MAKE THE
WORLD SEE

Milestone Systems

XProtect® Smart Wall 2024 R2

Administrator manual

milestone

Contents

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Overview

XProtect Smart Wall

XProtect Smart Wall is an advanced extension that enables organizations to create video walls that meet their specific security demands. XProtect Smart Wall provides an overview of all the video data in the XProtect VMS system and supports any amount or combination of monitors.
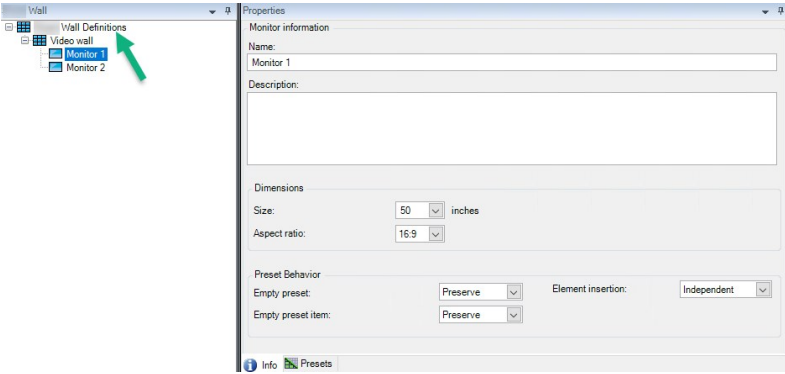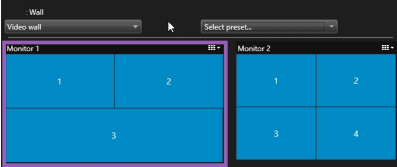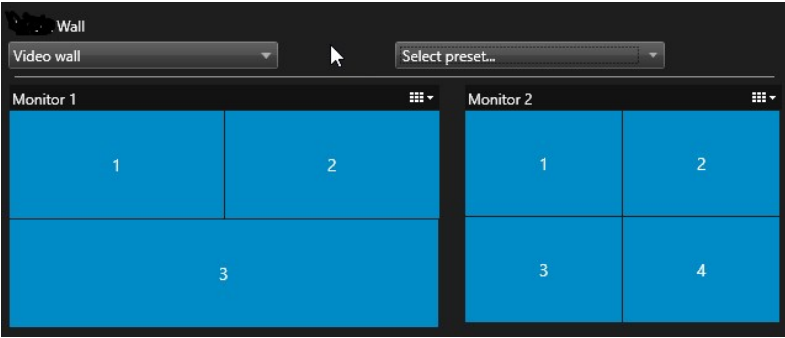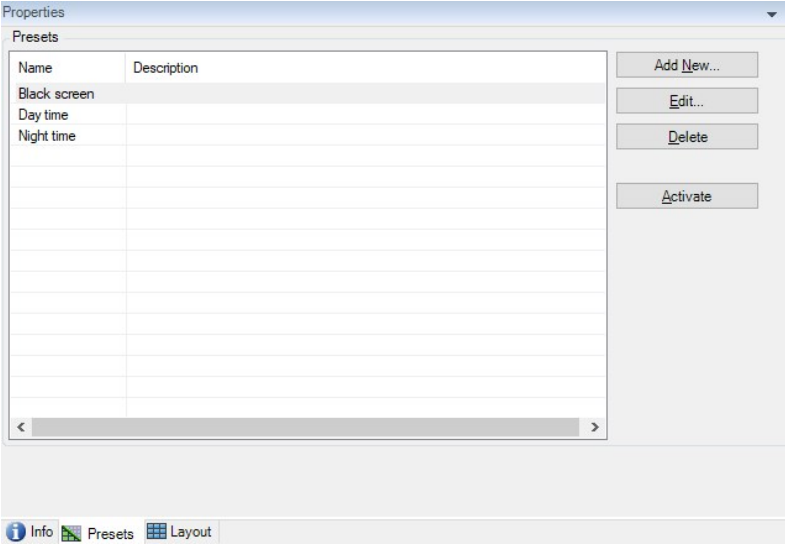
XProtect Smart Wall allows operators to view static video walls as defined by their system administrator with a fixed set of cameras and monitor layout. However, the video wall is also operator-driven in the sense that operators can control what is being displayed. This includes:
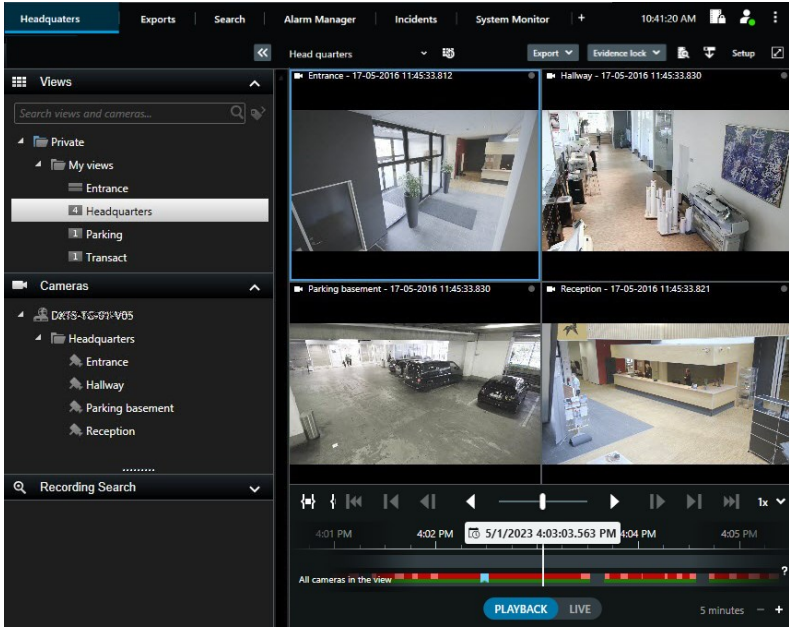
- Pushing cameras and other types of content to the video wall, for example images, text, alarms, and smart map

- Sending entire views to the monitors

- In the course of certain events, applying alternate presets
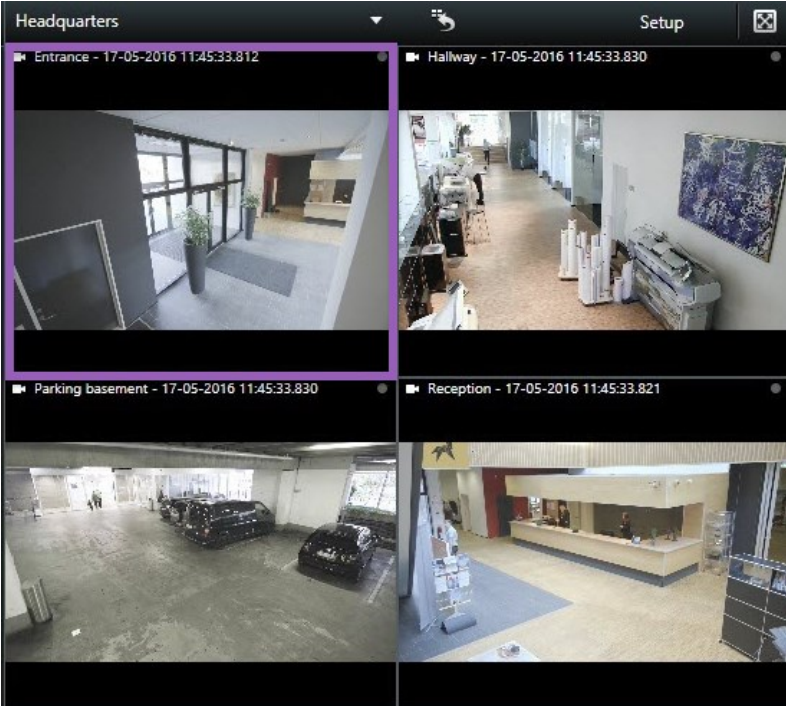
Finally, display changes can be controlled by rules that automatically change the presets based on specific events or time schedules.
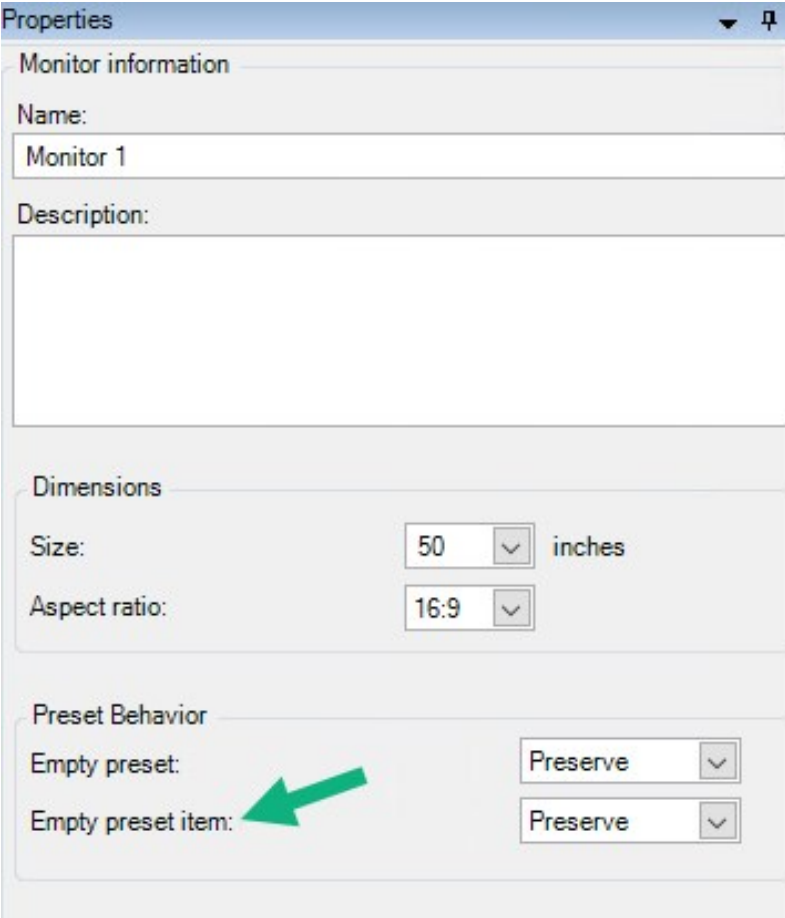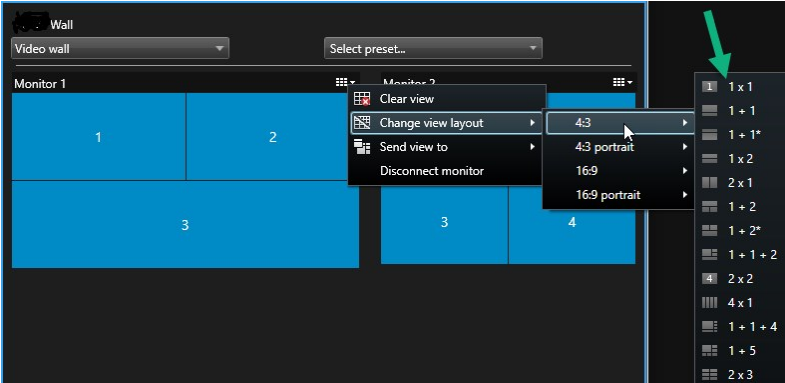
Terminology related to Smart Wall

