

# SSM Console Client

## User Manual

VER 2.13

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## About the User Manual

This document contains the instructions for the operator of the **SSM Console Client** program. Please read this User Manual before using the product to ensure correct usage.

- This manual explains how to use the product based on the default values and the default screens.
- The information in this manual may vary, depending on the product's software update and our policies, and is subject to change without notice to the user.

## About Target Readers

This manual contains information for the operator using **SSM Console Client** program.

- For details on how to install and set this product, please refer to the separate **Administrator Manual**.
- You can download the **Administrator Manual** from Hanwha Vision's product homepage (<http://www.HanwhaVision.com>).

## About Product Usage

Users of this product can perform the following operations:

- Monitoring the network devices registered at **SSM Core Server** in real time;
- Searching or playing the videos saved in the server and network storage devices;
- Monitoring the real-time events that occurred in the network devices or searching the event logs.

Before using this product, please make sure that the product is the latest software version. You can visit Hanwha Vision's product homepage (<http://www.HanwhaVision.com>) to check and download the latest software version.

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# Learn about Screen Configuration

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When you run the **SSM Console Client** program, it displays the monitoring screen. You can use the monitoring screen to perform various functions.



## NOTE

- If you exit the program and resume it, you will see the last menu opened before exiting the program.
- You can change the startup option for the program using the path below:  
**SSM Console Client > Setup > General > Startup option**

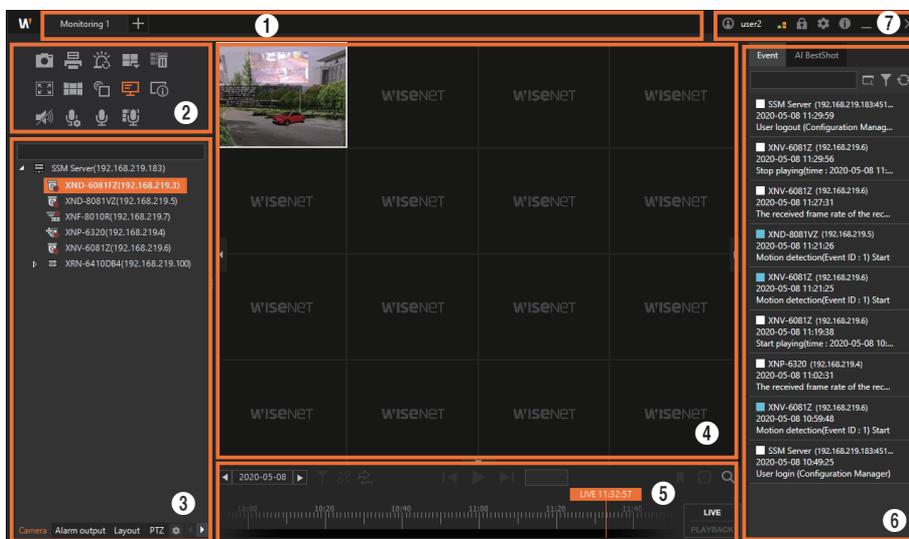
# Learn about Screen

SSM Console Client screens are configured as follows:



## NOTE

SSM Console Client screens may vary in configuration, depending on the menu tab you select.



No.	Screen Configuration	Detailed Description on Functions
1	Menu tab bar	You can see all the menu tabs that are currently open.
2	Function buttons	You can control the camera videos and audio, and split the video screens. <ul style="list-style-type: none"> <li>The configuration may vary depending on the menu tab you select.</li> </ul>
3	Tree tab	You can see the tree for camera, alarm output, layout, and bookmark. You can also control the videos of PTZ Cameras.
4	Video window	You can monitor the videos being recorded by the camera in real time. You can also search or play the videos saved in the server and network storage devices.
5	Timeline	You can see a timeline of recorded videos while the program is in Playback mode.
6	Real-time events	You can see the real-time events that have occurred on your device. <ul style="list-style-type: none"> <li>The configuration may vary depending on the menu tab you select.</li> </ul>
7	Add-ons	You can use the add-ons the program provides.

# Learn about Menu Tab Bar

## Menu Overview



### NOTE

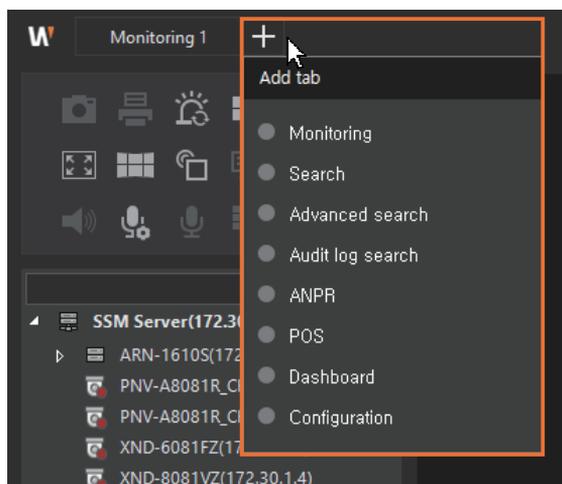
The **SSM Console Client** program consists of menu tabs.

- You can freely move among the menu tabs to select the desired menu item.
- You can separate a page from the menu tab and run it like a separate program.
- You can insert a new page into the menu tab.

<b>Monitoring</b>	You can monitor a live camera feed and an event video in real time. You can also search or play the videos saved in the server and network storage devices.
<b>Search</b>	You can search and play the event logs that occurred on your devices. Also, by connecting to an AI camera, you can play videos or search for images in various conditions such as people, face, vehicle, vehicle number.
<b>Advanced search</b>	You can search the thumbnails created at the moment when a motion detection event occurred in the recorded video. You can also search for people passing through virtual lines set on the recorded video, or search for people who are intruding into or loitering within a specific area.
<b>Audit log search</b>	You can search audit logs from your device.
<b>ANPR</b>	By linking with ANPR camera, you can monitor videos in real time, and search or play any videos as you like. Also, you can register/delete vehicles, edit the registered vehicle information, and check the management history per vehicle. <ul style="list-style-type: none"><li>• ANPR menu is available for use after registering your ANPR license.</li></ul>
<b>POS</b>	You can monitor the data and the camera video of the POS device connected to the NVR in real time. You can also search for the saved POS data or play the video of the camera.
<b>Dashboard</b>	You can monitor the status of <b>SSM Core Server</b> system or the registered device.
<b>Configuration</b>	You can configure and manage the <b>SSM Core Server</b> system.

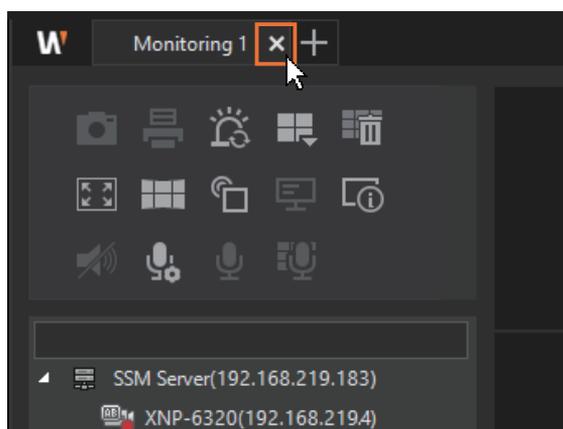
## Open a Menu Page

To open a menu page, click **+** at the top left corner of the program, and select the desired menu in the **Add tab** dialog box.



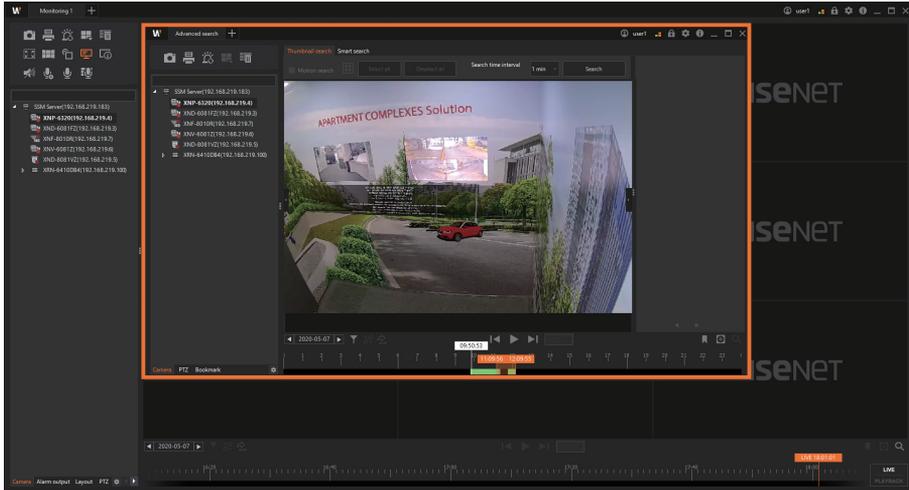
## Close a Menu Page

To close a menu page, click **X** that appears when you hover the mouse cursor over the menu tab.



## Separate a Menu Page

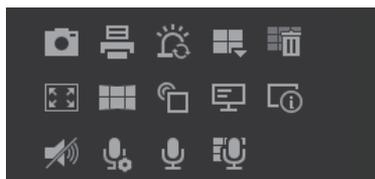
Drag and drop the menu tab to separate a menu page.



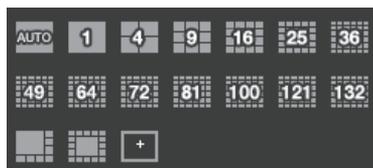
### NOTE

- You can freely move and insert the separated menu pages between different menus.
- The separated menu pages can be used as if they were separate programs.

# Learn about Function Buttons



	You can capture videos of the selected tiles.
	You can print videos of the selected tiles.
	You can remove all alarm displays of the monitored video tiles.
	<p>You can change the screen split of the video window.</p> <p>Clicking the <b>AUTO</b> button will automatically set the screen split of the video window.</p> <p>Click the <b>+</b> button to add User Patterns.</p>
	You can remove all of the monitored video tiles.
	You can view the video window in full screen on the monitor.
	You can open or close the Virtual Matrix menu.
	You can set whether or not to enable event spot.
	You can show or hide the OSD information on the video.
	You can check the video output information.
	You can listen to the audio received from the camera or adjust the audio volume.
	You can audio-stream by playing the audio source set by the operator.

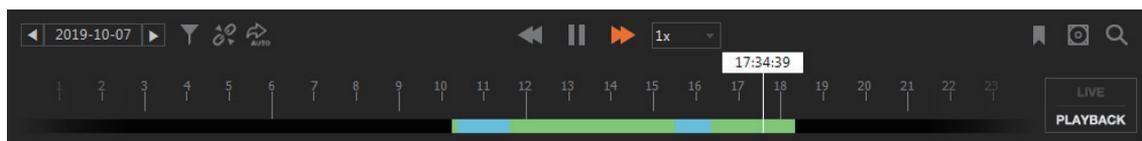


	<p>You can speak into the microphone on the camera of the selected tile. However, "Speak into the microphone" is only available for cameras that support microphones.</p>
	<p>You can speak using the microphone to all cameras (max 16 cameras).</p>

## Learn about Tree Tab

Camera	You can see the list of cameras registered in SSM.
Alarm output	You can see the list of alarm output, or control the alarm output.
Layout	You can see the list of layouts available in SSM, or create user layout.
PTZ	You can control the videos of PTZ Cameras.
Bookmark	You can see the bookmark tree you added in Playback mode.
	You can show or hide the menu on the tree tab. You can set the display criteria for the device list displayed in the tree.

# Learn about Timeline



	You can search the recorded videos of the desired date from the calendar that appears when clicking the date.
	You can search the recorded videos by filtering by event item.
	You can synchronize the playback time of multiple playback videos before playing or release playback sync. (Playback sync/Individual playback)
	You can only play back event video recordings displayed in the timeline through event filtering. (Play filtered section/Play all)
	You can move the recorded videos to the previous frame.
	You can play the recorded video.
	You can move the recorded videos to the next frame.
	You can play the video in fast backward.
	You can stop the video playback.
	You can play the video in fast forward.
	You can bookmark the video section of interest while in Playback mode.
	<p>You can export the recorded videos to a file.</p> <ul style="list-style-type: none"> <li>Export video: Export the recorded video of a certain section to a file.</li> <li>Export video masking: Export the video after setting some areas that need privacy protection in the recorded video as a privacy area.</li> <li>Export one-time schedule: Export the video on the reserved schedule.</li> <li>Export schedule: Automatically export the video recording from the previous day at the specified time on the next day on a daily basis.</li> </ul>
	You can go to the Advanced search menu.
	<p>You can switch Monitoring mode to Playback or Live mode.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>Switching Monitoring mode changes the mode of all video tiles collectively.</p> </div>

# Learn about Menu Window

The screen configuration of the menu window may differ from menu to menu. For more information, please refer to the screen configuration by menu.

## Learn about Add-ons



	<p>When you select <b>Change Password</b> from the list box, you can change the password of the logged-in user.</p>
	<p>When you select <b>Logout</b> from the list box, you can log out.</p>
	<p>You can check the fan, redundancy power supply system, and RAID status. If alarm is triggered due to a hardware problem, you can turn it off by clicking .</p> <div data-bbox="355 898 699 1116" data-label="Image"> </div> <ul style="list-style-type: none"> <li>• When an error occurs,  and  appear in turn; when the error is resolved,  is displayed.</li> <li>• OK state:  RAID </li> <li>• Error state:  RAID </li> </ul>
	<p>You can check the performance of a computer that <b>SSM Console Client</b> is installed.</p> <div data-bbox="355 1199 699 1396" data-label="Image"> </div> <ul style="list-style-type: none"> <li>• CPU usage: Displays the CPU usage of the current PC.</li> <li>• Memory usage: Displays the memory usage of the current PC.</li> <li>• Network bandwidth: Displays the amount of network input/output data of the current PC.</li> <li>• Scheduled export status: Displays the scheduled export action status.</li> </ul>

	<p>You can set a screen lock.</p> <p>Once button is clicked, the mouse cursor will changed to a locked shape and will be set as locked. To undo the locked setting, click on the screen and enter the password to log in. From full screen mode, users can set or undo the screen locks by pressing <b>Ctrl + L</b>.</p>
	<p>You can set <b>SSM Console Client</b>.</p>
	<p>You can check the <b>SSM Console Client</b> information.</p>
	<p>You can minimize the <b>SSM Console Client</b> screen.</p>
	<p>You can maximize the <b>SSM Console Client</b> screen.</p>
	<p>You can exit <b>SSM Console Client</b>.</p>

# Get Started

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Learn how to run and log in to **SSM Console Client** program.



## NOTE

To start **SSM Console Client** program, **SSM Core Server** must be operating normally.

## Run the Program

To run **SSM Console Client** program:

- Double-click the **SSM Console Client** program icon  on the desktop.
- You may also select  > **Wisenet** > **SSM Console**.

## Log in to the Program

When you run the **SSM Console Client** program, it displays the login screen as below.



## NOTE

- To log in to the **SSM Console Client** program, the status of all services of **SSM Core Server** must be displayed as **Started**.
- The service status of **SSM Core Server** can be checked in **SSM Service Manager's Service Status** tab.



1. From the **Server** drop-down list, select **SSM Core Server** to connect to the **SSM Console Client** program.

**NOTE**

- If you can't find the server to connect in the drop-down list, click the  button to the right of the drop-down list, select  of the server to connect, and click **OK**.
- For more details about setup, please refer to the **Administrator Manual** or product homepage (<http://www.HanwhaVision.com>).

2. Enter your ID and password to log in.

**NOTE**

- If **Save ID** is selected, the **ID** entered in the login window will appear in the next access.
- If **Auto login** is selected, it is automatically logged in to the program in the next access.

3. Click the **Login** button.

**NOTE**

- If you fail to log in, please check if the service status of the server is displayed as **Started**.
- When you fail to log in 3 times or more, **Login restrictions** status is set to block login for 30 seconds.
- The **Login restrictions** setting can be changed in the menu under the **Configuration** as below:  
**Configuration > System > Maintenance > Domain > Login restrictions**
- Please change your **Password** periodically for security.

# Monitor

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You can monitor the multiple camera videos registered in **SSM Core Server** in real time.

In addition, you can search and play the recorded videos stored in **SSM Core Server** and network storage devices.

## Open the Monitoring Menu Page

1. Run **SSM Console Client**. For more information, please refer to [Run the Program](#).
2. Enter your ID and password in the Login dialog box, and click the **Login** button.



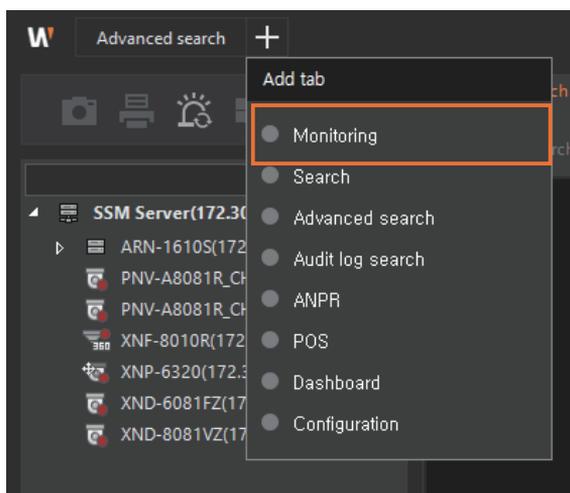
- When you log in normally, the following initial screen appears.



#### NOTE

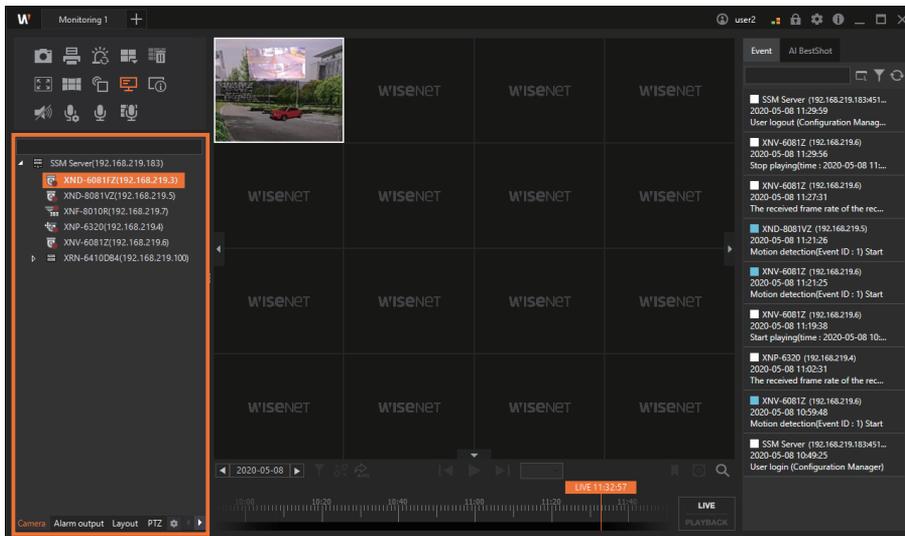
**SSM Console Client** screens may vary in configuration, depending on the menu you select.

3. If you can't find **Monitoring** tab at the start of the program, click the [+] button at the top left of the program, and select **Monitoring** from the **Add tab** dialog box.



## Learn about Tree Tab

Learn about the screen configuration and key functions of the **Tree tabs** you mostly use on the program's menu page.



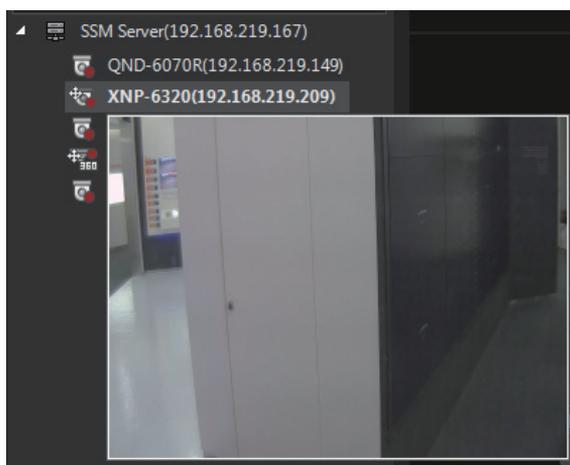
Camera	You can see the list of cameras registered in SSM.
Alarm output	You can see the list of alarm output, or control the alarm output.
Layout	You can see the list of layouts available in SSM, or create user layout.
PTZ	You can control the videos of PTZ Cameras.
Bookmark	You can see the bookmark tree you added in Playback mode.
	You can show or hide the menu on the tree tab. You can set the display criteria for the device list displayed in the tree.

## Learn about Camera Tab

You can see the list of devices registered in SSM. You can preview the video on the camera, change the device's connection status, or check the properties of the device. In addition, you can access the device web viewer to change device settings remotely.

### ■ Preview Camera Video

1. Click the **Camera** tab.
2. Hover the mouse pointer over the desired camera from the camera tree.
3. Check the thumbnails of the camera.

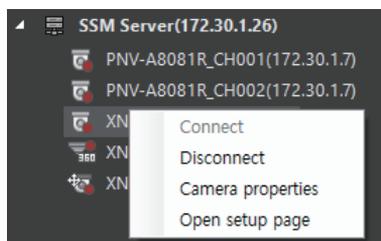


### NOTE

If the device does not support preview, then the **No preview support** tooltip appears when you hover the mouse pointer over it.

### ■ Connect or Disconnect the Device

1. Click the **Camera** tab.
2. Select the desired device from the camera tree.
3. Right-click and select **Connect** or **Disconnect**.



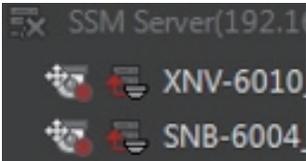
■ **See the Device or Camera Properties**

1. Click the **Camera** tab.
2. Select the desired device from the camera tree.
3. Right-click and select **Device properties** or **Camera properties**.

■ **Open the Device or Camera Setup Page**

1. Click the **Camera** tab.
2. Select the desired device from the camera tree.
3. Right-click and select **Open setup page**. The device's web viewer appears in the browser.

■ **Learn about Camera Icon**

	This is a normal camera that does not support PTZ functions.
	This camera supports PTZ functions.
	Recording a real-time video of the camera in progress.
	It is displayed when the operator manually disconnects the camera.
	It is displayed when the network connection with the camera is lost.
	It displays a Box camera.
	It displays a PT driver camera.
	It displays a Fisheye camera.
	Display live cameras. (Videos cannot be recorded and can only be viewed live.)
	It will be displayed if the video is being recorded on internal SD cards.
	 <p>When a failover on <b>SSM Core Server</b> occurs, the failover icon appears to the right of the camera icon. Failover-occurred <b>SSM Core Server</b> is displayed as disconnected.</p>

## Learn about Alarm Output Tab

You can display and control the lists of alarm output for the devices registered in **SSM Core Server**. Only the alarm output of devices that support alarm output is displayed.

### ■ Enable/Disable Alarm Output

1. Click the **Alarm output** tab.
2. Select the desired alarm output in the alarm output tree.
3. Right-click and then click **Alarm output on** or **Alarm output off**.

## Learn about Layout Tab

You can monitor the camera video by splitting the video screen in various ways. You can set the camera video array in **Shared layout**, **Map layout**, and **User layout**. In addition, when you use sequence function, you can monitor multiple layouts in order.

### ■ Learn about Shared Layout

You can monitor the camera video with a layout set in Configuration. You can change shared layout settings in **Configuration > Design > Layout**.



#### NOTE

Shared layout is available for the entire users registered in the same domain.

### ■ Learn about Map Layout

You can monitor the camera video on the map or the plan. You can change map layout settings in **Configuration > Design > Map**.

### ■ Learn about User Layout

You can monitor the camera video with a layout you created.



#### NOTE

User layout is only available for logged-in user and cannot be shared with other users.

### ■ Learn about Sequence

You can monitor the camera video after placing multiple camera videos on two or more shared layouts, then switch the layouts in order.

## Learn about PTZ Tab

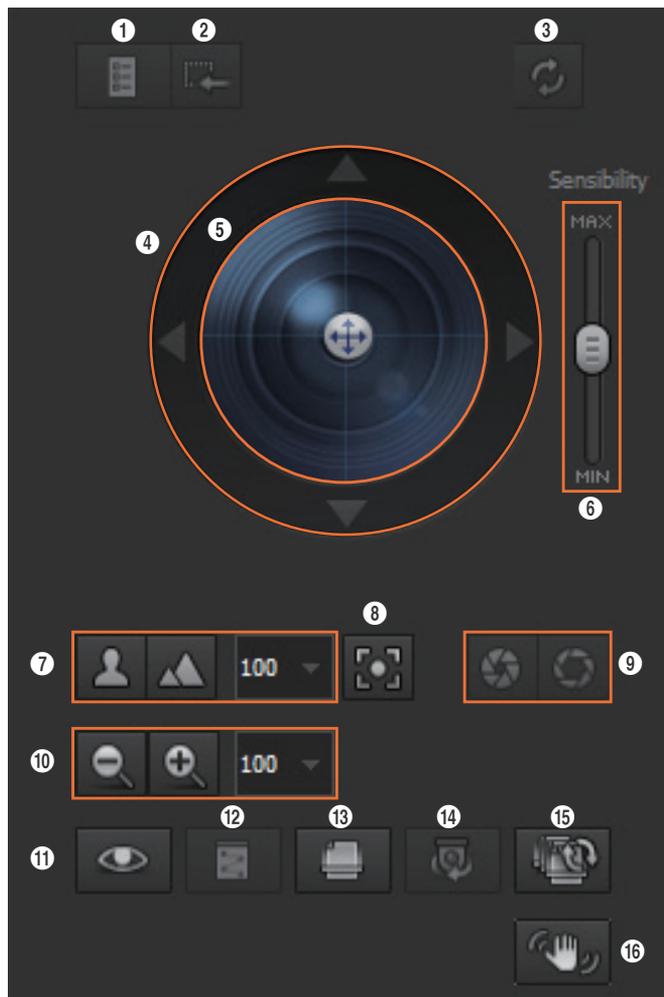
You can control the camera video registered in SSM. You can control the PTZ functions of the PTZ camera and adjust the digital zoom, DIS, and focus of the normal camera.



### NOTE

- Supported PTZ specifications may vary, depending on the camera model.
- Even if you have a box camera that does not have PTZ functions, you can use some functions when **Fish Eye** is set.
- PTZ functions may not be supported, depending on the camera model. For more information, please refer to the User Manual of the camera.
- For Fisheye or SUNAPI cameras, Set home position function is available.
- You can select the PTZ cameras and press the arrow keys to control the PTZ cameras in the selected direction.

### Learn about PTZ Control Buttons and Functions



No.	Screen Configuration	Detailed Description on Functions
①	Enter camera setup menu	You can display the camera setup menu on the video in OSD format.
②	Exit camera setup menu	You can close the camera setup menu displayed on the video.
③	Original size	You can click the button to change the zoom magnification of the video zoomed in or out with area zoom set as x1.
④	Move among camera menus	You can click the arrow buttons on the camera setup menu displayed in OSD format on the video to move the menu up, down, left, and right.
⑤	PTZ ball	You can control the direction of the PTZ cameras by clicking and dragging the ball inside the circle.
⑥	Sensitivity	You can adjust the PTZ control sensitivity.
⑦	Focus setup	You can manually adjust the focus of the camera. Values in the drop-down list indicate the focus shift interval, and the  button shifts the focus nearby and the  button shifts the focus faraway.
⑧	Simple focus	You can automatically adjust the focus of the camera.
⑨	Open/Close iris	You can open or close the iris of the camera lens.
⑩	Zoom setup	You can zoom in/out on the video magnification with optical zoom of PTZ cameras, and adjust the zoom speed. The value in the drop-down list indicates the zoom shift interval. The  button and  button zoom out/in on the video, respectively.
⑪	Preset	You can use the camera's preset movement functions.
⑫	Trace	You can use the camera's trace function.
⑬	Group	You can use the camera's group function.
⑭	Swing	You can use the camera's swing function.
⑮	Tour	You can use the camera's tour function. Tour supports Device tour set by the camera and SSM tour set by SSM Configuration.
⑯	DIS on/off	You can use the camera's DIS function. You can click the button to set DIS to stabilize shaky videos, and click again to release DIS.



#### NOTE

Refer to the following description for terms related to camera functions.

- Simple focus: Function to automatically adjust the focus based on the user-specified position on the screen or the entire screen
- Preset: Function to call the specific positions of specified PTZ cameras
- Trace: Function to call the travel path of the specified PTZ cameras to move them
- Group: Function to call the specified multiple presets in sequence
- Swing: Function to move two preset sections repeatedly with the camera moving back and forth
- Tour: Function to call multiple groups of the specified presets in order
- Auto tracking: Function of PTZ cameras to automatically track moving objects
- DIS: Function to automatically stabilize shaky videos when shaking is detected for more stable camera video

## Learn about Bookmark Tab

You can display the added bookmark tree in the Playback mode or play the recorded video when setting a bookmark. You can also change the bookmark name or delete the bookmark.



#### NOTE

- You can add up to 10,000 bookmarks.
- When the maximum number of bookmarks is exceeded, the oldest bookmark currently stored will be deleted.

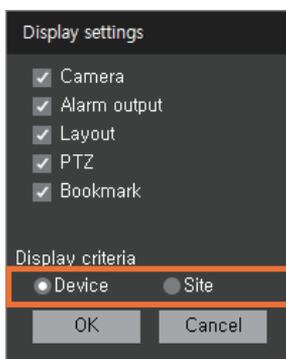
#### ■ Check Bookmark Tree

- A bookmark is displayed with a triangle at the bottom of the timeline.
- You can double-click the bookmark in the bookmark tree to move directly to that video.
- You can select the desired bookmark in the bookmark tree to play, rename, and delete bookmarks you have added.

## Learn about Setup Tab

You can click the  button to the right of the tree tab to change the device list display based on the **Device** or **Site**.

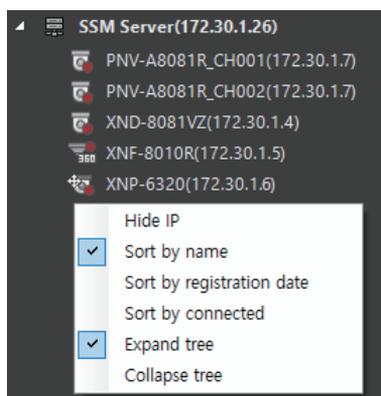
- **Device:** **SSM Core Server**-registered devices are displayed.
- **Site:** The site-registered device list is displayed.



## Learn about Shortcut Menu

You can sort the devices in the tree tab or control the tree.

When you right-click the tree tab, the shortcut menu appears.

