

MAKE THE  
WORLD SEE

# Milestone Systems

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XProtect® Smart Wall 2024 R2

User manual



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## Operation

### Configuring XProtect Smart Wall

After doing the initial configuration in XProtect Management Client, operators can start using the video wall by sending the Smart Wall monitors onto the physical monitors connected to the system. This may include one or both of these options:

- Static views
- Views that change dynamically based on rules

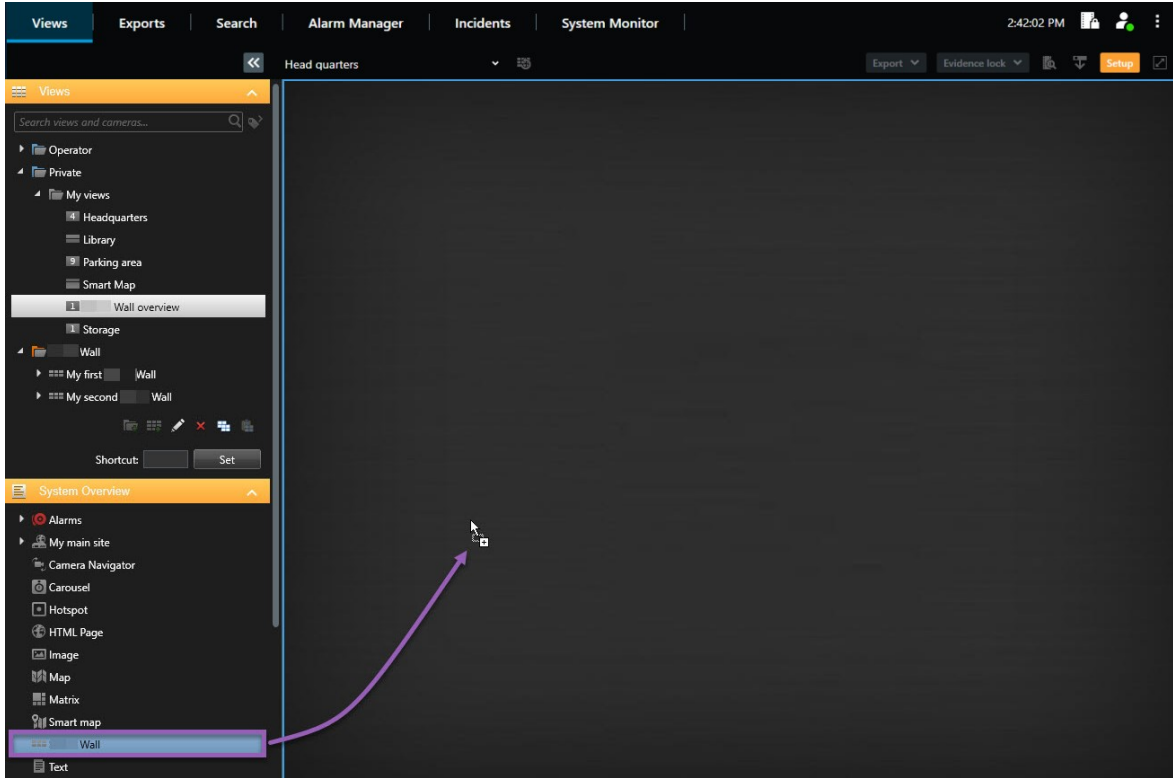
Additional configuration is necessary if you want to:

- Enable operators to control and manually change what is being displayed on the physical monitors. In that case, you must add the Smart Wall control to designated views. See also [Add Smart Wall controls to views on page 4](#).
- Change the existing view layout of individual monitors. See also [Change view layout of Smart Wall monitors on page 5](#).
- Reset or change the presets already applied to the Smart Wall definition.

### Add Smart Wall controls to views

Before you can start pushing video and other types of content onto your video wall, you must add the Smart Wall control to one or more views. The control is a graphical representation of the video wall.

1. On the workspace toolbar, select **Setup**.
2. Select the view that you want to add the Smart Wall control to.
3. In the **System overview** pane, drag the **Smart Wall** element to the relevant view item.



4. Select **Setup** again to exit setup mode and save your changes.
5. Now you can start pushing cameras and other types of content to your video wall.


## Change view layout of Smart Wall monitors

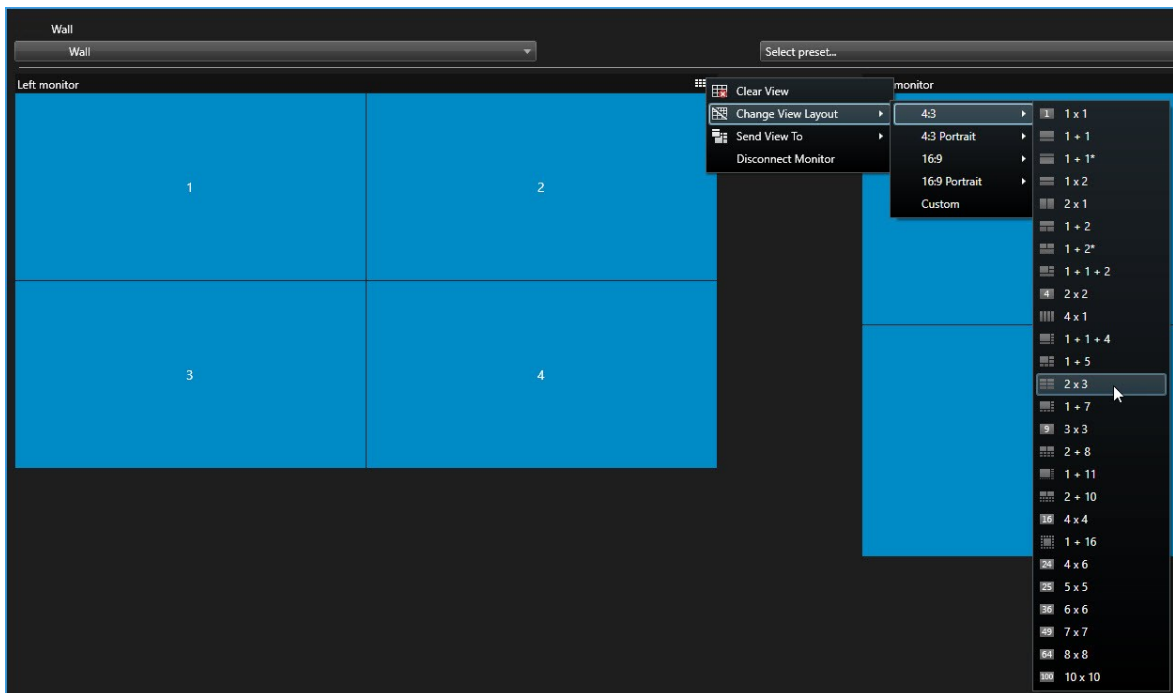
You can change the preconfigured view layout of the Smart Wall monitors. This is useful if you need to display additional cameras or other types of content.

### Example

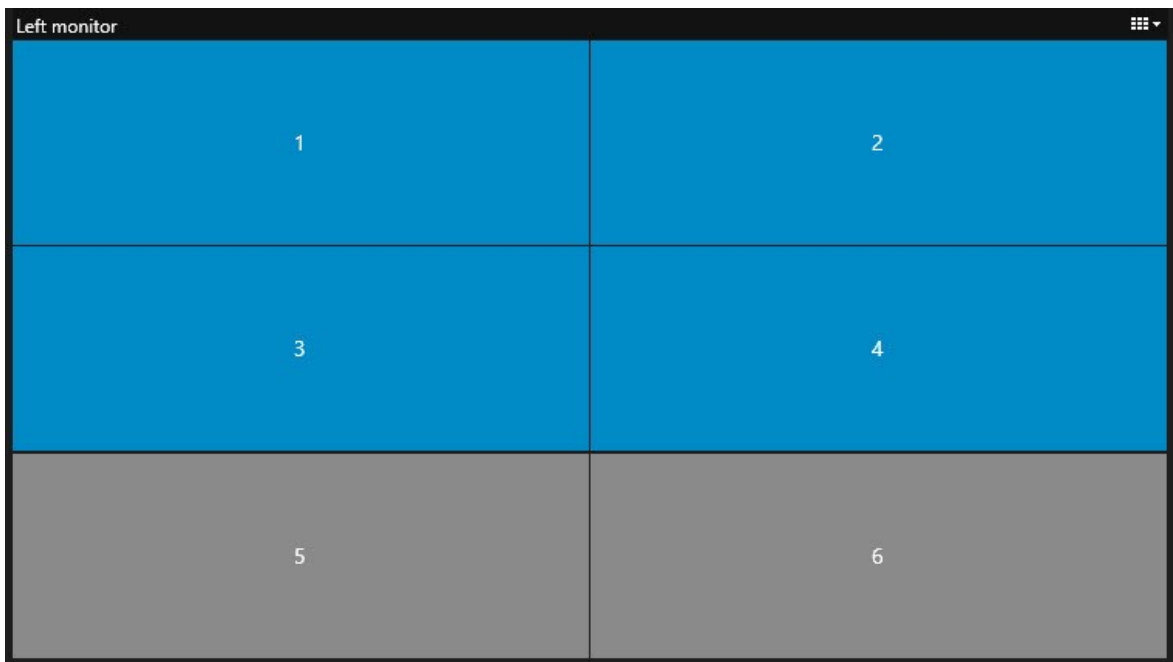
An incident has been recorded on five cameras, and you even have a picture of a suspect. You want to display the video and picture on the video wall, so the security staff can view the incident and detain the suspect. Because the current monitors in your video wall are pre-configured to only show **2x2** cameras, you need to change the view layout to **2x3** to add the fifth camera and the picture.

