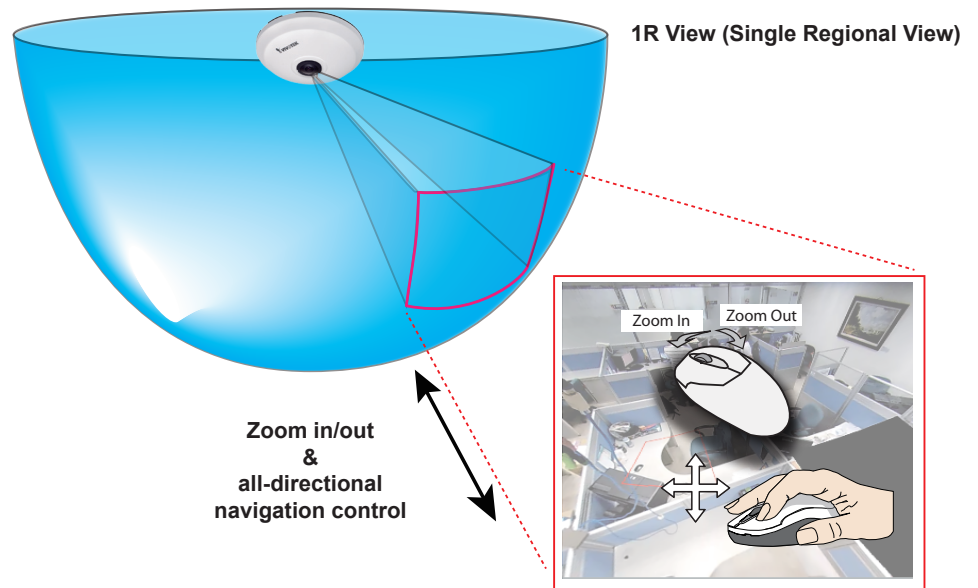
1O View (Original View)



1P (Panoramic view)



1R (Regional view)



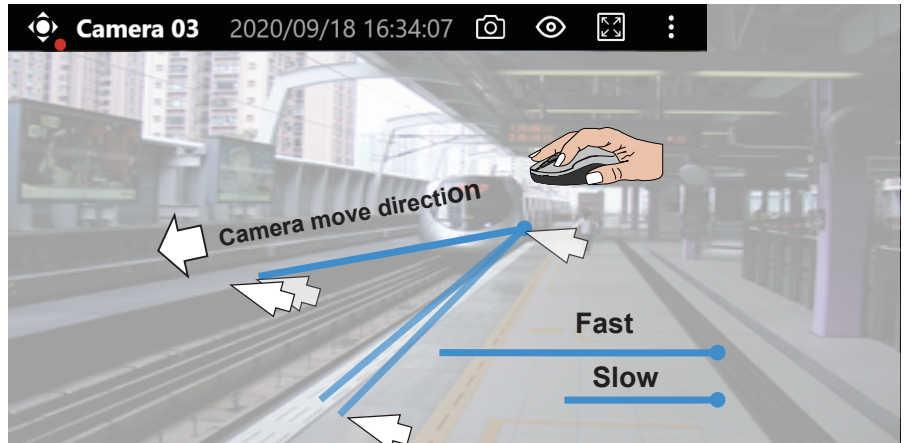
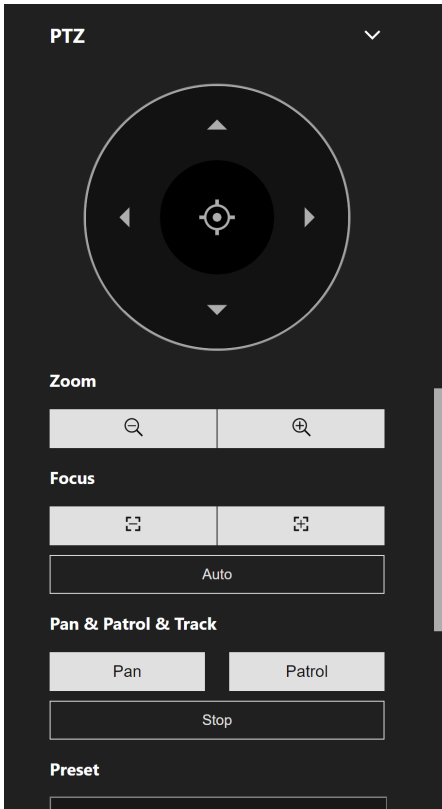
The 1R mode (or rectilinear) provides access to one image section within the hemisphere. You can zoom in or out (using the mouse wheel or PTZ panel) or travel through to other areas within the hemisphere using simple mouse clicks and drags. A single click on a particular object can bring the object to the center of your view window. Click and hold down the left mouse button, and you can swipe the view both horizontally and vertically.

