



# **User's Manual**

## **EIZO Video Wall Plugin for Milestone XProtect**

**Version 1.0**

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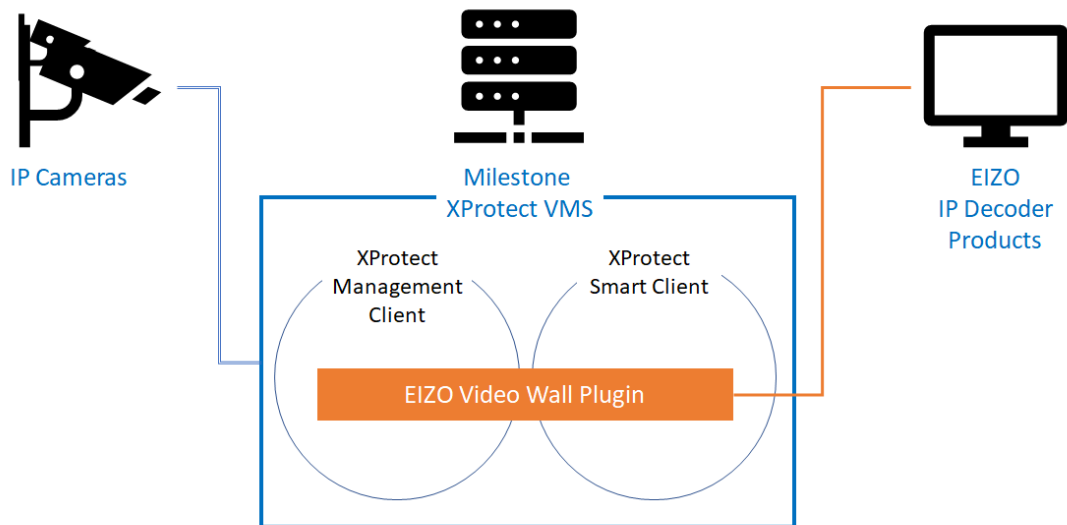
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# Overview

## System Overview

### Basic Information



The EIZO Video Wall Plugin consists of 2 additions to the XProtect system:

- An XProtect Management Client integration
- An XProtect Smart Client integration

### Plugin Dependencies

#### EIZO IP Decoder Products (hereinafter referred to as IP monitors)

- Version : 5.2001 or greater
- A valid enterprise license has been activated

#### XProtect

- Windows 10 64-bit
- XProtect edition : Corporate, express+
- XProtect version : 2020 R1
- ONVIF Bridge version : 2020 R1

## Plugin Installation

Please check the EIZO website for information on how to obtain the installer.

### Plugin Install Locations

- C:\Program Files\VideoOS\MIPPlugins
- C:\Program Files\Milestone\MIPPlugins

#### Note:

The user must choose from the above install locations and should check that a new folder named **EIZOVideoWallPlugin** appears at the end of the path.

eg: C:\Program Files\VideoOS\MIPPlugins\EIZOVideoWallPlugin

#### Note:

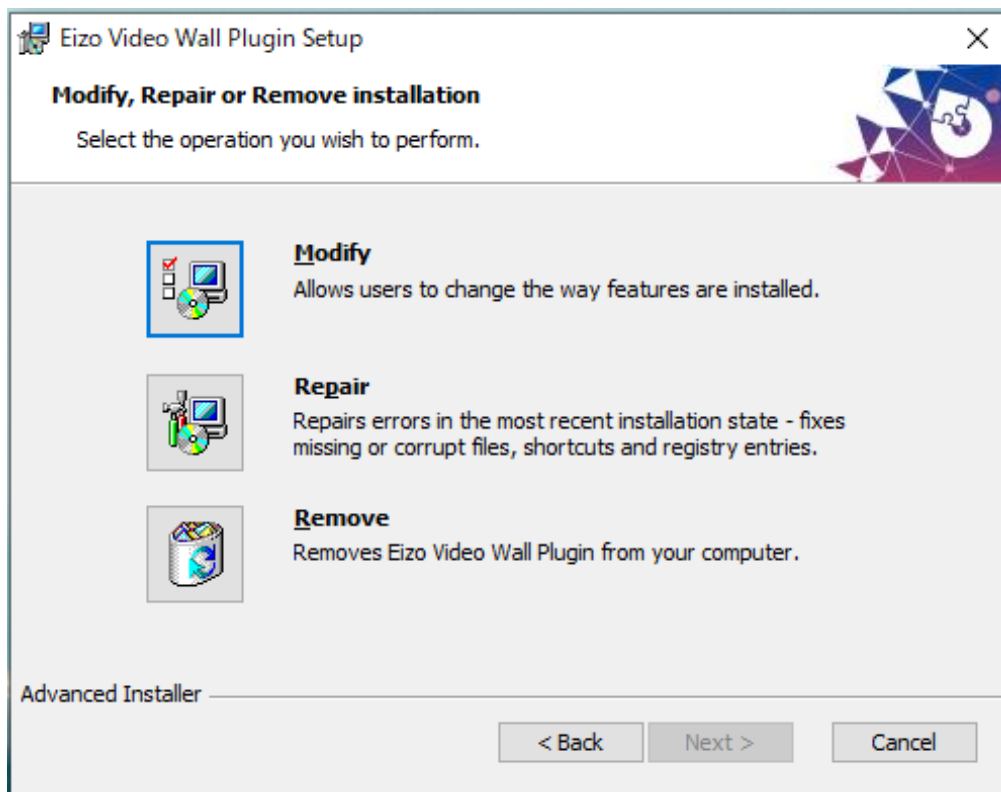
The XProtect Event Server must be restarted after installation.