Term	Meaning
Smart Wall definition	The configuration of a video wall in XProtect Management Client, including the setup of Smart Wall monitors and presets.
Smart Wall monitor	The virtual representation of a physical monitor. In most cases, we need to distinguish between physical monitors and Smart Wall monitors. The image shows the Smart Wall control in XProtect Smart Client.
Smart Wall control	The virtual representation of a video wall that allows operators to push content onto the video wall.

Term	Meaning
Preset	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. ⬛ 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.
View	A grouping of cameras or other elements, for example webpages, that allows operators to view video from related cameras and other types of content.

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

Term	Meaning
Preset item	A view item where its default content depends on the configuration of the underlying preset.

Term	Meaning
View layout	The layout of a Smart Wall monitor that defines how to arrange the view items, for example **2x3** or **1+2**.

Get started

Before you can start using XProtect Smart Wall, you need to:

1. Get and activate a base license for XProtect Smart Wall. See also XProtect Smart Wall licensing on page 12.

2. Configure XProtect Smart Wall and set the user permissions in XProtect Management Client. See also Configuring XProtect Smart Wall on page 16 and Specify user permissions for XProtect Smart Wall on page 25.

3. Optionally, you can make the Smart Wall control available to operators in XProtect Smart Client.

Licensing

XProtect Smart Wall licensing

XProtect Smart Wall requires the following video wall-related licenses:

- A **base license** for XProtect Smart Wall that covers an unrestricted number of monitors displaying video on a video wall

Use of XProtect Smart Wall is only supported in these products:

- XProtect Corporate - a base license for XProtect Smart Wall is included in the base license

- XProtect Expert - purchase a base license for XProtect Smart Wall separately

Requirements and considerations

XProtect Smart Wall and Milestone Federated Architecture

If the central site uses XProtect Smart Wall, you can also use the XProtect Smart Wall features in the federated site hierarchy.

Scenarios of how to configure your video wall

There is no right or wrong way of setting up your video wall. It depends on your surveillance needs and the setup of your XProtect VMS system.

Here are two examples of how you could set up your video wall:

1. Example 1: A single-site XProtect VMS system with a video wall consisting of six physical monitors.

2. Example 2: A two-site XProtect VMS system with a relatively large video wall consisting of sixteen physical monitors.

Example 1 - video wall with six physical monitors in a single-site setup
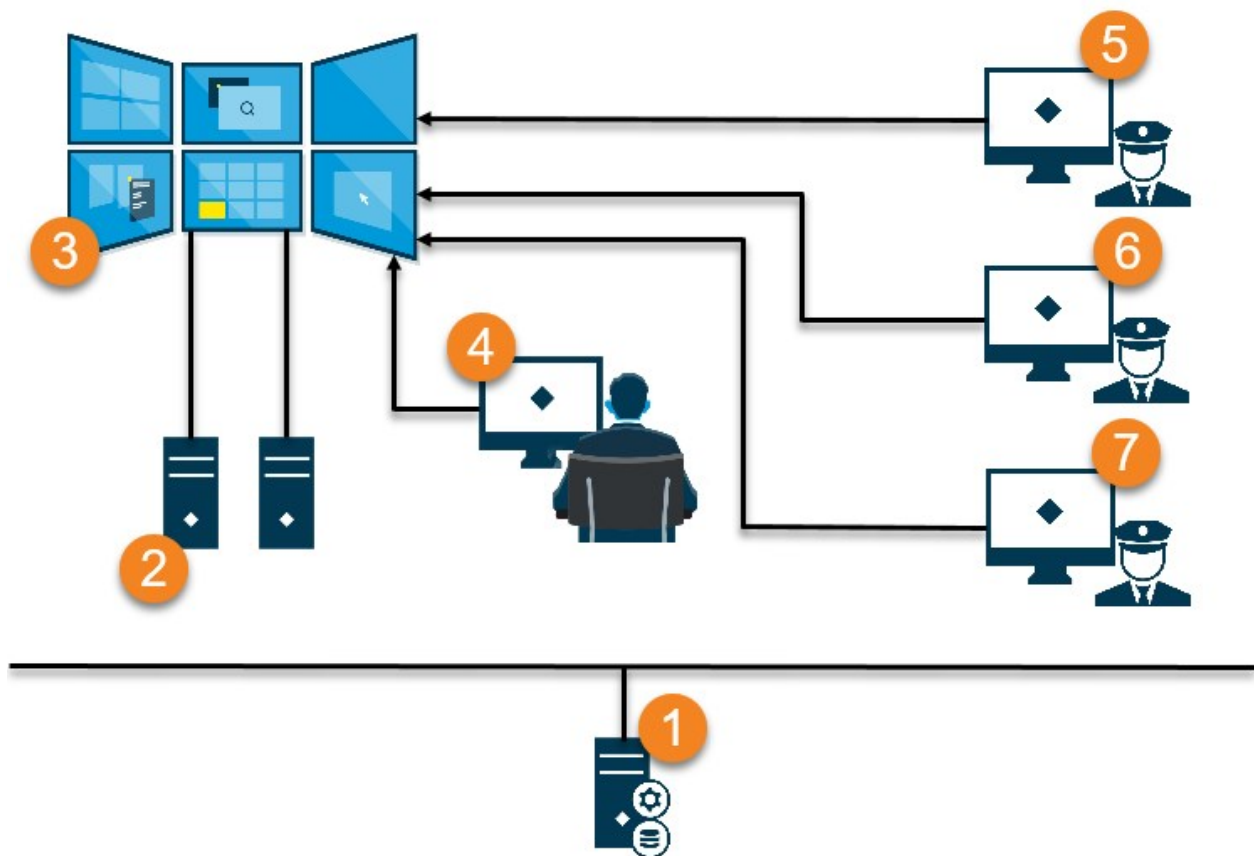
Explanation of the illustration:

1. The XProtect VMS server (the Management Server) that operators and system administrators connect to when they log in to XProtect Smart Client or XProtect Management Client.

2. Two unattended computers with XProtect Smart Client installed which are dedicated to driving the video wall. Six physical monitors are connected to these computers.

3. The video wall and its physical monitors.

4. In this example, the control room operator has the overall control of the video wall and decides what to display. They use their own computer to control what happens on the video wall by:

   - Opening the Smart Wall monitors on their own displays or monitors. Whatever action the operator takes, it is mirrored on the video wall, for example, playing back recorded video

   - Using the Smart Wall control

   > ✎ The control room operator is typically physically present in front of the video wall, but can also located elsewhere.

5. (5, 6, 7) Operators typically have their own computers with XProtect Smart Client installed and use the Smart Wall control to push content onto a video wall. When an incident occurs, the operators can respond by sharing content with other people who are watching the video wall. Such content can be, for example, a bookmarked video sequence or an image of a suspect.