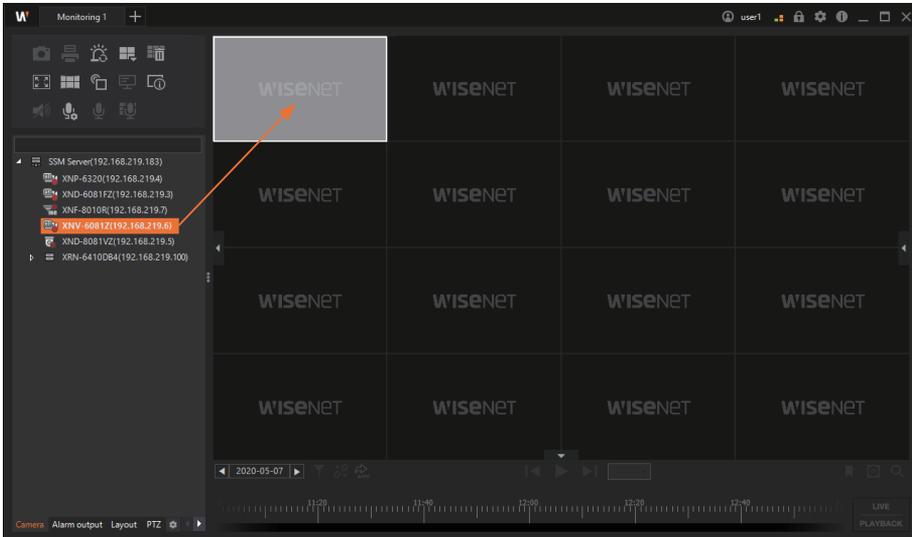


<b>Hide IP</b>	It does not display the IP address of the device when displaying the name of the device.
<b>Sort by name</b>	You can sort devices by device name.
<b>Sort by registration date</b>	You can sort devices by the registration date.
<b>Sort by connected</b>	You can sort devices based on their connection status.
<b>Expand tree</b>	All devices registered in <b>SSM Core Server</b> are displayed at once.
<b>Collapse tree</b>	All devices registered in <b>SSM Core Server</b> are hidden.

# Monitor Live Videos

You can monitor camera videos of the network devices registered in **SSM Core Server** in real time.

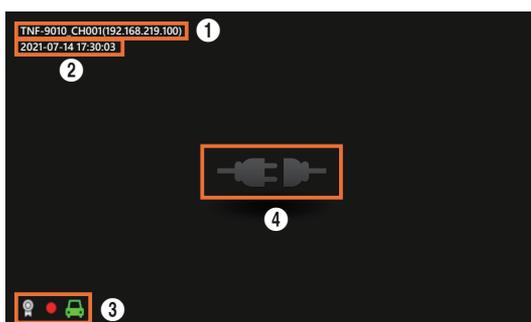
1. Open the **Monitoring** menu page.
2. Double-click the desired camera from **Camera** tab. Or select the desired camera from Camera tab and drag it on a tile of the video window.



## NOTE

- When you double-click the camera, the camera videos will be placed from the tile at the top left of the video window in order.
- If you double-click the same camera repeatedly, video feed from the same camera will be placed multiple times on top of another.
- Double-click a DVR or NVR registered on the 'SSM Server' to view all videos registered to said device.
- You can double-click 'SSM Server' at the top of the tree to place all cameras registered in the server on the tiles at once.
- When you click a video tile and drag it on another tile in a different location, you can switch the locations of the tiles.
- Double-click the desired video from a video split-screen to monitor it on one large screen. While doing so, you can click on the < > button at the bottom right of the video to view the previous or next video.

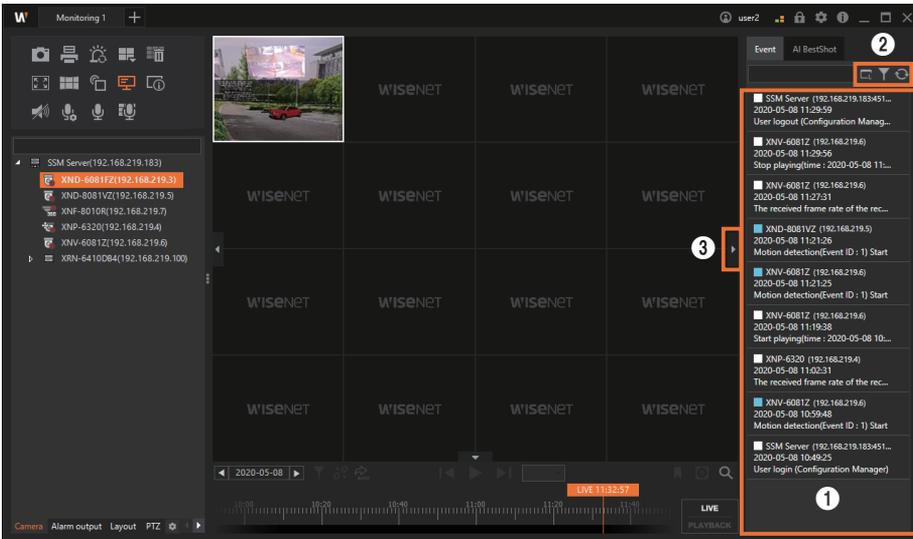
## Learn about the Video Window Configuration

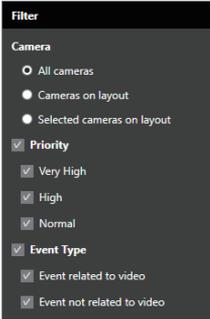
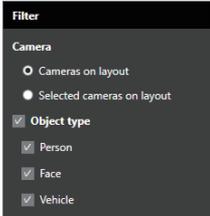


No.	Screen Configuration	Detailed Description on Functions
①	Camera name/IP address	It displays the camera name and IP address. It displays the set camera name if you have set the <b>Use device name</b> option via <b>Setup &gt; Display &gt; Show tree</b> .
②	Date/Time	It displays the date and time of the video.
③		It is displayed when the camera certificate of the selected video is valid.
		It is displayed when the selected video is saved on your PC.
		It is displayed in the event of a parking detection event.
④	Video input status	 It is displayed when the camera disconnects due to an unstable network connection.
		 It is displayed when you do not have playback permissions due to an excessive number of users.
		 It is displayed when the number of users allowed for simultaneous playback has been exceeded.
		 It is displayed in the event of video loss.
		 It is displayed when the image has no recording data.
		 It is displayed when the camera is not connected.
		 It is displayed when you do not have monitoring permissions for the live or playback video.

# Monitor Real-time Events

You can check the real-time events of the network devices registered in **SSM Core Server** in the **Real-time events window**.



No.	Screen Configuration	Detailed Description on Functions
1	Event list	<ul style="list-style-type: none"> <li>You can view or search a list of the real-time events that occurred in the device.</li> <li>When a new event occurs, a list of events is added in order.</li> </ul>
2		You can see the live or event video when instant viewer is enabled. The setup mode is maintained even if <b>SSM Console Client</b> program is restarted.
		<ul style="list-style-type: none"> <li>You can search events using desired parameters.</li> <li>You can set the priority of events to be displayed in the Real-time events window. You can set the priority of events in <b>Configuration &gt; Event &gt; Management</b> menu.</li> </ul> <div style="display: flex; justify-content: space-around;"> <div data-bbox="802 1226 1012 1586"> <p>Event filter</p>  </div> <div data-bbox="1034 1226 1244 1483"> <p>AI BestShot filter</p>  </div> </div>
		You can remove all the event lists displayed in the Real-time events window.
3		You can open or close the event window.

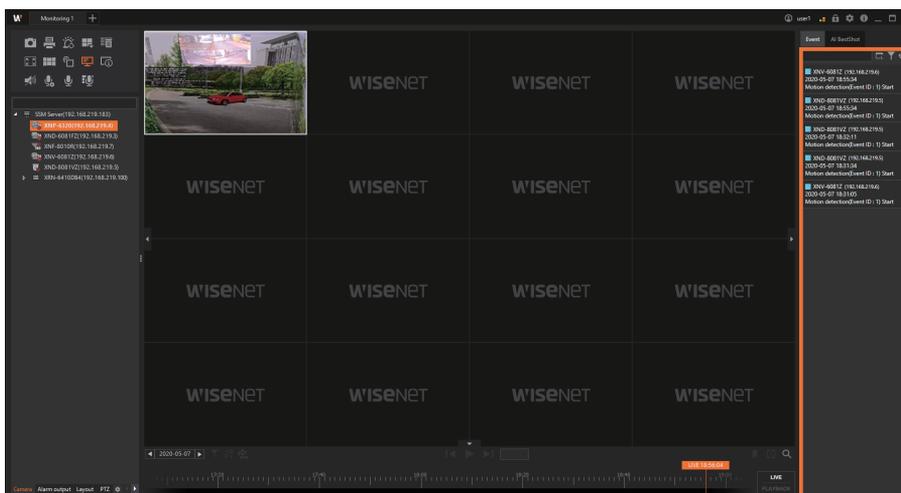
## Preview Event Information

When an event occurs, you can preview the information of the event in the Real-time events window.

If you want to see the detailed information about the event, double-click the event. Instant viewer runs.

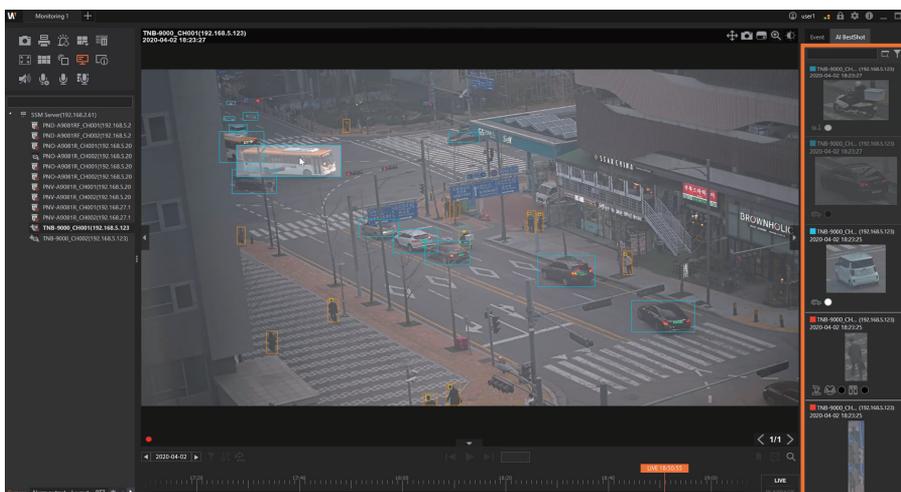
### ■ Event tab

It displays the name of device where the event occurred, occurred time, colors by event type and event name.



### ■ AI BestShot tab

It displays the name of device where the event occurred, occurred time, colors by event type and bestshot.



## Use Instant Viewer

Double-clicking the event executes the instant viewer, and the video at the time of the event is played back. You can find the detailed information regarding events such as camera name, event type, occurred time, etc. in the Instant viewer.



### NOTE

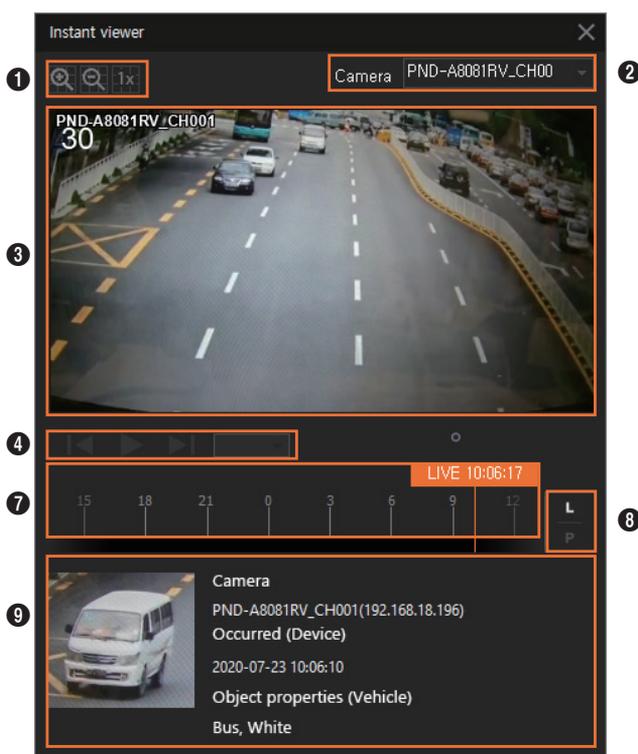
For details about the Instant viewer's functions, please refer to the pages linked by the links below.

- [Learn about Timeline](#)
- [Control Playback Speed](#)
- [Confirm Events](#)

### ■ Event Instant Viewer



## ■ Instant Viewer for AI BestShot



No.	Screen Configuration	Detailed Description on Functions
①	Digital zoom	You can zoom in/out on the video on the tile with digital zoom.
②	Camera name	You can check the name of the camera where the event occurred.
③	Video tile	You can play the recorded video of an event that occurred or check the real-time videos from the camera.
④	Control playback speed	You can control the playback speed when playing the recorded videos. For more information, please refer to Monitor > <a href="#">Control Playback Speed</a> .
⑤	Unlock	A <b>Call button push detection</b> event occurs when the door unlock function has been requested via an alarm output due to a Call event on the intercom device. In such a case, you can switch the mode to live and have a two-way call via the intercom device or unlock the door.
⑥	Broadcast to selected camera	
⑦	Timeline	You can control the timeline when you play the recorded video of an event that occurred.
⑧	Switch to live Switch to playback	You can play a video recorded at the time of an event or switch the mode to a real-time live video feed of the camera.
⑨	Event details	You can see the detailed information about the event.

No.	Screen Configuration	Detailed Description on Functions
⑩	Confirm event	You can change the event status after confirming the event. You can check the history of the event status by clicking <b>History</b> in <b>Event details</b> when confirming the event in the Event menu. For more information, please refer to <a href="#">Confirm Events</a> .
⑪	Alarm type	You can set <b>Alarm type</b> after confirming the event.
⑫	Confirm/Cancel	You can confirm and close the situation of the monitoring event. Clicking the <b>Confirm</b> button changes the event status to "Confirmed."

## Event Terminology

Event Name	Description
Motion detection	An event occurs when motion is detected in the area of interest set in the camera.
Video loss	An event occurs when DVR, NVR, encoder device cannot receive camera videos.
Intelligent Video Analytics (IVA)	You can search all the Intelligent Video Analytics (IVA) events by grouping them all together.
Crossing	An event occurs when an object crossing a virtual line set on the camera is detected.
Enter	An event occurs when a moving object enters from outside to inside of the virtual area set in the camera.
Exit	An event occurs when a moving object exits from inside to outside of a virtual area set on the camera.
Appear/Disappear	An event occurs when an object that does not exist in the virtual area set by the camera remains in the area for a certain period of time or when an object within the area does not exist for a certain period of time.
Tampering detection	An event occurs when the camera video is hidden or the camera position is changed.
Auto tracking	An event occurs when the moving object is automatically tracked on the camera video.
Face detection	An event occurs when a person's face is detected on the camera video.
Audio detection	An event occurs when audio is detected at the level set by the camera.
Failed to connect	An event occurs when the camera cannot be connected.
Connect camera	An event occurs when the camera is connected.
Disconnect camera	An event occurs when the camera is disconnected.
Defocus detection	An event occurs when the defocusing of the camera lens is detected.

Event Name	Description
Intrusion	An event occurs when a moving object is detected within the virtual area set in the camera.
Loitering	An event occurs when motion of a loitering object is detected within the virtual area set in the camera.
Fog detection	An event occurs when the camera detects foggy or cloudy images.
Scream	An event occurs when the camera detects a screaming or shouting person.
Gunshot	An event occurs when the camera detects gunshots.
Explosion	An event occurs when the camera detects an explosion.
Crashing glass	An event occurs when the camera detects the sound of shattering glass.
Temperature change detection	An event occurs when a sudden temperature change occurs in the area of interest set in the camera.
Shock detection	An event occurs when a shock or vibration is detected on the camera or when a change in physical location of the camera is detected.
Alert for video recording	An event occurs when the incoming frame rate of the recording profile is lower than the configured value.
Object detection (Person) Object detection (Vehicle) Object detection (Face) Object detection (License plate)	An event occurs when a preset object such as a person, face, vehicle, or license plate is detected by the camera.
Face mask detection	An event occurs when the face of a person wearing or not wearing a mask is detected on the camera screen.
Estimated body temperature detection	An event occurs when temperature equal to or higher than the specified temperature level is detected by the camera.
Occupancy monitoring (over the limit) Occupancy monitoring (under the limit)	An event occurs when the number of people is over or under the specified value of indoor capacity set for the camera.
Parking detection	An event occurs when a vehicle parks in or out of the parking lot.
Social distancing detection	An event occurs when the distance between people is closer than the distance set on the camera.
Call button push detection	An event occurs when the camera detects a call request.
Tampering switch detection	An event occurs when it detects manipulation of the camera's tampering switch.

# Control Tile Videos

You can monitor camera videos and control the videos on tiles.

## Control Tiles

A variety of features listed below are readily accessible by using the feature icons on top of the video tile.



Screen Configuration	Detailed Description on Functions
	For camera videos supporting the metadata sharing feature, you can click the button to share metadata with all channels.
	For videos supporting the wiper feature, you can click the button to automatically stop the camera's wiper after a certain amount of time.
	You can start or stop the auto tracking feature of the PTZ camera. <b>'Alt-click'</b> the tracking target to start auto tracking it.
	Digital PTZ profile can use the auto tracking feature. However, you cannot <b>'Alt-click'</b> a target to auto track it.
	For videos that support thermal camera functions, you can click desired locations to verify temperature information.
	You can control the operations of PTZ cameras. Enter or leave PTZ control mode.
	You can capture a video of a tile and save it as a .jpg file. You can change the storage path for the captured image files in the <b>SSM Console Client</b> settings.
	You can record a video of a tile on your PC. When you click the button, the video is recorded on your PC, and when you click again, the recording is stopped.
	You can zoom in/out on the video on the tile with digital zoom.
	You can adjust brightness and contrast of video or set them to default.

## Controlling the PTZ Camera

Clicking  will display  in the center of the screen, and move to PTZ Control Mode.

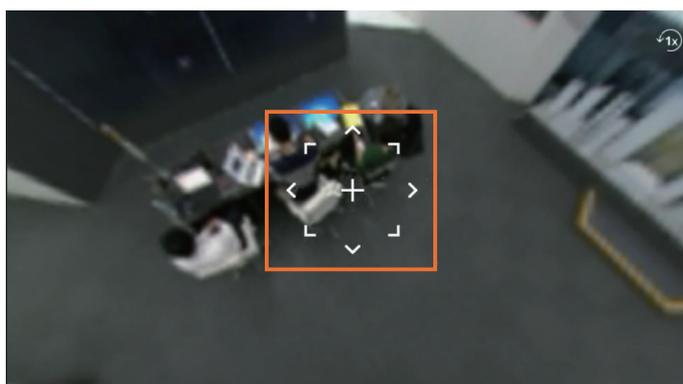


### NOTE

- Depending on the camera, there may be discrepancies in PTZ control functions and speeds.

### ■ Fine adjustment of camera direction

Moving the cursor on to  will bring up 8 direction arrow keys, which disappear when the cursor moves away from the arrow key area. Click on the arrow keys to make fine adjustments to the camera directions. Keep clicking on the arrows to move the cameras in the desired direction.



### ■ Rapid adjustment of camera direction

Click on  and drag to move the screen in the desired direction.

The distance of the drag will determine the speed of the movement of the screen.

### ■ Move to center screen

Clicking on a specific location on the screen will cause the video in that location to move to the center of the screen.

### ■ Expand selected area

Dragging a specific area of the screen will expand the selected area and move it to the center of the screen.

### ■ Expand and Shrink videos

Use the mouse wheel to increase or decrease the size of the videos, and drag the desired area to increase the video size. To return the video to the original size, click .

## Learn about Shortcut Menu

When you right-click the tile, **Shortcut menu** appears. **Shortcut menu** may appear differently depending on the monitoring mode.

Remove video	You can close camera videos of the selected tiles.
Playback	You can switch from Live mode to Playback mode. It is available in Live mode only.
Live	You can switch from Playback mode to Live mode. It is available in Playback mode only.
Playback sync	When playing multiple camera videos in Playback mode, all cameras can be played from the same playback time. It is available in Playback mode only.
OSD	You can display the title, date, and time of the camera on the video.
Video information	You can display the video information of the selected tiles.
Capture	You can capture the videos of the selected tiles and save them as a .jpg file. You can change the storage path for the captured image files in the <b>SSM Console Client</b> settings.
Print	You can print videos of the selected tiles.
Local recording	You can record the videos of the selected tiles on your PC. When you click the button, the camera videos are recorded on your PC, and when you click again, the recording is stopped. It is available in Live mode only.
Device recording	You can record the videos of the selected tiles on your device. When you click the button, the camera videos are recorded on your device, and when you click again, the recording is stopped. It is available in Live mode only.
Listen	You can listen to the audio received from the camera. When you click the button, you can listen to the audio from the camera, and when you click again, it is set to silent.
Microphone on	It performs "Speak into the microphone" on the camera of the selected tile. It is available in Live mode only. <div data-bbox="504 1522 563 1580"></div> <b>NOTE</b> "Speak into the microphone" is only available for the cameras supporting microphone.
Broadcast to selected camera	You can broadcast the desired sound files through the camera of the selected tile.

Send to wall	You can output the video and audio of the selected tile to the desired location of the video wall.
Aspect ratio	You can zoom in or out on the video screen to view videos by the size of the tiles while maintaining the aspect ratio of the camera video resolution.
Original size	You can view the video with the actual resolution size of the camera video.
Flip	You can flip the video of the tile upside down.
Defog	<p>You can correct the camera video on foggy or overcast days.</p> <p>Clicking ► button displays setup values. When <b>Off</b> is set, the defog function is disabled, and when <b>Auto</b> is set, the surrounding environment is detected for the camera to correct the video automatically. When you set "1 to 10" (hereinafter, defog level), you can directly set the amount of correction based on the surrounding environment. Even if the degree of fog decreases, you can set it to <b>Manual</b> to continuously operate the function up to the set defog level.</p> <p>The higher the defog level, the sharper the video will appear. Increasing the defog level when the degree of fog is low may cause the screen to look dark.</p> <p>It is available in Live mode only.</p>
Reset all alarms	<p>You can remove all alarm displays on the video tiles.</p> <p>It is available in Live mode only.</p>
Profile	<p>You can display the profile lists supported by the camera and change the profile of real-time videos.</p> <p>It is available in Live mode only.</p>
Camera properties	You can see camera properties of the selected tiles. You can check the camera name, device model, video resolution, video and audio codec, and camera functions in the Camera properties dialog box.

# Use Video Layout

You can monitor multiple camera videos at once by splitting the video screen in various ways. You can set the camera video array in **Shared layout**, **Map layout**, and **User layout**. In addition, when you use sequence function, you can switch among multiple layouts sequentially to monitor camera videos.

## Learn about Shared Layout

You can easily monitor the camera video using the layout specified in Configuration. You can set shared layout in **Configuration > Design > Layout**.



### NOTE

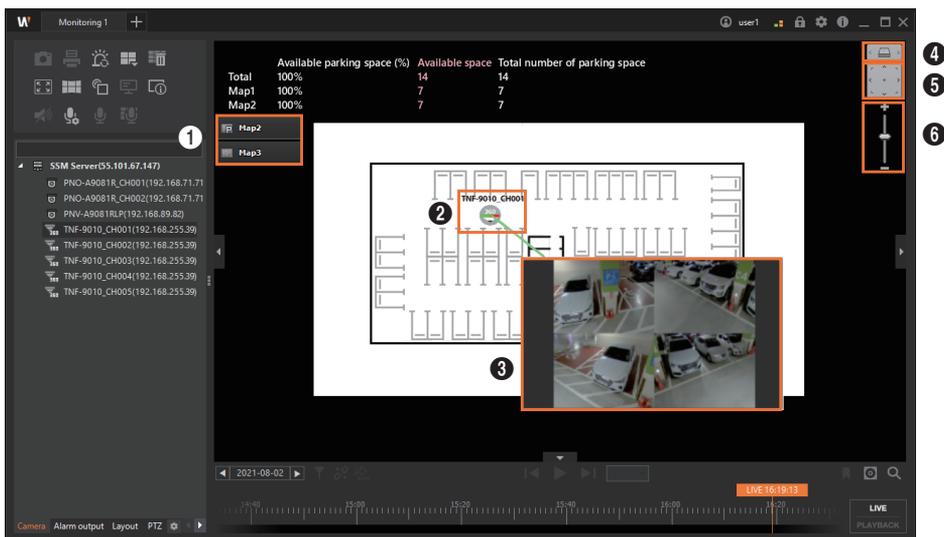
Shared layout is available for the entire users registered in the same domain.

## Learn about Map Layout

You can monitor the camera video on the map or the plan, rather than the split video tile. You can set map layouting in **Configuration > Design > Map**.

## Control Map Layout Screen

The set map is displayed when the desired map layout is double-clicked. A Control button appears when the cursor is in the top-right corner of the maps, and the map layout can be moved or zoomed in/out.



No.	Screen Configuration	Detailed Description on Functions
1		<p>You can double-click the Map button to quickly move to the desired map.</p> <ul style="list-style-type: none"> <li>The background color of the Map button flickers when an event occurs for the camera of the selected map.</li> </ul>
2		<p>The video window is displayed when the camera icon is double-clicked.</p> <ul style="list-style-type: none"> <li>The background color of the camera icon flickers when an event occurs for the camera. An instant viewer is displayed when the flickering icon is double-clicked.</li> </ul>
3		<p>You can increase the window size every time you double-click the video window.</p> <ul style="list-style-type: none"> <li>Click the video window and drop it on the desired location to move its location.</li> <li>Click the video window and press the <b>Delete</b> key to delete the video window.</li> </ul>
4		<p>You can rotate the map layout. (Counterclockwise/Front/Clockwise)</p> <ul style="list-style-type: none"> <li>The angle of the map layout can be changed when dragged with the mouse while holding the right-click.</li> </ul>
5		<p>You can move the map layout to the direction displayed on the button. (Top/Bottom/Left/Right, Top/Bottom Left, Top/Bottom-Right, Center)</p> <ul style="list-style-type: none"> <li>The layout can be moved to the desired location when dragged with the mouse while holding the left-click.</li> </ul>
6		<p>You can drag the pointer to the top or bottom to zoom in or out the map layout.</p> <ul style="list-style-type: none"> <li>Using a scroll wheel also enables the layout to be zoomed in or out.</li> </ul>

## Learn about User Layout

You can monitor the camera video freely with a layout you added.

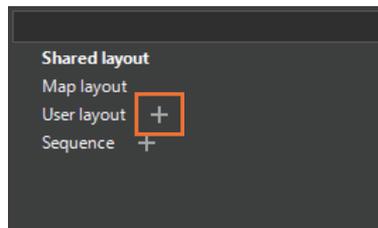


### NOTE

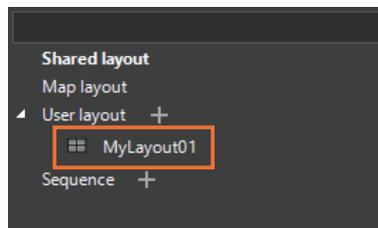
User layout is available for the applicable user only.

### ■ Add User Layout

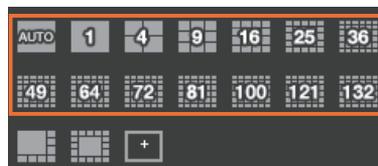
1. Click the **Layout** tab.
2. Click the [+] button to the right of **User layout**.



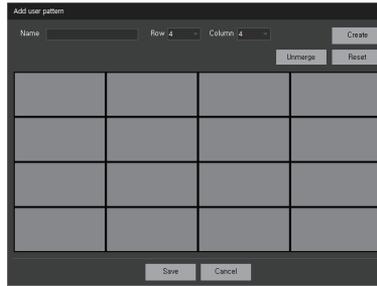
3. Select the added layout.



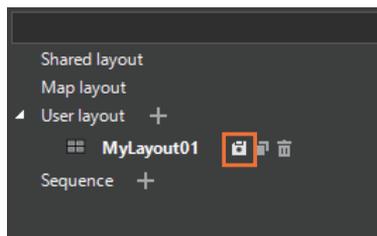
4. Select the **Tools** tab at the top left of the **Monitoring** menu page.  
Click the  button to select the desired screen split.



- Click the  button to add the desired screen split.



5. Click the  button to save the layout settings.



## ■ Edit User Layout

Duplicate	When you click the  button to the right of the user layout, you can duplicate the user layout.
Delete	When you click the  button to the right of the user layout, you can delete the user layout.
Rename	When you double-click a user layout, you can rename the user layout.

## Change Layout

You can change the layout of the video window to the various layouts you have already specified.

1. Click the **Layout** tab.
2. Double-click the layout you want to change among **Shared layout**, **Map layout**, and **User layout**.

## Learn about Sequence

You can monitor the camera video after placing multiple camera videos on more than one shared layout or user layout, then switch the layouts in order.

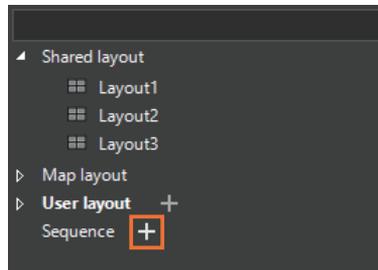


### NOTE

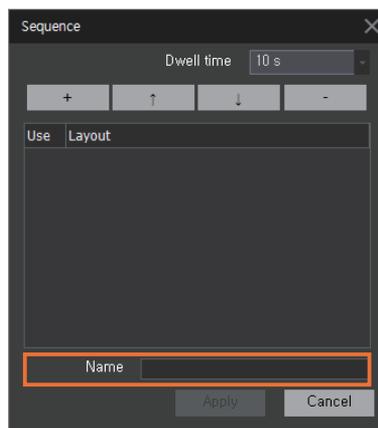
You can only run the sequence when you set 2 layouts or more.

### ■ Add Sequence

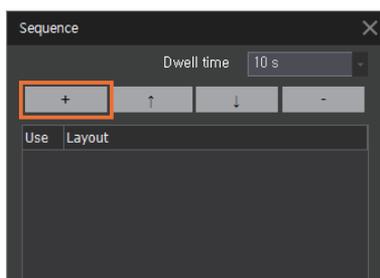
1. Click the **Layout** tab.
2. Click the [+] button to the right of **Sequence**.



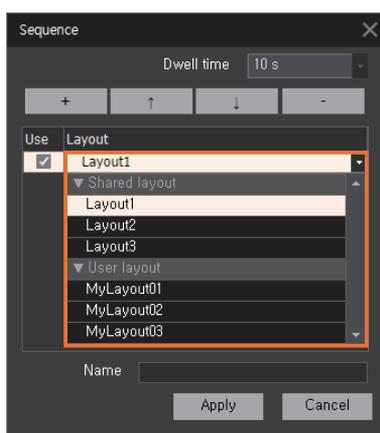
3. Enter the sequence **Name** in the **Sequence** dialog box.



- Click the [+] button in the **Sequence** dialog box.



- From the **Layout** drop-down list, select the shared layout to be added.



- Repeat Steps [2] to [4] more than once to add multiple layouts in Sequence.
- Set **Dwell time**, and then click the **Apply** button.