### To Uninstall

Run the installer software after the plugin has been installed and select the **Remove** option to uninstall.

#### Note:

- Before uninstallation, it is expected that the user has manually deleted all EIZO Video Wall entities from the XProtect Management Client.
- Modify option currently unimplemented.



## XProtect Management Client

### Management Client Overview

A new EIZO Video Wall section has been added to the **Site Navigation**.

Allows for:

- Registering EIZO IP-monitor devices to XProtect video-walls
- Arranging multiple IP-monitors in a video wall layout
- Creating presets for IP-monitors layouts
- Registering cameras to IP-monitors

## XProtect Smart Client

### Smart Client Overview

A new content item has been added to the **System Overview** pane.

EIZO Video Walls - the EIZO Video Wall for controlling IP-monitor devices.

Allows for:

- Monitoring video-walls with IP-monitor devices
- Getting layouts and registered cameras from IP-monitors
- Managing errors and alerts

## Streaming

### Server

The **Milestone ONVIF Bridge** is required as the streaming gateway server.

### Streaming Protocol

- RTP over UDP
- RTP over RTSP

### Video Codec

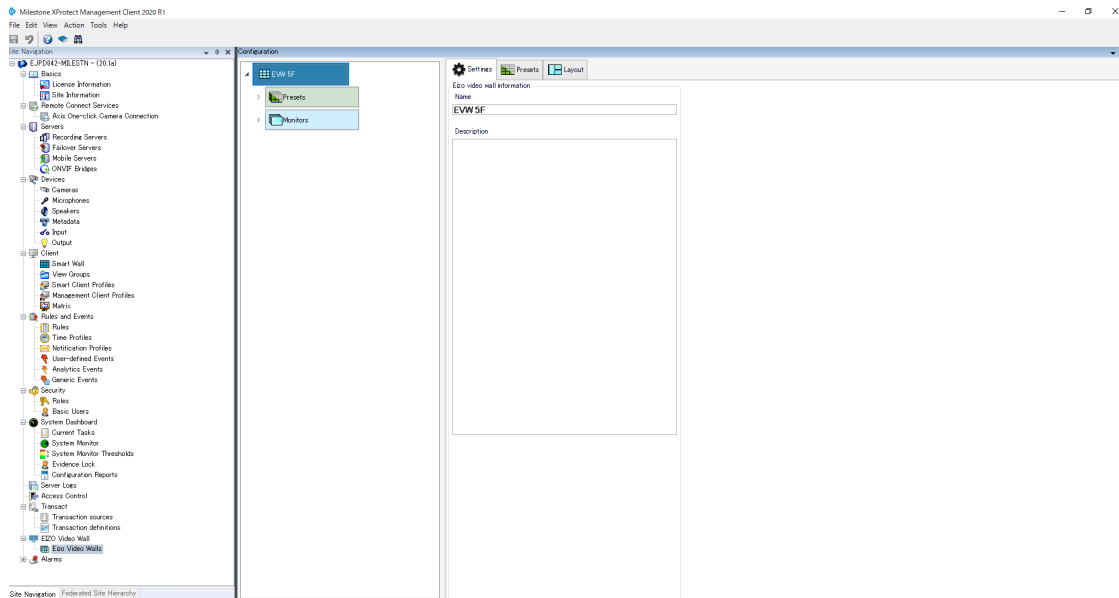
- H.264

# XProtect Management Client

## Overview

The XProtect Management Client allows users to create and configure multiple entities of **EIZO Video Walls** in the XProtect VMS.