Steps:

1. In live or playback mode, open the view that contains your Smart Wall control.
2. Click the  icon for the monitor, select **Change view layout**, and then the display format, for example 4:3.



3. Select the view layout. In this example, select 2x3. Two grayed out items are added to the view layout.



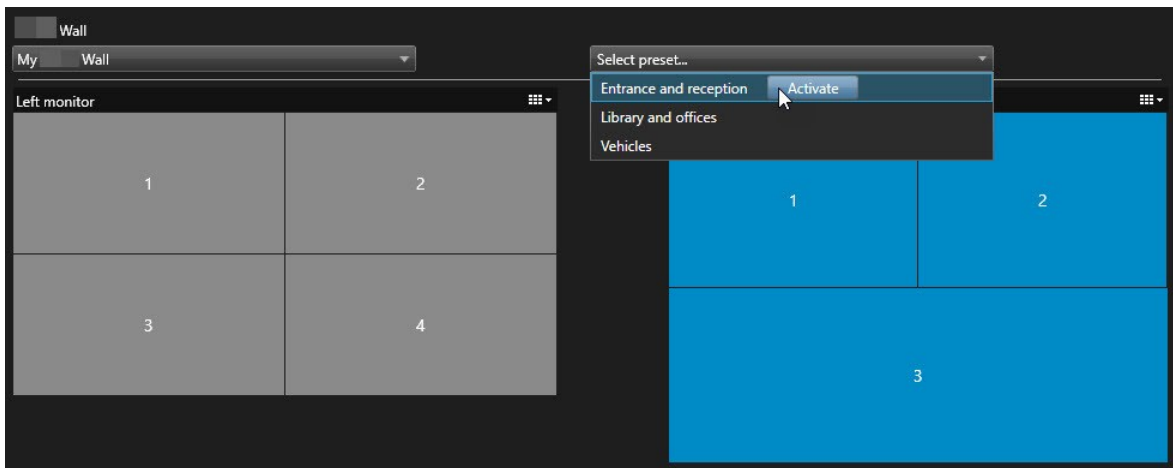
4. Now, you can add additional content. See also [Displaying content on video walls on page 16](#).

## Reset or change Smart Wall presets

Presets are often changed according to rules or time schedules, or other operators can change the preset. However, sometimes you may want to reset the video wall, or apply a specific preset in the course of certain events.

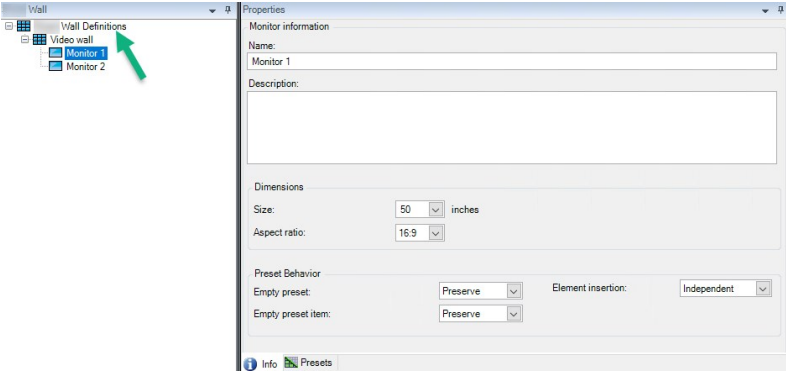
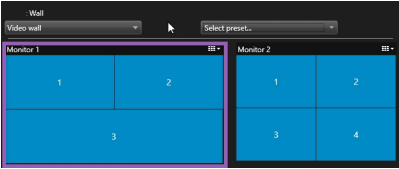
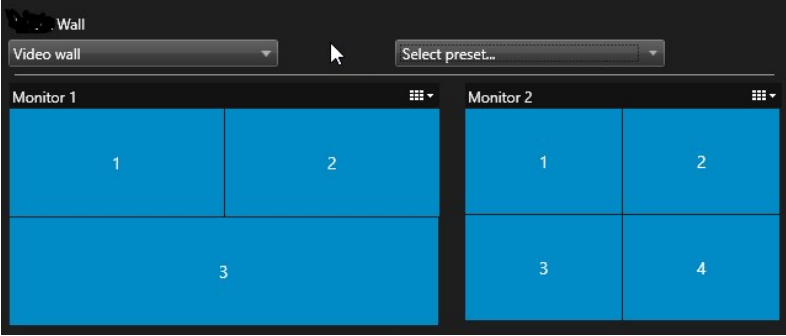
Steps:

1. Open the view that contains the Smart Wall control.
2. In the **Select preset** list, hover over the preset that you want to apply.
3. Click **Activate**. The affected physical monitors in the video wall are changed accordingly.