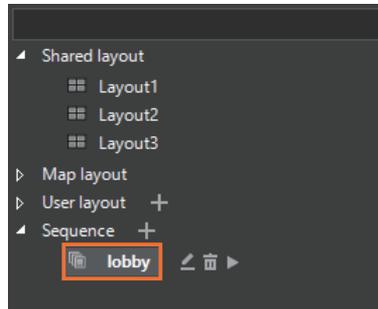
**NOTE**

Dwell time refers to the time spent for switching from the current layout to the next layout.

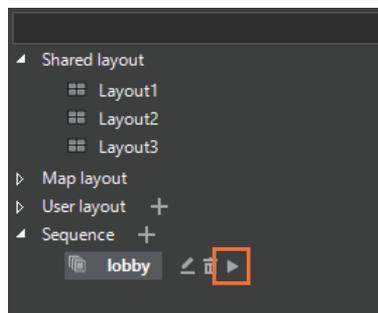
## ■ Play Sequence

When you play a sequence, you can switch among multiple layouts sequentially to monitor videos of multiple cameras at once.

1. Click the **Layout** tab.
2. Select the desired sequence in the sequence list.



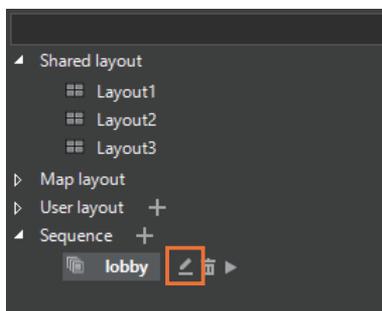
3. Click the  button to the right of the sequence name.



## ■ Edit Sequence

You can change the setting value of the sequence already specified.

1. Click the **Layout** tab.
2. Select the sequence to edit in the sequence list.



3. Click the  button to the right of the sequence name.
4. Modify the desired items in the **Sequence** dialog box.

You can edit Dwell time, Conversion wait time, and Shared layout. In addition, you can change the playback order of the shared layouts or change the sequence name.

5. Click the **Apply** button.

## ■ Delete Sequence

1. Click the **Layout** tab.
2. Select the sequence to delete in the sequence list.
3. Click the  button to the right of the sequence name.

# Monitor Recorded Video

You can search or play the recorded videos stored in **SSM Core Server** or network device. You can search the recorded videos of the camera by date or event. You can play and monitor the recorded video that you searched.

## Switch to Playback Mode

You can switch to Playback mode while monitoring the real-time video of the camera.

1. Select the desired video tile in the video window.
2. Click the  button at the bottom right of the Monitoring menu page. A video recording taken five minutes before the live hour is played back.



- You can right-click on the video tile to select **Playback**, or you can click the timeline to switch to Playback mode. To play back a video recorded at a specific time, click the time on the timeline.



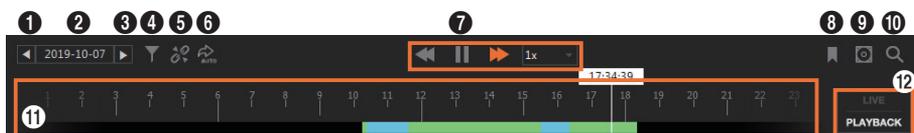
### NOTE

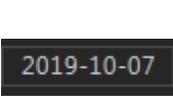
- Switching to Playback mode switches the mode of all video tiles to play.
- Switching to Playback mode displays the timeline at the bottom as the timeline of the selected tile.
- When you click the  button in Playback mode, you can switch to Live mode.

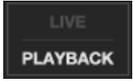
## Learn about Timeline

Switching to Playback mode displays a split marker bar on the timeline below the page. The split marker bar is only displayed in the section with recorded videos.

Timeline is displayed on a daily basis (24 hours), and when you click the time, the recorded video at that time is played. When you start playback, the search date and playback time are displayed. You can then monitor while controlling the playback speed.



No.	Screen Configuration	Detailed Description on Functions
1		You can search the recorded video of the previous date.
2		This displays the search date. When you click this date, a calendar is displayed. You can search the recorded videos of the applicable date when you click the desired date from the calendar. For more information, please refer to <a href="#">Search the Recorded Videos by Date</a> .
3		You can search the recorded video of the next date.
4		You can search the recorded videos by filtering the event items.
5		You can synchronize the playback time of multiple playback videos before playing or release playback sync. (Playback sync/Individual playback)
6		You can only play back event video recordings displayed in the timeline through event filtering. (Play filtered section/Play all)
7		You can control the playback speed when playing the recorded videos of the camera.
8		You can bookmark the video section of interest while in Playback mode.
9		You can export the recorded videos to a file. <ul style="list-style-type: none"> <li>Export video: Export the recorded video of a certain section to a file.</li> <li>Export video masking: Export the video after setting some areas that need privacy protection in the recorded video as privacy areas.</li> <li>Export one-time schedule: Export video according to the reserved schedule.</li> <li>Export schedule: Automatically export the video recording from the previous day at the specified time on the next day on a daily basis.</li> </ul>
10		You can go to the <b>Advanced search</b> menu.

11		When there is a recorded video on the search date, the split marker bar is displayed on the timeline.
12		<p>You can switch Monitoring mode to Playback or Live mode.</p> <div style="background-color: #f0f0f0; padding: 10px;"> <p> <b>NOTE</b> Switching Monitoring mode changes the mode of all video tiles collectively.</p> </div>

## ■ Use Shortcut Menu

You can set the time interval when you refresh, back up, or search the real-time recording status on the timeline.

<b>Reset time range</b>	The start time and end time tooltips for setting the time interval for backup, bookmark, and search menus appear. For time settings, you can enter a time value, either by clicking and moving the tooltip to the left or right or by double-clicking the tooltip.
<b>Refresh timeline</b>	This searches the recorded videos stored in <b>SSM Core Server</b> or network storage device once again to update and display the real-time recording status on the timeline.



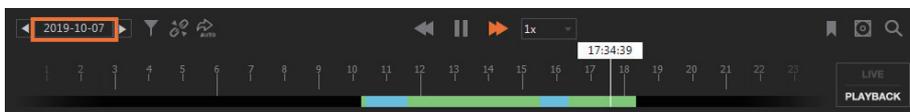
### NOTE

- The split marker bars on the timeline are displayed in different colors depending on the event type of the recorded videos. For more information, please refer to [Search the Recorded Videos by Event](#).
- You can zoom in or out on the timeline by scrolling a mouse wheel over the timeline.
- When you click the timeline and drag it to the left or right, you can move the time on the timeline.

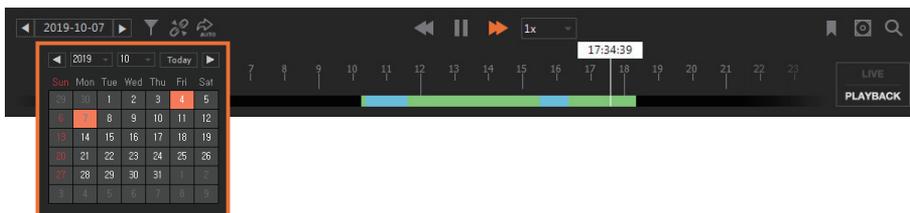
## Search the Recorded Videos by Date

You can search the recorded videos stored in **SSM Core Server** or network storage device with the date on the calendar.

1. Switch to Playback mode.
2. Select the video tile to search.
3. Click the date on the timeline below.



4. Select the desired date when the calendar appears. The dates with the recorded videos are indicated with an orange block.

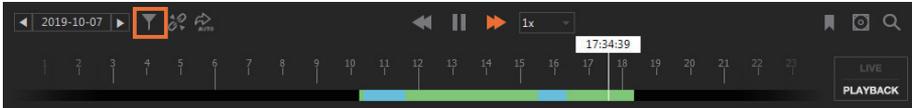


5. The time line of the selected date is displayed on the screen. Clicking on the desired time on the time line will play the video from the designated time.

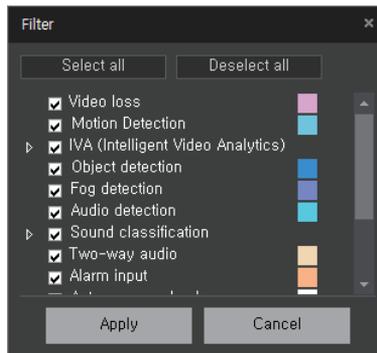
## Search the Recorded Videos by Event

You can search the recorded videos of cameras, filtering by event.

1. Switch to Playback mode.
2. Select the video tile to search.
3. Click the  button at the top left of the timeline.



4. Select the desired event in the **Filter** dialog box.



5. Click the **Apply** button. The recorded video of the filtered event is displayed on the timeline.
6. To play back a filtered event video recording displayed in the timeline, click the **Play filtered section** button.



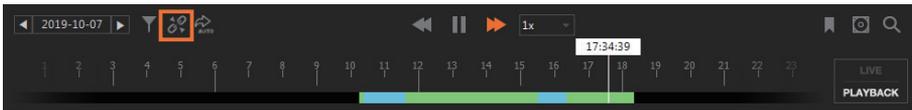
## Recording Event Terminology

Event Name	Description
Object detection	A recording event occurs when the AI camera recognizes a person, vehicle, face, or license plate.
Sound classification	A recording event occurs when a sound classification event such as scream, gunshot, explosion, or glass breaking is detected by the camera.
Two-way audio	A recording event occurs when sounds being sent to the camera are output or saved.
Alarm input	A recording event occurs when an alarm input is detected.
Auto recovery backup	This displays the recorded video section saved with Auto recovery backup. Auto recovery backup is a function to backup the recorded video from a camera when network is unstable and cannot record from disconnection point to reconnection point.
User defined event	A recording event occurs when an event specified in Configuration is detected.
Continuous	It means that camera videos are recorded continuously without any event separation.
Manual	<b>Device recording</b> is available only when the camera registered in the storage device does not have the recording schedule or event recording is set. Right-click the video tile and click <b>Device recording</b> to record camera videos on the storage devices.

## Synchronize Playback

When playing multiple recorded videos, all the video tiles can be played from the same date and time. When you click the button, the playback times of all the video tiles are synchronized. When you click the button again, playback sync is released, and you can play the videos individually per tile.

1. Switch to Playback mode.
2. Select the tile that is the basis of the playback time.
3. Click the  button at the top left of the timeline. The videos of all the tiles are played, matching the date and time of the selected tile.



### NOTE

- Playback sync is only available in devices supporting playback sync.
- If playback sync is set, you cannot search the recorded videos by tile.
- You can click the  button to release playback sync and enable individual playback by video tile.

## Control Playback Speed

You can control the playback speed when playing the recorded videos.

	You can fast rewind the playing video. You can play -1x, -2x, -4x, -8x, -16x, -32x, -64x and -128x with each click of the button.
	You can pause the playing video.
	You can fast forward the playing video. You can play at 1x, 2x, 4x, 8x, 16x, 32x, 64x, and 128x speed with each click of the button.
	You can move to the previous frame while pausing the video.
	You can play the recorded video.
	You can move to the next frame while pausing the video.
	The current playback speed is displayed, and the desired playback speed can be chosen. Depending what the device supports, users can choose from 1/2x or 1/4x slow playback.

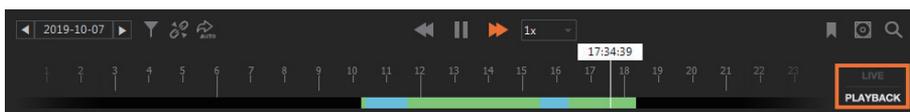
## Add Bookmark

You can bookmark the video section of interest while in Playback mode. You can check the bookmarks you added in **Bookmark** tab. For more information, please refer to Use Bookmark > [Add Bookmark](#).

## Switch to Live Mode

You can switch to Live mode while playing the recorded video of the camera.

1. Select the desired video tile in the video window.
2. Click the **LIVE** button at the bottom right of the Monitoring menu page. You may also right-click the video tile and click **Live**.



### NOTE

- Switching to Live mode switches the mode of all video tiles to Live.
- Switching to Live mode resets the timeline at the bottom to an empty timeline.
- When you click the **LIVE** button while in Live mode, you can switch to Playback mode. Live cameras will not switch to playback mode.

## Export Recorded Videos to a File

You can export the recorded videos stored in **SSM Core Server** or network storage device to a file. You can immediately export the recorded videos to a file or export them to a file according to a schedule after setting the schedule. In addition, you can hide some areas of the recorded video in privacy areas and export them to a file.



### NOTE

- Export is also available in the **Advanced search** menu.
- If you export the recorded video in AVI file format, then a new file is created in the following cases:
  - When the video resolution of the recorded video is changed
  - When the audio or video codec of the recorded video is changed
  - When file size of the exported video is 2GB or more
- If you export the recorded video in SEC file format, two files are created in the recording path.
  - The SEC extension file is the exported video.
  - The EXE extension file is a viewer program.
- The exported video file can be played as follows:
  - When you run an EXE file with the same name as the SEC file, you can play it in **Backup viewer**, which is a video playback program for SEC file only.
  - AVI files can be played in normal video playback programs.

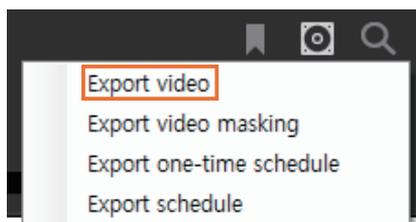
## Export Video

You can export some sections of the recorded video to a file.

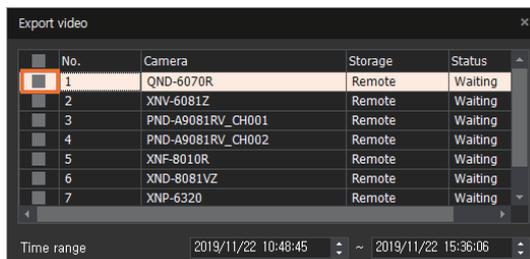
1. Switch to Playback mode.
2. Select the video tile to export.
3. Click the  button at the top right of the timeline.



4. Click **Export video**.

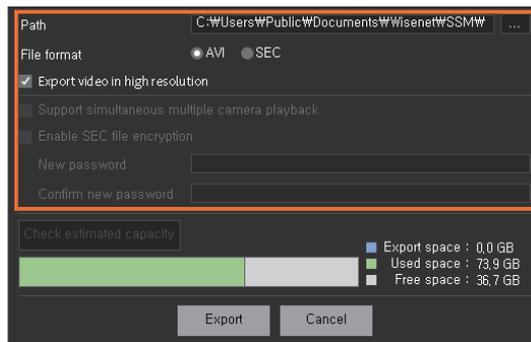


5. Select one or more cameras in the **Export video** dialog box. You can export multiple camera videos at the same time.



6. Set the time range of the recorded video to be exported from the timeline. Use the time tooltip on the timeline to change time settings. For more information, please refer to [Set Time Interval](#).

7. Set the **Path** to store the export files.



8. To export videos in high definition, check the **Export video in high resolution** box.

- Videos will be exported at low resolution if this option is not used.
- This setting will only work when low resolution and high resolution videos are being recorded simultaneously.

9. Set **File format**.

When you select SEC file, the following options are available.

- **Support simultaneous multiple camera playback:** When playing multiple recorded videos in Backup viewer after exporting them, you can play the recorded videos from multiple cameras at the same time.
- **Enable SEC file encryption:** When using a SEC file format, you can set a password in the export file.



**NOTE**

- When you play the exported file in **Backup viewer**, you must enter the password before playing.
- If you lose your password, then you will not be able to play the exported file.

10. To check the estimated size of the exported file, click the **Check estimated capacity** button.

- Only the size of video recordings stored in the **SSM Core Server** can be checked.
- This function cannot be used when multiple cameras have been selected including cameras from network storage devices other than the **SSM Core Server**.

11. Click the **Export** button.

Click the **Cancel** button to cancel the export.

## Export Video Masking

You can export the video after setting some areas of the video as privacy areas. Privacy areas can be set in areas where privacy is required or in areas where monitoring is not required.



### NOTE

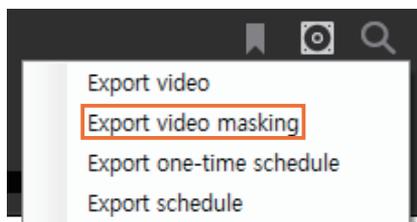
It supports the SEC file format only.

#### ■ Selecting a masking mode

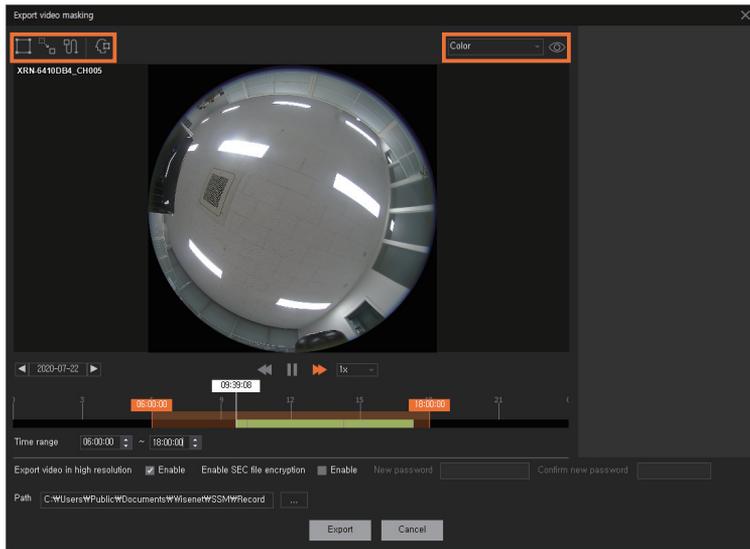
1. Select the video tile to export.
2. Click the  button at the top right of the timeline.



3. Click **Export video masking**.

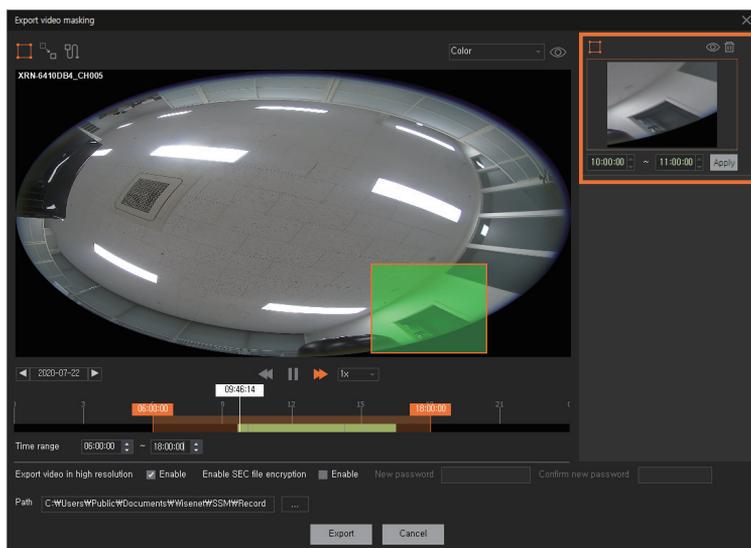


4. Select a masking mode from the **Export video masking** dialog to set your privacy area.



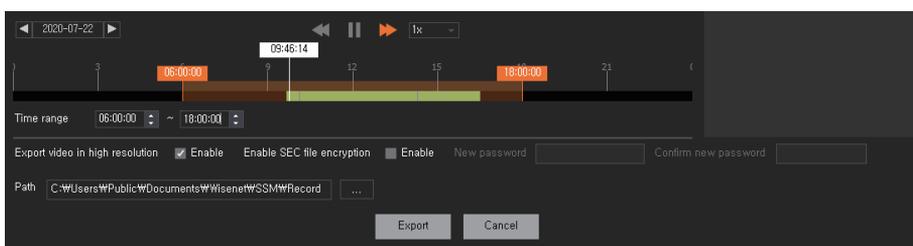
-  **Static masking:** Masks privacy areas set up for a specific location for a set period of time. Up to 16 privacy areas can be set, and a different application time can be set for each area.
-  **Linear path masking:** Sets specific locations as privacy areas, and mask the areas along the linear path that connects all of them.
-  **Mouse track masking:** Masks along the path of the freely moved mouse by clicking privacy areas playing the video.
-  **AI auto masking:** AI camera masks all objects selected based on the search conditions (people, face, vehicle, and vehicle number).
- By clicking , you can select the masking type you want. By clicking , you can preview it.

- The privacy area you set is added to the list of masked areas. Set the time range to apply the privacy area, and then click the **Apply** button.



- Click  to delete a privacy area you set.
- Click  to show or hide a privacy area.

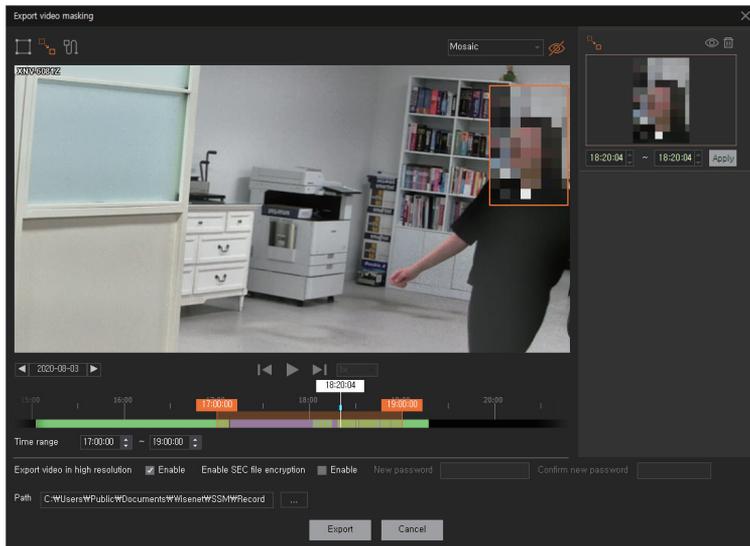
- Set the time range of the recorded video to be exported.



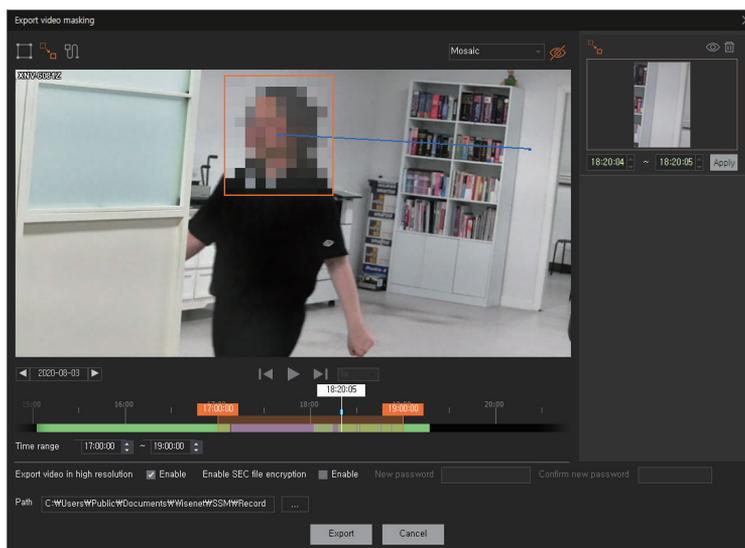
- To export videos in high definition, check **Enable of Export video in high resolution**.
  - Videos will be exported at low resolution if this option is not used.
  - This setting will only work when low resolution and high resolution videos are being recorded simultaneously.
- If you want to use the encryption to a SEC file, check **Enable of Enable SEC file encryption** and set a password.
- Set the Path to store the export files.
- Click the **Export** button.

## ■ Setting the Linear path masking

1. Select the video tile to export.
2. Click the  button at the top right of the timeline.
3. Click **Export video masking**.
4. Select .
5. Play the video, and pause it when the object to mask appears on the screen.
6. Set a rectangular area by dragging the mouse so that the object to mask is hidden.  
If the rectangular area is set for the first time, it is added to the list of masked areas.



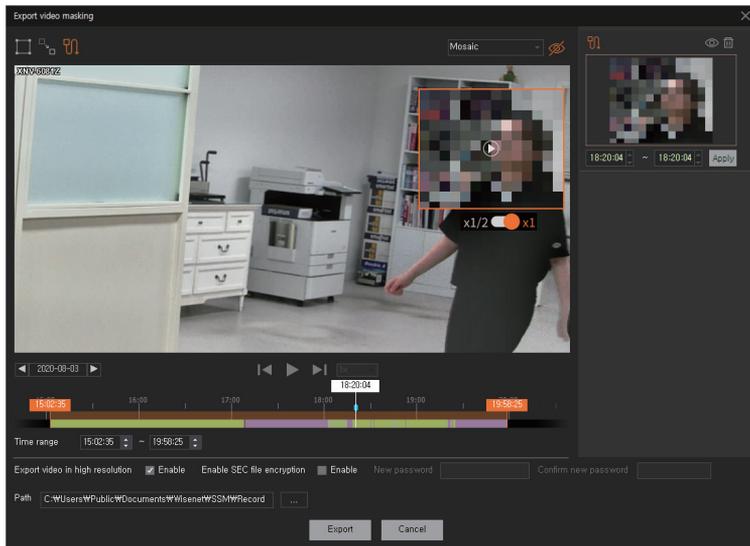
7. Play the video again, and pause it where it is needed to modify the location or size of the masked area along the path of the moving object.



8. Click the rectangular area set for the first time and drop it in a location where modification is needed to modify the location or size of the masked area. Repeat this step as many time as necessary to set the masked area.
9. When the setup is complete, play the video of the masked area to check or change the setup.

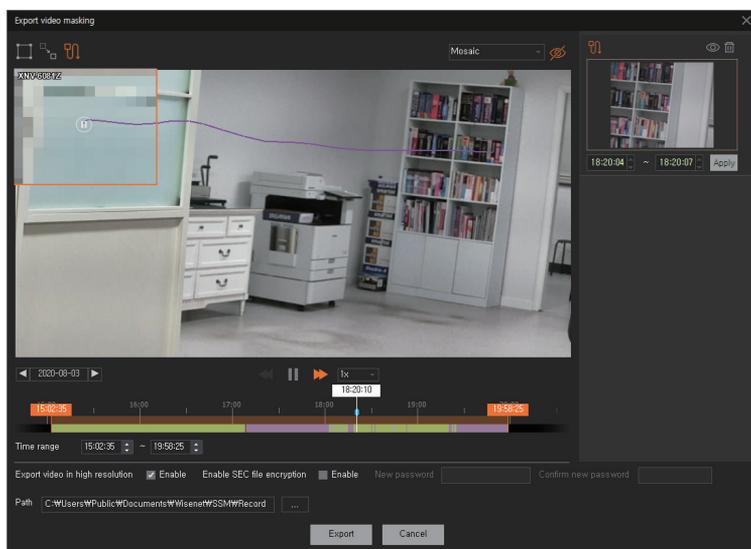
## ■ Setting the Mouse track masking

1. Select the video tile to export.
2. Click the  button at the top right of the timeline.
3. Click **Export video masking**.
4. Select .
5. Play the video, and pause it when the object to mask appears on the screen.
6. Set a rectangular area by dragging the mouse so that the object to mask is hidden.  
If the rectangular area is set for the first time, it is added to the list of masked areas.



7. Click the  button to select the playback speed.  
Click the  button in the rectangular area to play the video.

8. When the video plays, click the rectangular area and drag the mouse along the moving object.
9. Drop it in a location where you want to end the masking, and click the ⏸ button inside the rectangular area.  
The video will stop and the masking will be terminated.



10. When the setup is complete, play the video of the masked area to check or change the setup.

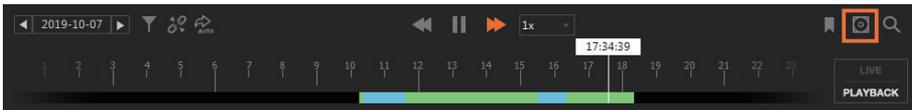
## Export One-Time Schedule

You can export the recorded videos to a file on a schedule after setting the export schedule. Export one-time schedule is performed only once.

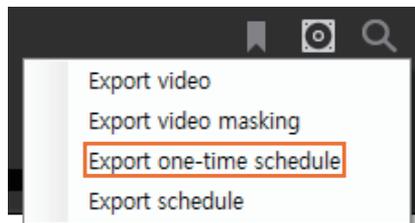
### ■ Use Add Schedule Mode

You can set Export one-time schedule.

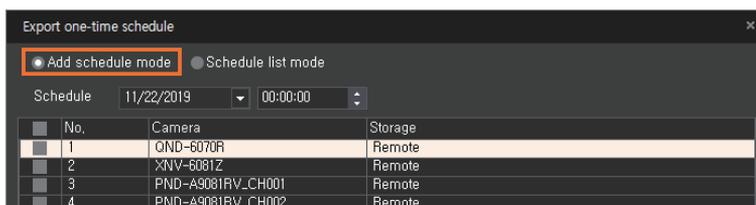
1. Switch to Playback mode.
2. Select the video tile to export.
3. Click the  button at the top right of the timeline.



4. Click **Export one-time schedule**.



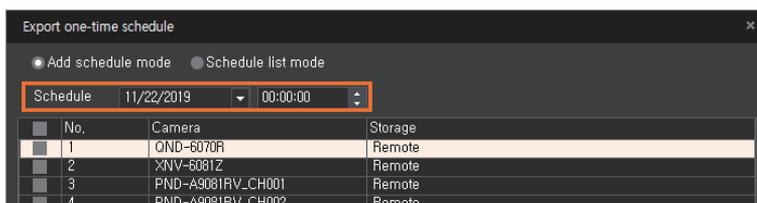
5. Select **Add schedule mode** in the **Export one-time schedule** dialog box.



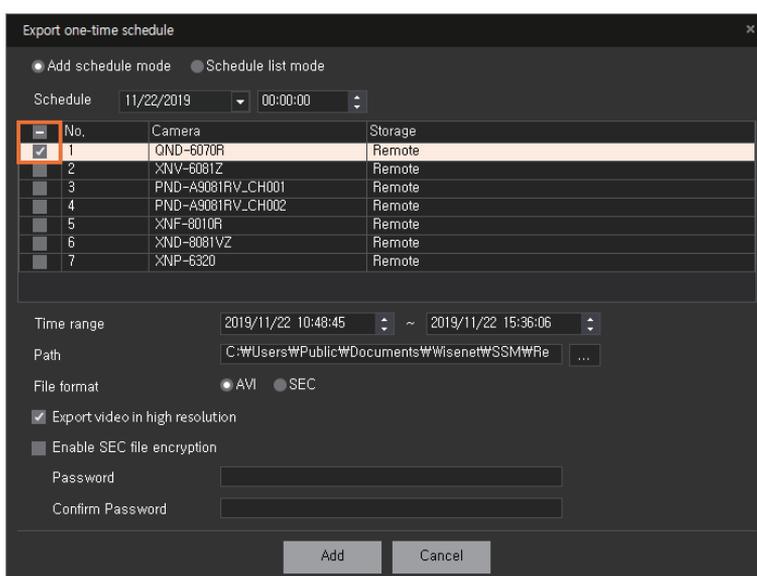
### NOTE

In Live mode, camera list is not displayed.

- Set **Schedule** to export. You can set it by clicking the arrow or manually inputting the date & time in the scroll box.