   Operators may sit in front of the video wall, but can also be situated elsewhere on the same site.

Example 2 - video wall with sixteen physical monitors in a multi-site setup
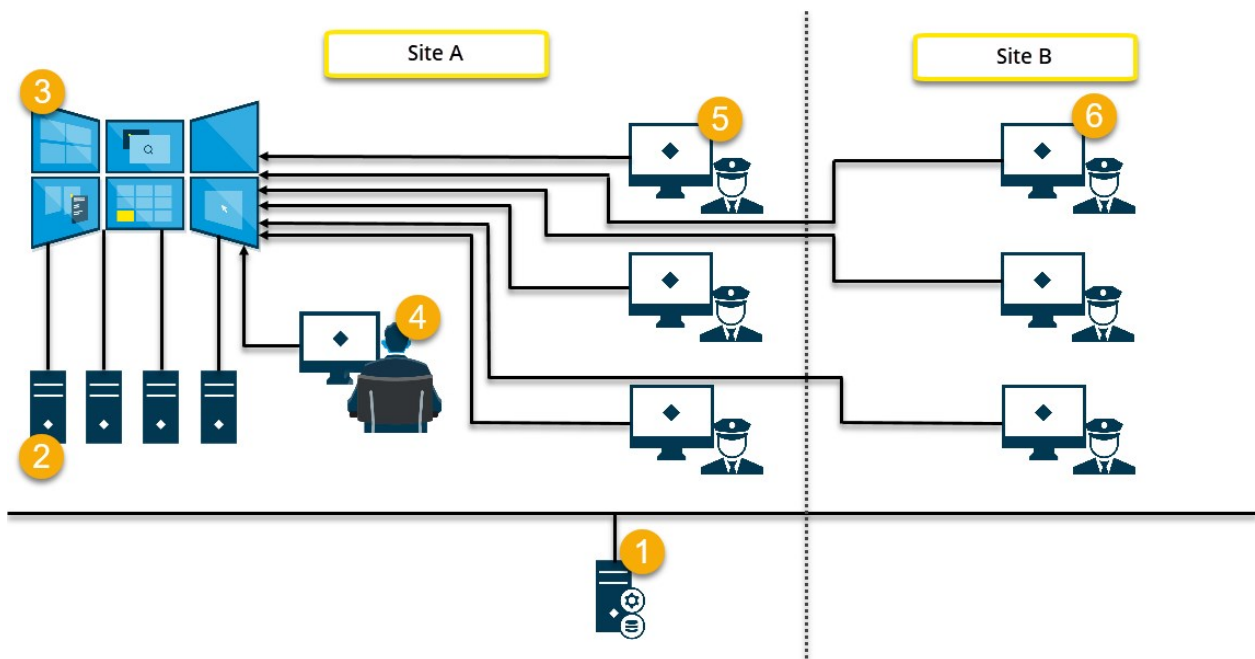
Explanation of the illustration:

1. The XProtect VMS server (the Management Server) that operators and system administrators connect to when they log in to XProtect Smart Client or XProtect Management Client.

2. Four unattended computers with XProtect Smart Client installed which are dedicated to driving the video wall. When the number of physical monitors increase, Milestone recommends that you distribute the load across multiple computers. In this example, there are four computers with four physical monitors distributed on each.

3. The video wall and its physical monitors.

4. In this example, the control room operator has the overall control of the video wall and decides what to display. They use their own computer to control what happens on the video wall by:

   - Opening the Smart Wall monitors on their own displays or monitors. Whatever action the operator takes, it is mirrored on the video wall, for example, playing back recorded video

   - Using the Smart Wall control

   > The control room operator is typically physically present in front of the video wall, but can also located elsewhere.

5. Operators typically have their own computers with XProtect Smart Client installed and use the Smart Wall control to push content onto a video wall. When an incident occurs, the operators can respond by sharing content with other people who are watching the video wall. Such content can be, for example, a bookmarked video sequence or an image of a suspect.

   Operators on site A may be placed in front of the video wall, but can also be placed elsewhere, for example in other rooms or buildings.

6. Operators on site B do not have visual contact with the video wall, but they can view the Smart Wall monitors on their own displays or monitors. When an incident requires attention, they can use the Smart Wall control to push content onto the video wall.

Configuration

Configuring XProtect Smart Wall

You can configure any number of Smart Wall definitions. Configuring a Smart Wall definition is a two-step process. First, you configure your Smart Wall definition in XProtect Management Client, including setting user permissions and defining rules. Second, to enable operators to manually push content onto the video wall, Milestone recommends that you add a Smart Wall control to dedicated views in XProtect Smart Client.

In XProtect Management Client:

1. Create the Smart Wall definition and set the general properties, including the name and properties of the view items. See also Create Smart Wall definitions on page 16.

2. Add the Smart Wall monitors, then set their size and position so they are consistent with the physical monitors of your video wall. See also Add Smart Wall monitors on page 17 and Position Smart Wall monitors on page 19. The Smart Wall control in XProtect Smart Client uses these settings and shows how the monitors have been organized, for example next to or below each other.

3. (optional) Create the empty Smart Wall presets that are required to define the monitor view layout and add the default cameras at a later stage. See also Create presets for your Smart Wall definition on page 21.

4. (optional) For each monitor, select a preset, define its view layout, and add the default cameras. See also Define view layout and add cameras on page 22.

> When to use presets? If you want operators to push cameras and views onto the Smart Wall manually, you do not need to create presets. However, if you plan to use rules to automatically change what to display on the video wall, you must define presets.

In XProtect Smart Client:

1. To allow operators to push content onto the video wall, create the views you need and add the Smart Wall control. With the Smart Wall control you can drag-and-drop or send cameras, entire views, and other types of content to individual monitors.

2. Change the view layout of individual Smart Wall monitors that have been defined in XProtect Management Client.

3. Reset or change the presets already applied to the Smart Wall definition.

Create Smart Wall definitions

To configure a Smart Wall definition, you must first create it in XProtect Management Client. Repeat the following steps for each Smart Wall definition that you want to create:

1. In XProtect Management Client, expand **Client** and select **Smart Wall**.

2. In the **Smart Wall** pane, right-click **Smart Wall Definitions** and select **Add Smart Wall**. A window appears.
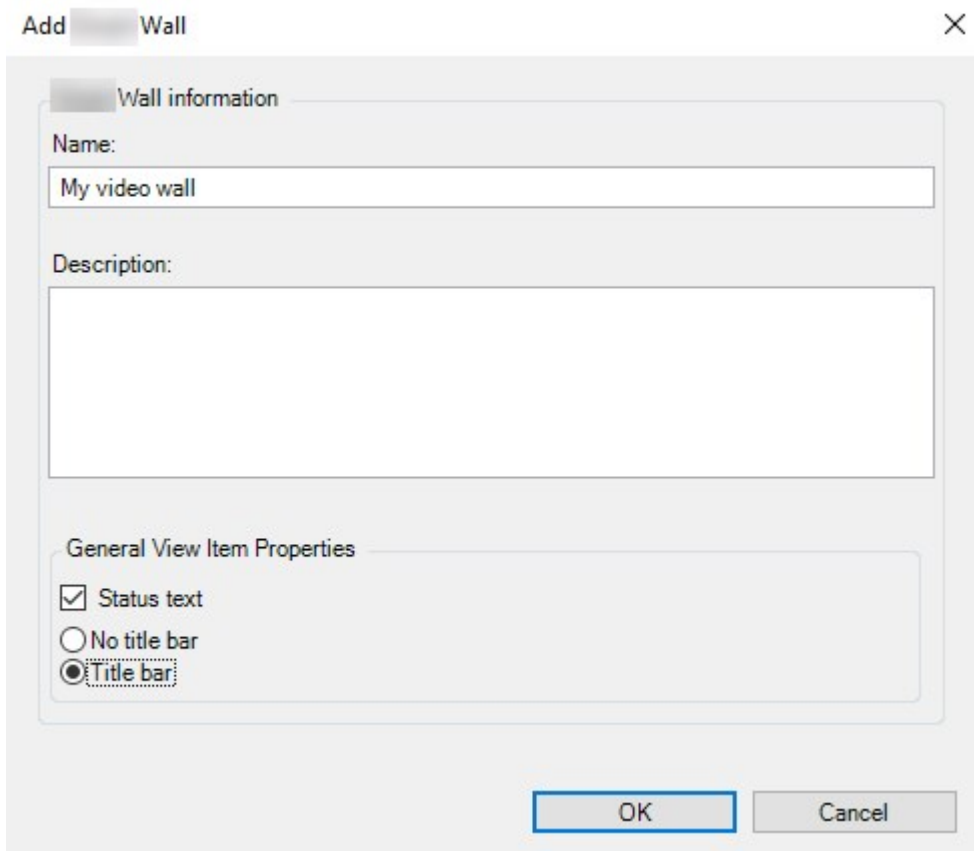
3. Specify the settings for the Smart Wall.