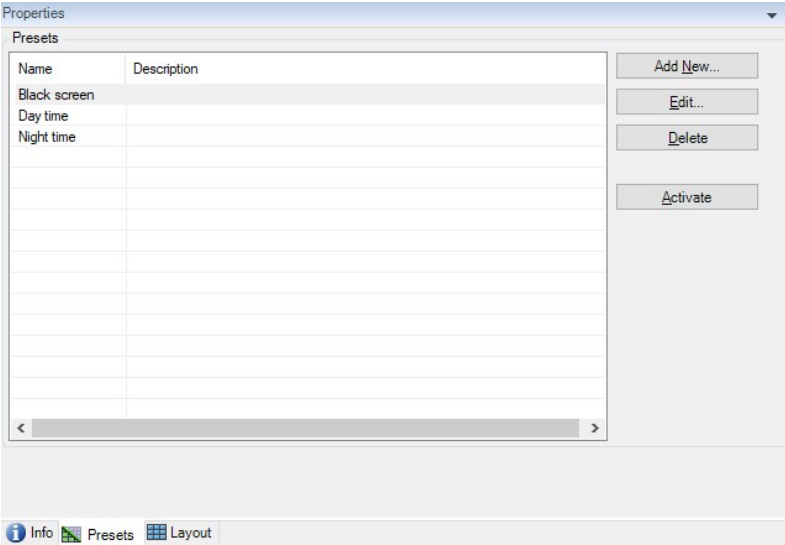



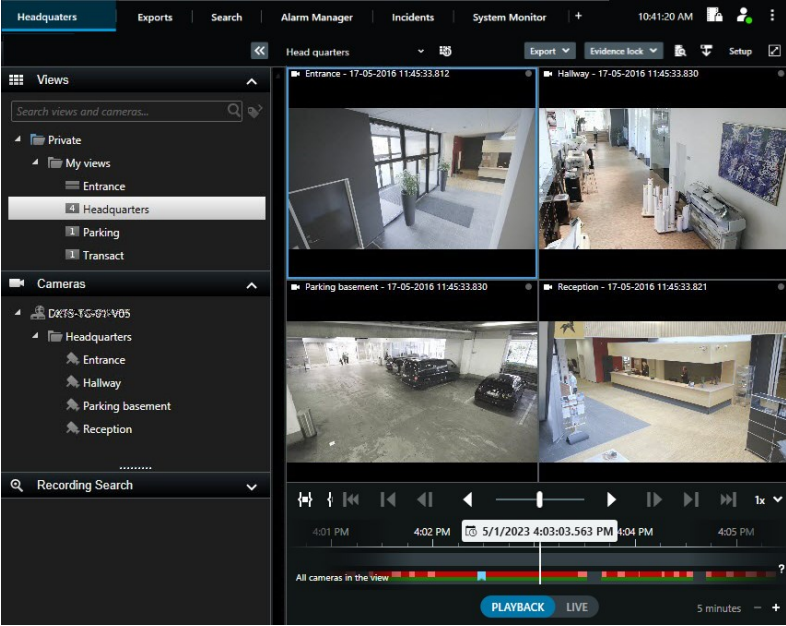
## Terminology related to Smart Wall

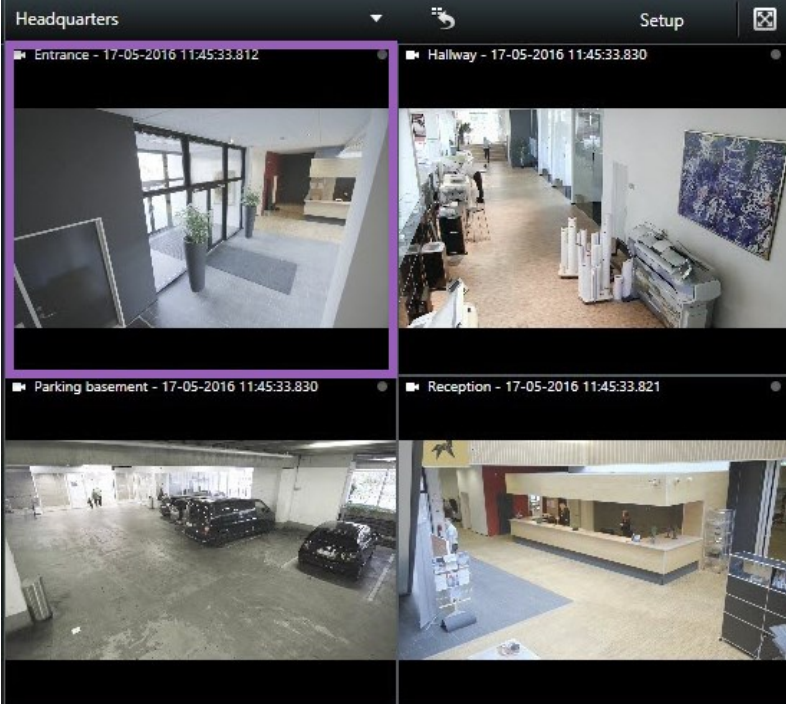
Term	Meaning
Smart Wall definition	The configuration of a video wall in XProtect Management Client, including the setup of Smart Wall monitors and presets.

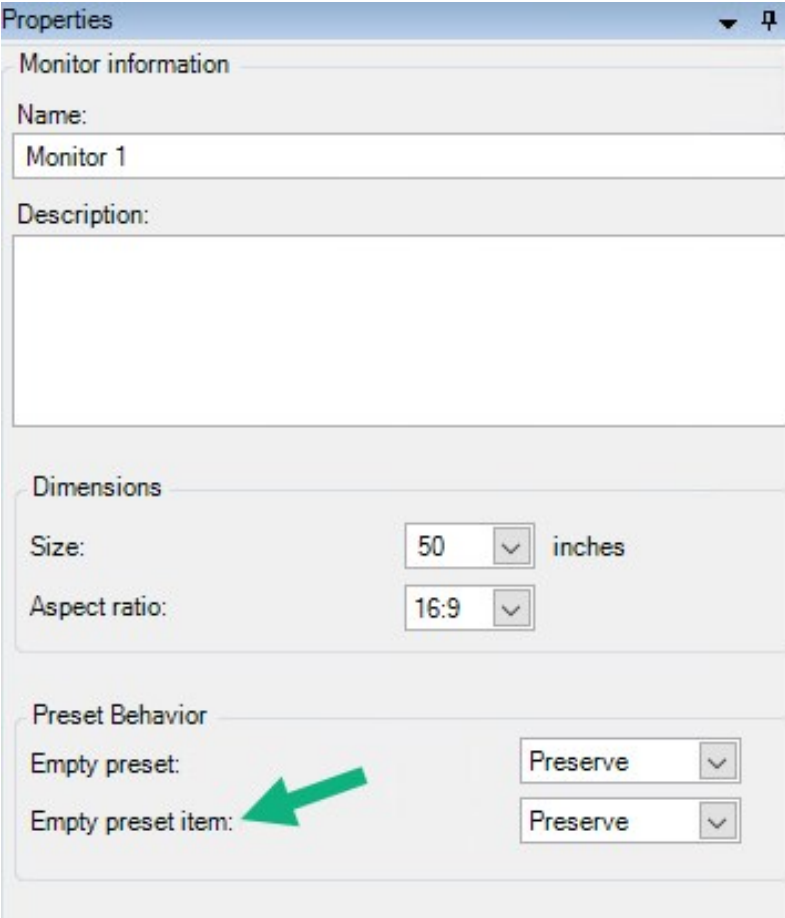
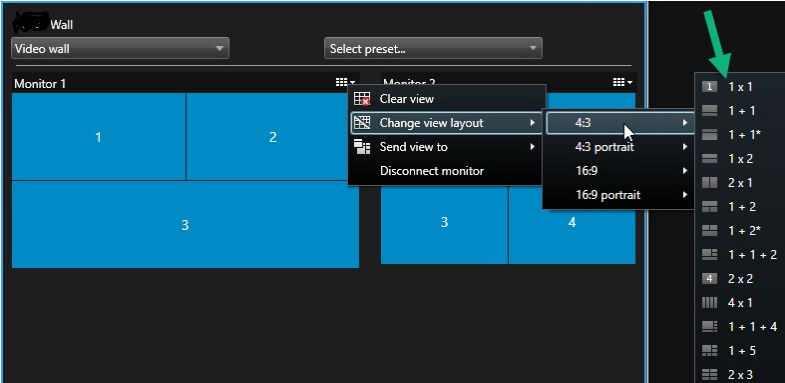
Term	Meaning
	
<p>Smart Wall monitor</p>	<p>The virtual representation of a physical monitor. In most cases, we need to distinguish between physical monitors and Smart Wall monitors.</p>  <p>The image shows the Smart Wall control in XProtect Smart Client.</p>
<p>Smart Wall control</p>	<p>The virtual representation of a video wall that allows operators to push content onto the video wall.</p> 
<p>Preset</p>	<p>A predefined layout for one or more Smart Wall monitors. Presets determine which cameras are displayed, and how content is laid out on each monitor on the video wall.</p>



Term	Meaning
	 <p>                  If you come across the term "preset" in the context of PTZ cameras, then it has a different meaning and refers to the concept preset position.             </p>
View	<p>A grouping of cameras or other elements, for example webpages, that allows operators to view video from related cameras and other types of content.</p>

Term	Meaning
	
View item	A position within a view that typically holds a camera.

Term	Meaning
	 <p>The screenshot displays a video surveillance interface titled "Headquarters" with a "Setup" button in the top right corner. It features four camera feeds arranged in a 2x2 grid. The top-left feed, labeled "Entrance - 17-05-2016 11:45:33.812", shows a modern office lobby with large windows and a potted plant. The top-right feed, labeled "Hallway - 17-05-2016 11:45:33.830", shows a long office hallway with desks and a printer. The bottom-left feed, labeled "Parking basement - 17-05-2016 11:45:33.830", shows an underground parking garage with several cars. The bottom-right feed, labeled "Reception - 17-05-2016 11:45:33.821", shows a reception desk area. A purple rectangular border highlights the "Entrance" camera feed.</p>
<p>Preset item</p>	<p>A view item where its default content depends on the configuration of the underlying preset.</p>

Term	Meaning
	 <p>The screenshot shows the 'Properties' dialog box for a monitor. It is divided into three main sections: 'Monitor information', 'Dimensions', and 'Preset Behavior'. Under 'Monitor information', the 'Name' is set to 'Monitor 1' and the 'Description' field is empty. The 'Dimensions' section shows 'Size' as 50 inches and 'Aspect ratio' as 16:9. The 'Preset Behavior' section has two dropdown menus, both set to 'Preserve'. A green arrow points to the 'Empty preset item' dropdown.</p>
View layout	<p>The layout of a Smart Wall monitor that defines how to arrange the view items, for example 2x3 or 1+2.</p>  <p>The screenshot shows the 'View layout' interface. It displays a grid of monitors labeled 1, 2, 3, and 4. A context menu is open over the grid, showing options like 'Clear view', 'Change view layout', 'Send view to', and 'Disconnect monitor'. A sub-menu is also open, showing various layout options: 4:3, 4:3 portrait, 16:9, and 16:9 portrait. A green arrow points to the layout selection menu.</p>

## Using XProtect Smart Wall

After configuring XProtect Smart Wall, you can start working with it in XProtect Smart Client. The system administrator defines the monitors that the video wall consists of, the layout and size of the monitors, and possibly also what cameras are displayed on the monitors.

Using XProtect Smart Wall is basically about the following:

- Start your video wall by opening the Smart Wall monitors in different displays or floating windows. Then drag the floating windows onto the physical monitors. See also [View Smart Wall content on page 13](#).
- Push cameras and other types of content to the video wall and share it with the other operators who are using the video wall. See also [Displaying content on video walls on page 16](#).
- When content on a monitor is changed, you may need to reset the Smart Wall monitor back to its default state. You do this by reactivating the default Smart Wall preset. See also [Reset Smart Wall monitor after removing content on page 25](#).



You can also change the view layout of the Smart Wall monitors, for example if you need to add more cameras.

### View Smart Wall content

You can view both live and recorded video on your video wall. If your video wall is not already up and running, you start the video wall by sending the Smart Wall monitors to your computer displays or to new floating windows. You can then drag the floating windows onto the physical monitors that are connected to the computer that drives the video wall. See also [Smart Wall display options on page 15](#).