Note that if your fisheye mounting type is set to the **Wall Mount** type, your screen control in the view cell will be limited to 90° pan and tilt. Make sure your mounting type and camera settings have been properly configured.

Because fisheye lens can cover a wide surveillance area, you can insert a fisheye camera into multiple view cells, and let different regional views display in these view cells. In this way, you can have a glimpse of multiple areas of interest, and the configuration of these different view windows will be preserved when you save your layout settings.

* For a **PTZ** camera, scroll down to display the PTZ control panel where you can zoom, focus, pan, patrol, or move the camera lens.

On a live view of a PTZ camera, you can hold down the mouse button and move the cursor towards the direction you want to move. The mouse control is automatically enabled for PTZ cameras. As depicted below, the farther you move along the screen, the faster the lens module moves.



NOTE:

Bookmarks will be erased if the user/system erases the video clips they were appended to. For example, system will recycle storage space by deleting old videos along with their bookmarks.

Auto pan/patrol controller: These buttons provides pan and patrol functions provided that preset locations have been configured on the camera. For a speed dome camera, the pan command tells the camera to continuously pan 360 degrees until it is stopped by a user command.

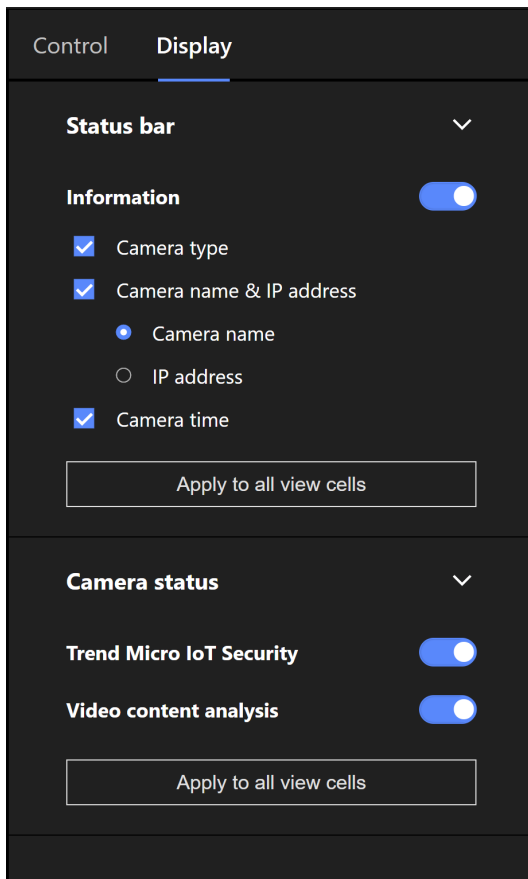
The **Stop** button ends a pan or patrol tour.