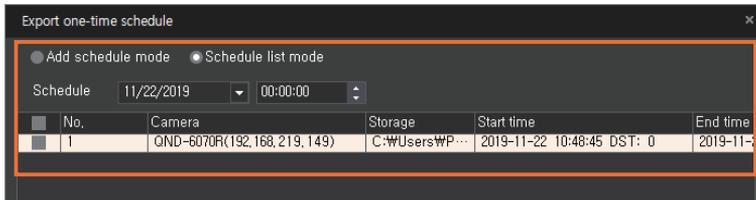


- Select one or more desired cameras. You can schedule for simultaneous export for multiple camera videos.



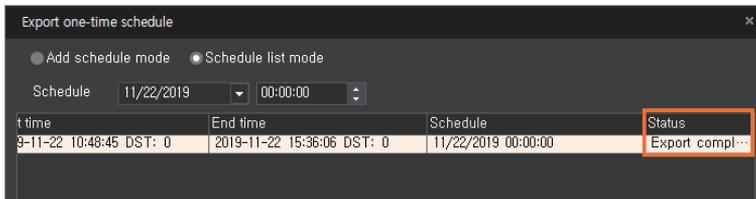
- Set the time range of the recorded video to be exported. Use the time tooltip on the timeline to change time settings. For more information, please refer to [Set Time Interval](#).
- Set the path to store the export files.
- Set File format.

11. To export videos in high definition, check the **Export video in high resolution** box.
  - Videos will be exported at low resolution if this option is not used.
  - This setting will only work when low resolution and high resolution videos are being recorded simultaneously.
12. If you want to use the encryption to a SEC file, select **Enable SEC file encryption**.
13. Click the **Add** button. **Schedule list mode** is enabled and you can check the schedule added.



### ■ Use Schedule List Mode

When you select **Schedule list mode** in the **Export one-time schedule** dialog box, you can check the all schedule lists. You can check whether the scheduled export is completed in **Status** column of the schedule table, and you can also modify or delete the schedule.



## Export Schedule

You can automatically export the recorded videos of previous date stored in **SSM Core Server** every day at a specified time on the next date. You can also check the status of the scheduled export that you have already set.



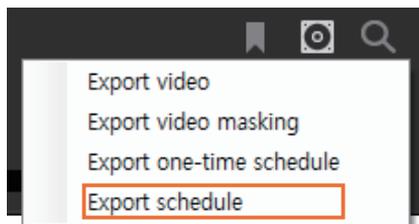
### NOTE

For **Export video**, **Export video masking**, and **Export one-time schedule** in the Monitoring menu, you can export the recorded videos of the camera to files just once.

### ■ Set up Schedule

You can schedule to automatically export the recorded videos from the previous date that its device is registered in **SSM Core Server** every day at a specified time on the next date.

1. Click the  button at the top right of the timeline.
2. Click **Export schedule**.



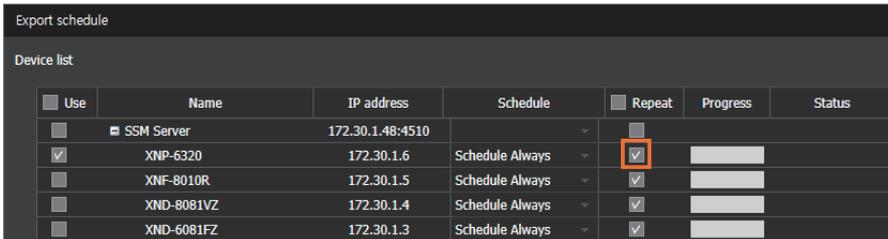
3. Select the desired device from the **Device list**.

Export schedule						
Device list						
<input type="checkbox"/> Use	Name	IP address	Schedule	<input type="checkbox"/> Repeat	Progress	Status
<input type="checkbox"/>	SSM Server	172.30.1.48:4510	-	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	XNP-6320	172.30.1.6	Schedule Always	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	XNF-8010R	172.30.1.5	Schedule Always	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	XND-8081VZ	172.30.1.4	Schedule Always	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	XND-6081FZ	172.30.1.3	Schedule Always	<input checked="" type="checkbox"/>		

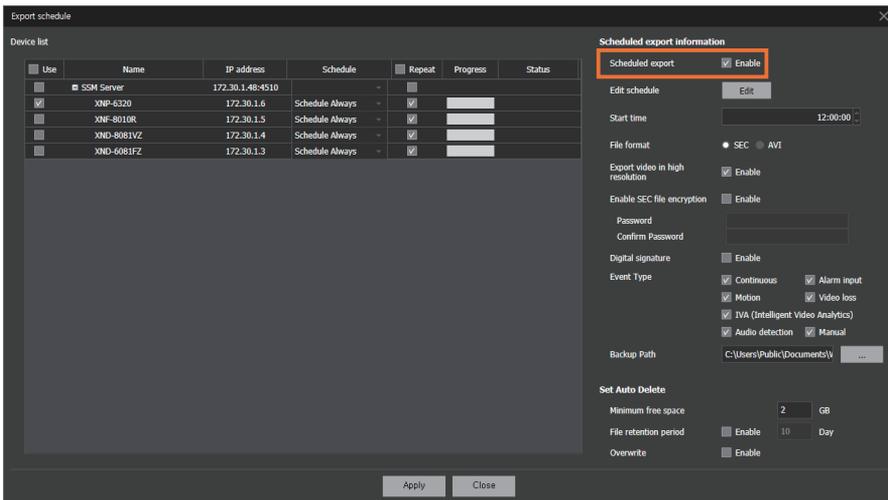
4. Select a schedule in the drop-down list.

Export schedule						
Device list						
<input type="checkbox"/> Use	Name	IP address	Schedule	<input type="checkbox"/> Repeat	Progress	Status
<input type="checkbox"/>	SSM Server	172.30.1.48:4510	-	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	XNP-6320	172.30.1.6	Schedule Always	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	XNF-8010R	172.30.1.5	Schedule Always	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	XND-8081VZ	172.30.1.4	Schedule None	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	XND-6081FZ	172.30.1.3	Schedule Always	<input checked="" type="checkbox"/>		

- Configure the repeat feature of export. If **Repeat** is unchecked, export is executed only once and the feature will be disabled.



- Check the **Enable** box for **Scheduled export**.



- Set the **Start time** for **Scheduled export**. You can either click the button on the scroll box or input the time in the cell.
- Set the **File format** for export.
  - SEC:** This is a file format for Hanwha Vision videos. When you run an EXE file with the same name as the SEC file, you can play the exported video in **Backup viewer**, which is a video playback program for SEC files only.
  - AVI:** You can play the exported video in normal video playback programs.
- To encrypt an SEC file, check the **Enable** box for **Enable SEC file encryption**.



#### NOTE

- When you play the exported file in **Backup viewer**, you must enter the password before playing.
- If you lose your password, then you will not be able to play the exported file.

10. Select the **Event type** of the video for the scheduled export.
11. Set the path to store the files for scheduled export.
12. If you want to automatically delete the videos after the scheduled export, specify the **Set Auto Delete**.
  - **Minimum free space:** You can set the minimum free space on the disk where the exported videos are saved. Once the free space on the disk reaches the specified minimum free space, you can no longer export videos to the disk.
  - **File retention period:** You can set the exported video file to be automatically deleted after the set period.
  - **Overwrite:** When there is no space available on the disk, you can set it to overwrite the previously exported file.
13. Click the **Apply** button.

## ■ Check Backup Status

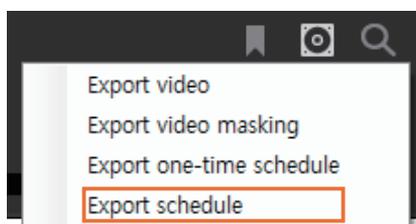
You can check the scheduled export status by device in the **Status** column in the **Device list**.

Export schedule						
Device list						
<input type="checkbox"/> Use	Name	IP address	Schedule	<input type="checkbox"/> Repeat	Progress	Status
<input type="checkbox"/>	SSM Server	172.30.1.48:4510		<input type="checkbox"/>		
<input checked="" type="checkbox"/>	XNP-6320	172.30.1.6	Schedule Always	<input checked="" type="checkbox"/>	Completed	Export complete
<input type="checkbox"/>	XNF-8010R	172.30.1.5	Schedule Always	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	XND-8081VZ	172.30.1.4	Schedule Always	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	XND-6081FZ	172.30.1.3	Schedule Always	<input checked="" type="checkbox"/>		

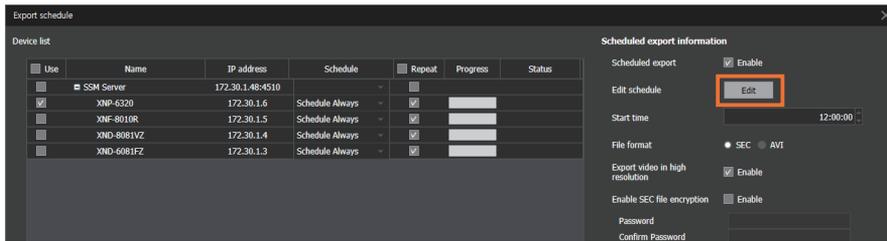
## ■ Edit Schedule

You can add, edit, or delete schedules to be exported.

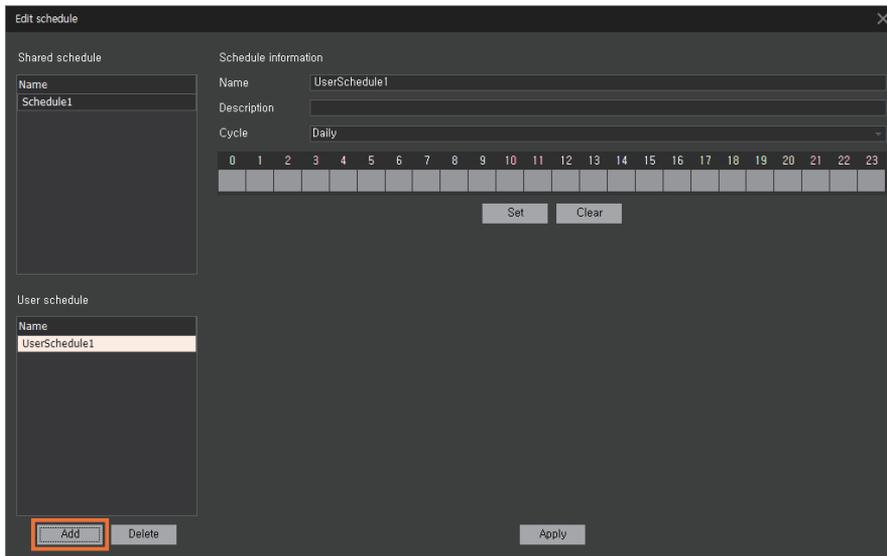
1. Click the  button at the top right of the timeline.
2. Click **Export schedule**.



3. Click the **Edit** button of **Edit schedule** from the **Export schedule** dialog box.

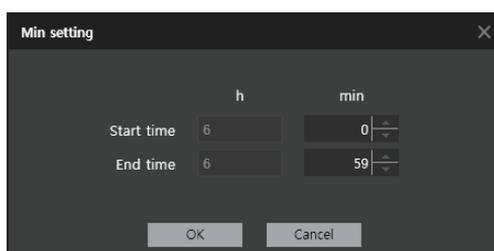


4. Click the **Add** button under **User schedule**.



 **NOTE**  
Shared schedule can be configured in **Configuration > System > Schedule**.

5. Enter **Name** and **Description** in **Schedule information**.
6. Select **Cycle** for the schedule.
  - **Daily**: Sets the schedule on a daily basis.
  - **Weekly**: Sets the schedule on a weekly basis.
7. Select a time to schedule from the time cell under cycle and click the **Set** button.
  - To clear the schedule, select the area to clear and click the **Clear** button.
  - Time cells in multiple sections can be selected by using the [Ctrl] key or dragging the mouse.
  - The **Min setting** dialog box appears when the selected time cell is double-clicked. Set the minutes of **Start time** and **End time** and click the **OK** button.



8. Click the **Apply** button.

# Use Bookmark

You can bookmark the video section of interest while in Playback mode. You can also play or edit the bookmark added.

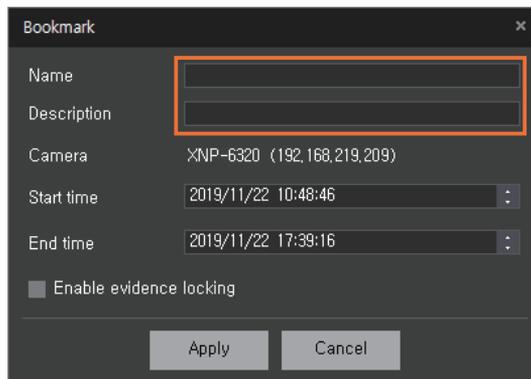


## NOTE

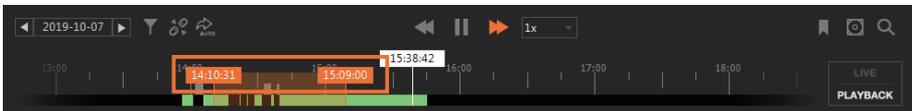
- Bookmark is also available in the **Advanced search** menu.
- You can bookmark only when you recorded the camera video in the **SSM Core Server**.

## Add Bookmark

1. Switch to Playback mode.
2. Select the video tile to add as a bookmark.
3. Click the  button at the top right of the timeline.
4. Enter **Name** and **Description** in the **Bookmark** dialog box.



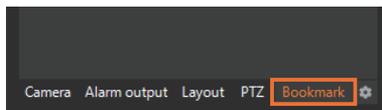
5. Set **Start time** and **End time** of the bookmark. For time settings, you can enter a time value either by clicking and moving the time tooltip on the timeline to the left or right or double-clicking the tooltip. For more information, please refer to [Set Time Interval](#).



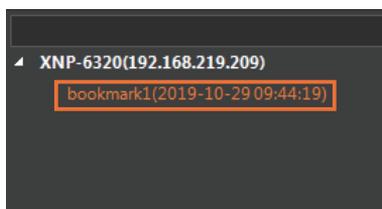
6. To prevent the video recordings within the bookmarked section from being deleted when the video is overwritten, check the **Enable evidence locking** box.
7. Click the **Apply** button. You can check the bookmarks you added in Bookmark tab.

## Play Bookmark

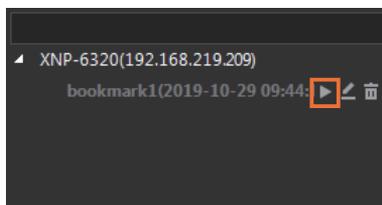
1. Click the **Bookmark** tab at the bottom left of the menu page.



2. Select the desired bookmark.

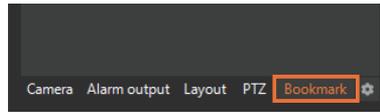


3. Click the  button to the right of the selected bookmark. The bookmarked recorded video is played.

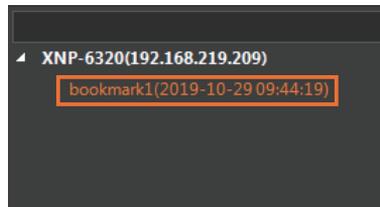


## Modify Bookmark

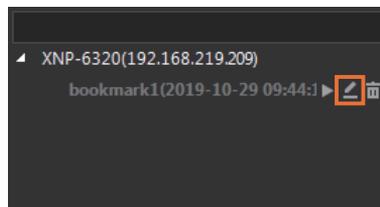
1. Click the **Bookmark** tab at the bottom left of the menu page.



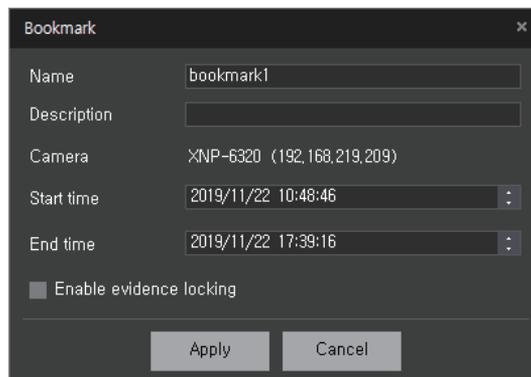
2. Select the desired bookmark.



3. Click the  button to the right of the selected bookmark.



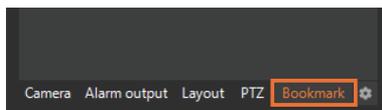
4. Modify the desired configurations in the Bookmark dialog box. Use the time tooltip on the timeline for bookmark time settings. For more information, please refer to [Set Time Interval](#).



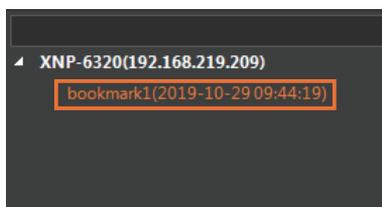
5. Click the **Apply** button. You can check the information of the bookmark you modified in the bookmark tree.

## Delete Bookmark

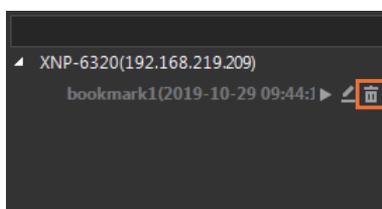
1. Click the **Bookmark** tab at the bottom left of the menu page.



2. Select the desired bookmark.



3. Click the  button to the right of the selected bookmark.



4. Click the **Apply** button.

## Move to Advanced Search Menu

When you click the  button on the time line, you can easily move to the **Advanced search** menu page without adding an **Advanced search** menu tab in the menu tab.

In the Monitoring menu playback mode, the recorded images of the camera are searched and played back, but in the **Advanced search** menu, various advanced search functions such as motion search or Intelligent Video Analytics (IVA) are available. For more information, please refer to [Search the Recorded Videos](#).

## Set Time Interval

You can set the start time and end time when exporting bookmarks or recorded videos to a file or using the search menu.

- You can modify time values by clicking and moving the time tooltip on the timeline to the left or right or double-clicking the tooltip.
- When you can't find the time tooltip, right-click on the timeline and click **Reset time range**. Then, the time tooltip appears on the timeline.



### NOTE

You can set the desired time interval when using bookmarks or search menu.

# Control Video Wall

**SSM** can be linked with **SSM-VM** to monitor high-quality videos from the network devices in Video wall. You can also control the settings of Video wall set by **SSM-VM** (Virtual Matrix) in **SSM Console Client** easily.

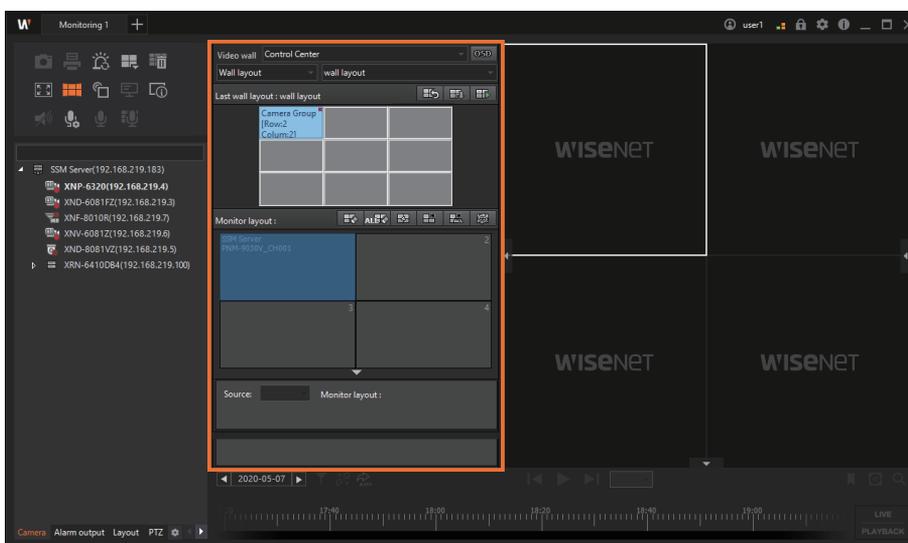


## NOTE

- To control the Video wall in **SSM Console Client**, **SSM-VM** must be installed.
- You can edit the information of the Video wall set by **SSM-VM** in **SSM Console Client**, but you can't save the edited information in **SSM-VM** automatically. To save the changed setting information, change the Video wall settings in **SSM-VM**.

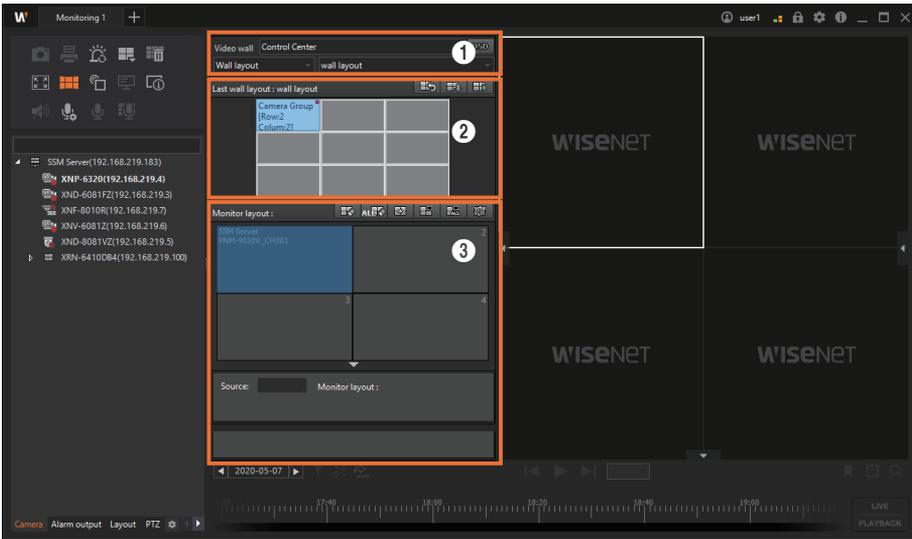
## Open the VM Menu

Click the  button from the Function Buttons at the top right of the Monitoring menu page. The VM menu appears in the Monitoring menu.



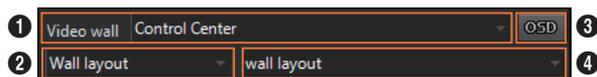
# Learn about Screen Configuration

VM menu screen is configured as follows:



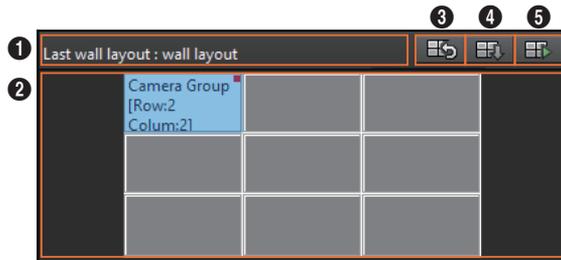
No.	Screen Configuration	Detailed Description on Functions
❶	Video wall setup	You can select the video wall or wall mode.
❷	Video wall	You can preview the selected Wall mode.
❸	Monitor Layout	You can preview the layout of the selected monitor in the video wall.

## Learn about Video Wall Setup



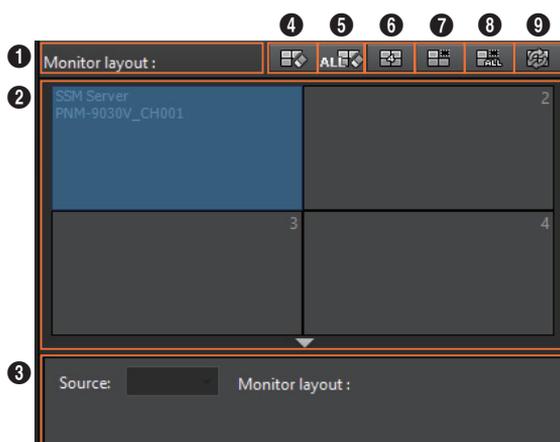
No.	Screen Configuration	Detailed Description on Functions
1	Video wall	You can select the desired items from the Video wall list.
2	Wall mode	You can select Wall layout, Wall sequence, Wall spot, or Direct Wall Display from the Wall mode list.
3	OSD	You can display items such as Date & Time, Camera name, Display event, IVA rules, etc. on the video tile of the video wall.
4	Detailed options	<p>You can set and configure the selected wall mode.</p> <ul style="list-style-type: none"> <li>• When you select the wall mode as Wall layout, you can select the desired items from the Wall layout list.</li> <li>• When you select the wall mode as Wall sequence, you can select the desired items from the Wall sequence list.</li> <li>• When you select the wall mode as Wall spot, you can select the desired items from the Wall spot list.</li> </ul>

## Learn about Video Wall



No.	Screen Configuration	Detailed Description on Functions
❶	Name	You can check the name of the Wall mode.
❷	Preview	You can preview the selected Wall mode.
❸	Return to previous Wall Spot mode	You can display as the Video wall mode before it was changed to the Wall spot mode.
❹	Selected monitor screen import	You can import the screen of the selected monitor to the video window of <b>SSM Console Client</b> .
❺	Startup option	You can start or stop the selected Wall mode.

## Learn about Monitor Layout



No.	Screen Configuration	Detailed Description on Functions
①	Name	You can check the name of the monitor layout.
②	Preview	You can preview the layout of the selected monitor in the video wall.
③	Camera information	You can check the camera information of the selected tiles.
④	Clear event	You can remove events displayed on the selected tiles.
⑤	Clear all events	You can remove events from all the tiles.
⑥	Change tile pattern	You can change the layout pattern of the monitor.
⑦	Remove the selected tile	You can remove the camera videos from the selected tiles.
⑧	Remove all tiles	You can remove the camera videos from all the tiles.
⑨	Load last settings	You can revert the edited monitor layout to the monitor layout set by SSM-VM.

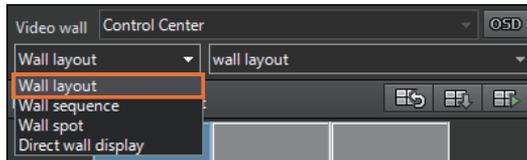
# Set as Wall Layout

You can set the Video wall for the Wall layout mode.

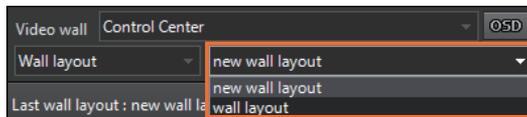
1. Select the desired **Video wall** from the **Video wall** list.



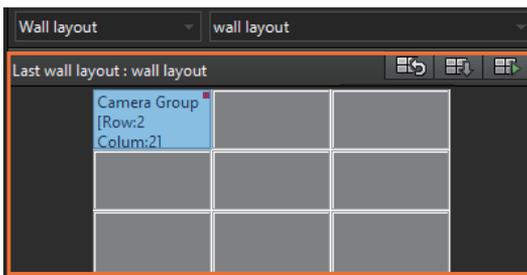
2. Select the **Wall layout** from the **Wall mode** list.



3. Select the desired **Wall layout** from the **Detailed options** of the wall layout.



4. The selected wall layout is displayed in the **Video wall**, and the changed wall layout is also displayed on the monitor of the video wall (VMD VIEWER).



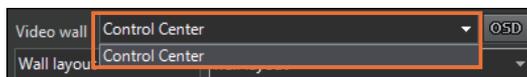
## NOTE

You can set various wall layouts in **SSM Console Client**. For more information, please refer to the Set [Edit Monitor Layout](#).

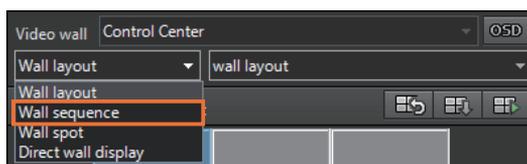
## Set as Wall Sequence

You can set the video wall for the Wall sequence mode. When you set the wall sequence, you can switch among multiple wall layouts sequentially in the Video wall to monitor videos from cameras. For more information, please refer to the SSM-VM Product Instruction Manual.

1. Select the desired **Video wall** from the **Video wall** list.



2. Select the **Wall sequence** from the **Wall mode** list.



3. Select the desired **Wall sequence** from the **Detailed options** of the wall sequence.



4. To run the wall sequence, click the  button. The wall sequence is played on the monitor (VMD VIEWER) of the video wall.



### NOTE

To stop the wall sequence, click the  button.

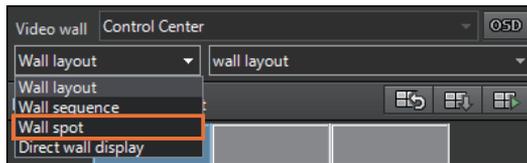
# Set as Wall Spot

You can set the video wall for the Wall spot mode. When you set the Wall spot mode, you can set the video wall to change to the specified wall layout when an event occurs on a specific camera. For more information, please refer to the SSM-VM Product Instruction Manual.

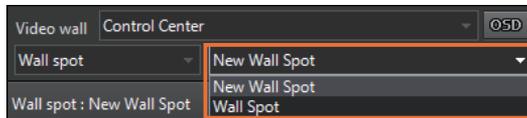
1. Select the desired **Video wall** from the **Video wall** list.



2. Select the **Wall spot** from the **Wall mode** list.



3. Select the desired **Wall spot** from the **Detailed options** of the wall spot.



4. To run the wall spot, click the  button. The changed wall spot is started on the monitor (VMD VIEWER) of the video wall. When an event occurs on a specific camera as set in **SSM-VM**, the video wall changes to the wall layout set for the wall spot.



## NOTE

- To stop the wall spot, click the  button.
- To return to the previous layout after the wall spot has run, click the  button.

# Set Direct Wall Display

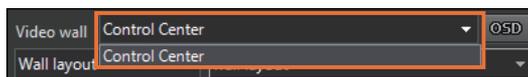
**Direct Wall Display** is a function that allows users to play video wall sequences simply by selecting multiple cameras and then clicking the  button.



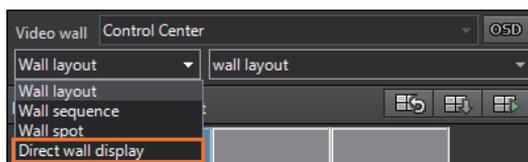
## NOTE

- **Direct Wall Display** is a one-time function, so the setting value is not saved in **SSM Console Client**.
- The wall layout is displayed based on the last layout set in the Video wall.

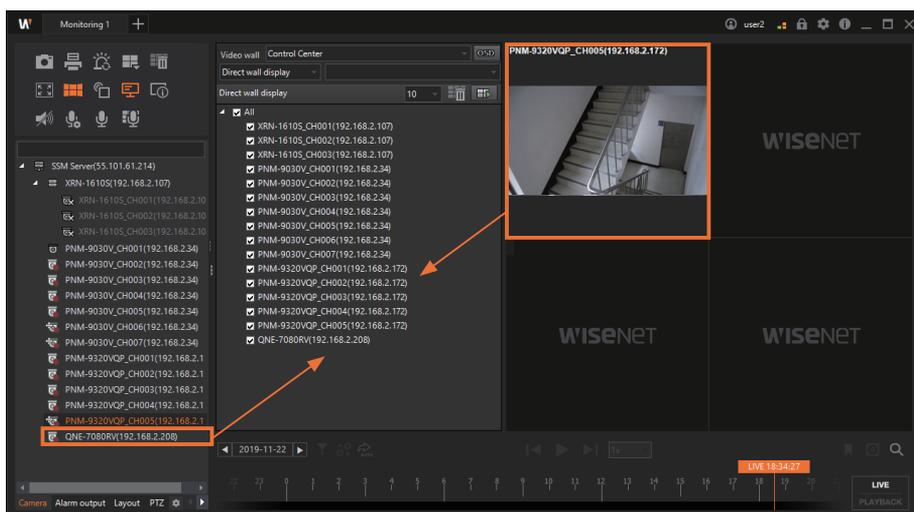
1. Select the desired **Video wall** from the **Video wall list**.