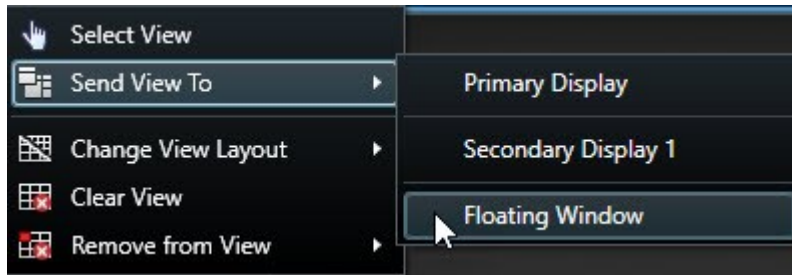


- To change or control what is displayed on a video wall, you must use the Smart Wall control. See also [The Smart Wall control on page 14](#).
- Insufficient user permissions can prevent cameras from displaying video on your video wall

Steps:

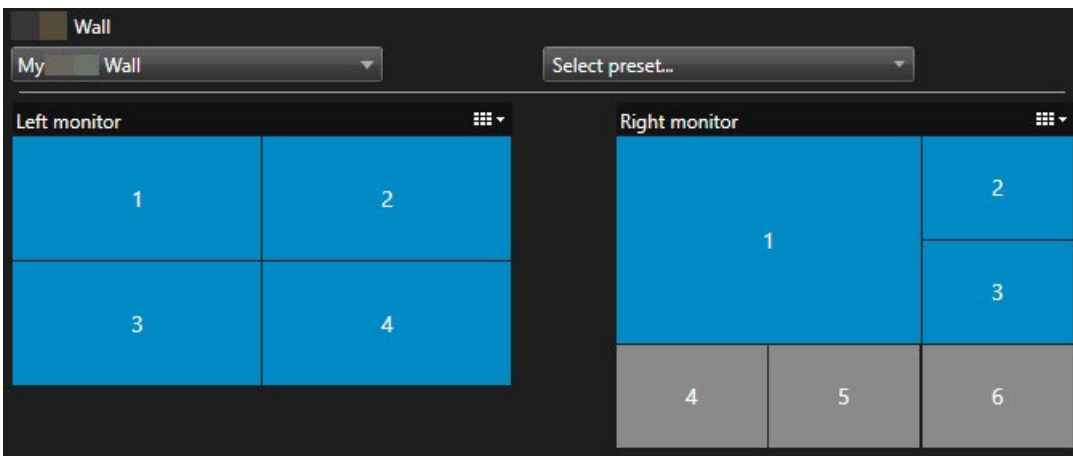
1. In the **Views** pane, expand **Smart Wall**.
2. Expand your preferred Smart Wall definition.
3. To view Smart Wall content in the main view, select the monitors one at a time.

4. To view Smart Wall content in any of your displays or in a new floating window:
  1. Right-click the monitors, one at a time.
  2. Click **Send view to** and select one of these options:
    - **Primary display** - opens in full screen mode in your current display
    - **Secondary display** - opens in full screen mode in your secondary display if any
    - **Floating window** - opens in a new floating window



## The Smart Wall control

The Smart Wall control is a virtual representation of the video wall showing one Smart Wall definition at a time and the Smart Wall monitors that it consists of. The control allows operators to push cameras and other types of content onto the video wall.



The Smart Wall control in the image above displays a Smart Wall definition with two monitors:

- **Left monitor** has a 2x2 layout
- **Right monitor** has a 1+5 layout

Blue items in the Smart Wall control are currently displaying content. Gray items are empty.

How does it work? Some elements you can drag directly onto the Smart Wall monitors in the Smart Wall control, or to specific view items within a Smart Wall monitor. Other elements you need to send to a video wall, for example images. See also [Displaying content on video walls on page 16](#).

## Examples

Example 1: Suppose you have a view containing the Smart Wall control and the **Alarm List**. An alarm goes off, and immediately you drag the alarm from the list onto any view item within Monitor 1. Operators who are looking at the video wall will now see the alarm on Monitor 1.

Example 2: Suppose you have a view containing the Smart Wall control and your smart map. You select four cameras on the smart map and drag them onto Monitor 2, which has a 2x3 view layout. Operators who are looking at their video wall will now see those four cameras in the first four view items of Monitor 2.

If your organization has multiple video walls, you can select the video wall you need in the **Smart Wall** list.

The **Select preset** list allows you to select and activate preconfigured Smart Wall presets.

### Identify the type of content that a view item is displaying

- Hover the cursor over a view item. The number of the view item changes to an icon that indicates the type of content. For example, a camera would indicate that the view item is showing video
- Click a view item to preview the content. The toolbar in the **Preview** window provides options for printing the content, or sending it to another video wall

## Smart Wall display options

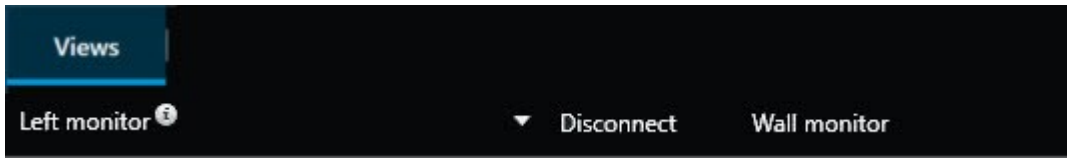
The following table describes ways to view Smart Wall content in a detached window.


Option	Description
<b>Primary display</b>	View content in full screen mode on the display that you are currently viewing. XProtect Smart Client remains open behind the Smart Wall content.
<b>Secondary display</b>	View content on another display and continue to view existing content on the current display.
<b>Floating window</b>	View content in a new floating window. This is useful, for example, if your video wall consists of multiple monitors.

## Disconnect Smart Wall monitors

You can disconnect your Smart Wall monitors, so that you can work with the video without interfering with what other operators are viewing on the video wall.

1. On the computer that is driving the video wall, go to the Smart Wall monitor that you want to disconnect.
2. Click **Disconnect Smart Wall monitor**.



 Changes you make are reverted when you reconnect.

## Displaying content on video walls

Your video wall may be preconfigured to display video from certain cameras. However, you can use the Smart Wall control to push cameras and other types of content to the video wall, for example alarms, hotspots, images, and the smart map.

Depending on the situation and the environment, you can combine different types of content to improve response times and effectiveness. For example, if you want to display a picture of a suspect so that people on patrol know who to look for, you can add an image. If you want to provide guidance for response measures, you can add text.

### What can you display?

- Alarms
- Bookmarks
- Cameras or whole views
- Carousels
- Images and snapshots
- Hotspots
- HTML pages
- Maps
- Smart map
- Text

Most of these elements, you must add to the video wall through the toolbar of the view item.





### Display or change cameras on video walls

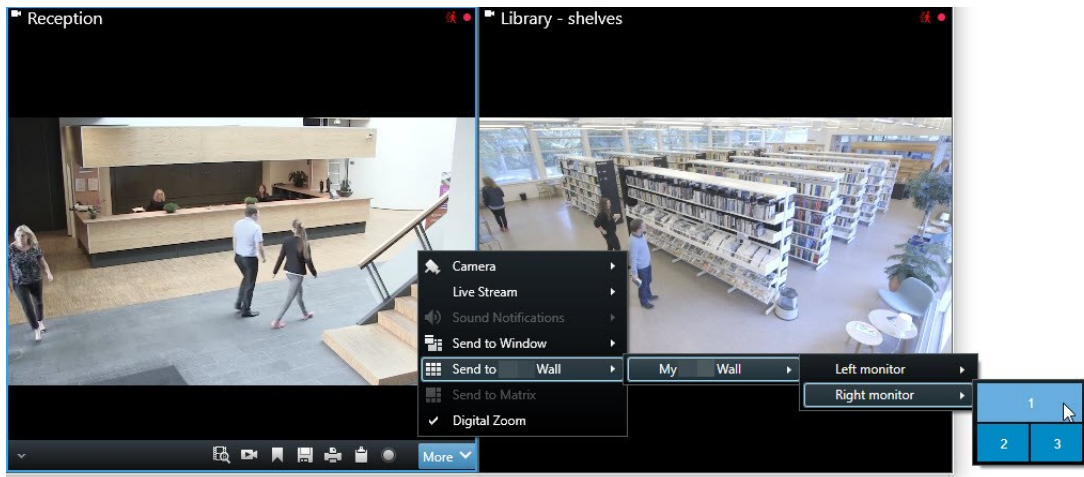
You can change the cameras that are being displayed on the video wall. Immediately, other operators who are watching the same video wall will see the changes.