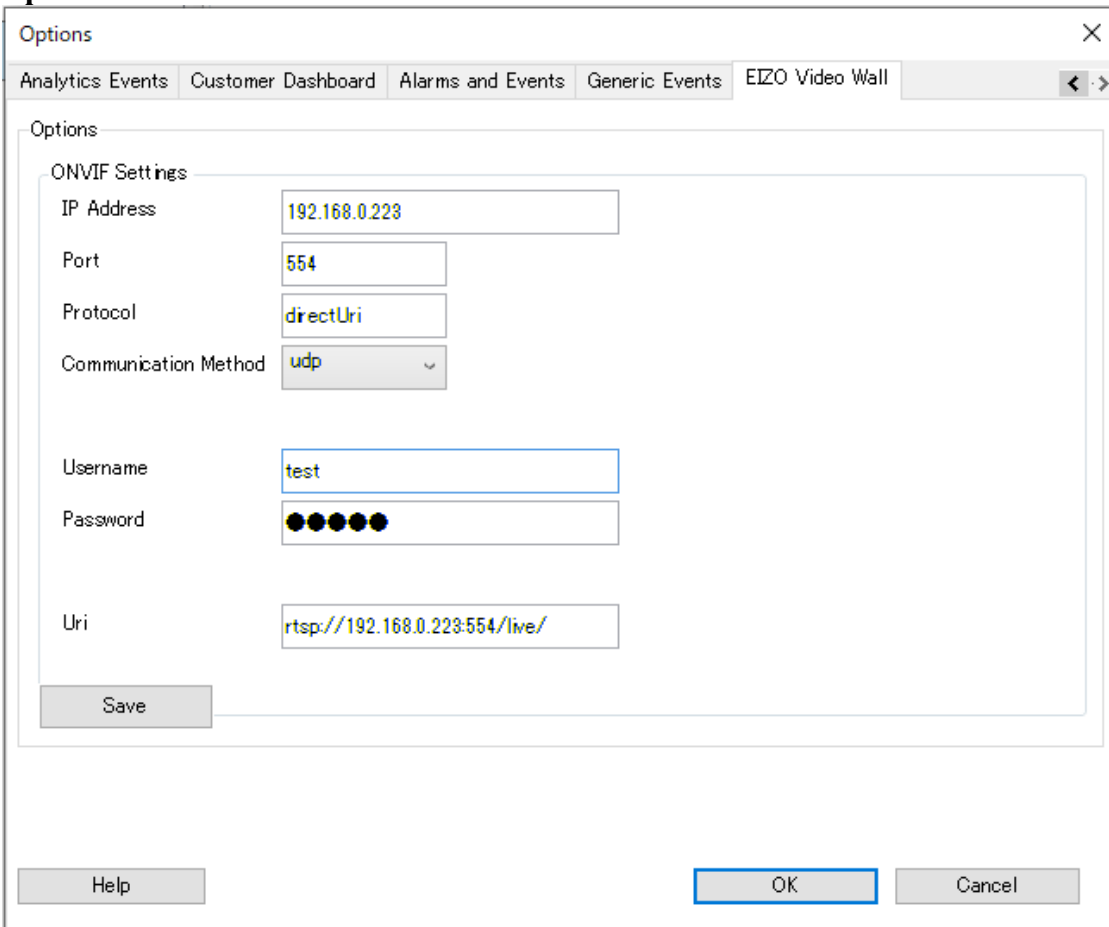
All EIZO Video Wall settings can be configured from the **EIZO Video Wall** section of the XProtect Management Client.



## Prerequisites

To display camera streams on EIZO IP-monitors via the ONVIF Bridge, the following settings should be configured in advance.

An **EIZO Video Wall** tab has been added to **XProtect Management Client --> Tools --> Options**.



The screenshot shows the 'Options' dialog box with the 'EIZO Video Wall' tab selected. The 'ONVIF Settings' section contains the following fields:

- IP Address: 192.168.0.223
- Port: 554
- Protocol: directUri
- Communication Method: udp
- Username: test
- Password: [masked]
- Uri: rtsp://192.168.0.223:554/live/

Buttons: Save, Help, OK, Cancel.

- IP Address: ONVIF Bridge server address
- Port: **RTSP Port** of ONVIF Bridge
- Username: ONVIF user credentials as administrators
- Password: password for the above user
- Uri: "rtsp://**server address**:rtsp port/live/"



## Setup Procedure

### 1) Creating EIZO Video Walls

An EIZO Video Wall is an entity used to remotely control EIZO IP-monitor devices via XProtect. This entity may include multiple mimic templates and presets used to manage the registered devices.

Create an EIZO Video Wall by right clicking on the **Configuration** pane and selecting **Add EIZO Video Wall**. A new Video-Wall will be created with configurable **Presets** and **Monitors**.

### 2) Registering Monitors

A **Monitor** entity refers to the mimic template of an EIZO IP-monitor device, which can be used to configure cameras and screen layouts remotely.

A new monitor can be created by right clicking the **Monitors** entity in the EIZO Video Wall and selecting **Add Monitor**.

The following information is required in order to register a device.

Field	Description
Name	The name of the EIZO IP-monitor (optional).
IP Address	The IP Address of the EIZO IP-monitor.
Username	The username used to log into the EIZO IP-monitor.
Password	The password used to log into the EIZO IP-monitor.
Port	The port for HTTP or HTTPS connections (must match the port set on the device)
Synchronization Monitoring	Allow all of the Smart Clients to check if the live screen settings of the IP-monitor match the Video-Wall settings.
Fullscreen	Display the EIZO IP-monitor as fullscreen.

It is also possible to change the settings under the Monitor's **Settings** -> **Edit** tab after adding an IP-monitor.