4. In the **General View Item Properties** settings, specify if you want system status information and title bars to appear above the cameras in the views.

5. Click **OK**. The Smart Wall definition is added to the Smart Wall pane.

6. Next, add the Smart Wall monitors. See also Add Smart Wall monitors on page 17.

Add Smart Wall monitors

When you have created your Smart Wall definition, you must add the Smart Wall monitors that your video wall consists of and specify the monitor settings.

Requirements

You have created at least one Smart Wall definition. See also Create Smart Wall definitions on page 16.

Steps:

1. In the **Smart Wall** pane, right-click your **Smart Wall** definition and select **Add Monitor**. A window appears.

2. Configure the size and aspect ratio of the monitor, so that it matches one of the physical monitors on the video wall.

3. **Specify the preset behavior.**

- **Empty preset** - control what happens in XProtect Smart Client when an operator applies an empty preset:

    - **Preserve** - keep what is currently being displayed

    - **Clear** - replace the current content with the empty preset

- **Empty preset item** - control what happens in XProtect Smart Client to individual preset items when an operator applies a preset with empty preset items:

    - **Preserve** - keep what the preset item is currently displaying

    - **Clear** - replace the preset item with the empty preset item

- **Element insertion** - control what happens in XProtect Smart Client when an operator drags a camera onto an item in the preset:

    - **Independent** - replace the camera already in the preset item with the new camera

    - **Linked** - push the content from left to right from the view item where you inserted the new camera

4. Click **OK** to save your changes.

5. Keep adding Smart Wall monitors until the number of Smart Wall monitors matches the number of physical monitors.

6. Next, position the monitors. See also .

Position Smart Wall monitors

When you have added the monitors to your Smart Wall definition, you must position the different monitors to match the setup of the physical monitors on the video wall.

Example
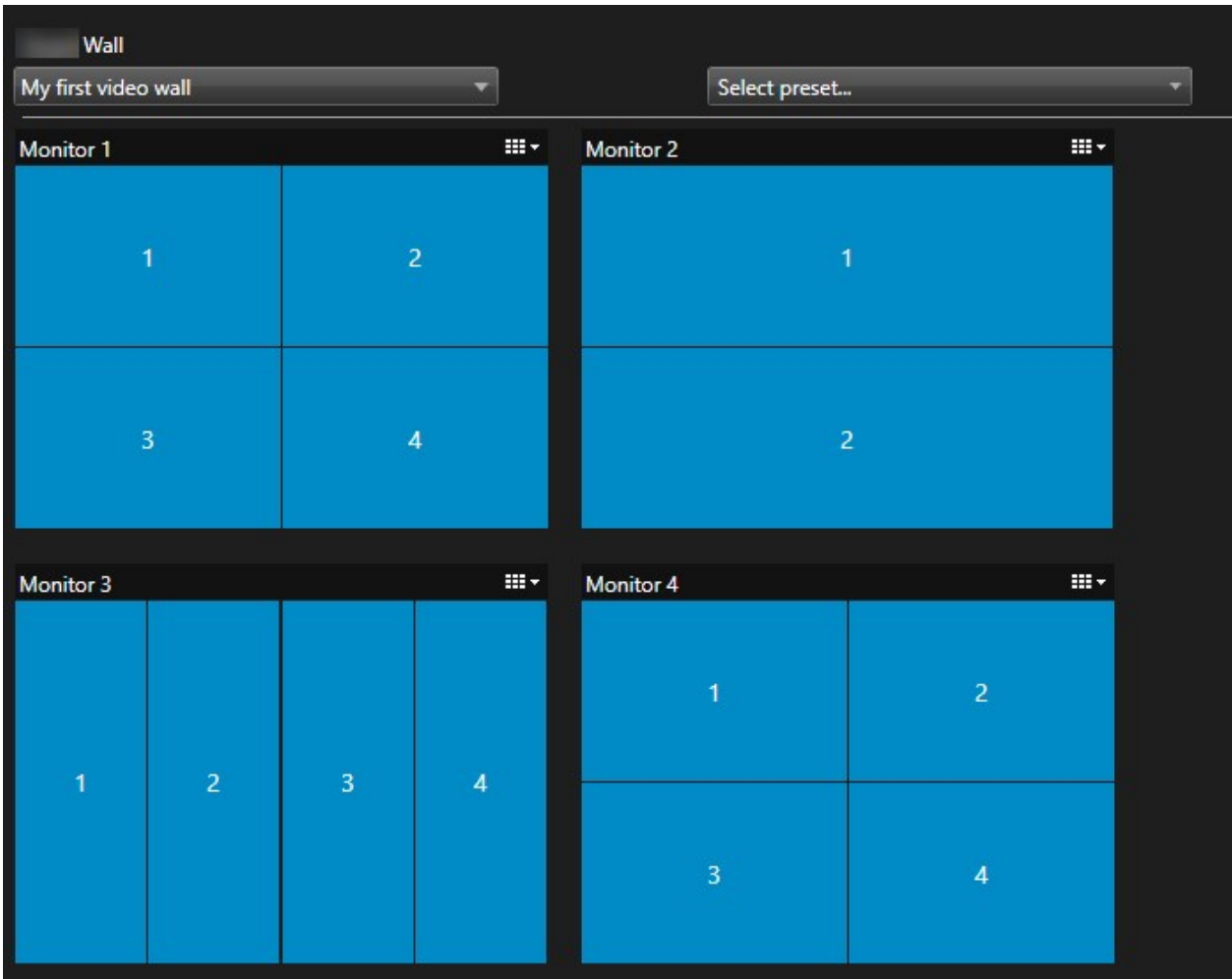
The image in the example shows the Smart Wall control in XProtect Smart Client. The four monitors are laid out in sequence and in two rows - starting with **Monitor 1** and ending with **Monitor 4**.

Requirements

You have added the monitors to your Smart Wall definition. See also Add Smart Wall monitors on page 17.

Steps:

1. In the **Smart Wall** pane, select your Smart Wall.

2. In the **Properties** pane, click the **Layout** tab.

3. Click the **Edit** button. A window appears.
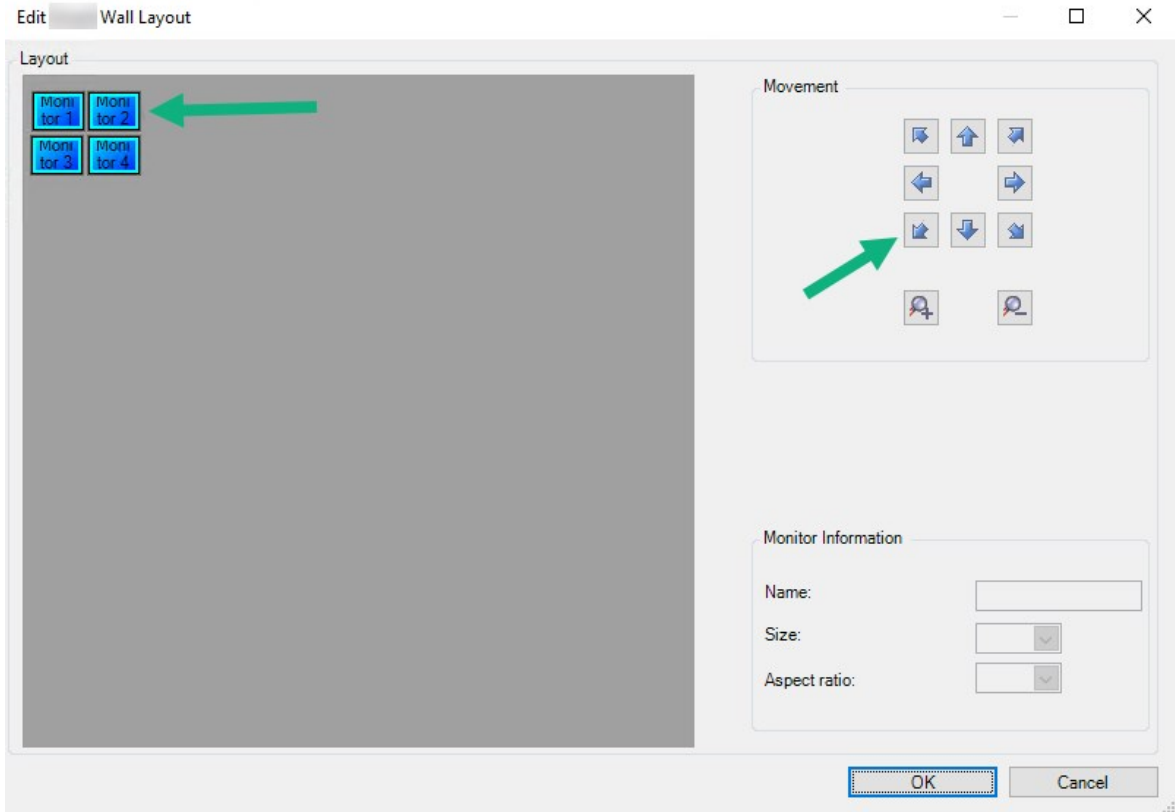
4. Drag and drop the monitors to position them, or use the arrows.