#### Requirements:

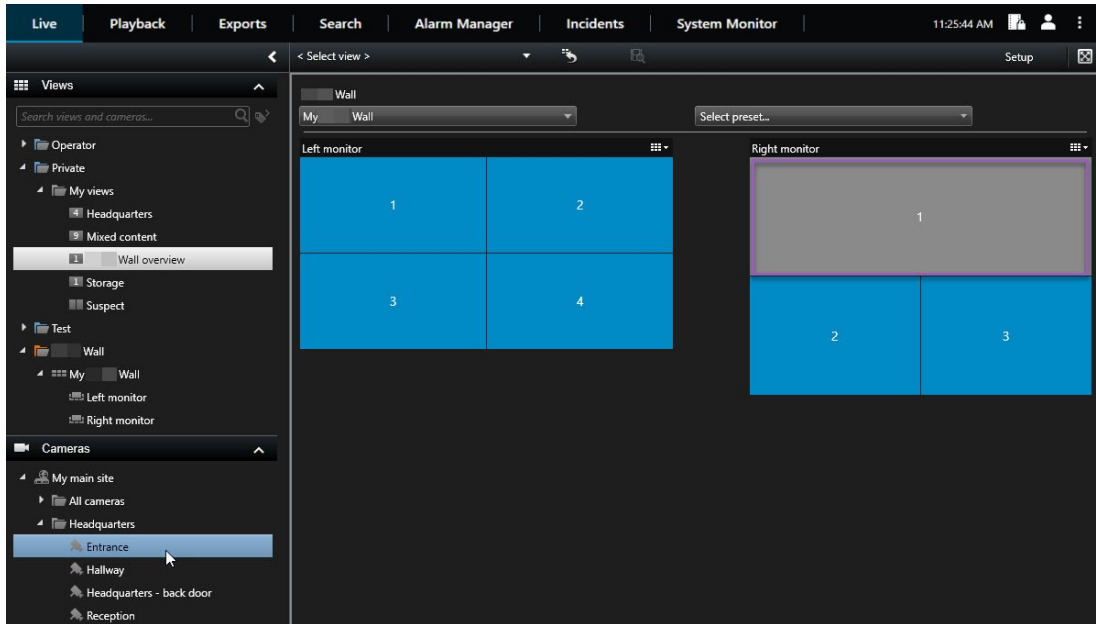
You have set up a view that contains your Smart Wall control. See also [Add Smart Wall controls to views on page 4](#).

Steps:

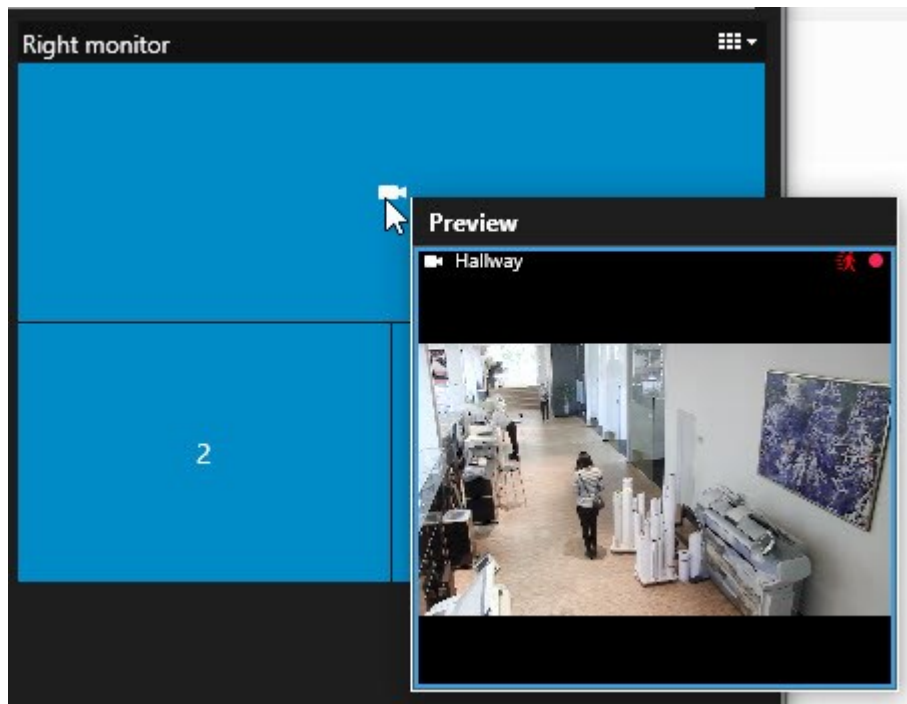
1. Make sure that your video wall is running. See also [View Smart Wall content on page 13](#).
2. Switch to live or playback mode.
3. To add a camera from a view:
  1. Open the view that contains the camera that you want to add.
  2. In the camera view item, click **More > Send to Smart Wall**. Then select the Smart Wall definition, the Smart Wall monitor, and finally the view item.



4. To add a camera from the **Cameras** pane:
  1. Open a view that contains the Smart Wall control.
  2. In the **Cameras** pane, find the camera that you want to add.
  3. Drag the camera to a view item in the Smart Wall control.



4. To verify that you added the correct camera, check the video wall or click the camera icon in the Smart Wall control. A preview appears.



### Add entire views to video walls

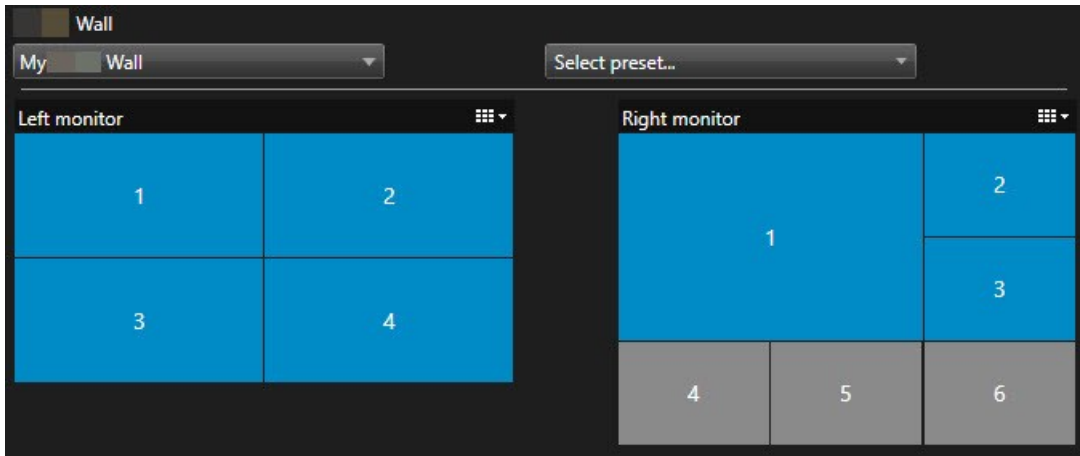
You can share an entire view with other Smart Wall operators by sending the view to a Smart Wall monitor. What is currently being displayed on that monitor is then replaced by the content of the view.


#### Requirements:

You have set up a view that contains your Smart Wall control. See also [Add Smart Wall controls to views on page 4](#).

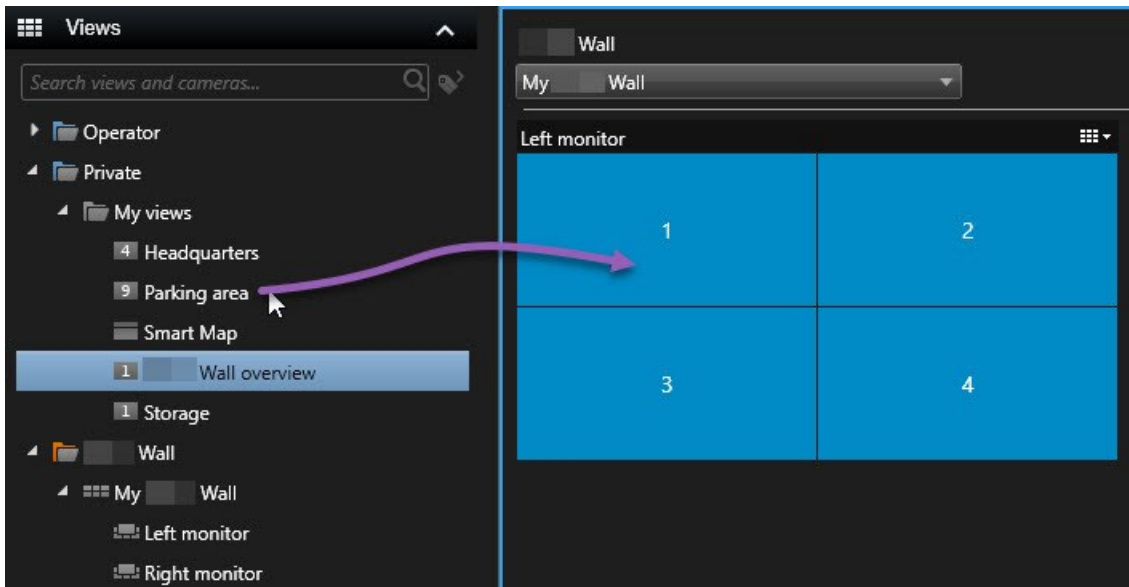
Steps:

1. Make sure that your video wall is running. See also [View Smart Wall content on page 13](#).
2. In live or playback mode, open the view that contains your Smart Wall control.



 Milestone recommends that you open the Smart Wall control in a new floating window.

3. In the **Views** pane, find the view that you want to send to the video wall.
4. Drag the view into a view item in the preferred Smart Wall monitor and then release.