#### **Registration Conditions:**

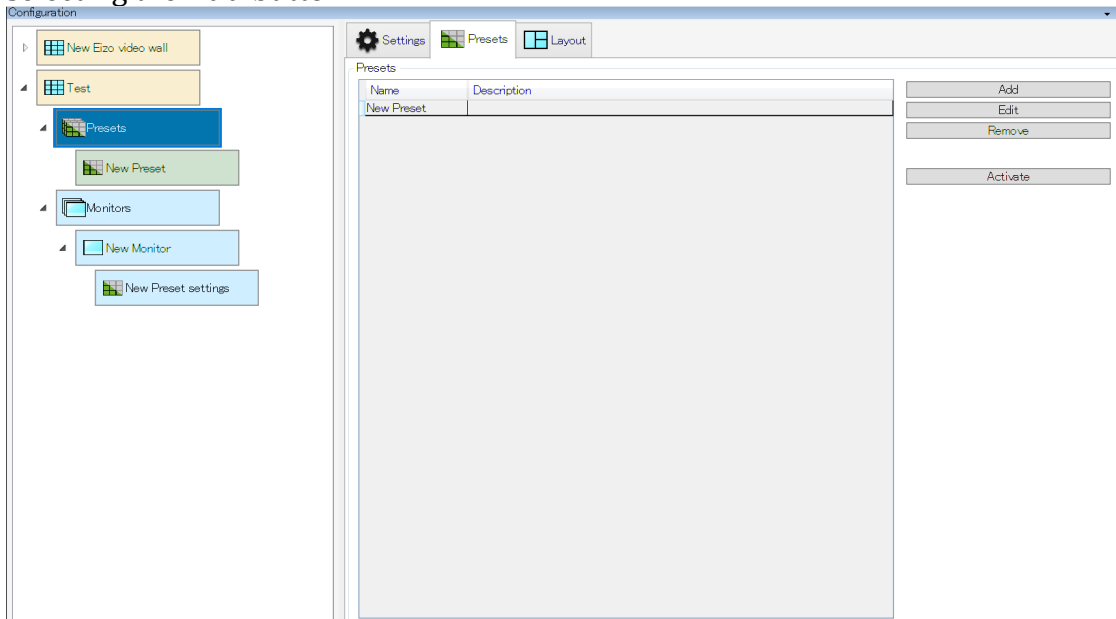
- The device version must be **5.2001 or greater**.
- The device must have an activated **Enterprise License**.
- The HTTP authentication method on the device must be set to **Digest**.

IP monitors will not be registered to the video wall if:

- A connection to the device cannot be made (eg: mismatched IP address or port setting)
- The username / password combination fails to authenticate