Display Pane

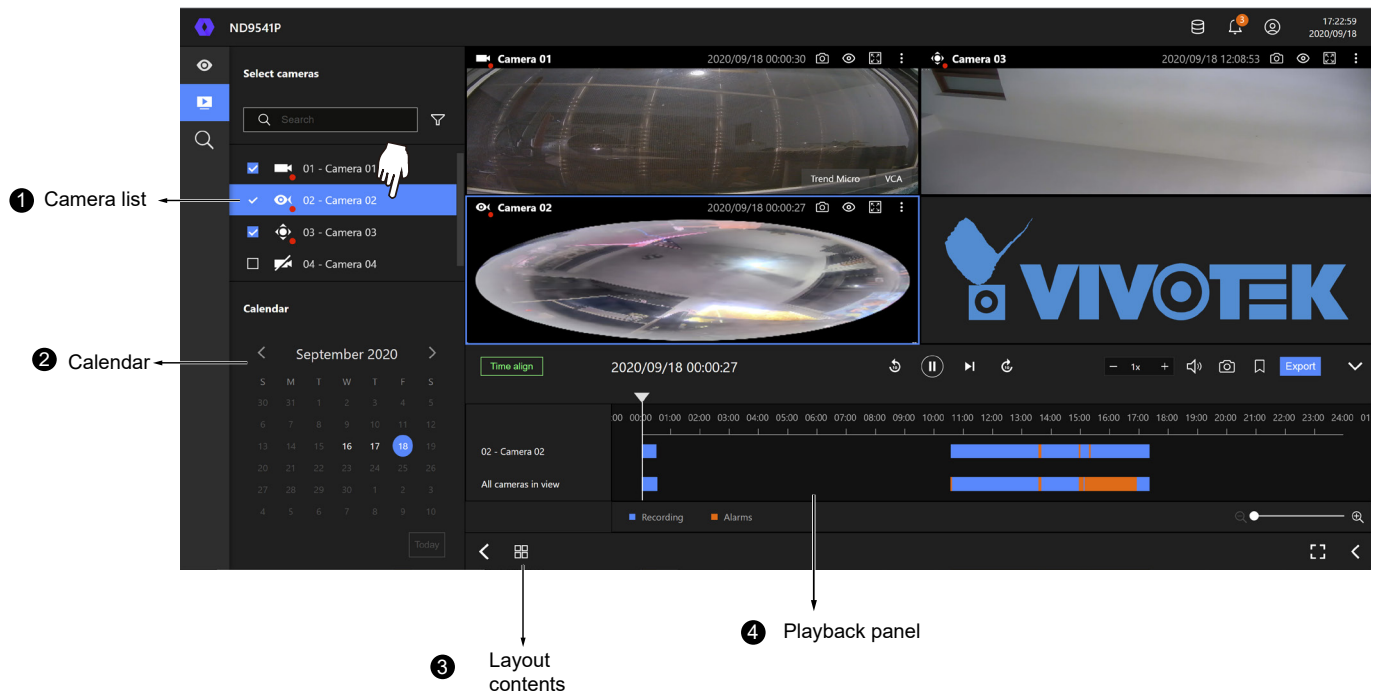
On the Display pane, you can configure the following:

1. Enable or disable the display of the Camera type, the small icon on the upper left of view cell.
2. Camera name and IP address. Select one or both.
3. Displays camera time.
4. Displays Camera status: Trend Micro IoT Security and Video content analysis. If your camera supports these features, you can choose to display them on the live view.

You can enable the display features on all view cells using the Apply to all view cells button.



1-3. Graphical Layout and Screen Elements - Playback



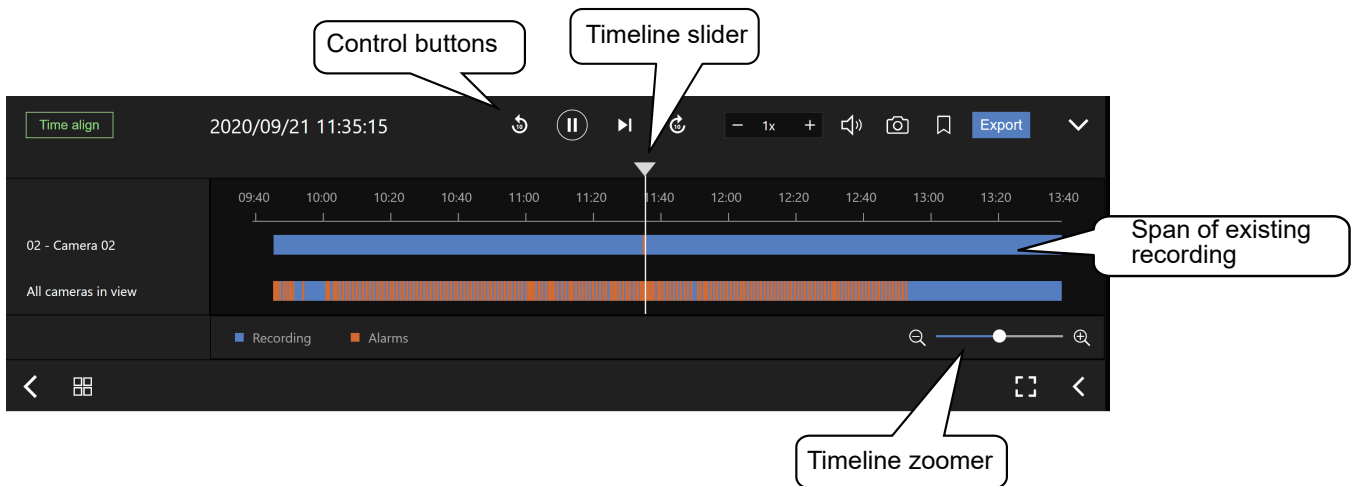
The screen elements of the **Playback** window are described as follows:

Item	Name	Description
1	Camera List	Provides a glimpse of all cameras that have recorded data. Basic information is also provided along with a screenshot.
2	Calendar	Shows when the recording took place, and thus enables users to quickly locate a specific part of recording in history.
3	Layout contents	Provides functions to extend, rotate, redo the layout, and the synchronous playback.
4	Playback panel	Displays the playback functions. Snapshot, bookmark, and export functions are also available on individual view cells.