### Display text on video walls

Displaying text on your video wall is useful when you want to provide information to operators who are using the video wall.

## Requirements

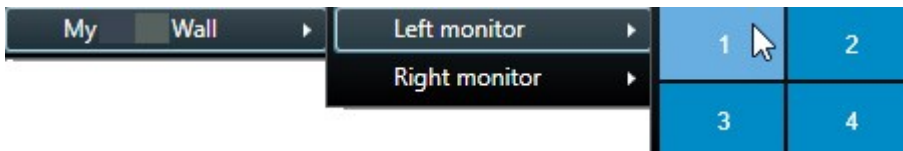
- To send text from an existing view, first you must add the text to a view. See also [Add text to a view](#).
- To add text using drag-and-drop, make sure that your text editor supports drag-and-drop operations

## Steps:

1. To add text from a third-party text editor:
  1. Open the view that contains your Smart Wall control.
  2. Write the text in your preferred text editor.
  3. Select the text.
  4. Drag and drop the text into a view item in a Smart Wall monitor.
  5. In the window that appears, you can edit the text even further. Click **Save**.
  6. Immediately after, the text appears on the associated display or physical monitor.
2. To add text that has already been added to a view:
  1. Open the view that contains the text.
  2. Hover over the view item. The camera toolbar appears.



3. Click **More > Send to Smart Wall** and then select the preferred video wall.
4. Select the Smart Wall monitor and finally the view item inside the monitor.

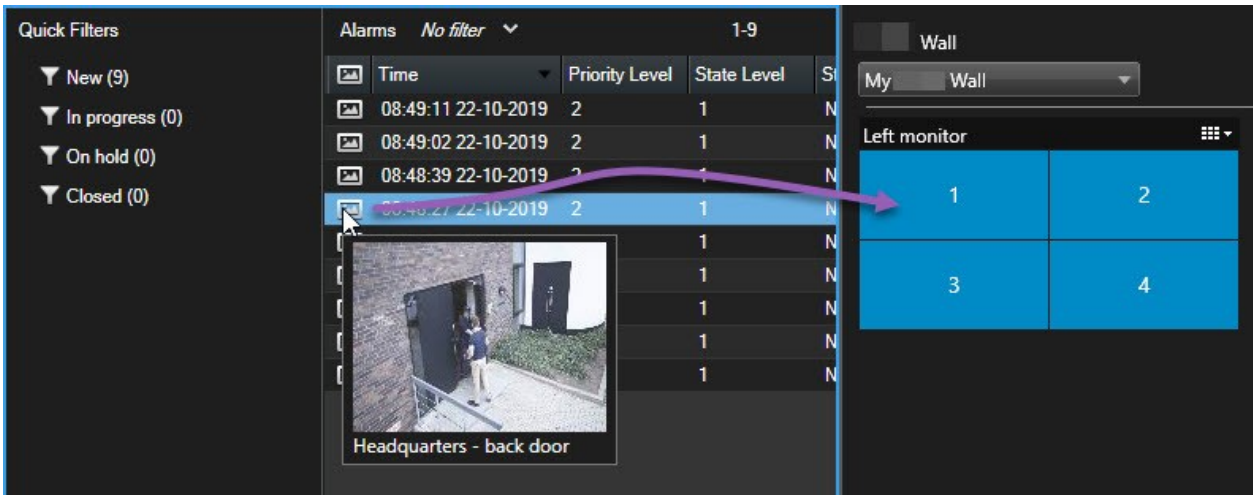


Immediately after, the text appears on the associated display or physical monitor.

## Display alarms on video walls

You can share a prioritized overview of all alarms by adding the **Alarm List** to a video wall. This allows you to view and work with details about the alarm directly from the video wall.

You can also display individual alarms on your video wall by dragging and dropping the alarm from the **Alarm List**.

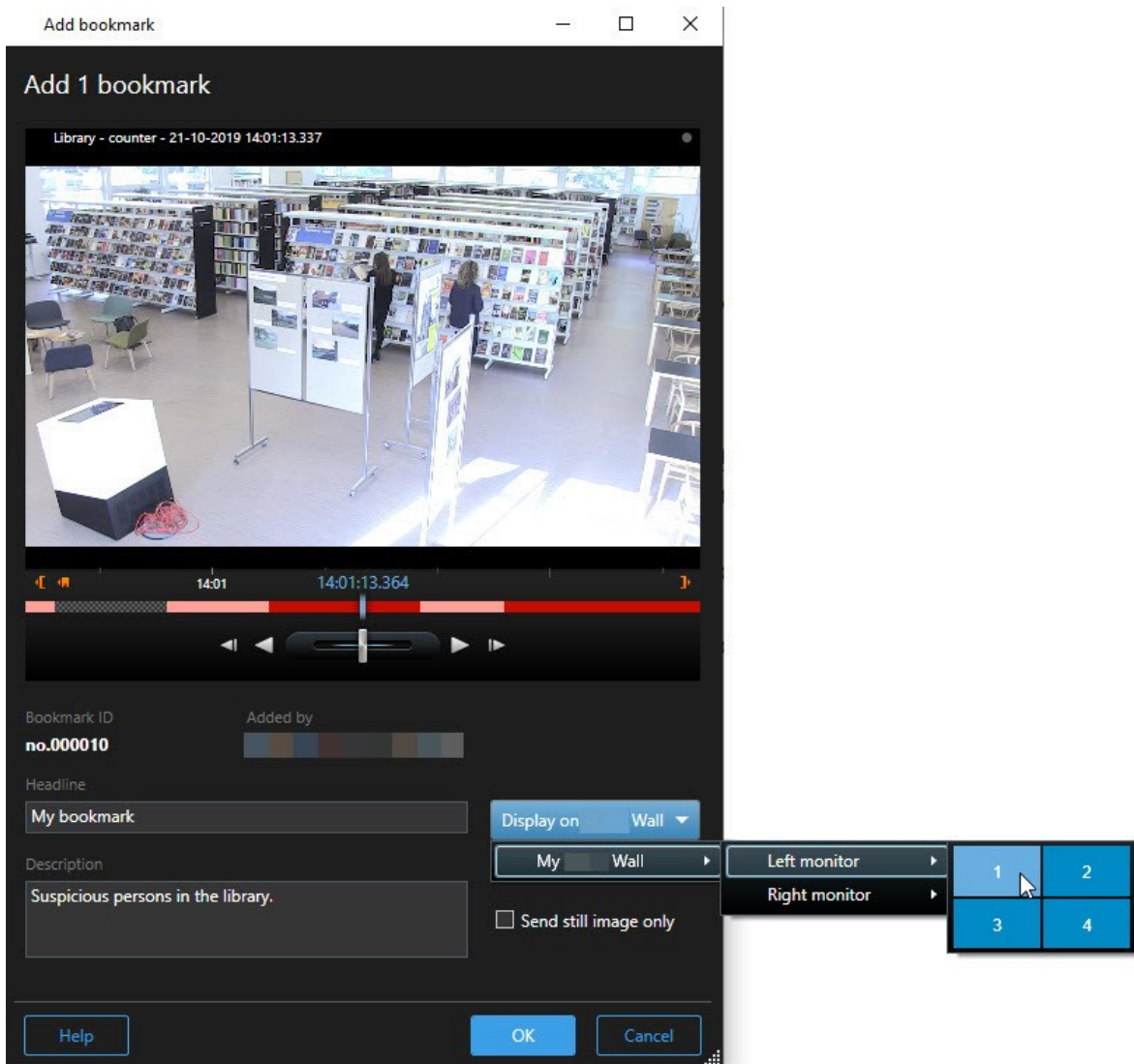


### Display bookmarks on video walls

Sending a bookmark to a video wall can help you quickly share a still image or a video sequence of an incident, for example a suspicious person, with operators who are watching the video wall.

Steps:

1. Create a bookmark. See also [Add or edit bookmarks](#) or [Bookmark search results](#).
2. In the window that appears, click **Display on Smart Wall** and select the preferred video wall.