5. Click [icon] or [icon] to zoom in or out.

6. If you have not already specified the size and aspect ratio of the monitors, you can do that now.

7. Click **OK** to save your changes. The positioning and sizing of monitors are visualized in the Smart Wall control in XProtect Smart Client.

8. Next, add presets. Adding presets is a requirement for specifying the layout of Smart Wall monitors and adding cameras to your monitors. See also Create presets for your Smart Wall definition on page 21.

Create presets for your Smart Wall definition

With presets, you can configure what your video wall or specific monitors show. Create as many presets as you need.

Steps:

1. In the **Smart Wall** pane, select your Smart Wall.

2. In the **Properties** pane, click the **Presets** tab.

3. Click **Add New**. A window appears.
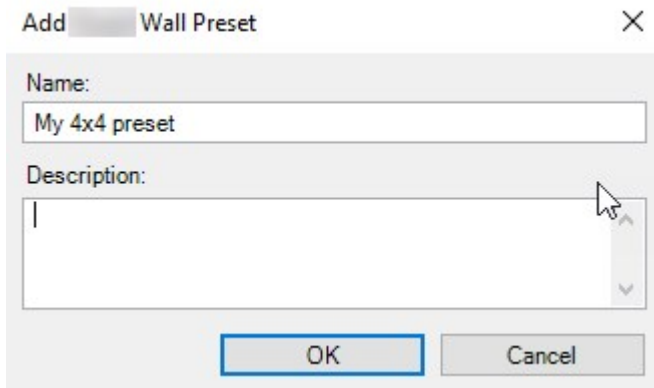
4. Enter a type and add a description if you want to.

5. Click **OK** to save your changes.

6. Repeat the steps above for each preset that you want to add.

7. Next, add view layout and cameras to the monitors. See also Define view layout and add cameras on page 22.

Define view layout and add cameras

To control what to display on a monitor, you must select a preset, define a view layout, for example **2x2**, and then possibly add cameras.

- One preset typically covers all the monitors of the video wall. For each of those monitors, select the same preset and configure it according to what the monitor shall display.

- Presets can also be empty, which may be helpful if you are using blank screen monitoring. See also Blank screen monitoring (explained) on page 31.

Requirements

At least one preset has been created. See also Create presets for your Smart Wall definition on page 21.

Steps:

1. In the **Smart Wall** pane, select the monitor that you want to add cameras to.

2. In the **Properties** pane, click the **Presets** tab.

3. Select the preset.

4. Click **Edit**. A window appears.

5. Click . An additional window appears.
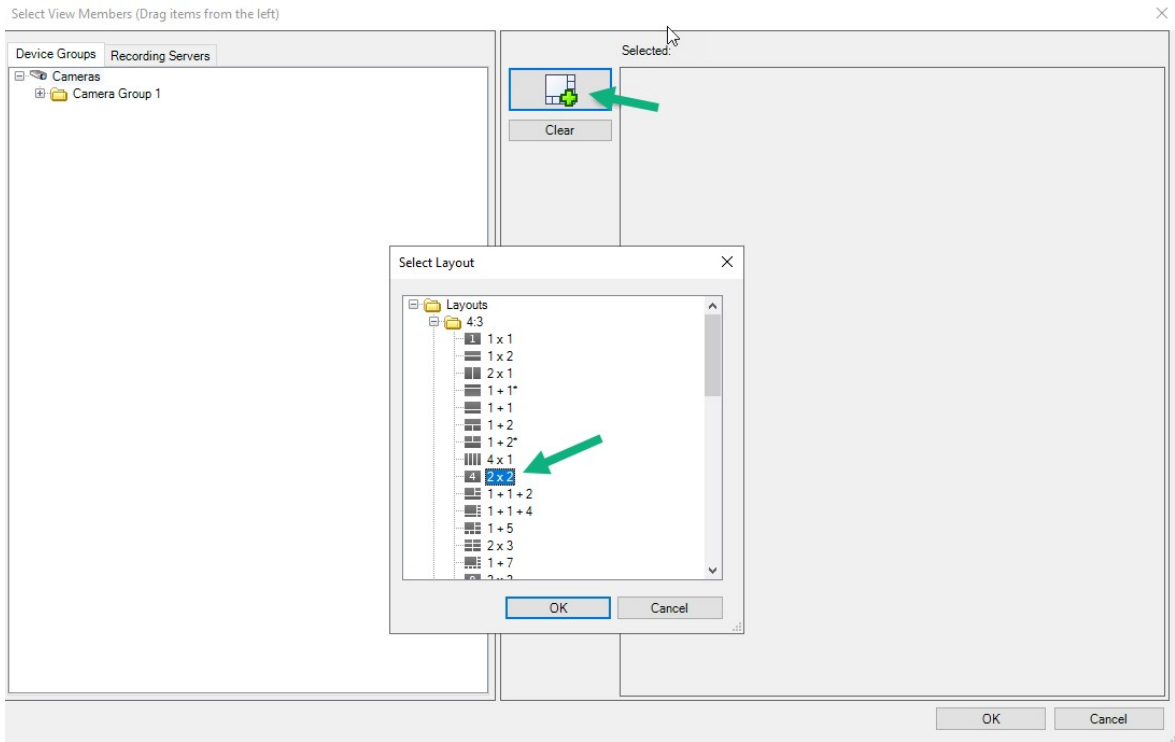
6. Select a layout and click **OK**. The layout is shown on the right-hand side of the first window.
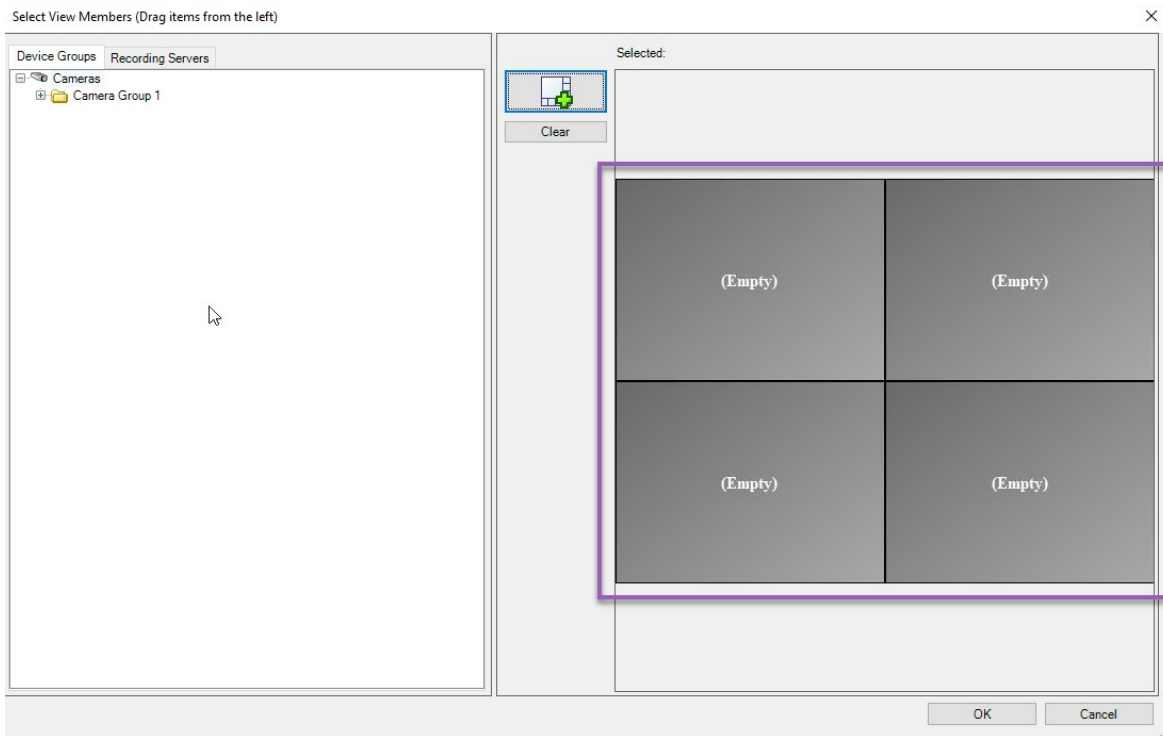
7. From the **Device Groups** or **Recording Servers** tab, drag the cameras onto the preset items - one by one. You can also leave preset items empty.

8. Click **OK** to save your changes.

9. Repeat the steps above for each monitor.

10. Now, you can start using your **Smart Wall** in XProtect Smart Client.

> ⚠️ You must also configure the operators' user permissions for using XProtect Smart Wall. See also Specify user permissions for XProtect Smart Wall on page 25.

Activate presets for your Smart Wall definition

To view Smart Wall content in XProtect Smart Client, first you must activate the presets created for your Smart Wall definitions. You can also activate the presets in XProtect Smart Client.