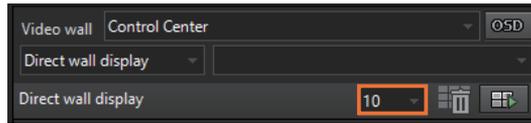
2. Select the **Direct Wall Display** from the **Wall mode list**.



3. Select the desired camera from the **Camera** tab, and then drag and drop it into the **Direct Wall Display** window. Alternatively, you can select the tile videos in the video window, and then drag and drop them.



4. Set the dwell time of the video wall.



5. To start the Direct Wall Display, click the  button. The camera list set in the Video wall layout will change by dwell time order.



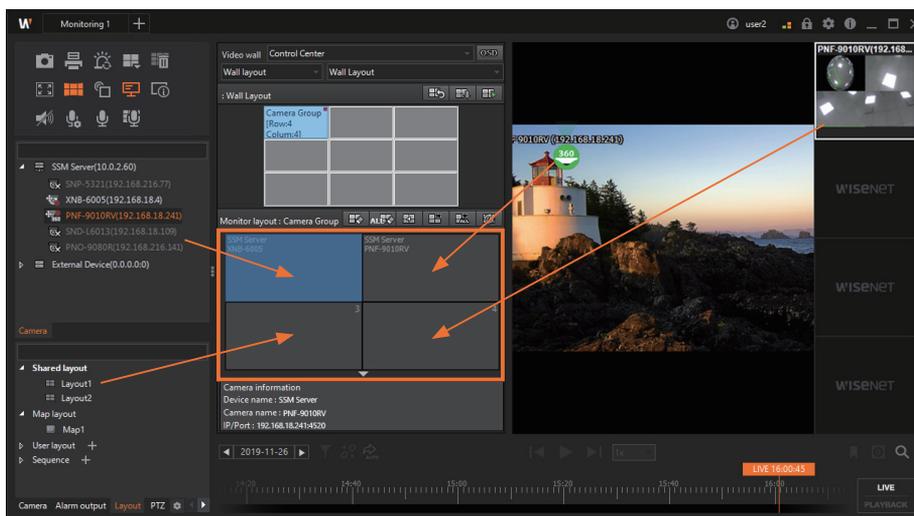
#### NOTE

- To stop the Direct Wall Display, click the  button.
- To select multiple cameras from the Camera tab, you can select only the desired cameras by pressing the **Ctrl** or **Shift** key.
- You can click "SSM Server" at the top of the tree to set all cameras registered in the server at once.
- To change the camera order in the Camera list, select the desired camera and then drag and drop it to the new position to change the camera position.
- To delete one camera from the **Direct Wall Display** window, you can press the **Delete** key to delete it.
- To delete all the cameras from the **Direct Wall Display** window, you can click the  button to delete all of them.

# Edit Monitor Layout

You can easily edit the monitor layout of the video wall in **SSM Console Client**. When you edit the monitor layout, your edits are immediately reflected on the monitor (VMD VIEWER) of the Video wall. However, they are not immediately reflected when the Wall mode is running.

- Change to Shared Layout
- Monitor Camera Videos in the Camera Tab
- Monitor Tile Videos in the Video Window
- Monitor Map Layout Icons



## Change to Shared Layout

1. Select the **Layout** tab from the tree tab on the **Monitoring** menu page.
2. Select the desired layout from the Shared Layout list, and then drag and drop it into the **Monitor Layout** window. The monitor of the video wall changes to the selected layout.

## Monitor Camera Videos in the Camera Tab

1. Select the **Camera** tab from the tree tab on the **Monitoring** menu page.
2. Select the desired camera from the Camera list, and then drag and drop it into the **Monitor Layout** window. The videos of the selected camera appear on the monitor of the video wall.

## Monitor Tile Videos in the Video Window

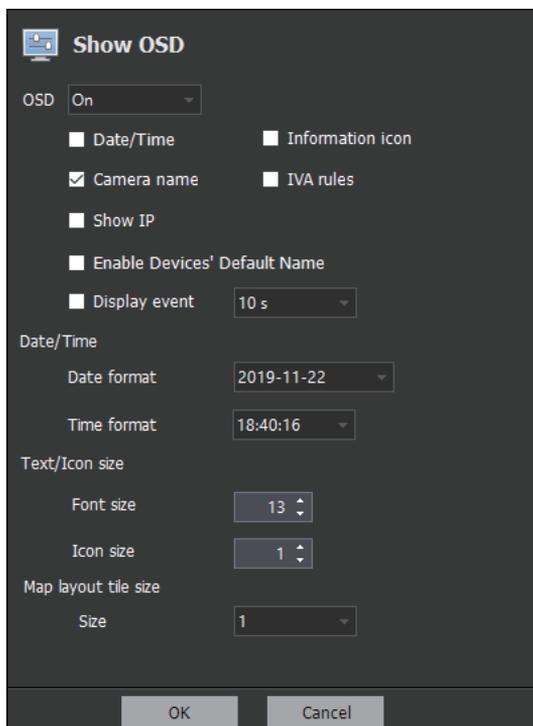
1. Select the videos of the desired tiles in the Video window on the **Monitoring** menu page.
2. Drag and drop the selected tiles into the **Monitor Layout** window. The videos of the selected tiles appear on the monitor of the video wall.

## Monitor Map Layout Icons

1. Select the **Layout** tab from the tree tab on the **Monitoring** menu page.
2. Select the desired map layout and double-click it.
3. Select the icon in the map layout.
4. Drag and drop the selected icon into the **Monitor Layout** window. The videos of the selected icon appear on the monitor of the video wall.

## Show OSD in Video Wall

You can display items such as Date & Time, Camera name, Display event, IVA rules, etc. on the video tile of the Video wall. For more information, please refer to the [Set Console Client](#) > [Set Display](#) > [OSD text](#).



The screenshot shows a dark-themed dialog box titled "Show OSD". It contains several configuration options:

- OSD:** A dropdown menu set to "On".
- Checkboxes:**
  - Date/Time
  - Camera name
  - Show IP
  - Enable Devices' Default Name
  - Display event
  - Information icon
  - IVA rules
- Display event:** A dropdown menu set to "10 s".
- Date/Time:**
  - Date format:** A dropdown menu set to "2019-11-22".
  - Time format:** A dropdown menu set to "18:40:16".
- Text/Icon size:**
  - Font size:** A spinner box set to "13".
  - Icon size:** A spinner box set to "1".
- Map layout tile size:**
  - Size:** A dropdown menu set to "1".

At the bottom of the dialog are two buttons: "OK" and "Cancel".

# Search the Recorded Videos

You can search and play the event logs that occurred on your devices. Also, by connecting to an AI camera, you can play videos or search for images in various conditions such as people, face, vehicle, vehicle number.



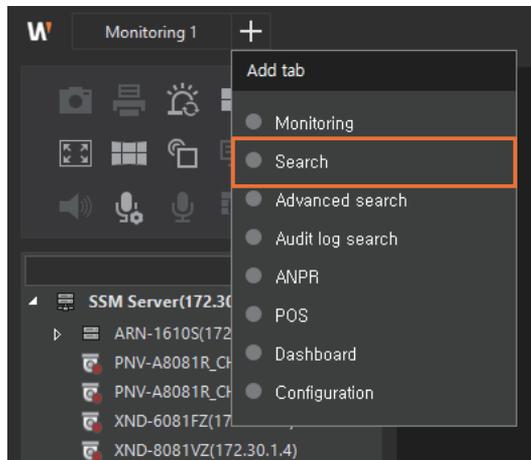
## NOTE

To use AI search when AI cameras have been linked, you must configure the following settings in the camera web viewer.

- **WEBVIEWER > Analytics > Object detection > Enable object detection**
- **WEBVIEWER > Analytics > IVA > Enable IVA**

## Open the Search Menu Page

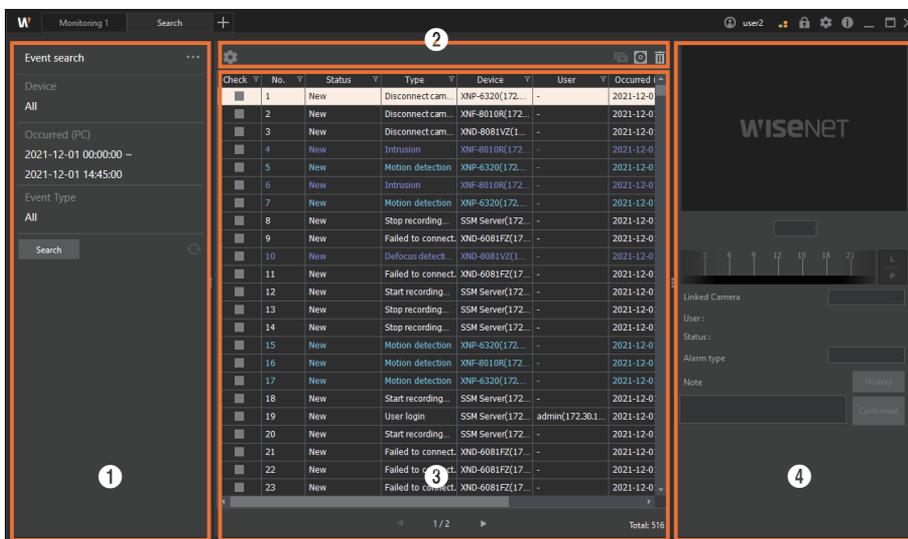
1. Run **SSM Console Client**.
2. Enter your ID and password in the **Login** dialog box, and click the **Login** button.
3. Click the **[+]** button at the top left of the program, and then select **Search** in the **Add tab** dialog box.



# Searching Events

You can search and play the event logs that occurred on your devices. You can also export the searched event lists to a file.

## Learn about the Event Search Screen Configuration

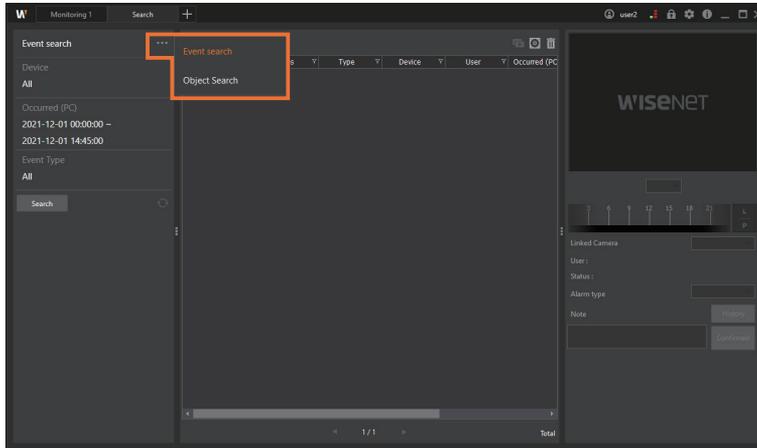


No.	Screen Configuration	Detailed Description on Functions
❶	Tree tab	You can see the list of camera, alarm input, alarm output, and POS.
❷	Search options	You can search events by filtering by date or event type.
❸	Event list	You can check the searched event results.
❹	Event details	You can check the details of the selected events in the event list or manage the status of the events.

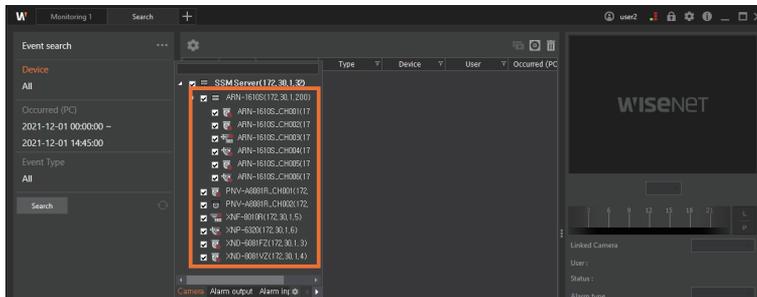
## Search Event Logs

You can search the event logs or play the video recorded at the time of event occurrence.

1. Open the **Search** menu page.
2. Click the  button to select **Event search**.

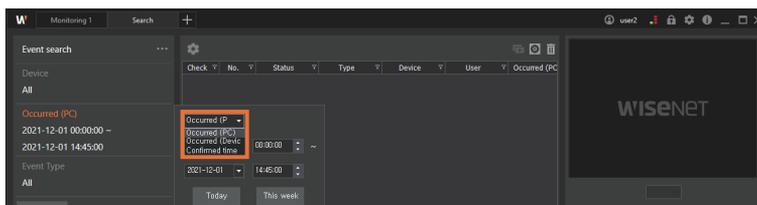


3. Click the **Device** to select the desired camera from the **Camera** tab.

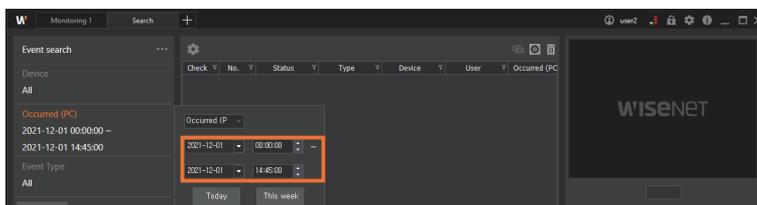


- You can also select the camera you want in the **Alarm output**, **Alarm input**, or **POS** tab.

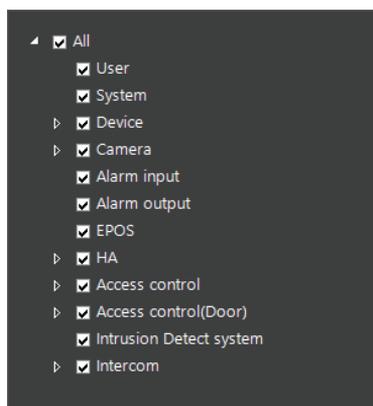
- Select the base time at the moment when an event occurred.



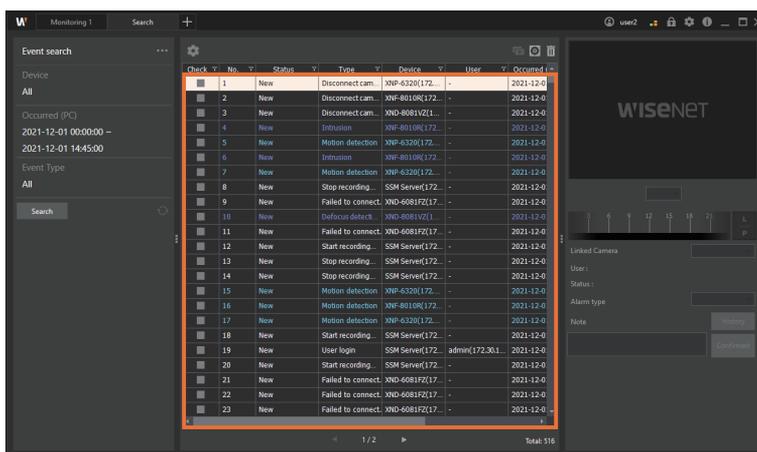
- **Occurred (PC):** You can search for the time when an event occurred based on the PC time.
  - **Occurred (Device):** You can search for the time when an event occurred based on the device time.
  - **Confirmed time:** You can search for the search time based on the confirmed time of the event. Confirmed time refers to the time when you confirmed through [Confirm Events](#).
- Set Start time and End time for search. Click the arrow in the date drop-down list to select the date in the calendar that appears, and click the up/down arrows in the time scroll box to set the time. You may also click the cell to enter the values directly.



- If you want to search for specific events only, click the **Event Type** to select the event items to filter. If you click the  button to the left of some events, you can select the detailed events of that event.



7. Click the **Search** button. The search results are displayed.



8. If you double-click the event you want to check in the Event list, then the video at the time of the event occurrence is played in the event details.

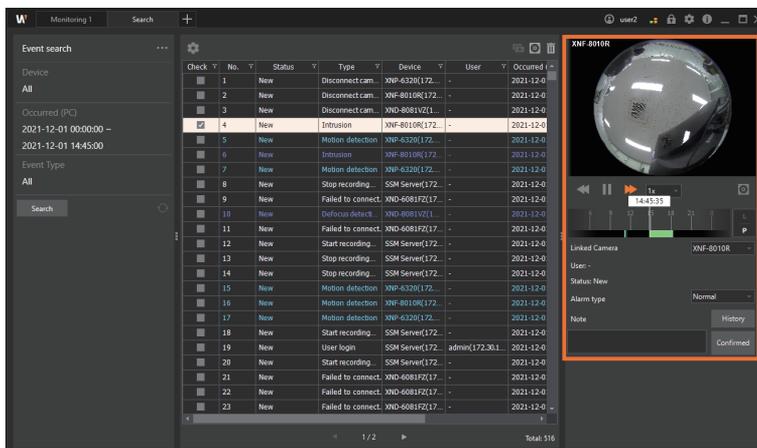


**NOTE**

A recorded video is only played in the Event details when there is the recorded video at the time of event occurrence.

## Confirm Events

When you select the event you want to confirm in the event search list, you can play the recorded video at the time of the event occurrence. You can manage the event status after monitoring the event video.



1. Open the **Search** menu page.
2. Click the **Event search** button.
3. Select the desired camera, date and time range, and event type, and then search the event logs. The event list appears.
4. Double-click the event you want to confirm in the event list. The video recorded at the time of the event occurrence is played in the event details to the right of the page.
5. Select the camera connected to the video of the occurred event.
6. Set **Alarm type** after checking the event video.  
**Alarm type:** Normal, Abnormal, Others
7. Enter the event status values in **Note**.
8. Click the **Confirmed** button.



## NOTE

- When you click the **History** button, you can confirm the status and record of the event. In case you have entered different event actions for each user on the same event, you can confirm the event record through the event history.

**Example:** Suppose when the same event occurs, User A judges it as an intruder and writes the intrusion route in the action details. On the other hand, User B inputs an additional description and closes the situation. Details of this input process can be confirmed via History.

- The recorded video is played only when the camera video at the time of event occurrence is recorded.
- You cannot play the recorded videos from one camera on several menus at the same time.

**Example:** Recorded videos from Camera A cannot be played in the **Instant viewer** and **Search** menu pages at the same time.

The screenshot shows a window titled "History" with a table containing the following data:

No.	Status	Type	Device	User	Occurred (PC)	Confirmed time
1	Confirmed	Motion Detection	PND-A9081RV_...	user2	2019-11-22 19:...	2019-11-22 19:...
2	New	Motion Detection	PND-A9081RV_...	user2	2019-11-22 19:...	-

Below the table is a large empty area, likely for video playback, and a "Close" button at the bottom center.

## Play Event Videos Sequentially

You can play and monitor multiple event videos sequentially.

1. Open the **Search** menu page.
2. Click the  button to select **Event search**.
3. Select the desired camera, date and time range, and event type, and then search the event logs. The event list appears.



### NOTE

- Sequential playback of event videos is available after performing "Search event logs."
- For more information about searching the event logs, please refer to [Search Event Logs](#).

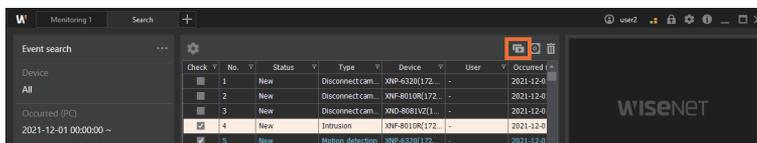
4. Select the events you want for sequential playback in the search results list.



### NOTE

You must select at least two events to use sequential playback.

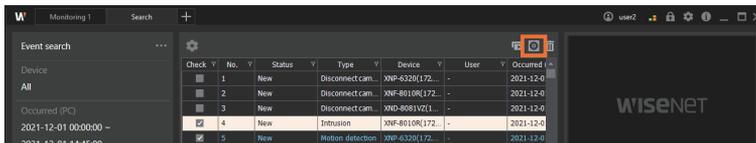
5. Click the  button in the search options. The recorded videos of the selected events are played sequentially in the event details.



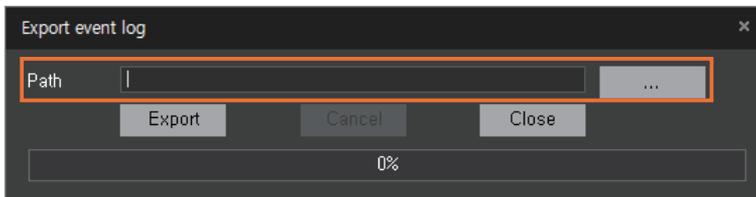
## Export Event Logs to a File

You can export the searched event results to a file.

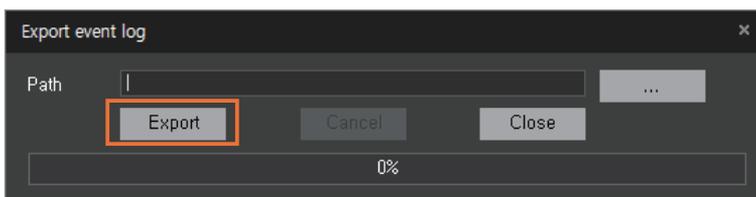
1. Open the **Search** menu page.
2. Click the  button to select **Event search**.
3. Select the desired camera, date and time range, and event type, and then search the event logs. The event list appears. For more information about searching the event logs, please refer to [Search Event Logs](#).
4. Click the  button in the search options.



5. Set the path to store the log files in the **Export event log** dialog box.



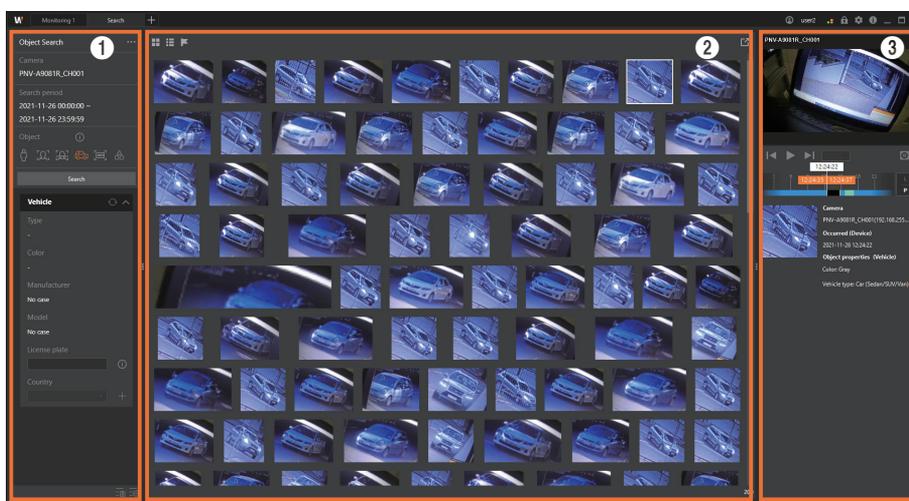
6. Click the **Export** button. Log files support CSV file format only.



# AI Search

By connecting to an AI camera, you can play videos or search for images in various conditions, such as person, face, vehicle, license plate, or a user defined condition. You can also export the searched results to a file.

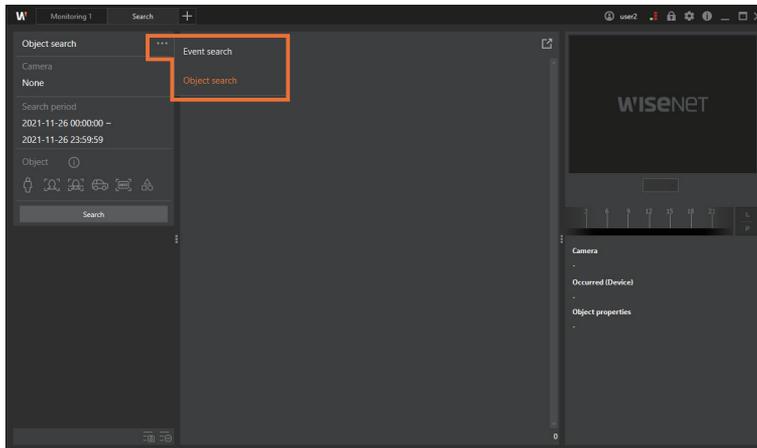
## Learn about the AI Search Screen Configuration



Number	Screen Configuration	Detailed Feature Explanation
1	Search Option	<p>You can set various search conditions, such as the date, time, person, face, vehicle, license plate, or a user defined condition.</p> <ul style="list-style-type: none"> <li> : Undo selected search parameters and reselect search parameters.</li> <li> : Save selected search parameters.</li> <li> : You can select and apply a saved search condition list.</li> </ul>
2	Search Results	<p>You can view the Search results.</p> <ul style="list-style-type: none"> <li> : You can view search results with thumbnails.</li> <li> : You can view search results on a list.</li> <li> : You can designate flags on the search results.</li> <li> : You can save search results as a .jpg file.</li> </ul>
3	Search Results Detailed Information	<p>Search results can be viewed as videos. Double-clicking the desired item from the search results will playback the video recording, and you can confirm the section on the time line at which the video recording is located. If you click the event list once, a static video image will be displayed in the event details.</p>

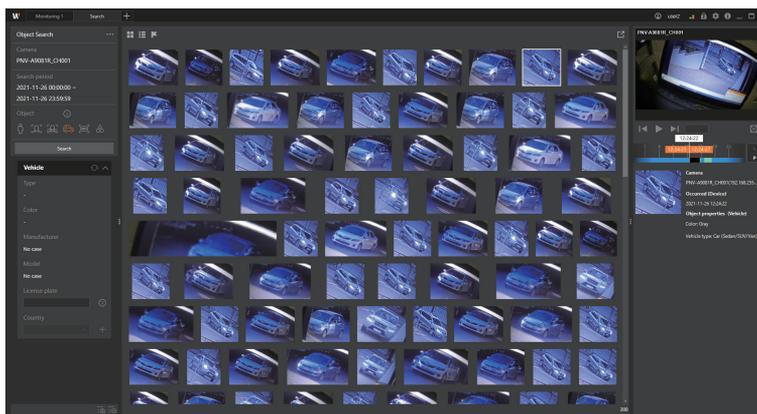
## AI Search

1. Open the **Search** menu page.
2. Click the  button and select **Object search**.



3. Set the camera, date, and time range to search.
4. Select an object you want to search.
  - **Person:** You can filter by selecting gender, clothing (top/bottom) color, or whether they are carrying a bag.
  - **Face:** You can filter by selecting gender, age, or whether they are wearing glasses/a face mask.
  - **Face recognition:** You can register a face image and select Similarity as a search condition. See [Face Recognition Search](#) for detailed information.
  - **Vehicle:** You can filter by selecting type, color, manufacturer, model, license plate, or country.
    - Manufacturer, model, license plate, or country are supported on FFGroup devices.
    - If you have obtained ANPR license certification, the searched vehicle can be registered as a restricted vehicle.
  - **License plate:** You can select a plate number as a search condition.
  - **User defined:** You can filter by selecting the name of a displayed user-defined object.

5. Click the **Search** button. The search results are then displayed as thumbnails.

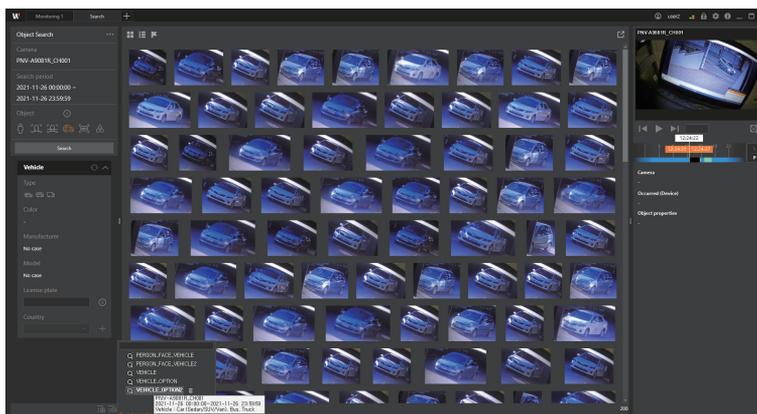


- Click on the  button to view the search results as a list. Hover the cursor over the list to view thumbnail images.
6. If you select the desired filter, you can check a list of search results.
    - Click the  button to remove selected filters and select new ones.
  7. To view a search result, double-click the thumbnail or list item for the result. The selected video recording will playback, and you can confirm the section on the time line at which the video recording is located.

## Save Search Parameters

1. Open the **Search** menu page.
2. Click the  button and select **Object search**.
3. Set the camera, date, and time range to search.
4. Select an object you want to search.
  - **Person:** You can filter by selecting gender, clothing (top/bottom) color, or whether they are carrying a bag.
  - **Face:** You can filter by selecting gender, age, or whether they are wearing glasses/a face mask.
  - **Face recognition:** You can register a face image and select Similarity as a search condition. See [Face Recognition Search](#) for detailed information.
  - **Vehicle:** You can filter by selecting type, color, manufacturer, model, license plate, or country.
    - Manufacturer, model, license plate, or country are supported on FFGroup devices.
    - If you have obtained ANPR license certification, the searched vehicle can be registered as a restricted vehicle.
  - **License plate:** You can select a plate number as a search condition.
  - **User defined:** You can filter by selecting the name of a displayed user-defined object.
5. Click the **Search** button. The search results are then displayed as thumbnails.
  - Click on the  button to view the search results as a list. Hover the cursor over the list to view thumbnail images.
6. If you select the desired filter, you can check a list of search results.
  - Click the  button to remove selected filters and select new ones.
7. Click the  button to save the selected filters.

8. Select a name and click the **OK** button, and the list will be saved.
  - To check the list of saved search filters, click the  button.



- If you double-click the desired saved filter search from the list, the saved search will be applied to the search window and you can start a new search.
- You can check the search filters by hovering the cursor over the list.
- To delete a list, select the desired list and click the  button.

## View Flagged List

1. Open the **Search** menu page.
2. Click the  button and select **Object search**.
3. Set the camera, date, and time range to search.
4. Select an object you want to search.
  - **Person:** You can filter by selecting gender, clothing (top/bottom) color, or whether they are carrying a bag.
  - **Face:** You can filter by selecting gender, age, or whether they are wearing glasses/a face mask.
  - **Face recognition:** You can register a face image and select Similarity as a search condition. See [Face Recognition Search](#) for detailed information.
  - **Vehicle:** You can filter by selecting type, color, manufacturer, model, license plate, or country.
    - Manufacturer, model, license plate, or country are supported on FFGroup devices.
    - If you have obtained ANPR license certification, the searched vehicle can be registered as a restricted vehicle.
  - **License plate:** You can select a plate number as a search condition.
  - **User defined:** You can filter by selecting the name of a displayed user-defined object.
5. Click the **Search** button. The search results are then displayed as thumbnails.
  - Click on the  button to view the search results as a list. Hover the cursor over the list to view thumbnail images.