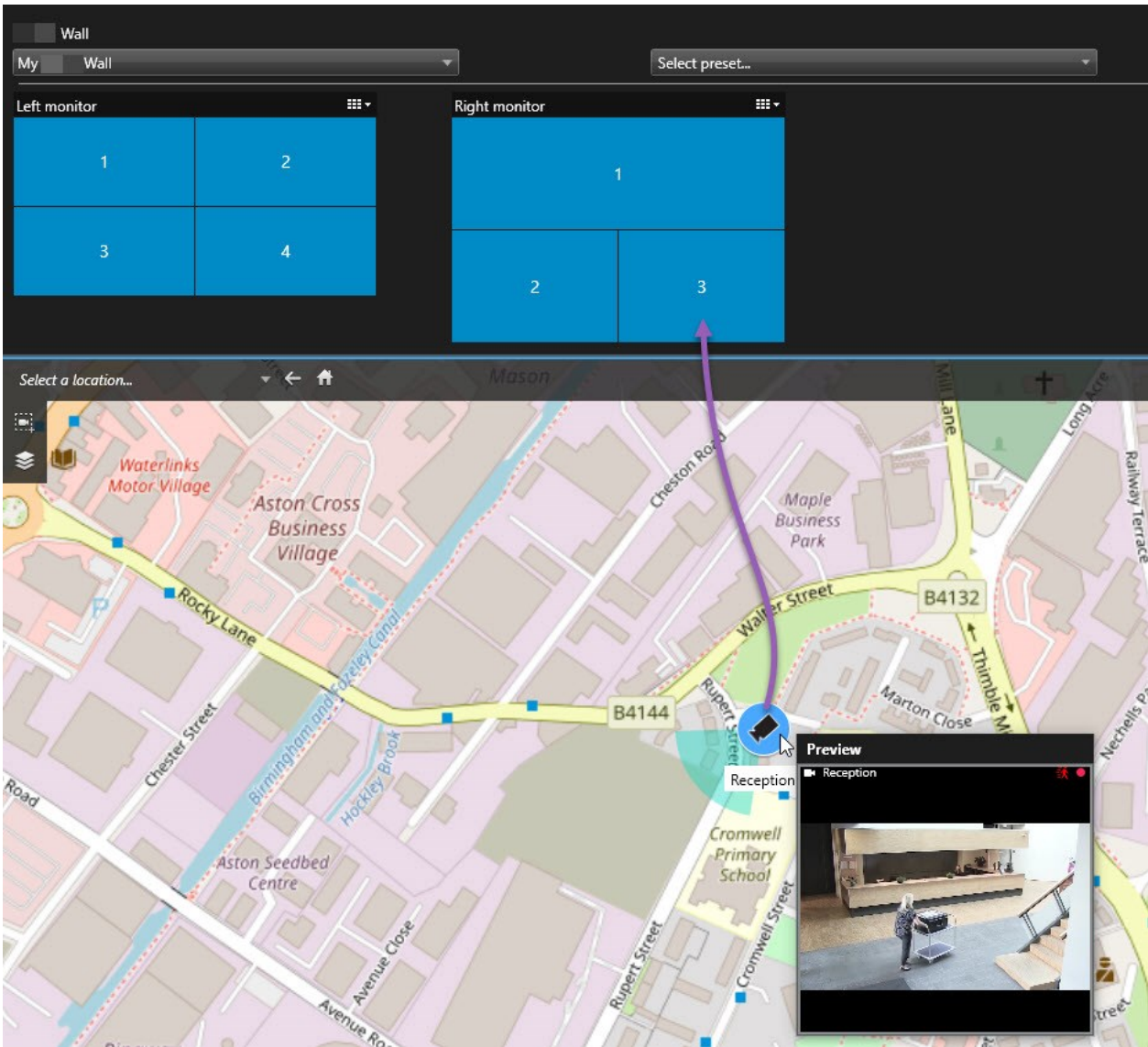
3. Select a Smart Wall monitor and then a view item within the monitor.
4. To send a still image instead of the video sequence, select the **Send still image only** check box.
5. Click **OK** to save your changes. The bookmarked video sequence appears on the associated physical monitor.

### XProtect Smart Wall and smart maps

If you are using XProtect Smart Wall, you can view the smart map on your video wall and share it with other operators who are using the same video wall. The current zoom level, the location that you have navigated to, and the layers that are visible are maintained when sent to a video wall.

### Drag cameras from maps or smart maps to video walls

If a particular camera on your map or smart map recorded an incident, and you want to share the video from that camera, you can drag the camera from the map to the monitors of your video wall.




You can also drag cameras from maps in floating windows and secondary displays.

### Stop displaying content on the video wall

You can stop displaying content on a video wall, for example when an incident is under control or the content is no longer relevant.

#### Stop displaying all content on a Smart Wall monitor



1. In your Smart Wall control, go to the monitor that you want to clear.
2. Click the  icon.
3. Select **Clear view**. On the Smart Wall control, the view items turn gray, and all content is removed from the Smart Wall display.

### Remove specific content from a Smart Wall monitor

1. In your Smart Wall control, go to the monitor that you want to remove specific content from.
2. Right-click the item that you want to clear and select **Remove from view**.



The item turns gray, and the content is removed from the associated view item in the Smart Wall display.



Other operators can manually change the content on a Smart Wall, and the content can change according to a schedule or rules. This means that the content that you remove can reappear later.

### Reset Smart Wall monitor after removing content

If you have removed content from a monitor, you can make it reappear by re-applying the Smart Wall preset that is associated with the monitor.

## Troubleshooting

### Troubleshooting: XProtect Smart Wall

#### **My monitors do not display the layout that I specified for my Smart Wall**

Typically, this occurs because your system administrator did not activate the preset for the monitor. Ask your system administrator to verify that the preset is active in Management Client.

#### **My camera is not part of a preset. Why isn't it removed when I activate the preset?**

This can be because the **Empty preset item** setting is not selected for the preset. Ask your system administrator to verify the setting for the preset in Management Client.

#### **I cannot drag an item, for example a camera, to a view. When I click the item, nothing happens**

This is a known issue in Microsoft Windows that can also occur in XProtect Smart Wall. The workaround is press ESC one time, and the drag functionality should work again.

#### **When I drag an image from a view to my Smart Wall, it isn't displayed.**

You probably did not embed the image in the view, and the computer that is running the Smart Wall cannot access the image file. To ensure that everyone can see an image, it's a good idea to embed it in the view.

#### **My Smart Wall monitors are displayed on top of each other**

When your system administrator added monitors to your Smart Wall, he or she did not define the layout of the monitors. When your administrator adds monitors, the system automatically stacks them in the layout in the order in which they were added. Your administrator must then arrange them according to your needs.

#### **I cannot drag an image from Windows Explorer to my Smart Wall monitor. The cursor does not change to the Allow Drop icon**

This occurs when your Smart Client is not running under the same user profile as Windows Explorer. For example, you are running Smart Client under the Local administrator user profile, but you are running Windows Explorer as a Standard user. To resolve this issue, ensure that both programs are running under the same user profile.

#### **I have added the Alarm List to a view item, but I cannot use the scroll bar to view details**

This is a known issue in XProtect Smart Wall. To use the scroll bar, position the pointer outside the view item, and then press and hold the CTRL key. This prevents the view item's toolbar from covering the scroll bar. You can now move the pointer into the view item and use the scroll bar.

## Glossary

### A

#### **access control**

A security system that controls the entering of persons, vehicles, or others into a building or area.

#### **adaptive streaming**

A feature that improves the video decoding capability and thereby the general performance of the computer running XProtect Smart Client or another video viewing client.

#### **alarm**

Incident defined on surveillance system to trigger an alarm in XProtect Smart Client. If your organization uses the feature, triggered alarms are displayed in views that contain alarm lists or maps.

#### **archiving**

The automatic transfer of recordings from a camera's default database to another location. This way, the amount of recordings you are able to store will not be limited by the size of the camera's default database. Archiving also makes it possible to back up your recordings on backup media of your choice.

#### **aspect ratio**

Height/width relationship of an image.

#### **AVI**

A popular file format for video. Files in this format carry the .avi file extension.

### B

#### **bookmark**

An important point in a video recording, marked and optionally annotated so that you and your colleagues will easily be able to find it later.

### C

#### **cardholder**

A person that possesses a card that is recognizable to an access control system and gives access to one or more areas, buildings or similar. See also access control.

#### **carousel**

A particular position for viewing video from several cameras, one after the other, in a view in XProtect Smart Client.

#### **cluster**

a grouping of devices or plug-in elements – or a combination - on the smart map displayed visually as a circular icon with a number. Clusters appear on certain zoom levels indicating the number of devices or plug-in elements within a particular geographical area.

#### **codec**

A technology for compressing and decompressing audio and video data, for example in an exported AVI file.

#### **CPU**

Short for "central processing unit", the component in a computer that runs the operating system and applications.

#### **custom overlay**

A user-defined, graphic element that users can add to a smart map, for example to illustrate a floor plan in a building, or to mark borders between regions. A custom overlay can be an image, a CAD drawing, or a shapefile.

### D

#### **deadzone**

A deadzone determines how much a joystick handle should be allowed to move before information is sent to the system. Ideally, a joystick handle should be completely vertical when not used, but many joystick handles lean at a slight angle. When

joysticks are used for controlling PTZ cameras, even a slightly slanting joystick handle could cause PTZ cameras to move when it is not required. Being able to configure deadzones is therefore often desirable.

### **DirectX**

A Windows extension providing advanced multimedia capabilities.

## **E**

### **event**

A predefined incident occurring on the surveillance system; used by the surveillance system for triggering actions. Depending on surveillance system configuration, events may be caused by input from external sensors, by detected motion, by data received from other applications, or manually through user input. The occurrence of an event could, for example, be used for making a camera record with a particular frame rate, for activating outputs, for sending e-mails, or for a combination thereof.

### **evidence lock**

A video sequence that is protected, so it cannot be deleted.