Steps:

1. In the **Smart Wall** pane, select the Smart Wall definition.
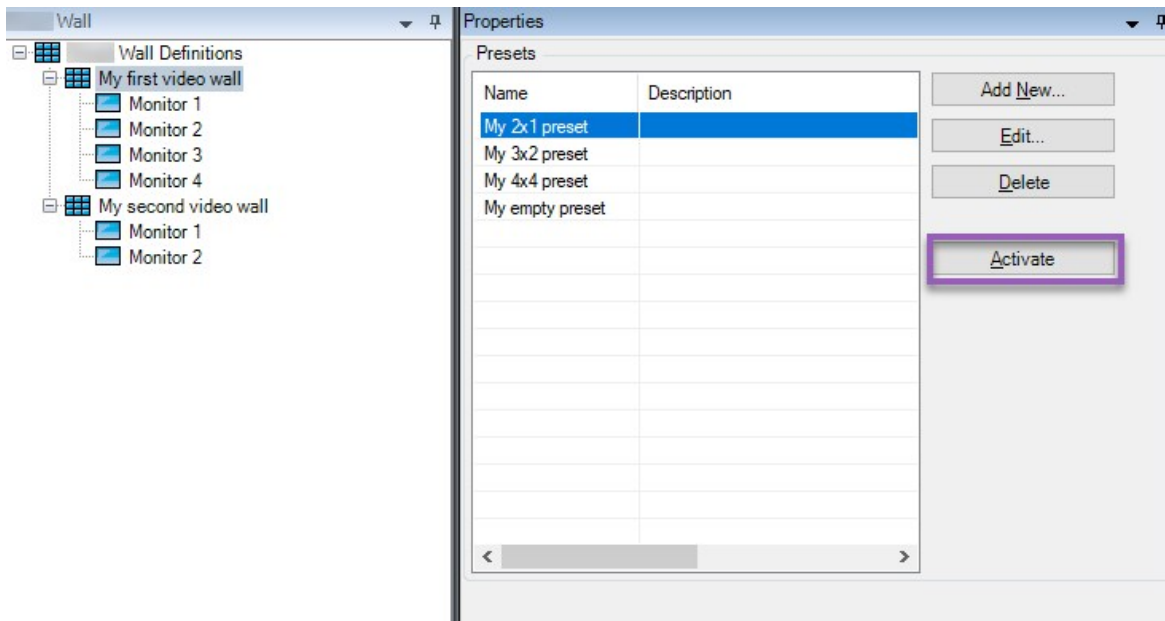
2. For each required preset, click **Activate**. You can also activate the presets manually in XProtect Smart Client.

Specify user permissions for XProtect Smart Wall

Specify the user permissions for XProtect Smart Wall to control the video wall-related tasks that users are allowed to perform in XProtect Smart Client or XProtect Management Client. See also User permissions for Smart Wall (explained) on page 27.

Requirements

You have configured at least one role.

Steps:

1. In the **Site Navigation** pane, expand **Security** and select **Roles**.

2. In the **Roles** pane, select an existing role, or create a new role by right-clicking and selecting **Add Role**.

3. To set user permissions for all Smart Wall definitions, click the **Overall Security** tab.
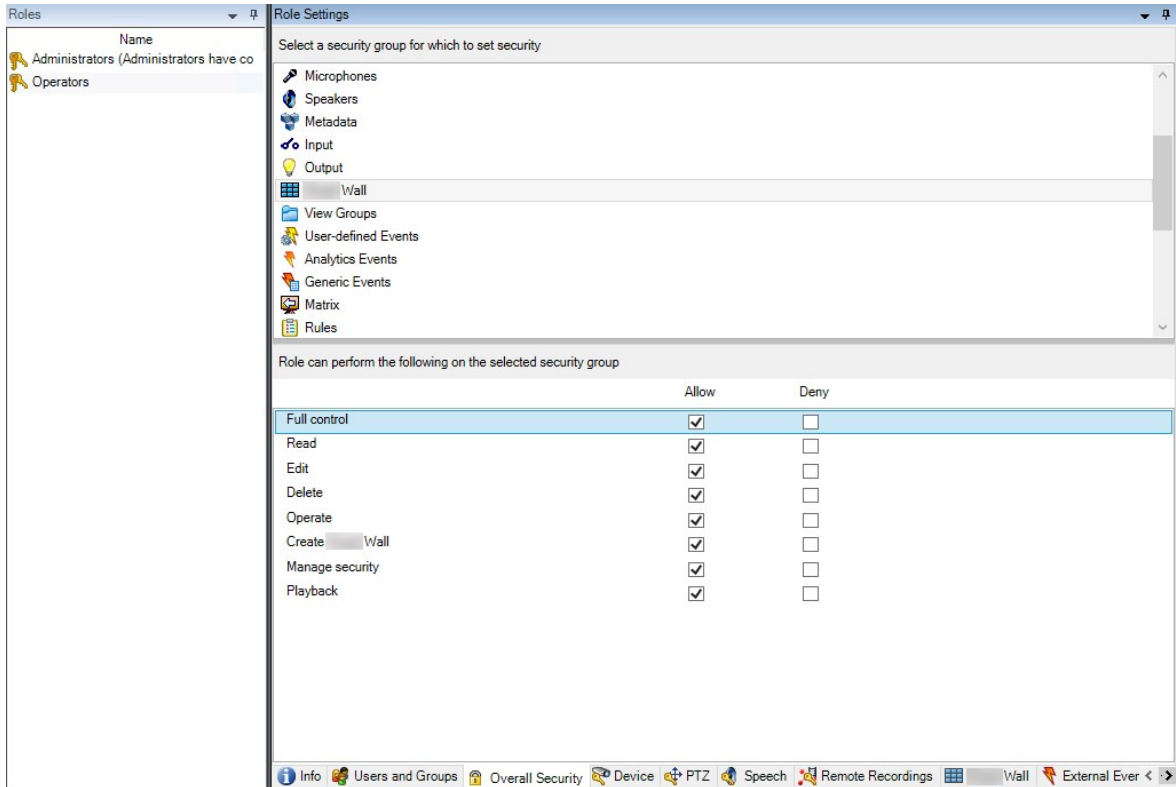
4. To set user permissions for specific Smart Wall definitions, click the **Smart Wall** tab.
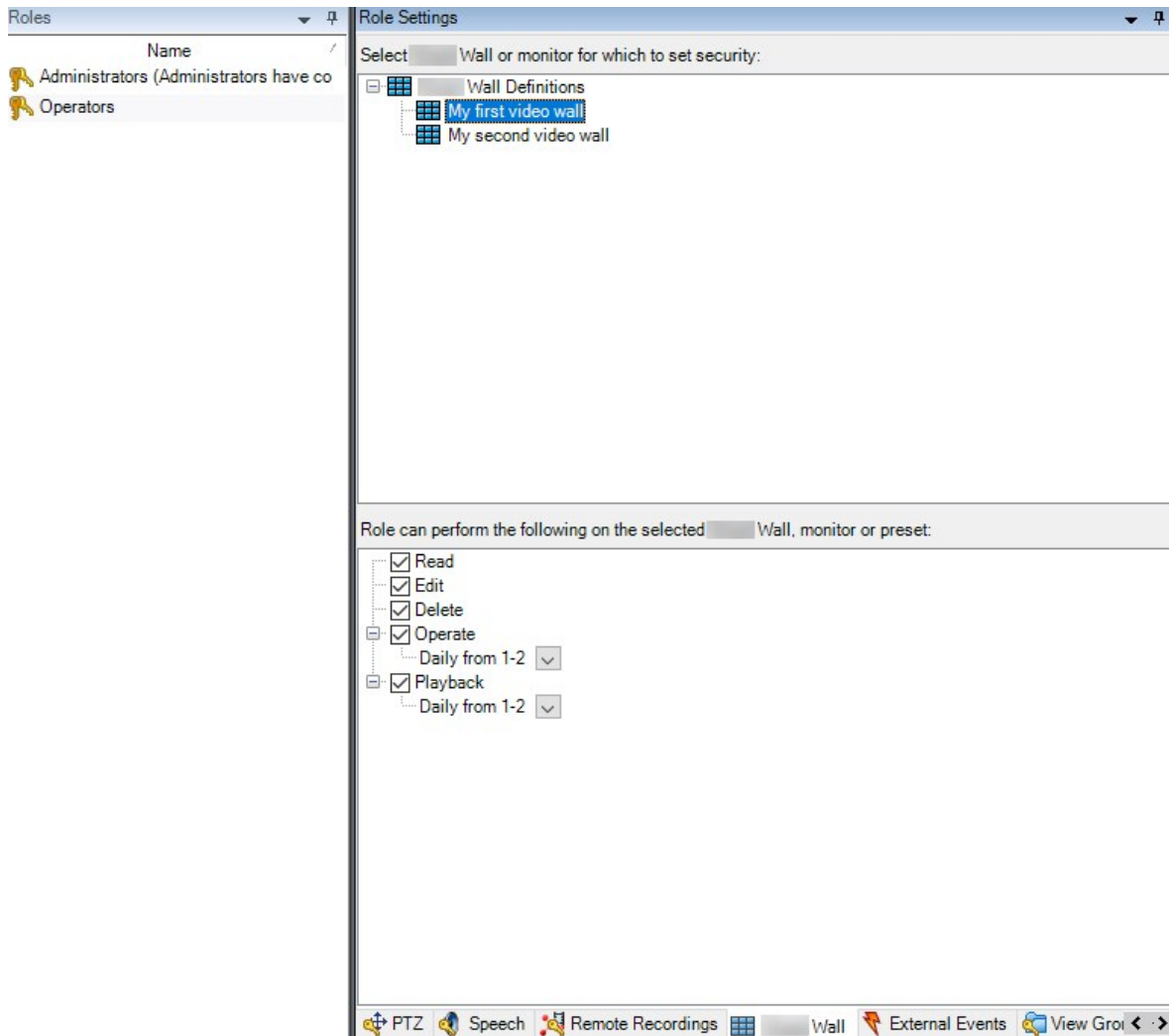
5. Select the user permissions that are relevant for the selected role.