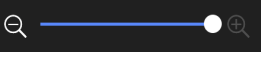
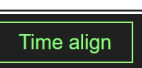
To begin playback and search for past recordings,

1. Single click to select a camera. You can select multiple cameras.
2. The **Calendar** panel will display the days video recording actually took place. And those days will be highlighted by a lighter text. Click to select the days with recordings.

Playback Panel



The time slide bar enables quick skimming through the recording. Its functional buttons are described as follows:

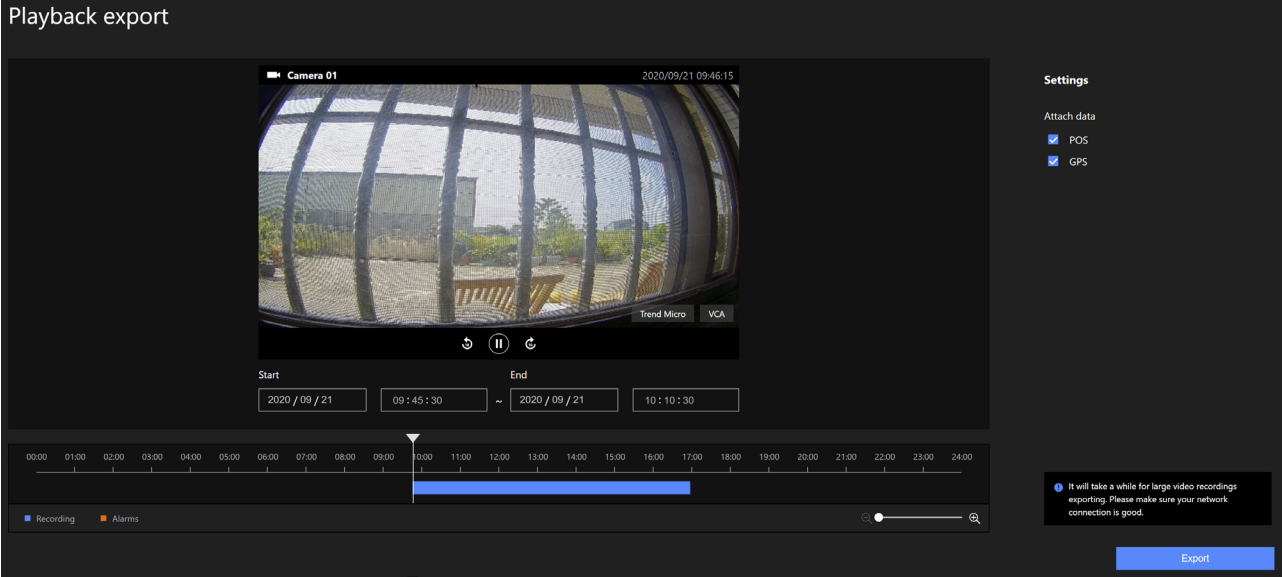
Buttons	Description
	Pause
	Play. This button is available after you manually pause a playback.
	Next frame. After you paused a playback, use this button to browse video frame by frame.
	Plays back 10 seconds before.
	Plays back 10 seconds later.
	Speeds up or speeds down. Speeds down by 1/2. The slowest speed is 1/8. Speeds up. Increases the playback speed, to 2x, 4x, 8x, 16x, and then to a maximum of 32x.
	Playback volume tuner.
	Takes a snapshot of the current playback screen.
	Places a bookmark on the current recording.
	Timeline zoomer. Use the zoomer to zoom in for more precise skimming.
	Lets the cameras in the scene play the recording of the same time.