### **external IDP**

An external entity that can be associated with the XProtect VMS to manage user identity information and provide user authentication services to the VMS.

## **F**

### **FIPS**

Short for "Federal Information Processing Standards".

### **FIPS 140-2**

A U.S. government standard that defines the critical security parameters that vendors must use for encryption before selling the software or hardware to U.S. government agencies.

### **fisheye lens**

A lens that allows the creation and viewing of 360° panoramic images.

### **FPS**

Frames Per Second, a measure indicating the amount of information contained in video. Each frame represents a still image, but when frames are displayed in succession the illusion of motion is created. The higher the FPS, the smoother the motion will appear. Note, however, that a high FPS may also lead to a large file size when video is saved.

### **frame rate**

A measure indicating the amount of information contained in motion video. Typically measured in FPS (Frames Per second).

## **G**

### **GOP**

Group Of Pictures; individual frames grouped together, forming a video motion sequence.

### **GPU**

Short for "graphics processing unit", which is a processor designed to handle graphics operations.

## **H**

### **H.264/H.265**

A compression standard for digital video. Like MPEG, the standard uses lossy compression.

### **hotspot**

A particular view item for viewing magnified and/or high quality camera images in XProtect Smart Client views.

## **I**

### **i-frame**

Short name for intraframe. Used in the MPEG standard for digital video compression, an I-frame is a single frame stored at specified intervals. The I-

frame records the entire view of the camera, whereas the following frames (P-frames) record only the pixels that change. This helps greatly reduce the size of MPEG files. An I-frame is similar to a keyframe.

## J

### JPEG

An image compression method, also known as JPG or Joint Photographic Experts Group. The method is a so-called lossy compression, meaning that some image detail will be lost during compression. Images compressed this way have become generically known as JPGs or JPEGs.

## K

### keyframe

Used in the standard for digital video compression, such as MPEG, a keyframe is a single frame stored at specified intervals. The keyframe records the entire view of the camera, whereas the following frames record only the pixels that change. This helps greatly reduce the size of MPEG files. A keyframe is similar to an i-frame.

## L

### layer

The geographic background on a smart map, a custom overlay, or a system element, for example a camera. Layers are all the graphic elements that exist on the smart map.

### LPR

Short for "license plate recognition".

## M

### MAC address

Media Access Control address, a 12-character hexadecimal number uniquely identifying each device on a network.

### map

1) XProtect Smart Client feature for using maps, floor plans, photos, etc. for navigation and status visualization. 2) The actual map, floor plan, photo, etc. used in a view.

### Matrix

A product integrated into some surveillance systems, which enables the control of live camera views on remote computers for distributed viewing. Computers on which you can view Matrix-triggered video are known as Matrix-recipients.

### Matrix-recipient

Computer on which you can view Matrix-triggered video.

### MIP

Short for "Milestone Integration Platform".

### MIP element

A plug-in element added through the MIP SDK.

### MIP SDK

Short for "Milestone Integration Platform software development kit".

### MKV

Short for "Matroska Video". An MKV file is a video file saved in the Matroska multimedia container format. It supports several types of audio and video codecs.

### MPEG

A group of compression standards and file formats for digital video, developed by the Moving Pictures Experts Group (MPEG). MPEG standards use so-called lossy compression as they store only the changes between keyframes, removing often considerable amounts of redundant information: Keyframes stored at specified intervals record the entire view of the camera, whereas the following frames record only pixels that change. This helps greatly reduce the size of MPEG files.

## O

### **operator**

A professional user of an XProtect client application.

### **output**

Data going out of a computer. On IP surveillance systems, output is frequently used for activating devices such as gates, sirens, strobe lights, and more.

### **overlay button**

A button appearing as a layer on top of the video when you move your mouse cursor over individual view items with cameras when in live mode. Use overlay buttons to activate speakers, events, output, move PTZ cameras, start recording, clear signals from cameras.

## P

### **P-frame**

Short name for predictive frame. The MPEG standard for digital video compression uses P-frames together with I-frames. An I-frame, also known as a keyframe, is a single frame stored at specified intervals. The I-frame records the entire view of the camera, whereas the following frames (the P-frames) record only the pixels that change. This helps greatly reduce the size of MPEG files.

### **pane**

Small groups of buttons, fields and more located in the left side of the XProtect Smart Client window. Panes give you access to the majority of the XProtect Smart Client features. Exactly which panes you see depends on your configuration and on your task, for example on whether you are viewing live video when in live mode or recorded video when in playback mode.

### **patrolling profile**

The exact definition of how patrolling with a PTZ camera is carried out, including the sequence for

moving between preset positions, timing settings, etc. Also known as a "patrol scheme".

### **port**

A logical endpoint for data traffic. Networks use different ports for different types of data traffic. Therefore, it is sometimes, but not always, necessary to specify which port to use for particular data communication. Most ports are used automatically based on the types of data included in the communication. On TCP/IP networks, port numbers range from 0 to 65536, but only ports 0 to 1024 are reserved for particular purposes. For example, port 80 is used for HTTP traffic which is used when viewing web pages.

### **PoS**

Short for "Point of Sale" and typically refers to a cash register or cashier counter in a retail shop or store.

### **preset position**

Can be used for making the PTZ camera automatically move in different defined directions when particular events occur, and for specifying PTZ patrolling profiles.

### **privacy mask**

A blurred or solid color that covers an area of the video in the camera view. The defined areas are blurred or covered in live, playback, hotspot, carousel, smart map, smart search, and export modes in the clients.

### **PTZ**

Pan-tilt-zoom; a highly movable and flexible type of camera.

### **PTZ patrolling**

The automatic turning of a PTZ camera between a number of preset positions.

## Q

### **QVGA**

A video resolution of 320×240 pixels. QVGA stands for "Quarter Video Graphics Array" and is named as such because the resolution 320×240 pixels is a quarter of the size of the standard VGA resolution which is 640×480 pixels.

## R

### **recording**

In IP video surveillance systems, the term recording means saving video and, if applicable, audio from a camera in a database on the surveillance system. In many IP surveillance systems, all of the video/audio received from cameras is not necessarily saved. Saving of video and audio in is in many cases started only when there is a reason to do so, for example when motion is detected, when a particular event occurs, or when a specific period of time begins. Recording is then stopped after a specified amount of time, when motion is no longer detected, when another event occurs or similar. The term recording originates from the analog world, where video/audio was not taped until the record button was pressed.

## S

### **SCS**

File extension (.scs) for a script type targeted at controlling XProtect Smart Client.

### **Sequence Explorer**

The Sequence Explorer lists thumbnail images representing recorded sequences from an individual camera or all cameras in a view. The fact that you can compare the thumbnail images side-by-side, while navigating in time simply by dragging the thumbnail view, enables you to very quickly assess large numbers of sequences and identify the most relevant sequence, which you can then immediately play back.

### **smart map**

A map functionality that uses a geographic information system to visualize devices (for example, cameras and microphones), structures, and topographical elements of a surveillance system in geographically accurate, real-world imagery. Maps that use elements of this functionality are called smart maps.

### **smart search**

A search feature that lets you find video with motion in one or more selected areas of recordings from one or more cameras.

### **Smart Wall control**

A graphical representation of a video wall that allows you to control what is displayed on the different monitors.

### **Smart Wall preset**

A predefined layout for one or more Smart Wall monitors in XProtect Smart Client. Presets determine which cameras are displayed, and how content is structured on each monitor on the video wall.

### **snapshot**

An instant capture of a frame of video at a given time.

### **still image**

A single still image.

## T

### **TCP**

Transmission Control Protocol; a protocol (i.e. standard) used for sending data packets across networks. TCP is often combined with another protocol, IP (Internet Protocol). The combination, known as TCP/IP, allows data packets to be sent back and forth between two points on a network for longer periods of time, and is used when connecting computers and other devices on the Internet.

### **TCP/IP**

Transmission Control Protocol/Internet Protocol; a combination of protocols (i.e. standards) used when connecting computers and other devices on networks, including the Internet.

## **V**

### **view**

A collection of video from one or more cameras, presented together in XProtect Smart Client. A view may include other content than video from cameras, such as HTML pages and still images. A view can be private (only visible by the user who created it) or shared with other users.

### **VMD**

Video Motion Detection. In IP video surveillance systems, recording of video is often started by detected motion. This can be a great way of avoiding unnecessary recordings. Recording of video can of course also be started by other events, and/or by time schedules.

### **VMS**

Short for "Video Management Software".

## **X**

### **XProtect Transact**

Product available as an add-on to surveillance systems. With XProtect Transact, you can combine video with time-linked Point of Sale (PoS) or ATM transaction data.





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#### About Milestone

Milestone Systems is a leading provider of open platform video management software; technology that helps the world see how to ensure safety, protect assets and increase business efficiency. Milestone Systems enables an open platform community that drives collaboration and innovation in the development and use of network video technology, with reliable and scalable solutions that are proven in more than 150,000 sites worldwide. Founded in 1998, Milestone Systems is a stand-alone company in the Canon Group. For more information, visit <https://www.milestonesys.com/>.