6. (optional) To grant users **Operate** or **Playback** permissions for a specific period of time, select the
    required check box, and then select a time profile.

User permissions for Smart Wall (explained)

The settings described in this topic pertain to **Roles** in XProtect Management Client. To set the user permissions
for all Smart Wall definitions, go to the **Overall Security** tab. To set the user permissions for specific Smart Wall
definitions, go to the **Smart Wall** tab.

User permissions that apply to all Smart Wall definitions

Roles > **Overall Security** tab > Smart Wall

Security permission	Description
Full control	Enables the permission to manage all security permissions in XProtect Management Client.
Read	Enables the permission to view a video wall in XProtect Smart Client.
Edit	Enables the permission to edit properties for the Smart Wall definition in XProtect Management Client.
Delete	Enables the permission to delete existing Smart Wall definitions in XProtect Management Client.
Operate	Enables the permission to activate and modify Smart Wall definitions, for example to change and activate presets or apply cameras on views in XProtect Smart Client and in XProtect Management Client.

Security permission	Description
	📝 You can associate **Operate** with time profiles that define when the user permission applies.
Create Smart Wall	Enables the permission to create new Smart Wall definitions in XProtect Management Client.
Manage security	Enables the permission to manage security permissions in XProtect Management Client for the Smart Wall definition.
Playback	Enables the permission to play back recorded data from a video wall in XProtect Smart Client. 📝 You can associate **Playback** with time profiles that define when the user permission applies.

User permissions that apply to specific Smart Wall definitions

Roles > **Smart Wall** tab

Through roles, you can grant your client users Smart Wall-related user permissions:

Name	Description
Read	Allows users to view the selected Smart Wall in XProtect Smart Client.
Edit	Allows users to edit the selected Smart Wall in the Management Client.
Delete	Allows users to delete the selected Smart Wall in the Management Client.
Operate	Allows users to apply layouts on the selected Smart Wall in XProtect Smart Client and to activate presets.
Playback	Allows users to play back recorded data from the selected Smart Wall in XProtect Smart Client.

Create rules with Smart Wall presets

By combining rules and Smart Wall presets, you can control and automate what is displayed on your video wall. For example, a rule can trigger your video wall to display a certain Smart Wall preset during a certain day. You can even use rules to control what individual monitors display.

Example of a rule triggering a Smart Wall preset:
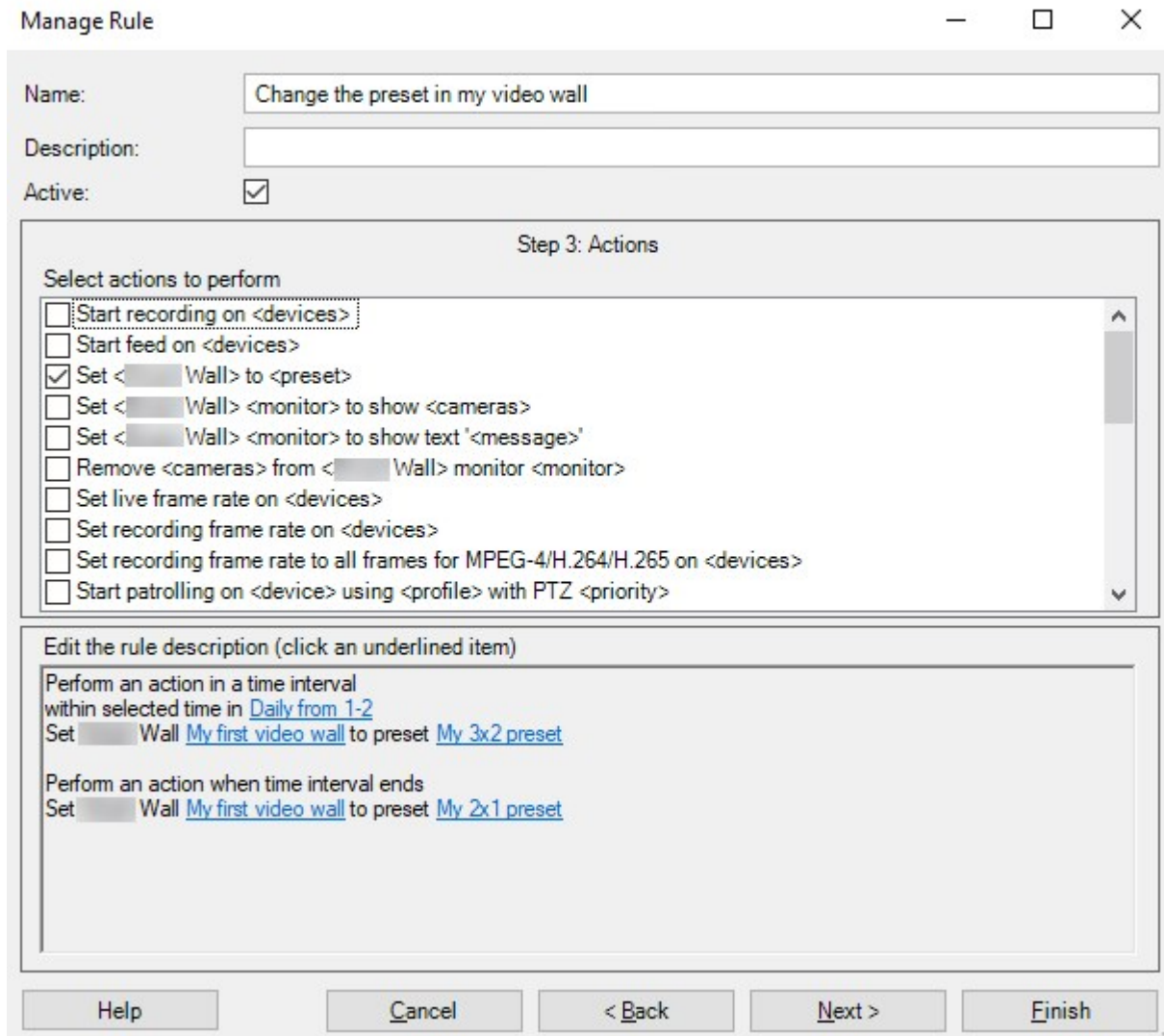
See also the XProtect VMS administrator manual (https://doc.milestonesys.com/2024r2/en-US/portal/htm/chapter-page-mc-administrator-manual.htm)

Blank screen monitoring (explained)

Blank screen monitoring is an operation mode where operators only see video when a situation requires their attention. The video wall does not display any cameras during normal operation. Only when an event occurs does the video wall display video from the related cameras. When the incident has been resolved, the monitors

showing the video are cleared.

To enable blank screen monitoring, you must create and apply a preset that only has a view layout, but no cameras. Use rules to display the cameras associated with certain events on your video wall, then clear the monitors again. See also Create rules with Smart Wall presets on page 31.

Test your Smart Wall configuration

After configuring XProtect Smart Wall in XProtect Management Client, you may want to test the configuration before you start adding the Smart Wall control to your views in XProtect Smart Client.

Requirements

You have created at least one preset, assigned it to a monitor, defined its layout, and added at least one camera. See also Create presets for your Smart Wall definition on page 21 or Define view layout and add cameras on page 22.