Export

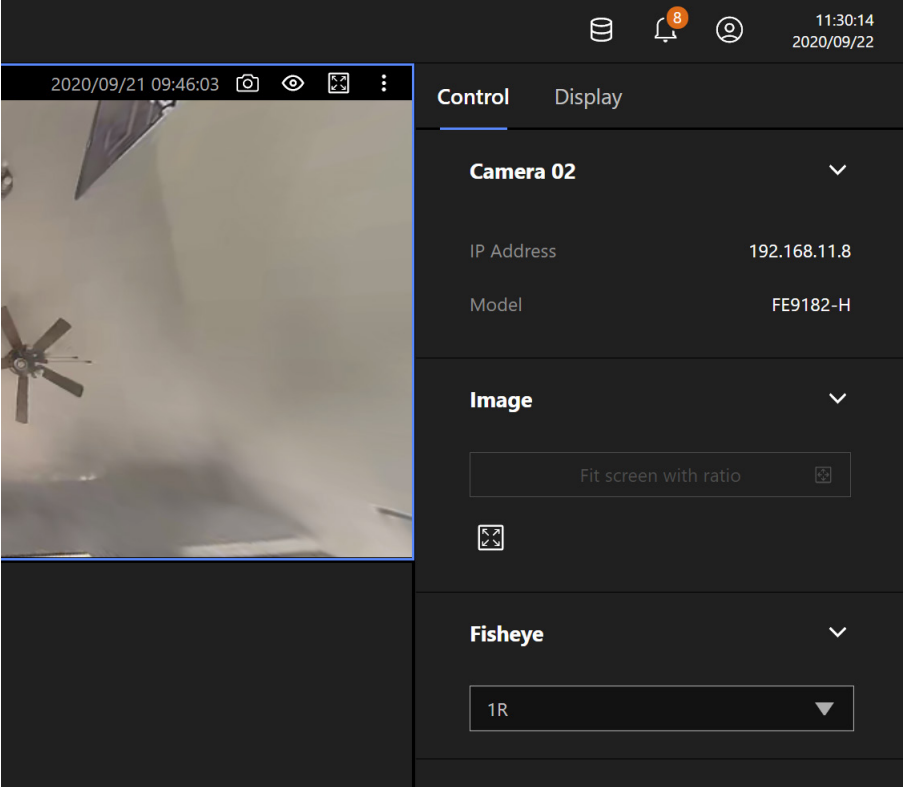
When you find something of your interest, use the Export function to export a video clip.

Select the length of the video clip using the Start and Stop time menus below. Depending on the length of clips, an export can take a while to finish.

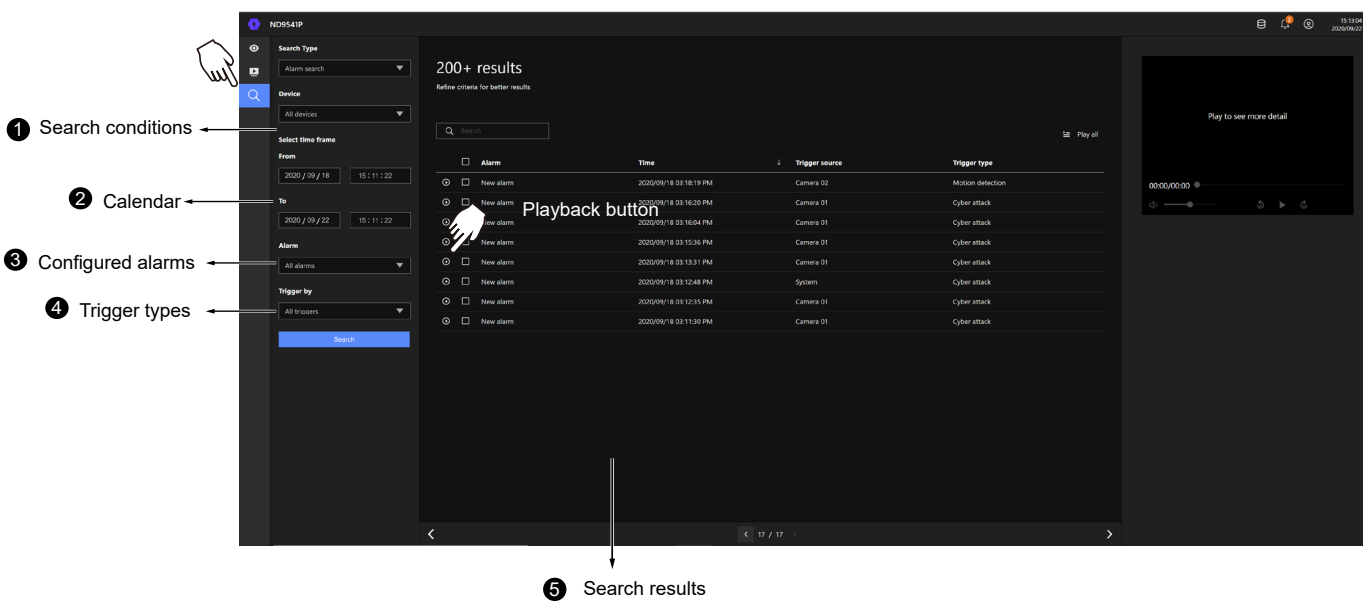
The default export length is 30 minutes.