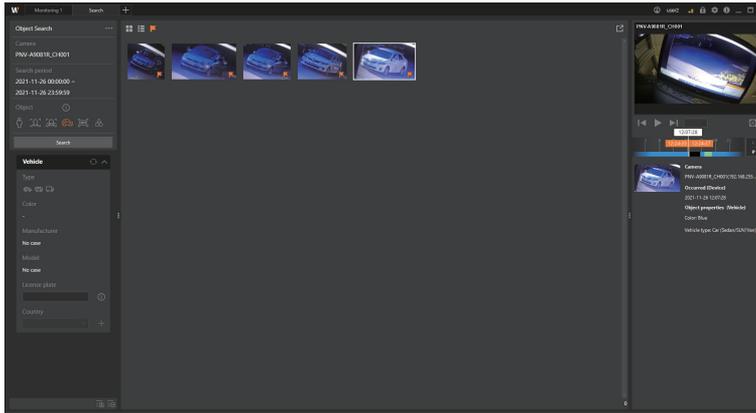
### NOTE

You can only set flags when viewing search results via thumbnails.

6. Hover the cursor over the desired image from the search results and click the  button.



7. To view only flagged results, click the  button.

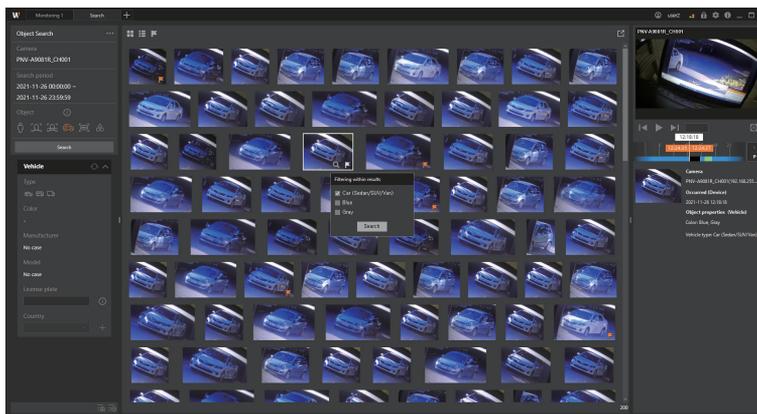


**NOTE**

The flagged results will be deleted if you search again.

## Search again with Bestshot

1. Open the **Search** menu page.
2. Click the  button and select **Object search**.
3. Set the camera, date, and time range to search.
4. Select an object you want to search.
  - **Person:** You can filter by selecting gender, clothing (top/bottom) color, or whether they are carrying a bag.
  - **Face:** You can filter by selecting gender, age, or whether they are wearing glasses/a face mask.
  - **Face recognition:** You can register a face image and select Similarity as a search condition. See [Face Recognition Search](#) for detailed information.
  - **Vehicle:** You can filter by selecting type, color, manufacturer, model, license plate, or country.
    - Manufacturer, model, license plate, or country are supported on FFGROUP devices.
    - If you have obtained ANPR license certification, the searched vehicle can be registered as a restricted vehicle.
  - **License plate:** You can select a plate number as a search condition.
  - **User defined:** You can filter by selecting the name of a displayed user-defined object.
5. Click the **Search** button. The search results are then displayed as thumbnails.
  - Click on the  button to view the search results as a list. Hover the cursor over the list to view thumbnail images.
6. Hover the cursor over the most satisfactory image from the search results and click the  button.



7. Select the desired conditions, then click the **Search** button.

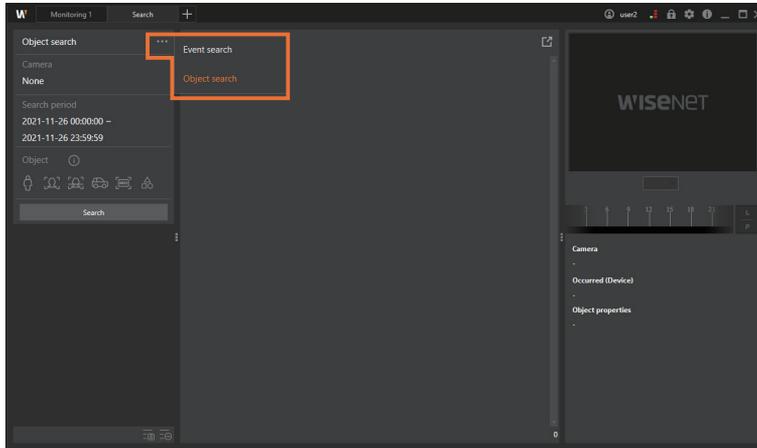
- You can filter by adding other conditions to the selected BestShot conditions.



## Face Recognition Search

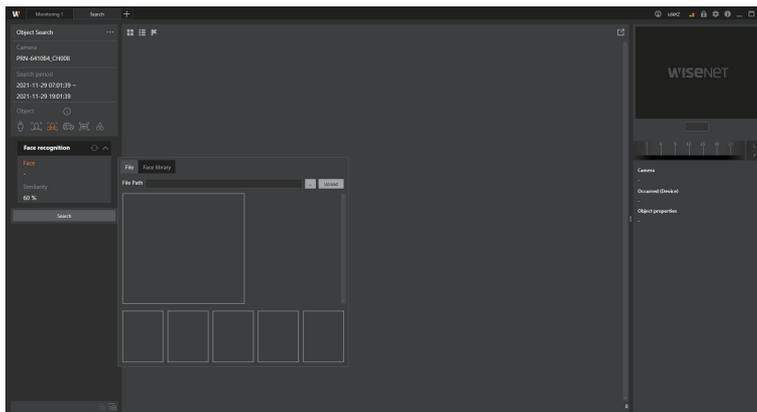
Face recognition search is available only on devices authorized by a user.

1. Open the **Search** menu page.
2. Click the  button and select **Object search**.

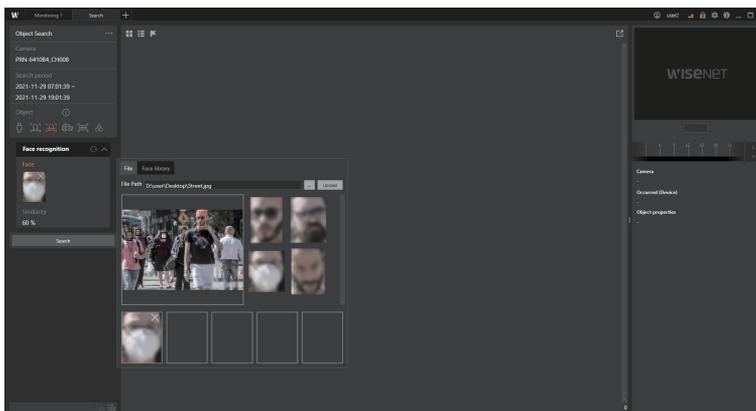


3. Set the camera, date, and time range to search.
4. Select the **Face recognition** object.
5. Click **Face**.

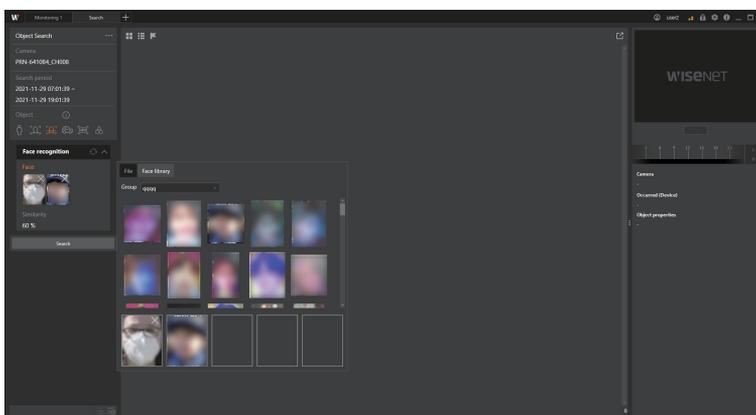
A face image can be registered as a search condition. You can use face images registered from your storage device and perform search in the **Face library** tab.



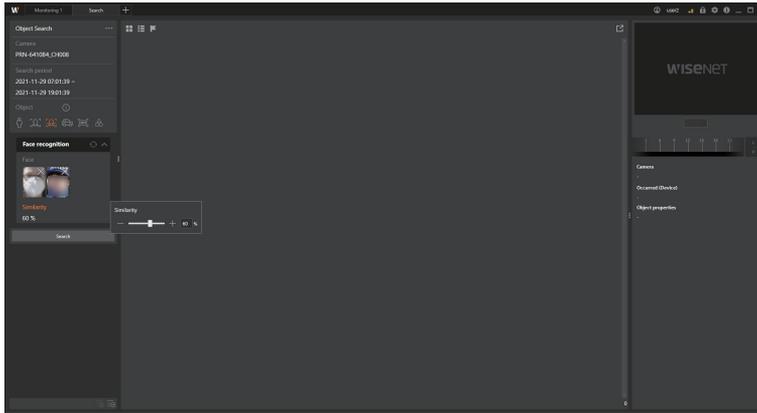
- Click the **...** button from the **File** tab. Select an image to be uploaded and click the **Upload** button. Doing so will extract and display only the faces from the uploaded images. Click a desired face (up to 5 faces) to register it as the face to be searched.



- To register a face image from storage devices as a search condition, select a desired face image from the **Face library** tab.

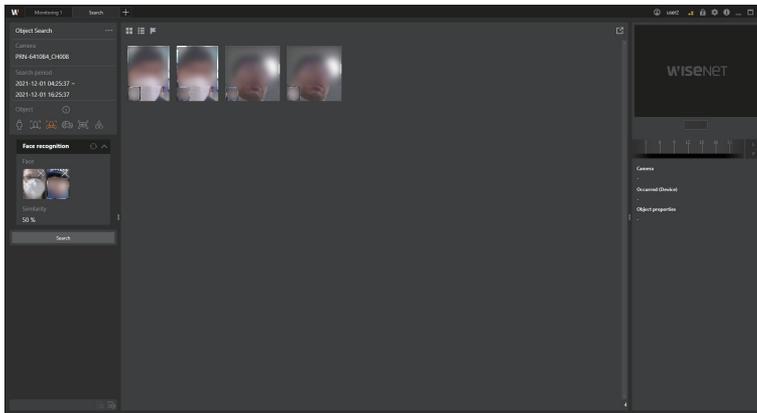


8. Set the face similarity.



- Click the  button to clear the selected search condition and select one again.

9. Click the **Search** button. The search results will be displayed as thumbnails.



10. Double-click a thumbnail to check the search result. The selected video recording will be played back, and the section of the video recording can be checked in the timeline.

# Advanced Search the Recorded Videos

You can search the camera videos recorded in **SSM Core Server** to check the event with motion or the event passing by the virtual line on the video or coming in and out of the virtual area.

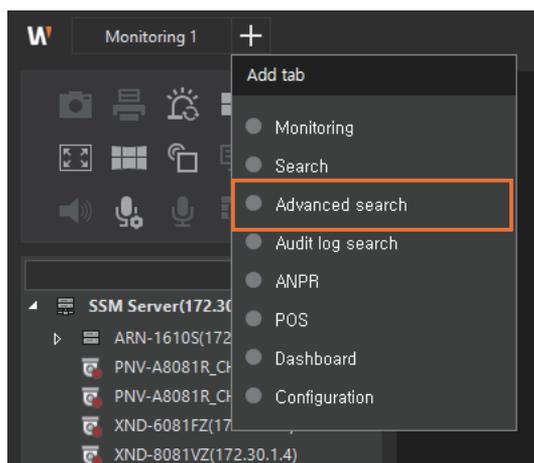


## NOTE

- To search the recorded videos by date or event, you can check Playback mode in the Monitoring menu. For more information, please refer to [Search the Recorded Videos by Date](#) or [Search the Recorded Videos by Event](#).
- Motion search and Smart search functions can be used on the recorded videos of one camera only.. You cannot use these functions to search multiple camera videos at the same time.
- Devices that do not support Motion search can use Thumbnail search.
- To use Smart search, all of the following conditions must be met:
  - If the camera setting is set to use IVA, or the camera does not support IVA, **Motion detection** is set instead of IVA;
  - Hanwha Vision's camera is registered as SUNAPI protocol on **SSM Core Server**; and
  - The camera video must be recorded on **SSM Core Server**.

## Open the Advanced Search Menu Page

1. Run **SSM Console Client**.
2. Enter your ID and password in the **Login** dialog box, and click the **Login** button.
3. Click the **[+]** button at the top left of the program, and then select **Advanced search** in the **Add tab** dialog box.



# Thumbnail Search

Thumbnail search menu enables you to use **Motion search** and **Thumbnail search**.

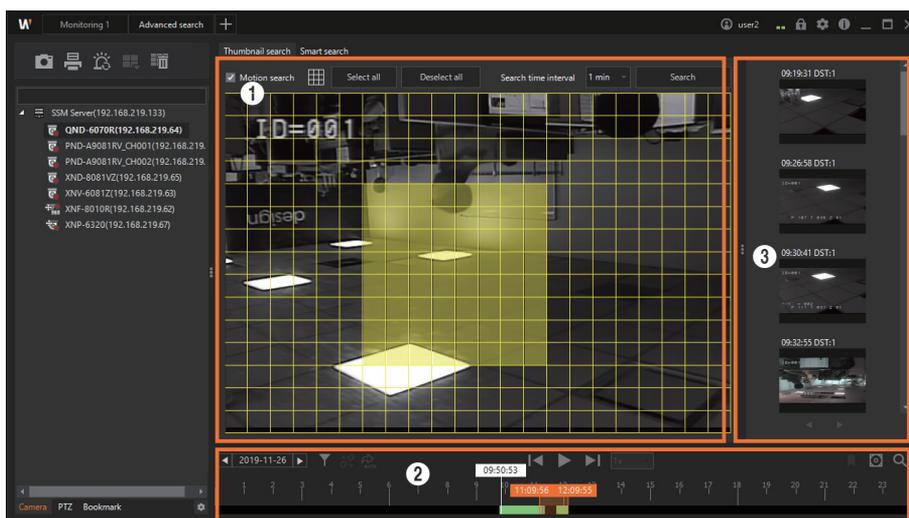
- **Motion search:** It displays the thumbnails at the time of the motion detection event at the set search time interval.
- **Thumbnail search:** It displays the thumbnails at the set search time interval.



## NOTE

- Devices that support the motion detection will have Motion search activated in the search options.
- Devices that do not support Motion search can use Thumbnail search.

## Learn about the Thumbnail Search Screen Configuration



No.	Screen Configuration	Detailed Description on Functions
①	Search options	<p>You can set the search conditions (e.g., area, thumbnails display time interval, etc.) for Motion search or Thumbnail search.</p> <ul style="list-style-type: none"> <li>• Motion search: You can search a video recorded at the moment when a motion detection event occurred. This is only available in DVR.</li> <li>• Select all: You can set the entire video on the video tile as a motion search area. This is only available in DVR.</li> <li>• Deselect all: You can deselect all of the search areas set on the video tile. This is only available in DVR.</li> <li>• Search time interval: You can perform either Motion search or Thumbnail search based on the time you have set.</li> </ul>
②	Timeline	You can check the sections with recorded videos and set the time interval to search.
③	Search results	When the search is complete, the search results are displayed as thumbnails.

## Search Motion

1. Open the **Advanced search** menu page.
2. Select the desired camera from the camera tree in the **Camera** tab.
3. Select **Motion search** from search options.



### NOTE

If the selected camera does not support Motion search, then you cannot select Motion search.

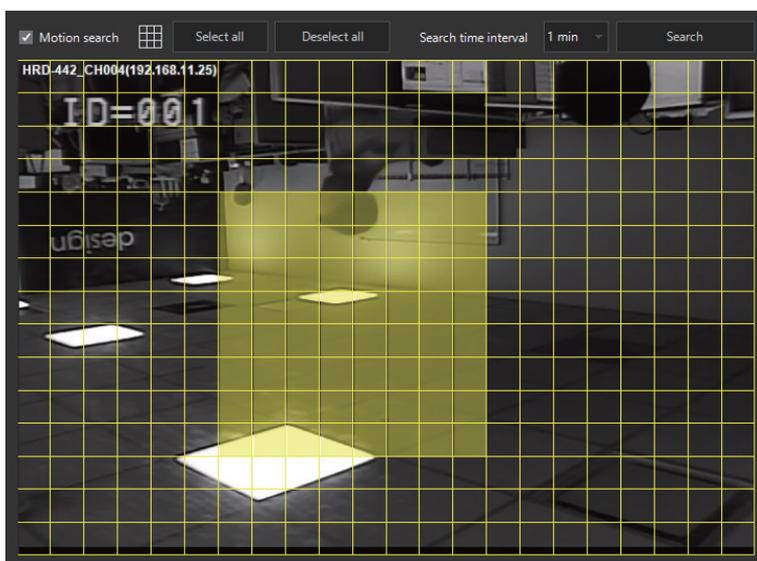
4. Set the date and time range to perform a **Motion search** in the timeline. Use the time tooltip on the timeline to change time settings. For more information, please refer to [Set Search Time Interval](#).



### NOTE

The time range for Motion search can be set up to 1 hour (60 minutes).

5. Set a search area on the video.



- **Set search area:** You can select a search area by clicking the cells of the area to be searched in the video tile or by clicking the top left cell of the search area and dragging to the bottom right.
- **Release selected area:** You can release the selection by clicking the selected cells once again. You may also deselect the area by dragging the mouse on the selected area.
- **Set/Release the entire area:** You can set or release the search area on the entire area with the **Select all** or **Deselect all** button.

6. Set the **Search time interval**. When no search time interval is set, the default value is applied.



7. Click the **Search** button. Search results are displayed as thumbnails.
8. Select the desired thumbnails in search results to check the search results. The video recorded at the moment when a motion detection event occurred is played.

## Search Thumbnails

1. Open the **Advanced search** menu page.
2. Select the desired camera from the camera tree in the **Camera** tab.
3. Deselect the check box next to **Motion search** in search options.
4. Set the date and time range to perform a **Thumbnail search** in the timeline. Use the time tooltip on the timeline to change time settings. For more information, please refer to [Set Search Time Interval](#).



### NOTE

The time range for Thumbnail search can be set up to 1 hour (60 minutes).

5. Set the **Search time interval**.



6. Click the **Search** button. Search results are displayed as thumbnails.
7. Select the desired thumbnails in search results to check the search results. The video recorded at the selected time of search is played.

# Smart Search

You can search for the motion videos that match the conditions set for the recorded video at a specific time.

## ■ Learn about Virtual Area

Once a search area is set on the video, it detects the motions of specific conditions such as intrusion, enter, exit, appear (disappear), or loitering in the area.

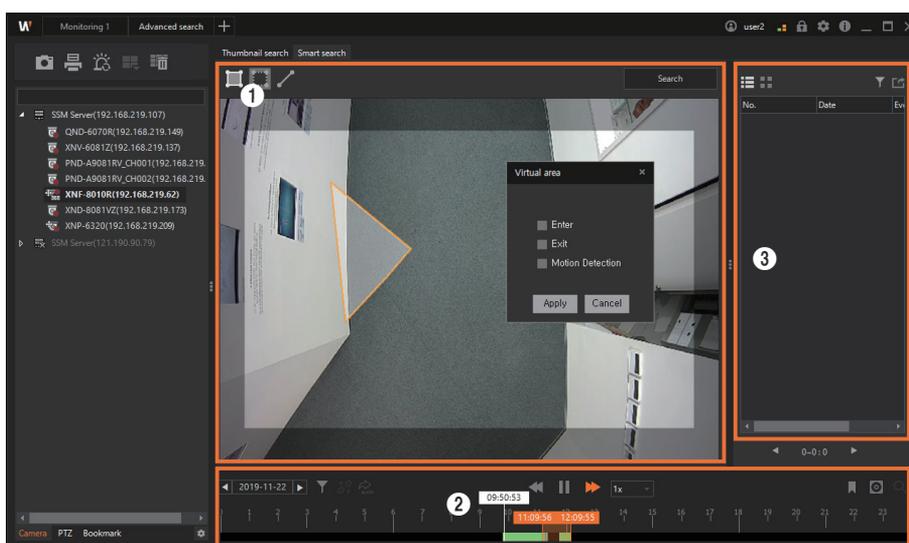
## ■ Learn about Exclude Area

It sets the area where the motion of specific conditions will not be detected on the video.

## ■ Learn about Virtual Line

It detects the passing of an object based on the virtual line and direction set on the video.

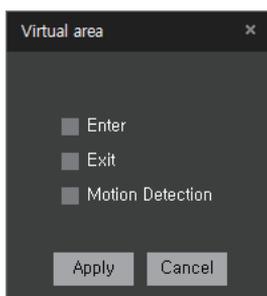
## Learn about the Smart Search Screen Configuration



No.	Screen Configuration	Detailed Description on Functions
①	Search options	<p>You can set the event search conditions for smart search.</p> <ul style="list-style-type: none"> <li>: You can set the virtual area to search the motions of specific conditions.</li> <li>: You can set the exclude area where the smart search won't be performed in virtual line or virtual area.</li> <li>: You can set the virtual line to search the motions of specific conditions.</li> </ul>
②	Timeline	You can check the sections with recorded videos and set the time interval to search.
③	Search results	Upon completion of the search, the search results are displayed as a list or thumbnails.

## Search Virtual Areas

1. Open the **Advanced search** menu page.
2. Select the desired camera from the camera tree in the **Camera** tab.
3. In Search option, click the  button and set the search area. Click the  button and set the exclude area to set the area you do not want to search.
  - Set the area on the video by selecting vertices on the video.. You can set 3 to 11 vertices.
  - You can set up to 32 areas.
  - Right-click to complete the area settings.
4. When you set the area, the **Virtual area** dialog box appears. Set the event rules for detection, and then click the **Apply** button. Click the **Cancel** button to delete the area you have set.



### NOTE

You can set several event rules in one area.

5. Set the date and time range for the virtual area search in the timeline. Use the time tooltip on the timeline to change time settings. For more information, please refer to [Set Search Time Interval](#).



### NOTE

You can set the time range for smart search up to 24 hours.

- Click the **Search** button. Search results are displayed in a list.



#### NOTE

Up to 500 search results are displayed per page, and you can use the ◀ or ▶ button to move to another page.

The following search result processing options are available:

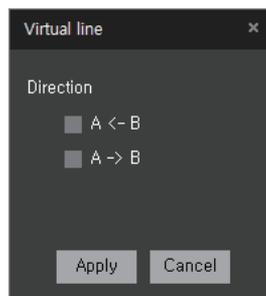


Location	Description
A	<p>You can change how search results are displayed.</p> <ul style="list-style-type: none"> <li>☰ displays the search results in a list.</li> <li>🖼️ displays the search results as thumbnails.</li> </ul>
B	<p>You can view the search results by setting a filter to only show videos related to specific events.</p>
C	<p>You can save the searched information as an Excel file.</p>

- Select the desired items in search results to check the search results. The video recorded at the moment when an event occurred is played.

## Search Virtual Lines

1. Open the **Advanced search** menu page.
2. Select the desired camera from the camera tree in the **Camera** tab.
3. In Search option, click the  button and set a virtual line.
  - Set a virtual line on the video by pointing the mouse cursor on the video.
  - Right-click to complete the virtual line settings.
4. When you set a virtual line, the **Virtual line** dialog box appears. Set the Virtual line **Direction** option, and then click the **Apply** button. Click the **Cancel** button to delete the virtual line you have set.



### NOTE

If you select both options of the Virtual line direction, you can detect all objects that pass in both directions on one virtual line.

5. Set the date and time range for the virtual line search in the timeline. Use the time tooltip on the timeline to change time settings. For more information, please refer to [Set Search Time Interval](#).



### NOTE

You can set the time range for smart search up to 24 hours.

6. Click the **Search** button. Search results are displayed in a list.
7. Select the desired items in search results to check the search results. The video recorded at the moment when an event occurred is played.



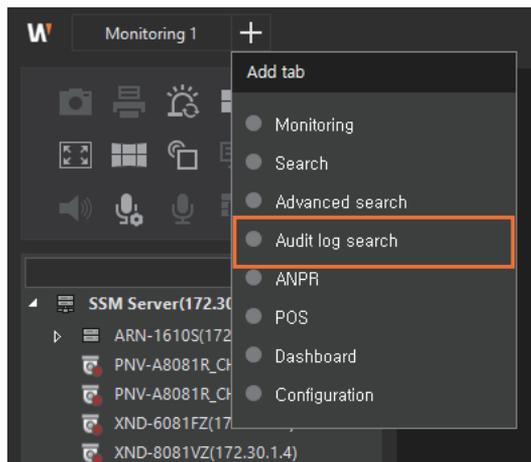
# Search Audit Logs

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You can search Audit logs from your device.

## Open the Audit Log Search Menu Page

1. Run **SSM Console Client**.
2. Enter your ID and password in the **Login** dialog box, and click the **Login** button.
3. Click the [+] button at the top left of the program, and then select **Audit log search** in the **Add tab** dialog box.



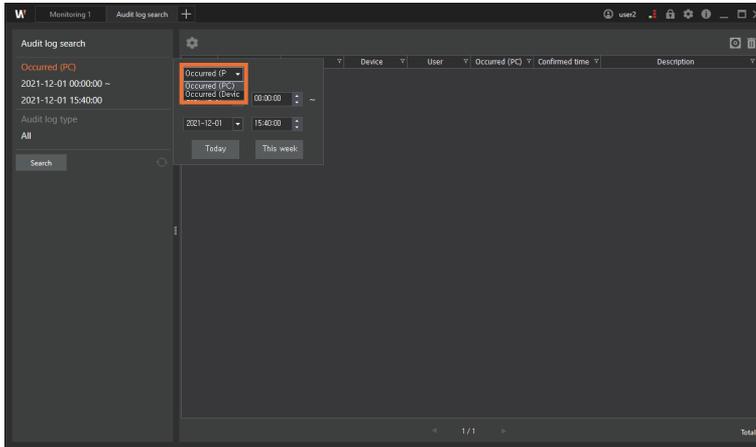
# Learn about the Audit Log Search Screen Configuration

No.	Status	Type	Device	User	Occurred (PC)	Confirmed time	Description
1	New	Start watching li...	PNV-88081R_C...	admin(172.30.1...	2021-12-01 15:...	-	Start watching live video
2	New	Stop watching li...	XND-6081FZ(17...	admin(172.30.1...	2021-12-01 15:...	-	Stop watching live video
3	New	Stop watching li...	XND-8081VZ(1...	admin(172.30.1...	2021-12-01 15:...	-	Stop watching live video
4	New	Stop watching li...	XNP-6320(172...	admin(172.30.1...	2021-12-01 15:...	-	Stop watching live video
5	New	Stop watching li...	XNP-8010R(172...	admin(172.30.1...	2021-12-01 15:...	-	Stop watching live video
6	New	Stop watching li...	PNV-88081R_C...	admin(172.30.1...	2021-12-01 15:...	-	Stop watching live video
7	New	Stop watching li...	PNV-88081R_C...	admin(172.30.1...	2021-12-01 15:...	-	Stop watching live video
8	New	Start watching li...	XND-8081VZ(1...	admin(172.30.1...	2021-12-01 15:...	-	Start watching live video
9	New	Start watching li...	XND-6081FZ(17...	admin(172.30.1...	2021-12-01 15:...	-	Start watching live video
10	New	Start watching li...	XNP-6320(172...	admin(172.30.1...	2021-12-01 15:...	-	Start watching live video
11	New	Start watching li...	XNP-8010R(172...	admin(172.30.1...	2021-12-01 15:...	-	Start watching live video
12	New	Start watching li...	PNV-88081R_C...	admin(172.30.1...	2021-12-01 15:...	-	Start watching live video
13	New	Start watching li...	PNV-88081R_C...	admin(172.30.1...	2021-12-01 15:...	-	Start watching live video
14	New	User login	SSM Server(172...	admin(172.30.1...	2021-12-01 15:...	-	User login (Console)
15	New	User logout	SSM Server(172...	admin(172.30.1...	2021-12-01 15:...	-	User logout (Configuration)
16	New	User logout	SSM Server(172...	admin(172.30.1...	2021-12-01 15:...	-	User logout (Console)
17	New	Connect camera	XNP-8010R(172...	-	2021-12-01 14:...	-	Connect camera
18	New	Disconnect.cam...	XNP-8010R(172...	-	2021-12-01 14:...	-	Disconnect camera
19	New	User login	SSM Server(172...	admin(172.30.1...	2021-12-01 14:...	-	User login (Configuration)
20	New	User login	SSM Server(172...	admin(172.30.1...	2021-12-01 14:...	-	User login (Console)
21	New	Connect camera	XND-6081FZ(17...	-	2021-12-01 14:...	-	Connect camera
22	New	Failed to connect...	XND-6081FZ(17...	-	2021-12-01 14:...	-	Failed to connect,(Camera)
23	New	Failed to connect...	XND-6081FZ(17...	-	2021-12-01 14:...	-	Failed to connect,(Camera)
24	New	Connect device	ARN-1610S(172...	-	2021-12-01 14:...	-	Connect device

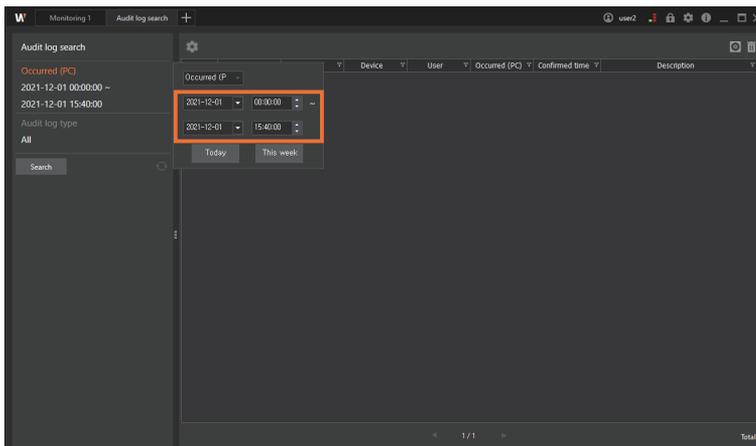
No.	Screen Configuration	Detailed Description on Functions
❶	Tree tab	Logs can be filtered by date or type for searching.
❷	Search options	The column of the list can be configured or the searched logs can be exported as a file.
❸	Log list	You can check the search results.

# Search Audit Logs

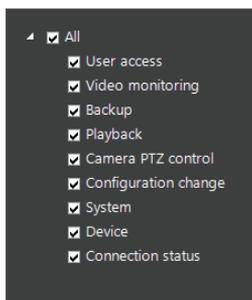
1. Open the **Audit log search** menu page.
2. Select the base time at the moment when an event occurred.