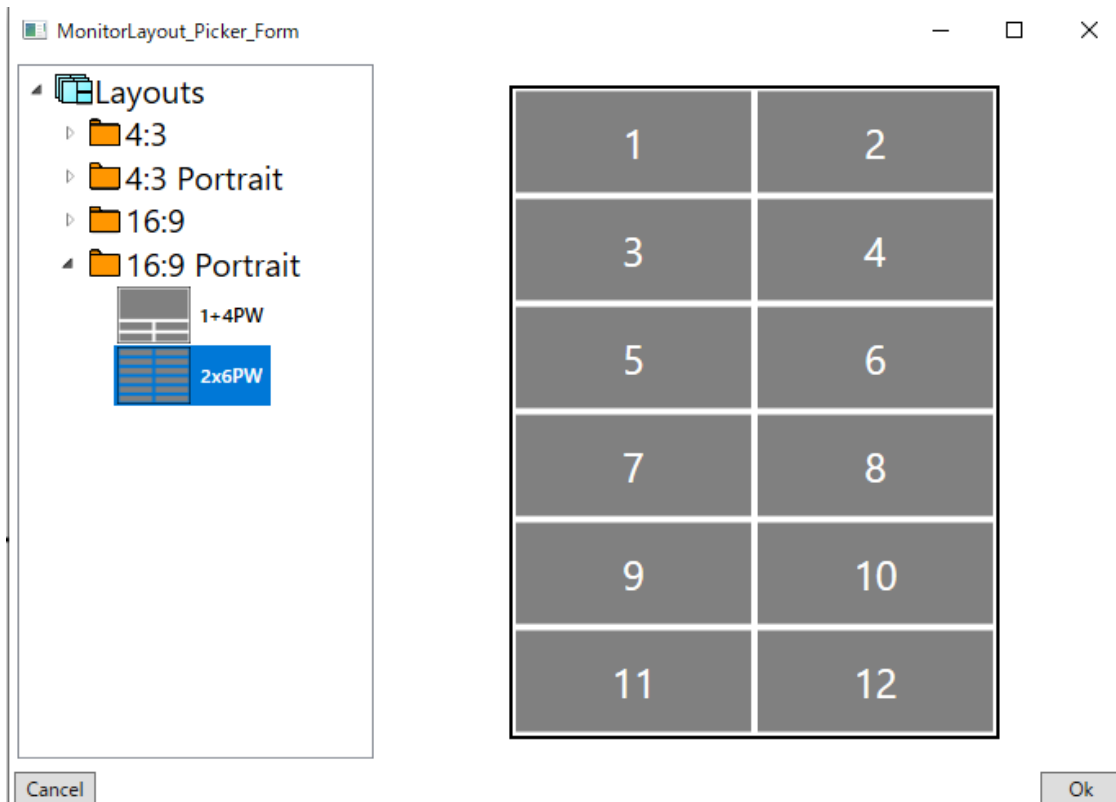
### 3) Adding Presets

Presets are used to define screen layouts and camera positionings for EIZO IP-monitor devices. A new preset can be created by right clicking the **Presets** entity in the EIZO Video Wall and selecting the **Add** button.



### 4) Editing Presets

Navigate to the **Presets** tab under the **Monitors** entity, select a preset from the drop down and click **Edit** to display a list of layouts to choose from.



Note: No more than 32 windows per layout

## 5) Activating Presets

On the **Presets** tab of the Video-Wall, selecting a preset and clicking the **Activate** button will send that preset's layout and camera configuration to the live screen of all connected IP-monitors.



## Remarks

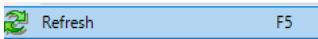
### Saving Settings to the XProtect VMS Database

Any setting changes must be saved with the **Save** button at the top left of the XProtect Management Client.



### Reverting Unsaved Setting Changes

Right clicking the **EIZO Video Wall** in the **Site Navigation** pannel and selecting **Refresh** will provide the option to revert any unsaved changes by reloading the plugin.



## Checking the Device Connection Status

Each monitor template in the preset tabs has a status check button at the top right-hand corner. Clicking this checks the connection to the device and updates the monitor status color at the top of the template accordingly.



Color	Status
-------	--------

Black	Communication Success
-------	-----------------------

Red	Communication Failure
-----	-----------------------

Yellow	Warning due to an invalid <b>edition</b> or <b>unexpected software version</b>
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## Checking the Plugin Version

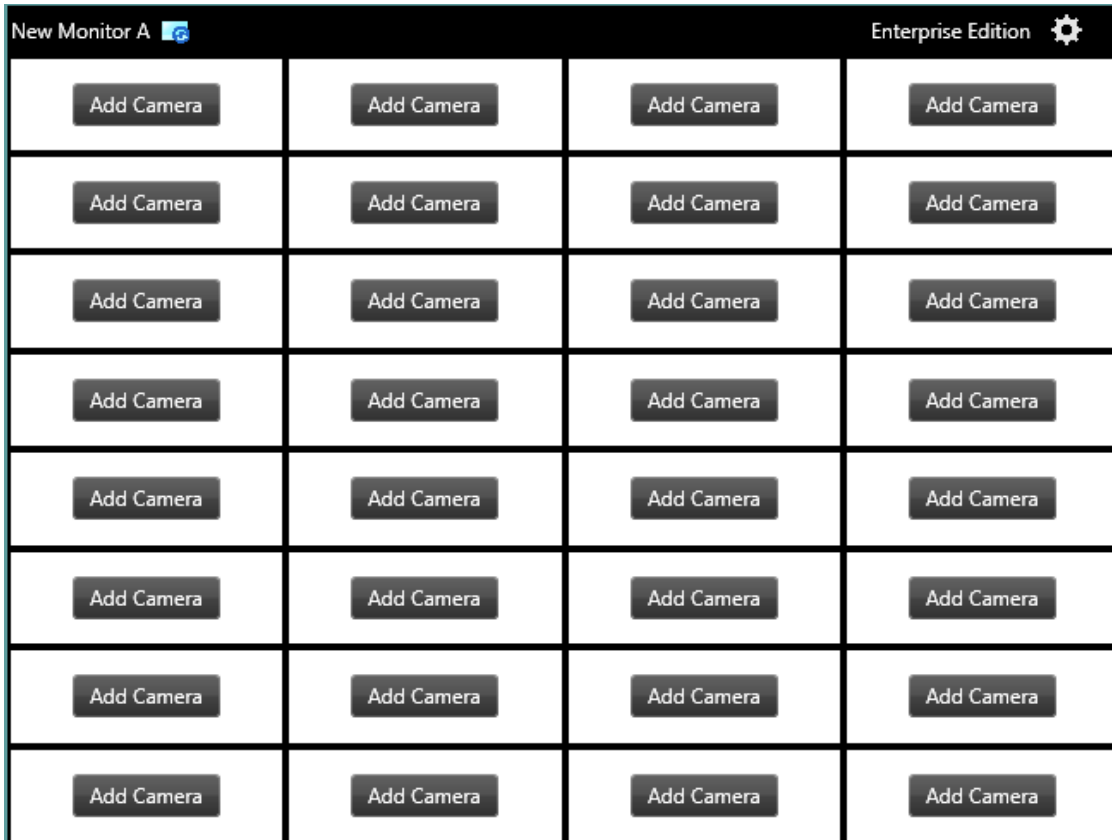
The plugin version can be displayed by opening the XProtect Management Client's **Help** --> **About**.