Steps:

1. Log in to XProtect Smart Client.

2. In the **Views** pane, expand the **Smart Wall** node.

3. Select a Smart Wall definition and then one of its monitors. If correctly configured, the main view shows the cameras that the preset is configured to show.
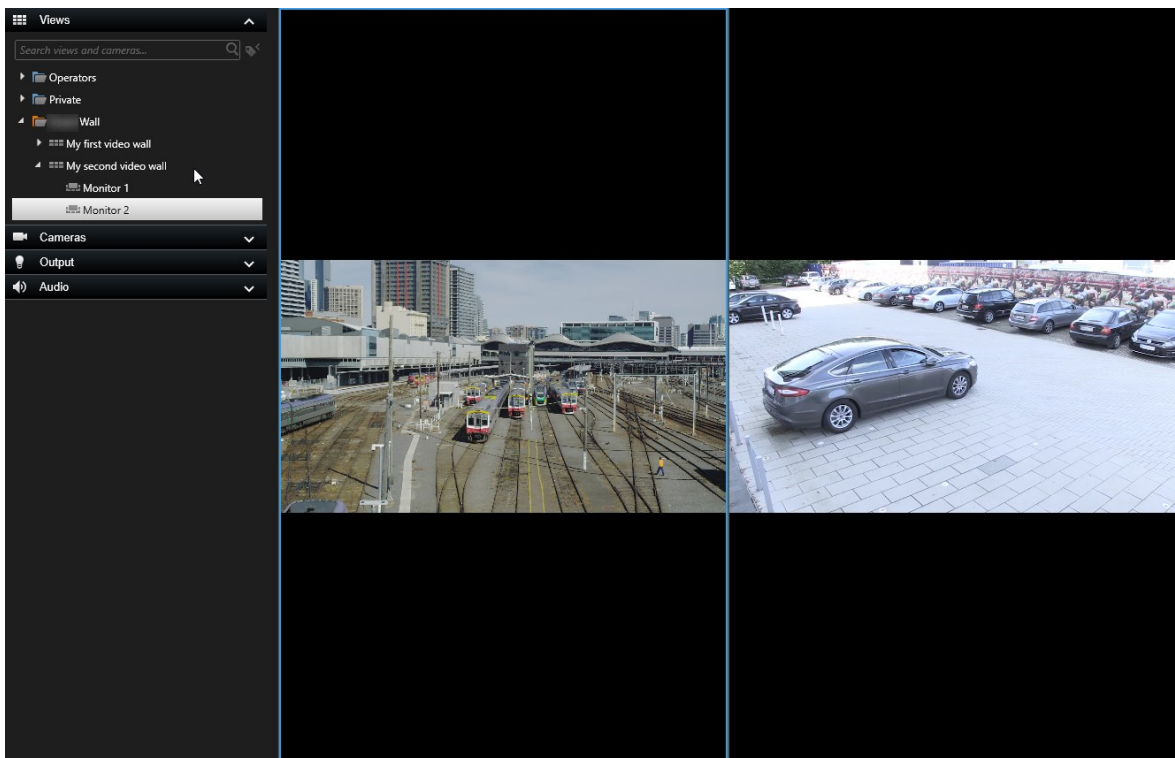
The example shows a monitor with two cameras.

User interface details

Smart Wall (Client node)

Smart Wall properties

Info tab

On the **Info** tab for a Smart Wall definition, you can add and edit Smart Wall properties.

Name	Description
Name	The name of the Smart Wall definition. Displayed in XProtect Smart Client as the Smart Wall view group name.
Description	A description of the Smart Wall definition. The description is only used internally in XProtect Management Client.
Status text	Display camera and system status information in camera view items.
No title bar	Hide the title bar on all view items on the video wall.
Title bar	Show the title bar on all view items on the video wall.

Presets tab

On the **Presets** tab for a Smart Wall definition, you can add and edit Smart Wall presets.

Name	Description
Add New	Add a preset to your Smart Wall definition. Enter a name and description for the preset.
Edit	Edit the name or description of a preset.

Name	Description
Delete	Delete a preset.
Activate	Apply the preset on the Smart Wall monitors that are configured to use the preset. To apply a preset automatically, you must create a rule that uses the preset.

Layout tab

On the **Layout** tab for a Smart Wall definition, you position the monitors, so their positions resemble the mounting of the physical monitors on the video wall. The layout is also used in XProtect Smart Client.

Name	Description
Edit	Adjust the positioning of the monitors.
Movement	To move a monitor to a new position, select the monitor and drag it to the desired position, or click one of the arrow buttons to move the monitor in the selected direction.
Zoom buttons	Zoom in or out of the Smart Wall layout preview to ensure you position the monitors correctly.
Name	The name of the monitor. The name is displayed in XProtect Smart Client.
Size	The size of the physical monitor on the video wall.
Aspect ratio	The height/width relationship of the physical monitor on the video wall.

Monitor properties

Info tab

On the **Info** tab for a monitor in a Smart Wall preset, you can add monitors and edit the monitor settings.

Name	Description
Name	The name of the monitor. The name is displayed in XProtect Smart Client.
Description	A description of the monitor. The description is only used internally in the XProtect Management Client.
Size	The size of the physical monitor on the video wall.
Aspect ratio	The height/width relationship of the physical monitor on the video wall.
Empty preset	Defines what should be displayed on a monitor with an empty preset layout when a new Smart Wall preset is triggered or selected in XProtect Smart Client: • Select **Preserve** to keep the current content on the monitor. • Select **Clear** to clear all content so nothing is displayed on the monitor.
Empty preset item	Defines what should be displayed in an empty preset item when a new Smart Wall preset is triggered or selected in XProtect Smart Client: • Select **Preserve** to keep the current content in the layout item. • Select **Clear** to clear the content so nothing is displayed in the layout item.
Element insertion	Defines how cameras are inserted in the monitor layout when viewed in the XProtect Smart Client: • **Independent** - only the content of the affected layout item changes, the rest of the content in the layout remain the same. • **Linked** - the contents of the layout items are pushed from left to right. If, for example, a camera is inserted in position 1, the previous camera of position 1 is pushed to position 2, the previous camera of position 2 is pushed to position 3, and so on. Ilustrated in this example:

Presets tab

On the **Presets** tab for a monitor in a Smart Wall preset, you can edit the view layout and content of the monitor in the selected Smart Wall preset.

Name	Description
Preset	A list of Smart Wall presets for the selected Smart Wall definition.
Edit	Click **Edit** to edit the layout and the content of the selected monitor. Double-click a camera to remove it. Click **Clear** to define a new layout or to exclude the monitor in the Smart Wall preset so the monitor is available for other content not controlled by the Smart Wall preset. Click to select the layout you want to use with your monitor, and click **OK**.

Smart Wall check box (Client node > Management Client Profiles)

How to find the Smart Wall check box:

1. From Site Navigation, select **Client** > **Management Client Profiles**.

2. Then select a profile.

3. On the **Profile** tab, select **Navigation** > **Client**.

Element	Description
Client	Allows the administrator user associated with the Management Client profile to see **Smart Wall** related features and settings.

Actions and stop actions (Manage Rule wizard)

How to find the Smart Wall related actions and stop actions:

1. From the **Site Navigation**, select **Rules and Events** > **Rules**.

2. In the **Rules** pane, right click a rule and select to add or edit a rule to open the **Manage Rule** wizard,

A set of actions and stop actions related to XProtect Smart Wall are available for rule creation in the **Manage Rule** wizard.

Action	Description
Set <Smart Wall> to <preset>	Sets the XProtect Smart Wall to a selected preset. Specify the preset on the **Smart Wall Presets** tab. **No mandatory stop action**: This type of action does not require a stop action.You can specify optional stop actions to be performed on either an event or after a period of time.
Set <Smart Wall> <monitor> to show <cameras>	Sets a specific XProtect Smart Wall monitor to display live video from the selected cameras on this site or any child site configured in Milestone Federated Architecture. **No mandatory stop action**: This type of action does not require a stop action.You can specify optional stop actions to be performed on either an event or after a period of time.
Set <Smart Wall> <monitor> to show text <messages>	Sets a specific XProtect Smart Wall monitor to display a user-defined text message of up to 200 characters. **No mandatory stop action**: This type of action does not require a stop action.You can specify optional stop actions to be performed on either an event or after a period of time.
Remove <cameras> from <Smart Wall> monitor <monitor>	Stop displaying video from a specific camera. **No mandatory stop action**: This type of action does not require a stop action.You can specify optional stop actions to be performed on either an event or after a period of time.

Overall Security tab (Security node > Roles)

Security permission	Description
Full control	Enables the permission to manage all security permissions in XProtect Management Client.
Read	Enables the permission to view a video wall in XProtect Smart Client.
Edit	Enables the permission to edit properties for the Smart Wall definition in XProtect Management Client.
Delete	Enables the permission to delete existing Smart Wall definitions in XProtect Management Client.
Operate	Enables the permission to activate and modify Smart Wall definitions, for example to change and activate presets or apply cameras on views in XProtect Smart Client and in XProtect Management Client. You can associate **Operate** with time profiles that define when the user permission applies.
Create Smart Wall	Enables the permission to create new Smart Wall definitions in XProtect Management Client.
Manage security	Enables the permission to manage security permissions in XProtect Management Client for the Smart Wall definition.
Playback	Enables the permission to play back recorded data from a video wall in XProtect Smart Client. You can associate **Playback** with time profiles that define when the user permission applies.

Smart Wall tab (Security node > Roles)

Through roles, you can grant your client users Smart Wall-related user permissions:

Name	Description
Read	Allows users to view the selected Smart Wall in XProtect Smart Client.
Edit	Allows users to edit the selected Smart Wall in the Management Client.
Delete	Allows users to delete the selected Smart Wall in the Management Client.
Operate	Allows users to apply layouts on the selected Smart Wall in XProtect Smart Client and to activate presets.
Playback	Allows users to play back recorded data from the selected Smart Wall in XProtect Smart Client.

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/.