- **Occurred (PC):** You can search for the time when an event occurred based on the PC time.
  - **Occurred (Device):** You can search for the time when an event occurred based on the device time.
3. Set Start time and End time for search. Click the arrow in the date drop-down list to select the date in the calendar that appears, and click the up/down arrows in the time scroll box to set the time. You may also click the cell to enter the values directly.



4. To search a specific log, click **Audit log type** and select a filter.



5. Click the **Search** button. The search results are displayed.

No.	Status	Type	Device	User	Occurred (PC)	Confirmed time	Description
1	New	Start watching l.	PW-AB081R_C	admin(172.30.1)	2021-12-01 15:...	-	Start watching live video
2	New	Stop watching l.	XND-6081FZ(17...	admin(172.30.1)	2021-12-01 15:...	-	Stop watching live video
3	New	Stop watching l.	XND-6081FZ(17...	admin(172.30.1)	2021-12-01 15:...	-	Stop watching live video
4	New	Stop watching l.	XNF-8010R(172...	admin(172.30.1)	2021-12-01 15:...	-	Stop watching live video
5	New	Stop watching l.	XNF-8010R(172...	admin(172.30.1)	2021-12-01 15:...	-	Stop watching live video
6	New	Stop watching l.	PW-AB081R_C	admin(172.30.1)	2021-12-01 15:...	-	Stop watching live video
7	New	Stop watching l.	PW-AB081R_C	admin(172.30.1)	2021-12-01 15:...	-	Stop watching live video
8	New	Start watching l.	XND-6081FZ(17...	admin(172.30.1)	2021-12-01 15:...	-	Start watching live video
9	New	Start watching l.	XND-6081FZ(17...	admin(172.30.1)	2021-12-01 15:...	-	Start watching live video
10	New	Start watching l.	XNF-8010R(172...	admin(172.30.1)	2021-12-01 15:...	-	Start watching live video
11	New	Start watching l.	XNF-8010R(172...	admin(172.30.1)	2021-12-01 15:...	-	Start watching live video
12	New	Start watching l.	PW-AB081R_C	admin(172.30.1)	2021-12-01 15:...	-	Start watching live video
13	New	Start watching l.	PW-AB081R_C	admin(172.30.1)	2021-12-01 15:...	-	Start watching live video
14	New	User login	SSM Server(172...	admin(172.30.1)	2021-12-01 15:...	-	User login (Console)
15	New	User logout	SSM Server(172...	admin(172.30.1)	2021-12-01 15:...	-	User logout (Configuration)
16	New	User logout	SSM Server(172...	admin(172.30.1)	2021-12-01 15:...	-	User logout (Console)
17	New	Connect camera	XNF-8010R(172...	-	2021-12-01 14:...	-	Connect camera
18	New	Disconnect cam.	XNF-8010R(172...	-	2021-12-01 14:...	-	Disconnect camera
19	New	User login	SSM Server(172...	admin(172.30.1)	2021-12-01 14:...	-	User login (Configuration)
20	New	User login	SSM Server(172...	admin(172.30.1)	2021-12-01 14:...	-	User login (Console)
21	New	Connect camera	XND-6081FZ(17...	-	2021-12-01 14:...	-	Connect camera
22	New	Failed to connect.	XND-6081FZ(17...	-	2021-12-01 14:...	-	Failed to connect.(Camera)
23	New	Failed to connect.	XND-6081FZ(17...	-	2021-12-01 14:...	-	Failed to connect.(Camera)
24	New	Connect device	ABN-1610S(172...	-	2021-12-01 14:...	-	Connect device

# Monitor POS Videos

POS system connected to NVR or DVR can be linked with SSM to configure the store management system. You can monitor the sales records received from POS and the video at the time of sales at the store in real time. In addition, you can search POS data using a specific text to check the recorded videos and sales records at the time of sales.

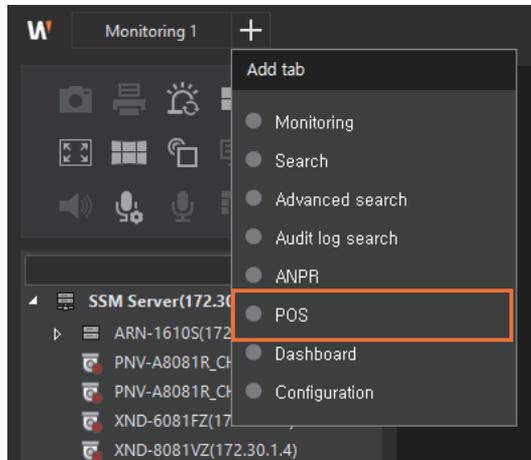


## NOTE

- To link a POS system from SSM, you must register the storage device in **SSM Core Server** after connecting the POS device to NVR or DVR.
- Please check the model specifications to see if the POS device is compatible with the storage device.

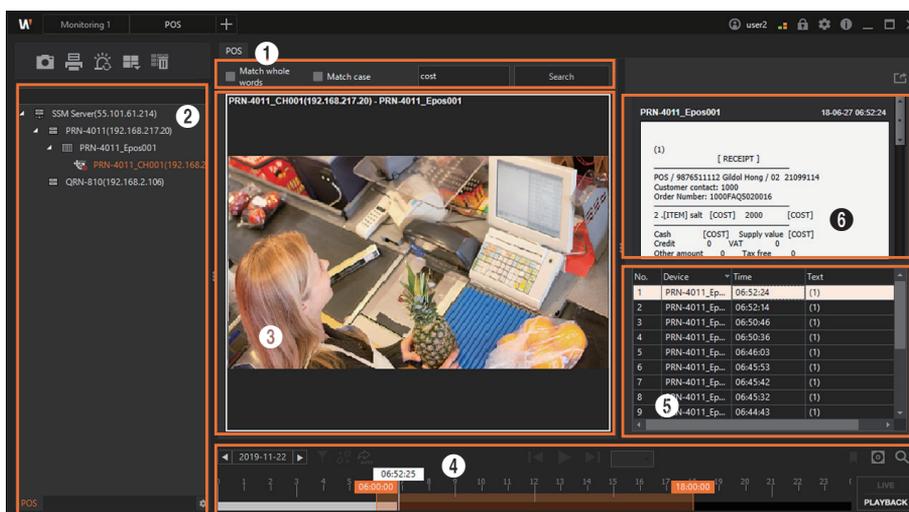
## Open the POS Menu Page

1. Run **SSM Console Client**.
2. Enter your ID and password in the **Login** dialog box, and click the **Login** button.
3. Click the [+] button at the top left of the program, and then select **POS** in the **Add tab** dialog box.



# Learn about the POS Menu Screen Configuration

The POS menu screen is configured as follows:



No.	Screen Configuration	Detailed Description on Functions
1	Search options	You can input text to search from POS data.
2	Device list	You can see a list of cameras with linked storage device and POS device.
3	Video window	You can see the Live videos and POS search videos of the selected camera.
4	Timeline	You can check the sections with recorded videos and set the time interval to search.
5	Search results	You can see the POS search results.
6	POS data	You can see the POS sales records received in real time and sales records of the searched results.

# Monitor POS Live Videos

You can monitor sales records and camera videos received from a POS device in real time.



## NOTE

- Sales records display only the information received from the POS device connected to NVR.
- DVR can monitor real-time videos of the cameras linked with a POS device, but it cannot check sales records.

1. Open the **POS** menu page.
2. Double-click the desired camera from the **POS** tab. You may also select the desired camera in the **POS** tab and drag it on the tile of the video window.
3. Whenever a sales record occurs in a POS device linked with the camera, the sales record appears in the POS data.

## Search POS Data

You can search POS data to see the recorded videos at the time of sales.

1. Open the **POS** menu page.
2. Double-click the desired camera from the **POS** tab. You may also select the desired camera in the **POS** tab and drag it on the tile of the video window.
3. Click the  button to the right of the timeline to switch to Playback mode.
4. Enter a keyword in the search window. You can choose one of following search options:
  - **Match whole words:** Only data that matches all characters, including whitespaces, are displayed as search results. If this option is not selected, then whitespace is recognized as "OR". (This returns all the results, even if only one of the words separated by whitespaces is satisfied.)

### Example

Sales Record	Search Word	Match Whole Words	
		Selected	Unselected
Banana 3,000 Apple 5,000 Total 8,000 Cash 8,000	Cash 8,000	Searched	Searched
	Cash 5,000	Not searched	Searched (1 instance of "Cash" matches)

- **Match case sensitivity:** When you enter a keyword in English, the search is case-sensitive.



#### NOTE

Keywords can be up to 127 characters long.

5. Click the **Search** button.
6. You can see the search results in the search list to the right. Select the desired items in the search list.
  - Click the item to playback the video channels connected to the POS.
  - Clicking ► plays the video recorded at the moment when a POS event occurred.



#### NOTE

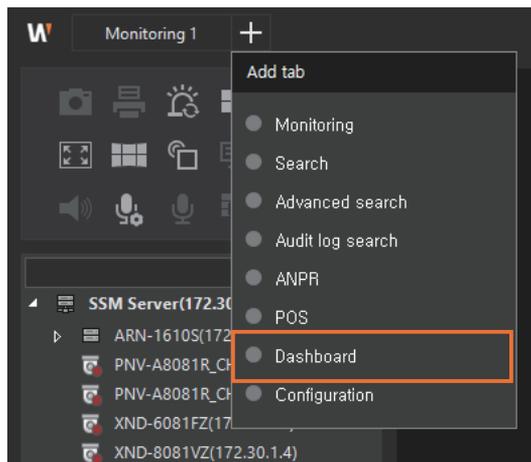
When the playing video is controlled (stopped, played, paused, or played in fast forward), the sales record at the time of recording appears in the **POS data**.

# Monitor System with Dashboard

You can monitor the status of the **SSM Core Server** system with **SSM Console Client** or a web viewer.

## Open the Dashboard Menu Page

1. Run **SSM Console Client**.
2. Enter your ID and password in the **Login** dialog box, and click the **Login** button.
3. Click the [+] button at the top left of the program, and then select **Dashboard** in the **Add tab** dialog box.

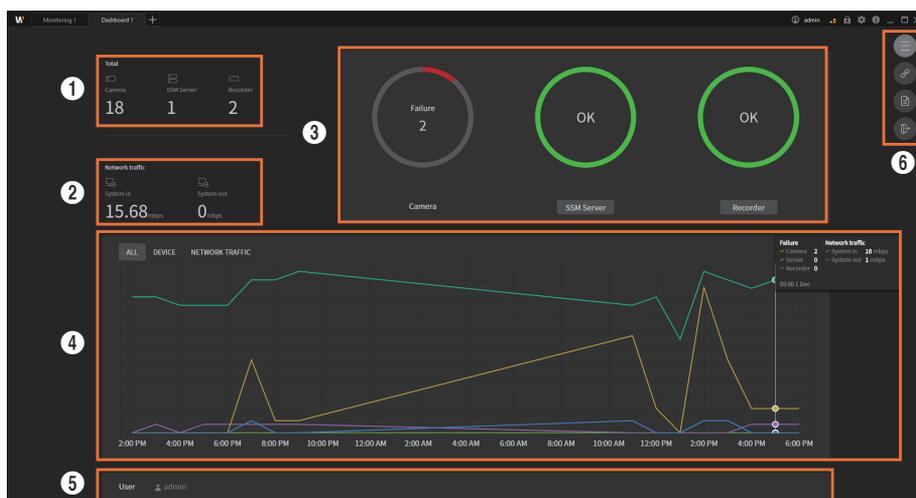


### NOTE

- You can monitor the dashboard remotely by typing the following address in your browser:
  - Address: <http://serverIP:9999/webadmin/index.html>
  - It is available in Chrome browser.
- The dashboard only supports the English language.

# Learn about the Dashboard Screen Configuration

The dashboard screen is configured as follows:



Number	Screen configuration	Detailed description of function
1	Device quantity	<p>You can check the quantity of registered devices.</p> <ul style="list-style-type: none"> <li><b>Camera:</b> The number of cameras registered with all servers and recorders within the domain and recorders</li> <li><b>SSM Server:</b> The number of servers clustered</li> <li><b>Recorder:</b> The number of recorders registered under the domain</li> </ul>
2	Network traffic	<p>You can check the network traffic of the system.</p> <ul style="list-style-type: none"> <li><b>System in:</b> The sum of incoming camera video traffic to each server</li> <li><b>System out:</b> The sum of video traffic coming from each server to the client</li> </ul>
3	Device status	<p>You can check the ratio of malfunctioning state to the total quantity of the registered devices.</p> <ul style="list-style-type: none"> <li><b>SSM Server</b> Click this button to move to <b>SSM Server</b> page.</li> <li><b>Recorder</b> Click this button to move to <b>Recorder</b> page.</li> </ul>
4	Status history graph	<p>You can check errors from registered devices and network traffic status. When moused over the graph, the number of errors at that point in time and the network traffic status of up to last 7 days are displayed. You can use the mouse wheel over the timeline to zoom in or out on the time scale.</p> <ul style="list-style-type: none"> <li><b>ALL:</b> Displays both the number of errors per device and the network traffic status.</li> <li><b>DEVICE:</b> Displays the number of errors per device. (Camera/Server/Recorder)</li> <li><b>NETWORK TRAFFIC:</b> Displays input/output traffic of the server.</li> </ul>
5	List of logged-in users	<p>You can check the IDs of logged-in users. When moused over, their IDs and IP addresses are displayed.</p>

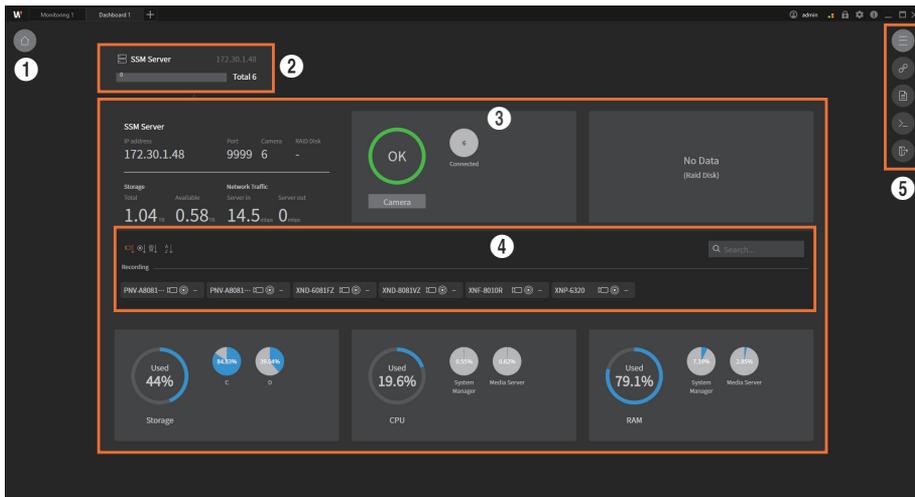
6		<p>The functions listed below can be used by clicking the  button.</p> <ul style="list-style-type: none"><li>•  <b>Link URL</b> : The URL of the current page can be copied to and checked on a web browser.</li><li>•  <b>Reports</b> : The information of the current page (Home screen) can be captured and exported as a PDF file.</li><li>•  <b>Logout</b> : You can log out when monitoring Dashboard on a web browser.</li></ul>
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**NOTE**

All data is updated every minute.

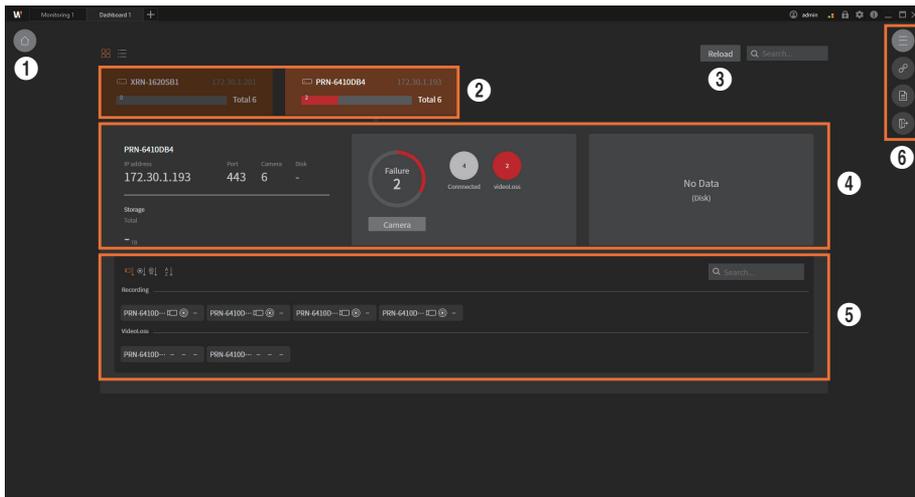
# Checking the SSM Server page



Number	Screen configuration	Detailed description of function
1		Can move to the Home screen of Dashboard.
2	Server list	You can check the list of registered SSM servers and connection status. In the status bar of each server, the number of malfunctioning cameras out of all cameras registered with the server is displayed. When moused over, you can check the number based on the number of connected cameras. <ul style="list-style-type: none"> <li>• Server that is not connected is displayed in red.</li> </ul>
3	Server details	You can check the details of your server. Click the server you want from the server list.
4	Camera list	<div style="border: 1px solid gray; padding: 5px; margin-bottom: 10px;"> <span>Camera</span> </div> Clicking this button lets you check the details such as camera list and connection status. <ul style="list-style-type: none"> <li>• : You can check the sorting criteria of the list. The selected sorting criterion is displayed in orange.                             <ul style="list-style-type: none"> <li>– : Camera connection status</li> <li>– : Dual recording action status</li> <li>– : Secure connection status</li> </ul> </li> <li>• : You can sort the list by camera name.</li> <li>• <b>Search:</b> Camera name can be filtered and displayed.</li> </ul>

<p>5</p>		<p>The functions listed below can be used by clicking the  button.</p> <ul style="list-style-type: none"> <li>•  <b>Link URL</b> : The URL of the current page can be copied to and checked on a web browser.</li> <li>•  <b>Reports</b> : The list including the latest information of all the <b>SSM Server</b> in a domain can be exported as a CSV file.       <ul style="list-style-type: none"> <li>– With <b>SSM Console Client</b> : You can set the file location and name to save.</li> <li>– With browser : You can download it in the default download folder of the user who logged in to Windows.</li> </ul> </li> <li>•  <b>Debug</b> : The live logs of <b>System Manager</b> and <b>Media Server</b> can be exported as a file.       <ul style="list-style-type: none"> <li>– With <b>SSM Console Client</b> : You can set the file location and name to save.</li> <li>– With browser : You can download it in the default download folder of the user who logged in to Windows.</li> </ul> </li> <li>•  <b>Logout</b> : You can log out when monitoring Dashboard on a web browser.</li> </ul>
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# Checking the Recorders page



Number	Screen configuration	Detailed description of function
1		Can move to the Home screen of Dashboard.
2	Recorder list	You can check the list of registered recorders. <ul style="list-style-type: none"> <li>When moved to the Recorders page for the first time, only the recorders under <b>System Manager</b> accessed by the dashboard are displayed.</li> <li>Any recorders not connected are displayed in red. SNMP connection failure is displayed in yellow,</li> </ul>
3	Load	You can check all recorders within the domain. <ul style="list-style-type: none"> <li><b>Search:</b> Recorder name can be filtered and displayed.</li> </ul>
4	Recorder details	You can check the details of a recorder. Select the recorder you want from the recorder list.
5	Camera list	<div style="border: 1px solid gray; padding: 5px; margin-bottom: 5px;"> <span>Camera</span> </div> Clicking this button lets you check the details such as camera list and connection status. <ul style="list-style-type: none"> <li> : You can check the sorting criteria of the list. The selected sorting criterion is displayed in orange.                             <ul style="list-style-type: none"> <li>: Camera connection status</li> <li>: Dual recording action status</li> <li>: Secure connection status</li> </ul> </li> <li>: You can sort the list by camera name.</li> <li><b>Search:</b> Camera name can be filtered and displayed.</li> </ul>

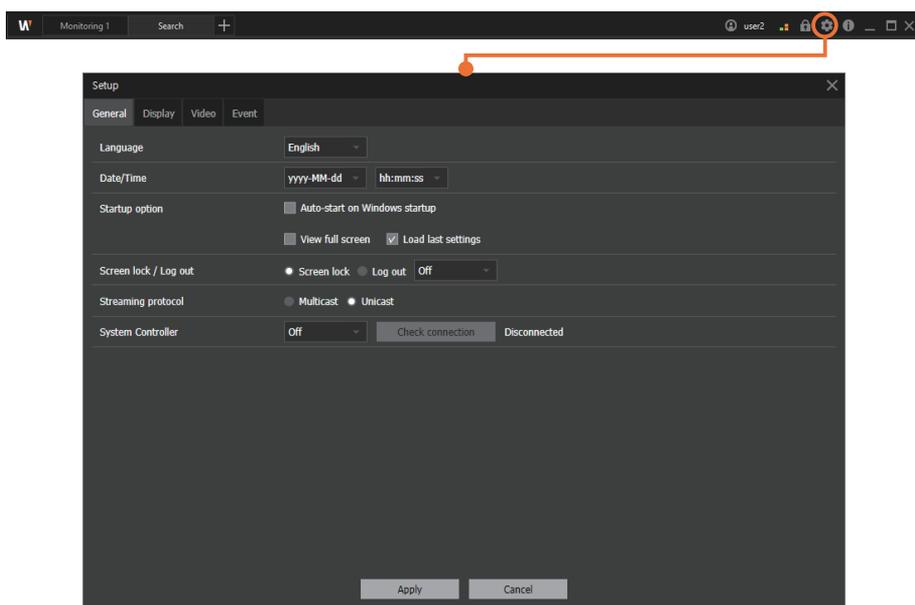
6		<p>The functions listed below can be used by clicking the  button.</p> <ul style="list-style-type: none"><li>•  <b>Link URL</b> : The URL of the current page can be copied to and checked on a web browser.</li><li>•  <b>Reports</b> : You can export the list including the latest information of all the recorders in a domain as a CSV file.<ul style="list-style-type: none"><li>– With <b>SSM Console Client</b> : You can set the file location and name to save.</li><li>– With browser : You can download it in the default download folder of the user who logged in to Windows.</li></ul></li><li>•  <b>Logout</b> : You can log out when monitoring Dashboard on a web browser.</li></ul>
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# Set Console Client

You can specify general settings, screen, and settings related to events on the Settings screen of the console client.

## Open the Setup Page

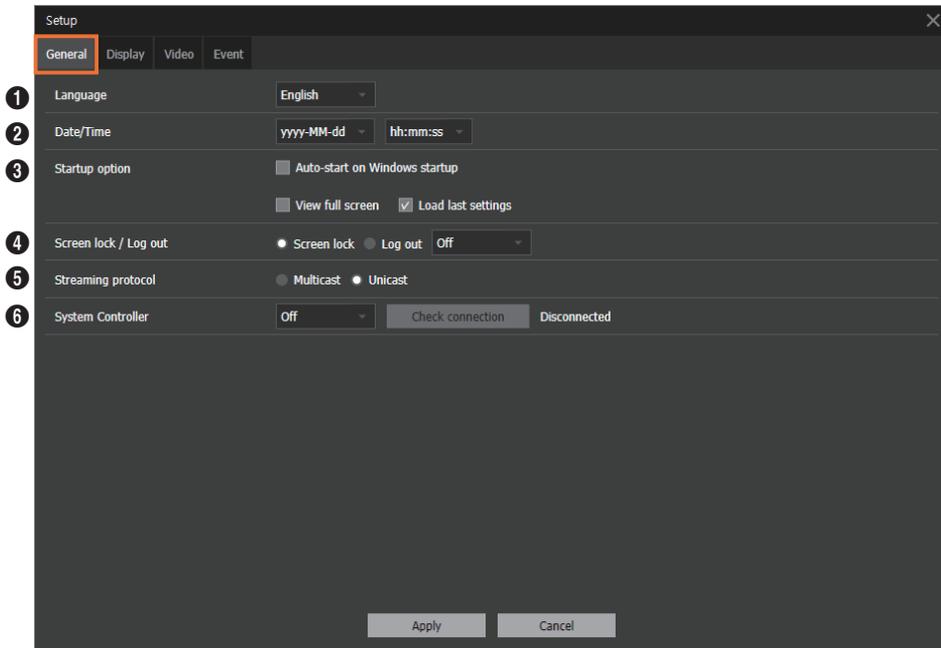
1. Run **SSM Console Client**.
2. Enter your ID and password in the **Login** dialog box, and click the **Login** button.
3. Click the  button at the top right of the program.



# Set General

You can set the general usage environment of **SSM Console Client**, such as Language, Date/Time, Start options, and Video protocol type.

1. Open the **Setup** menu page.
2. Click the **General** tab at the top left. You can set the following items.



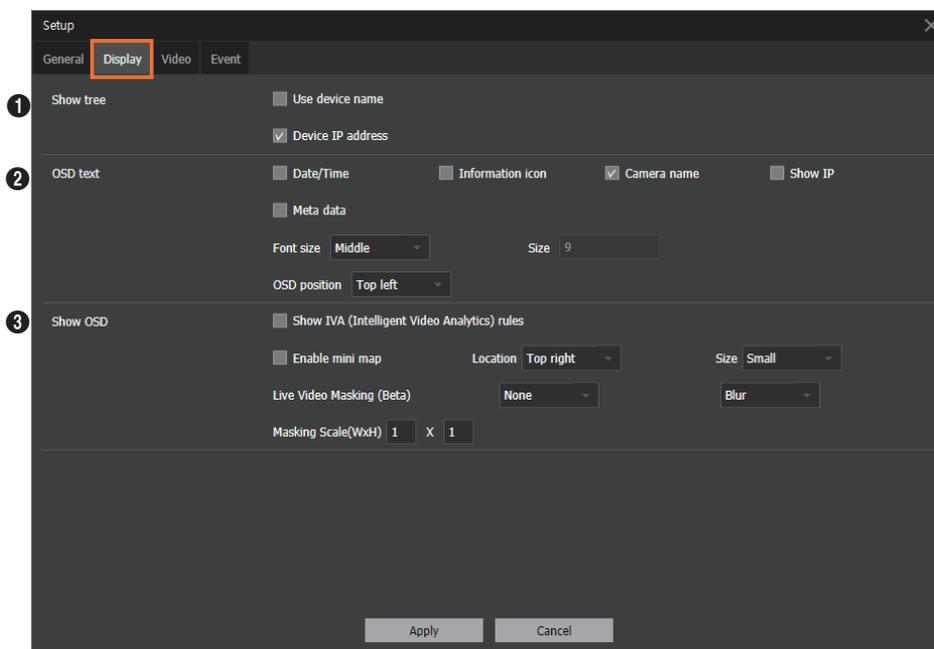
No.	Setup Items	Description
1	Language	You can set the language of the system.
2	Date/Time	You can set the date and time format displayed in the OSD. <ul style="list-style-type: none"> <li>• Date format: yyyy (Year), MM (Month), dd (Day)</li> <li>• Time format: hh (Hour), mm (Minute), ss (Second)</li> </ul>
3	Startup option	You can set the screen display method when you start the program. <ul style="list-style-type: none"> <li>• <b>Auto-start on Windows startup:</b> You can run the program automatically when you start Windows.</li> <li>• <b>View full screen:</b> When you start the program, you can view the <b>SSM Console Client</b> in full screen.</li> <li>• <b>Load last settings:</b> You can display the last used menu on the start screen.</li> </ul>

No.	Setup Items	Description
4	Screen lock/ Log out	<ul style="list-style-type: none"> <li>• <b>Screen lock:</b> For security purposes, you can block the use of the program when there is no keyboard or mouse activity for a specified period of time.</li> <li>• <b>Log out:</b> For security purposes, you can log out of <b>SSM Console Client</b> when there is no keyboard or mouse activity for a specified period of time.</li> <li>• <b>Time settings:</b> You can click the drop-down list to set the base time to run screen lock or log out. You can set one of the following options: <ul style="list-style-type: none"> <li>– <b>Off:</b> You don't use screen lock or log out functions.</li> <li>– <b>5 min/10 min/15 min:</b> After a set period of time, the screen lock or log out is activated.</li> </ul> </li> </ul>
5	Streaming Protocol	<p>You can choose between multicast or unicast when transmitting videos from the <b>SSM Core Server</b> to the <b>SSM Console Client</b>.</p> <p>To use multicast, set multicast to <b>SSM Server</b> at the following path.  <b>Configuration &gt; Device &gt; Registration &gt; Camera information &gt; Profile</b></p>
6	System Controller	<p>You can set the controller for <b>SSM Console Client</b>.</p> <ul style="list-style-type: none"> <li>• Supporting controllers: SPC-2000, SPC-2001, SPC-7000</li> </ul>

# Set Display

You can set the OSD information to be displayed on the camera tab and video tile.

1. Open the **Setup** menu page.
2. Click the **Display** tab at the top left. You can set the following items.



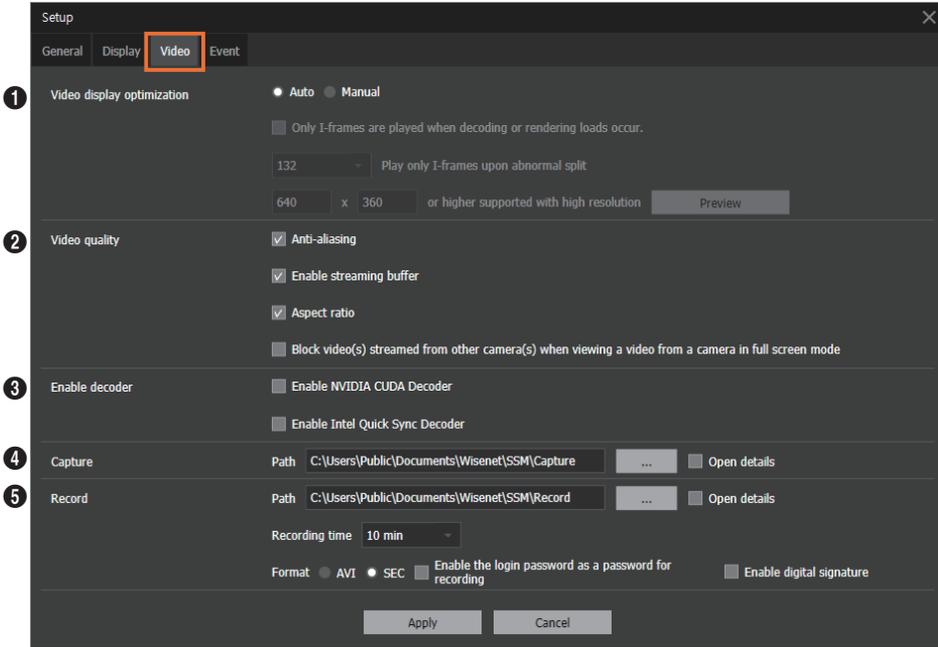
No.	Setup Items	Description
1	Show tree	<ul style="list-style-type: none"> <li>• <b>Use device name:</b> Displays the name set by the device in the Device list on the Camera tab and in the video tile (e.g. Camera 01, Alarm 01, ...). If you deselect it, the name registered by configuration manager is displayed.</li> <li>• <b>Device IP address:</b> Displays the IP information of the device in the Device list on the Camera tab.</li> </ul>

No.	Setup Items	Description
2	OSD text	<p>You can display the following items on the video tile.</p> <ul style="list-style-type: none"> <li>• <b>Date/Time:</b> You can display date and time on the video tile. Cameras registered in <b>SSM Core Server</b> display the date and time of <b>SSM Core Server</b>, and cameras registered in DVR or NVR display the date and time of DVR or NVR devices.</li> <li>• <b>Information icon:</b> You can display items such as recording status, PTZ support as icons below the video tile.</li> <li>• <b>Camera name:</b> You can display the camera name at the top left of the video tile.</li> <li>• <b>Show IP:</b> Device IP information can be displayed on the video tiles.</li> <li>• <b>Metadata:</b> You can display the IVA detection result received from the camera as a green square on the video tile. Metadata refers to the IVA detection result data.</li> <li>• <b>Font size:</b> Click the dropdown menu to configure the font size of the OSD information. You can select <b>Custom</b> to set to a desired size.</li> <li>• <b>OSD position:</b> Click the dropdown menu to configure the position of the OSD information.</li> </ul>
3	Show OSD	<ul style="list-style-type: none"> <li>• <b>Show IVA (Intelligent Video Analytics) rules:</b> You can display the IVA rules set by the camera on the video.</li> <li>• <b>Enable mini map:</b> When you double-click the map link icon on the map layout, you can display a mini map over the current map rather than move to that map layout. You can set the location and the size of the mini map by clicking the drop-down menu.</li> <li>• <b>Live Video Masking (Beta):</b> You can enable masking (Blur/Mosaic/Fisheye) to protect the privacy of people who show up in videos in order to make them unidentifiable.</li> <li>• <b>Masking Scale(WxH):</b> You can set the size of image masking.</li> </ul>

# Set Video

You can set monitoring, quality and protocol type of the video played, capture, recording path, etc.