EIZO Video Wall v1.x.x.x - Venzo Secure

# XProtect Smart Client

## Overview

The Smart Client application allows users to place EIZO Video Wall templates (hereinafter referred to as **mimic templates**) onto **view** screens. The mimic template can control IP-monitors by registering cameras, configuring layouts, and monitoring the connection status of the device.

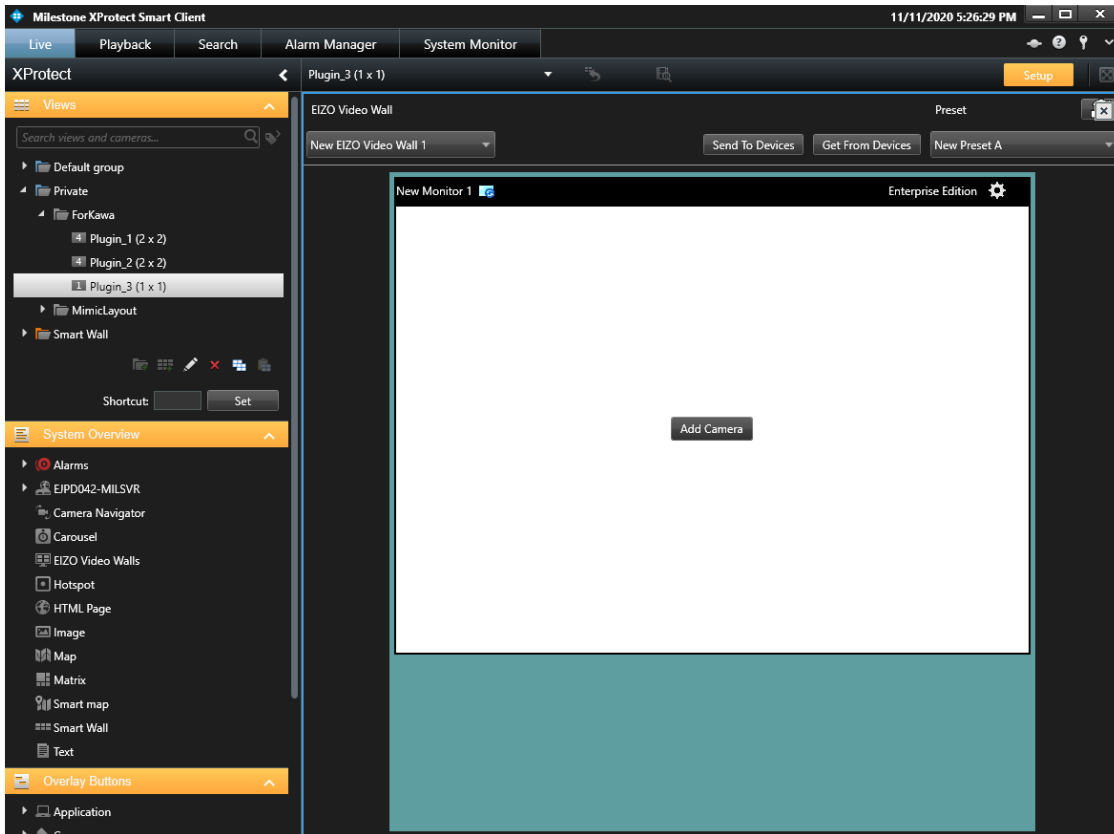


## Basic Functionalities

### Registering a Mimic Template To a View Screen

Press the **Setup** button on the **Live** tab and drag and drop an **EIZO Video Walls** entity from the **System Overview** pane to an open area on a **view** screen.

After creation, press the **Setup** button again to finalize the settings and a mimic template will be registered to the view.



### Adding a Camera

The Smart Client allows users to add cameras on the mimic template in the following ways.

- Dragging and dropping a camera from a camera list.
- Pressing the **Add Camera** button on the mimic template and selecting a camera.
- Copying cameras from a view group by dragging the view group on to the mimic template.