Note that for specific cameras, such as fisheye cameras, you can click its view cell to display its control options such as the dewarp type.



1-4. Graphical Layout and Screen Elements - Search

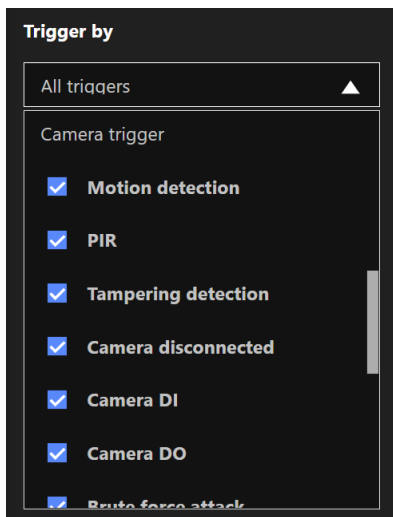
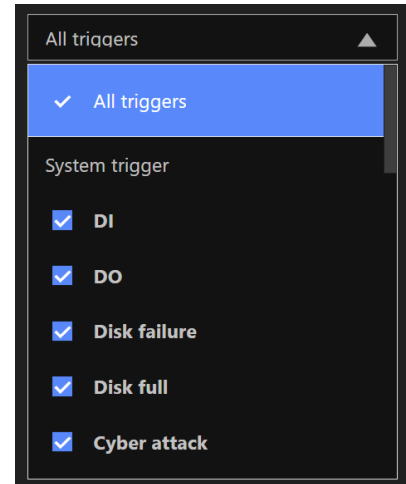
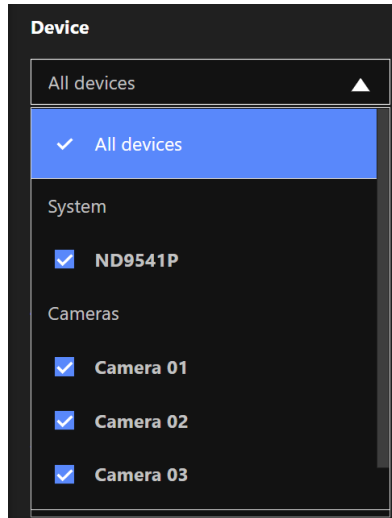
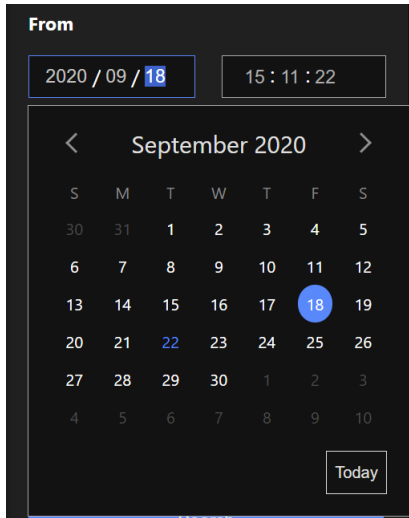


The screen elements of the **Playback** window are described as follows:

Item	Name	Description
1	Search conditions	The whole panel provides access to search conditions. You can select Devices, time span, pre-configured alarms, or trigger types.
2	Calendar	Shows when the possible time of occurrence of alarms.
3	Configured alarms	Select the alarms you previously configured on the system.
4	Trigger types	There are many trigger types including system event triggers, cyber attacks, DI/DO, or the numerous VCA detection triggers.
5	Search results	The results are displayed by Alarm name, Time of occurrence, Trigger source, and the Trigger type.

To begin playback and search for past recordings,

1. Single click to select a camera. You can select multiple cameras.
2. The **Calendar** panel will display the days video recording actually took place. And those days will be highlighted by a lighter text. Click to select the days with recordings.



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AMR-NB Standard

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