1. Open the **Setup** menu page.
2. Click the **Video** tab at the top left. You can specify the following event setup items.



No.	Setup Items	Description
1	Video display optimization	<ul style="list-style-type: none"> <li>• <b>Auto</b> : You can automatically display images in low or high resolution based on the monitor resolution, image tile size, or system load.</li> <li>• <b>Manual</b> : You can set the following options for monitoring and playback video quality.               <ul style="list-style-type: none"> <li>– <b>Only I-frames are played when decoding or rendering loads occur</b>: You can set to play only I-frames if degraded decoding and rendering performance occur due to system overload.</li> <li>– You can set a split screen to play only I-frame by clicking the dropdown menu.</li> <li>– You can set to output a high resolution profile video when the size of the video tile is larger than the set value.</li> </ul> </li> </ul> <p><b>Preview</b> button enables you to check the size of minimum video tile that can be viewed in a high resolution profile.</p>

No.	Setup Items	Description
2	Video quality	<ul style="list-style-type: none"> <li>• <b>Anti-aliasing:</b> You can improve the aliasing phenomenon where pixels look jagged when playing a video in SSM Console Client. Using anti-aliasing will improve the quality of the video, but it can cause streaming to stop.</li> <li>• <b>Enable streaming buffer:</b> You can play video evenly when a video delay occurs due to network and other usage environment issues. Streaming buffer allows for more uniform video playback, but the streaming can be delayed.</li> <li>• <b>Aspect ratio:</b> You can zoom in or out on the video screen to view videos by the size of the tiles while maintaining the aspect ratio of the camera video resolution.</li> <li>• <b>Block video(s) streamed from other camera(s) when viewing a video from a camera in full screen mode:</b> This function is intended to prevent network overload. You can pause receiving the camera video of the remaining monitoring channels when viewing a specific channel in full screen during multi-channel monitoring. Selecting this function may prevent network overload, but switching from 1-channel video in full-screen to multi-channel monitoring screen prolong the time it takes to receive the whole video.</li> </ul>
3	Enable decoder	<ul style="list-style-type: none"> <li>• <b>Enable NVIDIA CUDA Decoder:</b> When a hardware decoder (NVIDIA's CUDA Decoder) is separately installed in the PC, the corresponding decoder can be used as a video decoder for SSM.</li> <li>• <b>Enable Intel Quick Sync Decoder:</b> When a hardware decoder (Intel's Quick Sync Decoder) is separately installed on the PC, the corresponding decoder can be used as a video decoder for SSM.</li> </ul>
4	Capture	<p>You can Capture the video of the tile and set a path to save as an image file.</p> <ul style="list-style-type: none"> <li>• <b>Open details:</b> When you click the Capture button, the Capture dialog box appears. You can set the storage path and the information to be displayed on the image.</li> </ul>

No.	Setup Items	Description
5	Record	<p>When you store the video of a tile in your local PC, you can set the file path to save to, time, format, etc.</p> <ul style="list-style-type: none"> <li>• <b>Path:</b> You can set the path to record on your PC.</li> <li>• <b>Open details:</b> If you click the Local recording button, a dialog box appears to set the recording path.</li> <li>• <b>Recording time:</b> You can set the recording time to record on your PC. <ul style="list-style-type: none"> <li>– Setup time: 1 to 60 minutes (It can be set in 1 minute intervals.)</li> </ul> </li> <li>• <b>Format:</b> You can set the recording file format to AVI or SEC. <ul style="list-style-type: none"> <li>– <b>AVI:</b> You can save the local recording videos using the AVI extension. AVI files can be played in normal video playback programs used on the PC.</li> <li>– <b>SEC:</b> You can save the local recording videos using the SEC extension. When you record as a SEC file, you can play the exported file in Backup viewer, which is a video playback program for SEC files only.</li> </ul> </li> <li>• <b>Enable the login password as a password for recording:</b> You can set to enable playback only if the login password is entered when you play the video. You can make additional settings when selecting the SEC file format.</li> <li>• <b>Enable digital signature:</b> You can record videos by applying a digital signature to verify video forgery or falsification. You can make additional settings when selecting the SEC file format.</li> </ul>

# Set Events

You can set the usage environment for the event that occurred.

1. Open the **Setup** menu page.
2. Click the **Event** tab at the top left. You can set the following items.

Setup

General Display Video **Event**

1 Show tile upon event occurrence  Enable 10 s

2 Playback time for event  
Event pre playback time 30 s  
Event post playback time 30 s

3 Event spot  
Display Target Event Setup  
Display Time Continuously

4 Instant viewer  Open instant viewer when event has occurred.  
Maximum number of instant viewers 1  
Pop-up duration Continuously  
New event discard time Continuously  
Pop-up location Monitor 1

5 Map layout  Link map to event  
 Show map with active event

Apply Cancel

No.	Setup Items	Description
1	Show tile upon event occurrence	You can set whether or not to play the video of an event when the event occurs and its play duration.
2	Playback time for event	When playing an event video in the Instant viewer or Event menu, you can set the event playback time to include a set number of seconds before or after the event occurrence.
3	Event spot	When using the event spot function, you can configure the event details and display time to be displayed.

No.	Setup Items	Description
4	Instant viewer	<p>You can set whether to use the Instant viewer when an event occurs.</p> <ul style="list-style-type: none"> <li>• <b>Maximum number of instant viewers:</b> You can set the maximum number of the Instant viewers to display. You can set up to 3 Instant viewers.</li> <li>• <b>Pop-up duration:</b> You can set the display time for how long the Instant viewer is displayed when an event occurs. After the set time, the Instant viewer closes automatically.</li> <li>• <b>New event discard time:</b> When the same event occurs from the same camera within the time set for the Instant viewer displayed, you can set the Instant viewer so that it does not display new events.</li> <li>• <b>Pop-up location:</b> You can set a monitor to display the Instant viewer when configuring the monitoring screen using multiple monitors.</li> </ul>
5	Map layout	<p>When monitoring with a map layout in Monitoring menu, you can set actions when an event occurs.</p> <ul style="list-style-type: none"> <li>• <b>Link map to event:</b> When an event occurs on the map link icon, you can set it to switch to that map layout.</li> <li>• <b>Show map with active event:</b> You can display the map link icon where the event occurred in the center of the screen.</li> </ul>

# Appendix

## System Requirements

### SSM Core Server

	Minimum Specifications	Recommended Specifications
<b>CPU</b>	Intel Core i5 or more (i5-4670@3.40GHz)	Intel Core i7 or more (i7-4770@3.40GHz) Xeon E3-1275 v5 (8M Cache 3.6 GHz)
<b>RAM</b>	8 GB or more	16 GB or more
<b>OS</b>	Windows 8.1/10 (Pro, Enterprise) Windows 10 IOT Enterprise Windows 11 Pro Windows Server 2008 SP2/2008 R2 SP1 (Standard) Windows Server 2012/2012 R2 (Standard) Windows Server 2016 (Standard) Windows Server 2019 (Standard) Windows Server 2019 (Essential) * Can be installed on 64-bit OS only.	
<b>HDD</b>	<b>Operating System HDD</b> <ul style="list-style-type: none"> <li>• SSD recommended</li> <li>• 20 GB or more free disk space is required after OS and SSM Core installation</li> </ul> <b>Camera Video Recording HDD</b> <ul style="list-style-type: none"> <li>• Requires separate HDD for recording (Requires a minimum of 200 GB for logging)</li> <li>• HDD: SATA3 7200 rpm (64 MB Cache)</li> <li>• NIC Bandwidth 1 Gbps or more</li> </ul>	<b>Operating System HDD</b> <ul style="list-style-type: none"> <li>• SSD recommended</li> <li>• 20 GB or more free disk space is required after OS and SSM Core installation</li> </ul> <b>Camera Video Recording HDD</b> <ul style="list-style-type: none"> <li>• Requires separate HDD for recording (Requires a minimum of 200 GB for logging)</li> <li>• HDD: 4 SATA3 7200 rpm (64 MB Cache) or more</li> <li>• NIC Bandwidth 1 Gbps or more</li> <li>• RAID, iSCSI support: RAID5, HW RAID Controller (AF support)</li> </ul>



#### NOTE

SSM 2.10.8 or later requires a separate HDD, other than the C drive, for event recording and searches.

## SSM Console Client

	Minimum Specifications	Recommended Specifications
<b>CPU</b>	Intel Core i5 or above (i5-4670@3.40GHz)	Intel Core i7 or above (i7-4770@3.40GHz) Xeon E3-1275 v5 (8M Cache 3.6 GHz)
<b>VGA</b>	Geforce GTX 740 (1 GB RAM) 6th gen. Intel Processor Graphics Supports DirectX 11	<ul style="list-style-type: none"> <li>When using CUDA H/W Decoder Geforce GTX960 (RAM 2GB) or more GeForce GTX1050 (RAM 2GB) or more DirectX 11</li> <li>When using Intel Quick Sync H/W HD Graphics P530 or above</li> </ul>
<b>RAM</b>	8 GB or more	16 GB or more
<b>OS</b>	Windows 8.1/10 (Pro, Enterprise) Windows 10 IOT Enterprise Windows 11 Pro * Can be installed on 64-bit OS only.	
<b>HDD</b>	20 GB or more free disk space is required after OS and <b>SSM Console Client</b> installation	

## Product Specifications

System		
<b>Max Monitoring Channels</b>	Max 10,000 channels/domain Max 3,000 channels/server * Camera registration: Max 328 channels Camera recording: Max 128 channels	In case of using camera/NVR/DVR
<b>Max Storage Channels</b>	Max 3,584 channels/domain Max 128 channels/server Max 520 Mbps Supports dual recording (High/Low) * The maximum recording performance varies depending on the specs of HDD, H/W RAID, and iSCSI.	In case of using server storage
<b>Software Structure</b>	Server/Client	Multi-server clustering, max 28 servers
<b>Client</b>	Console client, mobile viewer	Supports up to 37 simultaneous connections per server
<b>Supported Devices</b>	Network camera/encoder/decoder, DVR/NVR, controller	Supports Wisenet products + ONVIF Profile S  ONVIF® conformant (www.onvif.org)

Basic Component		
<b>SSM Core Server</b>	Central license management	45-day trial
	Server clustering	Server data sharing, failure management
	System dashboard	Real-time system health monitoring
	User management	Device access permission, function access authorization
	Federation	Multi-domain federation, up to 10 domains, up to 4 depths, up to 10,000 channels
	Central device setup	Automatic/Manual registration of devices and additional servers
	Event setup	4-step importance setting, color management by event
	Event action	Event users setup and trigger activities
	Layouts and patterns	Custom layouts and tile patterns
<b>SSM Console Client</b>	Tab-based windows	Monitoring, Search, Advanced search, ANPR, POS, Dashboard, Configuration, Setup
	Output channels	Max 132 channels
	Decoding	Supports hardware accelerator (CUDA, Intel Quick Sync)
	Playback	Multi-channel playback, bookmark
	Real-time events	Filters by situation, type, and importance
	Search	Event search, Person search, Face search, Face recognition search, Vehicle search, User defined search, LPR search, Audit log search
	Advanced search	Thumbnail search, Smart search
	POS text search	Searches receipt list, keywords
<b>Supported Languages</b>	Korean, English, Chinese, Croatian, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Norwegian, Polish, Portuguese, Romanian, Russian, Serbian, Spanish, Taiwanese, Thai, Turkish, Arabic, Ukrainian, Vietnamese	

# Service Ports

Please see the list of ports used by SSM.

Name	Port	Protocol
System Manager	9991, 9999, 61616, 9876	SSL(9991) TCP for Web Service(9999) Active MQ(61616) PostgreSQL(9876)
Media Server	4510-4517	TCP(4510, 4511) SSL(4512, 4513) HTTP(4514) RTSP(4515, 4516, 4517)

# Supported Devices

Please see the list of supported products.

## DVR

### ■ 4-channel

HRX-435, HRX-435FN/TE, HRX-435L, HRX-434, HRX-421, HRX-421FN/TE, HRX-420, HRX-421, HRD-440, HRD-442, SRD-493, SRD-494, SRD-443, SRD-473D, SRD-476D, SRD-482, SRD-445, SRD-470, SRD-440

### ■ 8-channel

HRX-835, HRX-821/TE, HRX-820, HRX-821, HRD-842, HRD-841, SRD-893, SRD-894, SRD-840, SRD-482, SRD-852D, SRD-870DC, SRD-873D, SRD-876D, SRD-880D

### ■ 16-channel

HRX-1635, HRX-1632, HRX-1621, HRX-1621/TE, HRX-1620, HRD-1642, HRD-1641, SRD-1685, SRD-1694(U), SRD-1684, SRD-1630(D), SRD-1640, SRD-1642(D), SRD-1653D, SRD-1654D, SRD-1656D, SRD-1673D, SRD-1676D, SRD-1680D, SRD-1673DU

## NVR

PRN-6410DB4, PRN-6410B4, PRN-6405DB4, PRN-6405B4, PRN-6400DB4, PRN-6400B4, PRN-3210B4, PRN-3205B4, PRN-3200B4, PRN-3205B2, PRN-3200B2, PRN-1605B2, PRN-1600B2, PRN-4011, XRN-6410DB4, XRN-6410B4, XRN-6410RB2, XRN-6410B2, XRN-3210B4, XRN-3210RB2, XRN-3210B2, XRN-3010A, XRN-3010, XRN-2011A, XRN-2011, XRN-2010A, XRN-2010, XRN-1620SB1, XRN-1620B2, XRN-1610SA, XRN-1610A, XRN-1610(S), XRN-820S, XRN-810S, XRN-420S, XRN-410S, QRN-1620S, QRN-820S, QRN-810, QRN-430S, QRN-420S, QRN-410S, QRN-410, LRN-1610S, LRN-810S, LRN-410S, KRN-3200, KRN-1600, SRN-4000, SRN-1000, SRN-1670D, SRN-470D, SRN-1673S/873S/473S, SRN-472S, VPM-4800/4400/5400/6400

## NETWORK CAMERA

### ■ BOX

KNB-2000, KNB-5000, PNB-A6001, PNB-A6002, PNB-A7002, PNB-A8002, PNB-A9001, PNB-A9001OP, PNB-A9002, QNB-6000, QNB-6002, QNB-7010RH, QNB-7080RH, QNB-8002, SNB-1001, SNB-3002, SNB-5000, SNB-5001, SNB-5003, SNB-5004, SNB-6003, SNB-6004(F), SNB-6005, SNB-6010(B), SNB-6011B, SNB-7001, SNB-7004, SNB-8000, SNB-9000, SNZ-5200, SNZ-6320, TNB-9000, XNB-6000, XNB-6001, XNB-6002, XNB-6003, XNB-6005, XNB-8000, XNB-8002, XNB-8003, XNB-9002, XNB-9003, XNZ-6320

## ■ DOME

KND-2020R, KND-2080R, KND-4010R, KND-4080R, KND-5020R, KND-5080R, PND-A6081RF/RV, PND-A6082RF/RV, PND-A7082RF/RV, PND-A8082RF/RV, PND-9080R, PND-A9081RF/RV, PND-A9082RF/RV, PNM-9020V, PNV-9080R, PNV-A9081R, QND-6010R, QND-6020R, QND-6030R, QND-6070R, QND-7010R, QND-7012R, QND-7020R, QND-7022R, QND-7032R, QND-7080R, QND-7082R, QNE-6080RV, QNE-6080RVW, QNE-7080RV, QNE-7080RVW, QNV-6010R, QNV-6070R, QNV-7010R, QNV-7012R, QNV-7020R, QNV-7022R, QNV-7030R, QNV-7032R, QNV-7080R, QNV-7082R, SND-6012, SND-L6013R, SND-L6083R, SND-7084R, SNV-L6013R, SNV-L6014RM, SNV-6084R, SNV-6085R, SNV-7084R, SNV-8081R, SNV-8030R, TNV-C7013RC, TNV-8010C, XND-6010, XND-6020R, XND-6080RG, XND-6080RV, XND-6080(R)(V), XND-K6080, XND-6081RE, XND-6081RVE, XND-6083RV, XND-C6083RV, XND-6085, XND-6085V, XND-C7083RV, XND-8020R, XND-8030R, XND-8040R, XND-8080R, XND-8081RE, XND-8081RVE, XND-8082RF, XND-8082RV, XND-8083RV, XND-C8083RV, XND-8093RV, XND-9082RF, XND-9082RV, XND-9083RV, XND-C9083RV, XNV-6010, XNV-6011, XNV-6012, XNV-6012M, XNV-6013M, XNV-6020R, XNV-6022R, XNV-6022RM, XNV-6080(R), XNV-6083R, XNV-C6083, XNV-C6083R, XNV-6085, XNV-6120, XNV-6120R, XNV-6123R, XNV-C7083R, XNV-8020R, XNV-8030R, XNV-8040R, XNV-8080RS, XNV-8080(R)(RV), XNV-8082R, XNV-8083R, XNV-8083RZ, XNV-C8083R, XNV-8093R, XNV-9082R, XNV-9083R, XNV-C9083R

## ■ FISHEYE

XNF-9013RV, XNF-9010RS, XNF-9010RV, XNF-9010RVM, XNF-8010, XNF-8010R, XNF-8010RV, TNF-9010, SNF-8010(VM), SNF-7010, QNF-9010, PNF-9010R(RV)(RVM)

## ■ MULTI-SENSOR

PNM-9322VQP, PNM-9320VQP, PNM-9081VQ, PNM-9080VQ, PNM-9030V, PNM-9022V, PNM-C9022RV, PNM-9020V, PNM-9002VQ, PNM-9000VQ, PNM-9000QB, PNM-8082VT, PNM-7002VD, PNM-7000VD

## ■ BULLET

KNO-2080R, KNO-2010R, KNO-2120R, KNO-4010R, KNO-4080R, KNO-5020R, KNO-5080R, PNO-A6081R, PNO-A6082R, PNO-A7082R, PNO-A8082R, PNO-9080R, PNO-A9081R, PNO-A9082R, PNV-A6081R, PNV-A6082R, PNV-A7082R, PNV-A8082R, PNV-A9082R, QNO-6010R, QNO-6020R, QNO-6030R, QNO-6070R, QNO-7010R, QNO-7012R, QNO-7020R, QNO-7022R, QNO-7030R, QNO-7032R, QNO-7080R, QNO-7082R, SNO-5080R, SNO-L5083R, SNO-5084R, SNO-6011R, SNO-L6013R, SNO-L6083R, SNO-6084R, SNO-6085R, SNO-7084R, SNO-8081R, TNO-6320E, TNO-6322ER, TNU-6320E, XNO-6010R, XNO-6020R, XNO-L6020R, XNO-6080R, XNO-6080RA, XNO-6080RG, XNO-L6080R, XNO-6083R, XNO-C6083R, XNO-6085R, XNO-6085RA, XNO-6085RG, XNO-L6085R, XNO-L6085RA, XNO-6090RH, XNO-6095RH, XNO-6120R, XNO-6120RG, XNO-L6120R, XNO-6123R, XNO-6320RHP, XNO-C7083R, XNO-8020R, XNO-8030R, XNO-C8083R, XNO-8040R, XNO-8080R, XNO-8082R, XNO-8083R, XNO-9082R, XNO-9083R, XNO-C9083R

## ■ PTZ

XNP-9300RW, XNP-9300R, XNP-9300, XNP-9250R, XNP-9250, XNP-8300RW, XNP-8300R, XNP-8300, XNP-8250R, XNP-8250, XNP-6400RW, XNP-6400R, XNP-6400, XNP-6321H, XNP-6321, XNP-6320HG, XNP-6370RHA, XNP-6320H, XNP-6320, XNP-6320HS, XNP-6370H, XNP-6040H, XNP-6120H, XNP-6370RH, XNZ-6320, XNP-6550RH, XNP-6371RH, XNP-6371RHG, XNP-6370RH, PNP-9200RH, QNP-6320(H), QNP-6250(H), SNP-6321(H), SNP-L6233(H)(RH), SNP-L5233(H), SNP-6320(H)(RH), SNP-6230(RH), SNP-5430(H), SNP-3302(H), SNP-3371(H)(TH), SNP-5300(H), SNP-5321(H), SNP-5430(H), SNP-6200RH, SNP-6201(H), SNP-3120(VH)

## ■ POSITIONING

TNU-4051T, TNU-6320, TNU-6320E, TNU-6321

## ■ THERMAL

TNM-3620TDY, TNM-C4960TD, TNM-C4950TD, TNM-C4940TD, TNO-4051T, TNO-4041TR, TNO-4040TR, TNO-4030TR, TNO-L4030TR, TNO-4030T, TNO-L4030T, TNO-3050T, TNO-3040T, TNO-L3030T, TNO-1030T, TNB-1080T, TNB-1050T, TNB-1040T

## ENCODER

SPE-400/100/101, SPE-1600R, SPE-1610/410, SPE-1620, SPE-1630

## DECODER

SPD-1660R

## SENSOR

### ■ Advantech's Extended I/O

ADAM-6050: Sensor x12, AlarmOut x6

ADAM-6060: Sensor x6, AlarmOut x6

ADAM-6066: Sensor x6, AlarmOut x6

### ■ MOXA's Extended I/O

NA-4010 (Sensor: M-1601 (16-channel), AlarmOut: M-2601 (16-channel))

### ■ ONVIF

ONVIF compatible camera

Camera supporting ONVIF 1.02 or later (Compatible with Prole-S)

Video codec: MJPEG, MPEG4, H.264, H.265

Audio codec: G.711(pcm ulaw), G726, AAC

## **| INTERCOM**

TID-600R

## **| ANPR**

TNO-6070RHLP, TNO-6081RLP, TNO-7180R, TNO-7180RLP, TNO-9070RHLP

## **| IP Speaker**

SPA-C100, SPA-H100, SPA-P100, SPA-W100, SPA-D1000

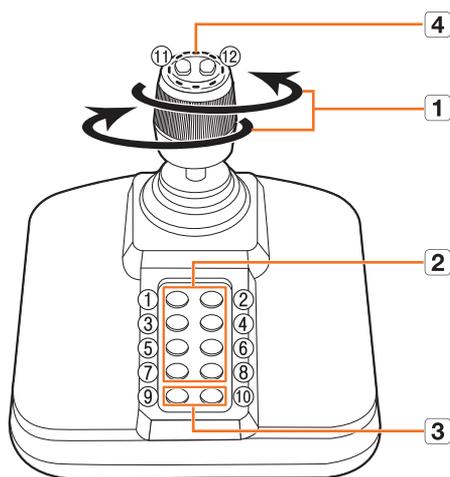
# Use System Controller

You can check the connection settings and connection status in **SSM Console Client** >  > **General** > **System Controller**.

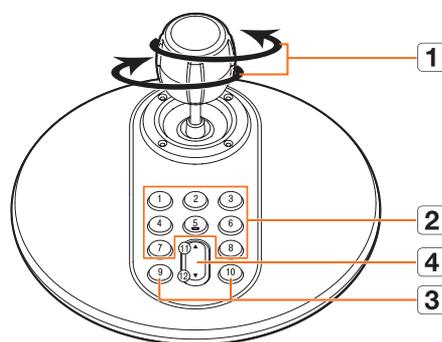
## SPC-2000/SPC-2001

The SPC-2000/SPC-2001 joystick is operated as follows:

- SPC-2000/SPC-2001 must be connected to the PC before the console is launched in order to be recognized.
- SPC-2000/SPC-2001 can run in PTZ or Screen mode.
- In Screen mode, the layouts assigned to the console are numbered 1~8 in the order of assignment.



SPC-2000



SPC-2001

Name		Function
①	Up/Down/Left/Right	<ul style="list-style-type: none"> <li>• In PTZ mode, the camera can be panned, tilted, and controlled in 8 directions.</li> <li>• In Screen mode, the top/bottom/left/right tile can be selected.</li> </ul>
	Rotation	In PTZ mode, the screen is zoomed in when it is rotated clockwise and zoomed out when it is rotated counterclockwise.
②	1 ~ 8	<ul style="list-style-type: none"> <li>• In PTZ mode, presets number 1~8 are run.</li> <li>• In Screen mode, the layout corresponding to the button number is run.</li> </ul>
③	9~10	PTZ mode and Screen mode are switched.
④	11, 12	<ul style="list-style-type: none"> <li>• In PTZ mode, Focus Near/Far operation is run.</li> <li>• In Screen mode, multiple monitors can be selected and changed.</li> </ul>



### NOTE

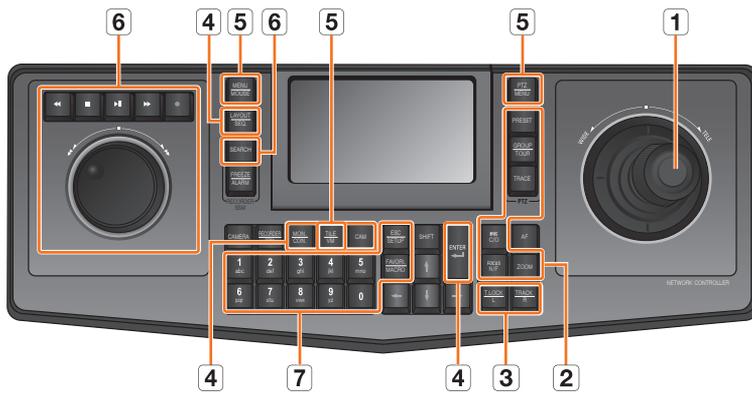
To set the correct image, the axis calibration is needed.

Select **Windows** > **Set** > **Control Panel** > **Game Controller** > **Property** > **Set** via the PC, click the **Compensation** button to run the **System Compensation Wizard** and then follow the guide on the screen to complete axis compensation.

## SPC-7000

The operating specifications with SPC-7000 joystick connected are as follows.

- SPC-7000 displays each operating status of the system controller on the LCD monitor, and allows the user to easily select a menu with a touch screen, or using a joystick.
- It operates in the following 5 modes; PTZ/Screen/Mouse/Console/VM



Name		Function
1	Joystick	<ul style="list-style-type: none"> <li>• In PTZ mode, you can control the Pan and Tilt motion.</li> <li>• In Screen mode, you can change the Up/Down/Left/Right tile selection.</li> <li>• In Mouse mode, you can move the mouse cursor.</li> </ul>
	Rotation	In PTZ mode, the screen zooms in when turning in the WIDE direction, and zooms out when turning in the TELE direction.

Name		Function	
②	PTZ control	[FOCUS N/F] + 	Runs the Focus Near/Far motion.
		[FOCUS N/F] + 	<ul style="list-style-type: none"> <li>• [FOCUS N/F] +  : Focus Near</li> <li>• [FOCUS N/F] +  : Focus Near</li> </ul>
		[IRIS C/O] + 	Runs the IRIS Open/Close operation.
		[IRIS C/O] + 	<ul style="list-style-type: none"> <li>• [IRIS C/O] +  : IRIS Open</li> <li>• [IRIS C/O] +  : IRIS Close</li> </ul>
		[PRESET]	When you click a number + [PRESET] button, the preset corresponding to each button number is activated.
		[GROUP]	When you click a number + [GROUP] button, Group/Scan corresponding to each button number is activated.
		[TRACE]	When you click a number + [TRACE] button, Pattern/Trace corresponding to each button number is activated.
		[ZOOM] + 	Runs the zoom in motion.
		[ZOOM] + 	Runs the zoom out motion.
③	Mouse control	[T. LOCK(L)]/ [TRACK(R)]	Uses the left/right button of the mouse in mouse mode.
④	Screen control	[MON.(CON.)]	You can change the multi monitor selection by clicking a number + [MON.(CON.)] button in the screen mode (previous/next according to the monitor number).
		[LAYOUT(SEQ.)]	When you click a number + [LAYOUT(SEQ.)] button, the layout corresponding to each button number is activated.
		[CAM]	When you click a number + [CAM] button, the camera corresponding to each button number is activated.
		[ENTER]	Clicking once will display a single screen on the live viewer. Clicking once again will return to the original screen.
			When you click a number + [ENTER] button in the live viewer, the screen is split into the number input.
		LCD SnapShot Button	Captures the video of the current tile.
		LCD UI Alarm Off Button	Initializes the event.
	Number + [TILE(VM)]	Moves to the tile corresponding to the number.	

Name		Function	
5	Mode Change	[PTZ(MENU)]	Changes the PTZ mode. Click the [PTZ(MENU)] button while in PTZ mode and the screen mode will be changed.
		[SHIFT] + [MENU(MOUSE)]	Changes the mouse mode. Click the [SHIFT] + [MENU(MOUSE)] buttons while in mouse mode and the screen mode will be switched.
		[SHIFT] + [MON.(CON.)]	Changes the console mode.
		[SHIFT] + [TILE(VM)]	Runs the VMD control.
6	Play screen control	[SEARCH]	Outputs the video of the current tile through live/search.
			The video will be stopped.
			Plays and pauses the video.
			Starts/Ends manual recording of the video.
		Shuttle wheel	Fast plays in the forward direction when the wheel is turned clockwise, or fast plays in the reverse direction when the wheel is turned counter-clockwise.
		Jog wheel	Performs frame search.
7	0 ~ 9	Button to input a number.	
	[ESC(SETUP)]	Initializes the input number.	
	[FAVORI.(MACRO)]	Performs the motion as a key value designated to SPC-7000 is automatically generated. Example) When the [FAVORI.(MACRO)] key is pressed, the same motion that is activated when the user presses a number + [MONITOR] + number + [TILE(VM)] is carried out.	