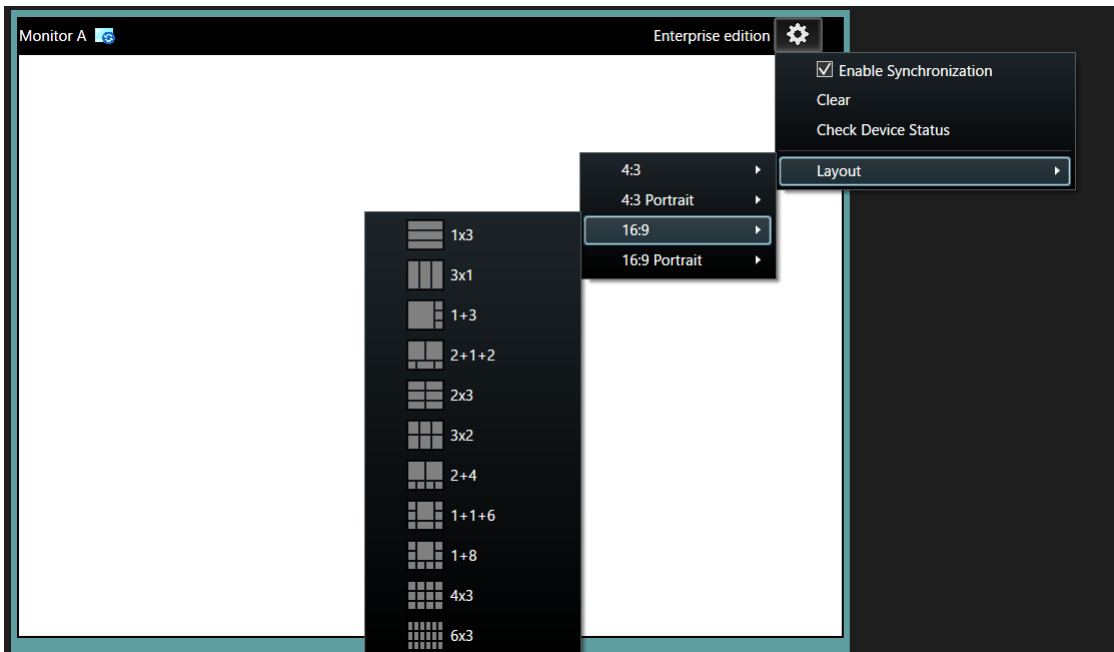
After changes have been made, press the **Send to Devices** button to update the settings on the IP-monitor devices.

## Changing a Layout

Pressing the gear icon on a monitor and selecting **Layout** should open a list of supported layouts to choose from.

The **Clear** button removes all registered cameras and updates the layout to 1x1 on the mimic template.

After changes have been made, press the **Send to Devices** button to update the settings on the IP-monitor devices.



## Activating a Preset

Select a preset from the **Preset** drop down menu and press the **Send to Devices** button to update all registered IP-monitors with that preset.

## Restoring the Default Presets

Making changes on the mimic template (e.g. changing layouts or cameras) temporarily updates the preset in the local Smart Client.

To restore the presets to the default settings, press the **Restore** icon in the upper right corner of the mimic template.



## Getting Current IP-monitor Device Layouts

Pressing the **Get from Devices** button will update the mimic template to match the layouts and cameras on the registered IP-monitors.

### Activating a View Template Layout

Dragging and Dropping a view template from the **Views** pane to the mimic template will update the layout to match the view.

After changes have been made, press the **Send to Devices** button to update the settings on the IP-monitor devices.

#### Note:

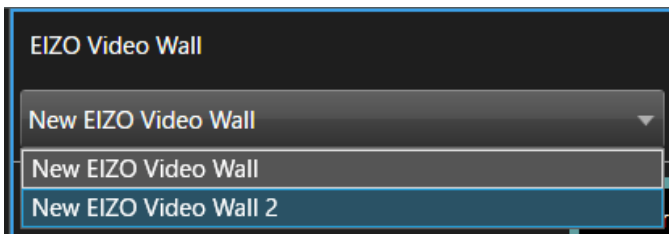
Other than cameras, it is not possible to copy entities (such as maps and web pages) from a view template into the mimic template.

### Removing a Mimic Template From a View

Enter setup mode by pressing the **Setup** button. Left click the X at the top right-hand side of an EIZO Video Wall template to remove the mimic template from the view.

### Switching Between EIZO Video Walls

If multiple EIZO Video Walls have been created, it is possible to switch between them using the drop down box on the upper left corner of the mimic template.



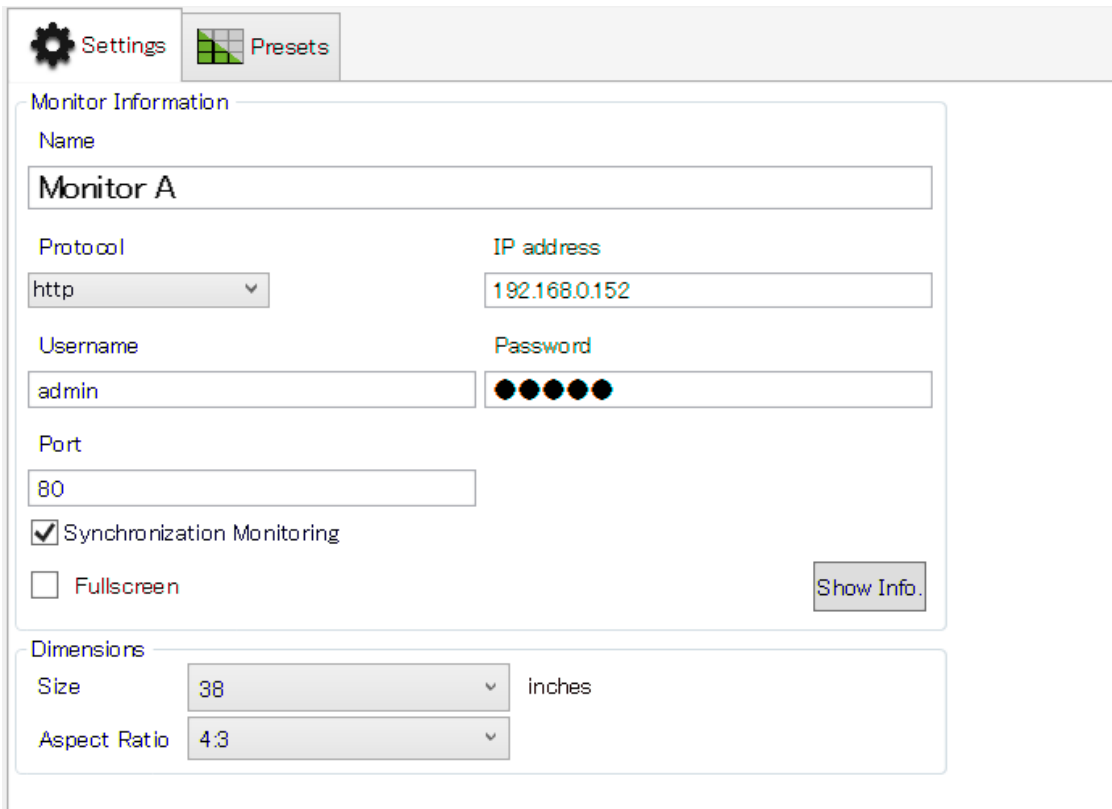


## Advanced Functionalities

### Enabling Synchronization Monitoring

The Synchronization Monitoring feature periodically checks if the live-view screen of each IP-monitor device matches the mimic template settings.

To enable this feature, the **Synchronization Monitoring** checkbox under **Monitor->Settings** in the **XProtect Management Client** must be checked in advance.



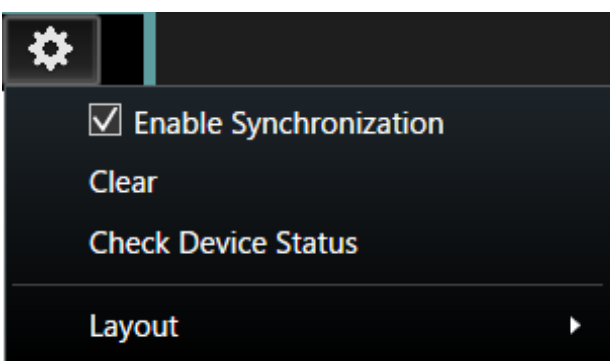
The screenshot shows the 'Settings' window for a monitor named 'Monitor A'. The window has two tabs: 'Settings' (active) and 'Presets'. The 'Monitor Information' section contains the following fields:

- Name: Monitor A
- Protocol: http (dropdown)
- IP address: 192.168.0.152
- Username: admin
- Password: [masked with 5 dots]
- Port: 80
- Synchronization Monitoring
- Fullscreen
- Show Info. button

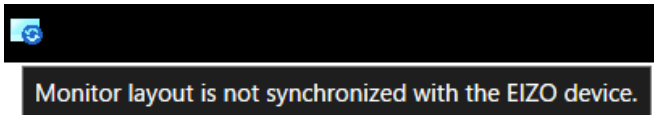
The 'Dimensions' section contains the following fields:

- Size: 38 (dropdown) inches
- Aspect Ratio: 4:3 (dropdown)

When **Synchronization Monitoring** is enabled in the XProtect Management Client, clicking the gear icon on a monitor in the XProtect Smart Client will display an **Enable Synchronization** checkbox. Checking **Enable Synchronization** will cause the Smart Client to perform periodical synchronization checks for that IP-monitor.



If the layout and registered cameras on the IP-monitor do not match the layout and cameras on the mimic template, an icon will be displayed to notify the user of a settings mismatch.



### Checking a Device's Status

To check the current state of a registered monitor, click the gear icon and then click **Check Device Status**. This will check the device to make sure a connection can be established, the version is 5.2001 or greater, and a valid Enterprise edition is activated.

If a connection cannot be established, the border at the top of the monitor will turn red. If there is a version or edition mismatch, the border at the top of the monitor will turn yellow.

Fixing these issues and pressing the **Check Device Status** should resolve the border back to black.

### Map

It is possible to register cameras from the **Map** entity by dragging and dropping a camera onto a monitor in the mimic template.

After changes have been made, press the **Send to Devices** button to update the settings on the IP-monitor devices.

### Event Rules

The following actions are available for linking with XProtect event rules.

- Changing the mimic template layout to a 1x1 layout with the camera that triggered the event.
- Changing the mimic template layout to a designated preset layout.

### Remarks

#### Checking the Plugin Version

The plugin version can be displayed by opening the XProtect Smart Client's **Help** --> **About**.

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### Json.NET 12.0.3

#### SPDX identifier

MIT

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