Dewarping for Milestone XProtect VMS

Bosch Video IP

BOSCH

en Quick Installation Guide

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1 Installation

1.1 Overview

The Bosch Dewarping Plug-in for Milestone XProtect VMS Products enriches the XProtect Smart Client with the capability to dewarp H.264 video streams that are provided by a Bosch panoramic camera. The algorithm is calibrated automatically once a properly configured stream is received.

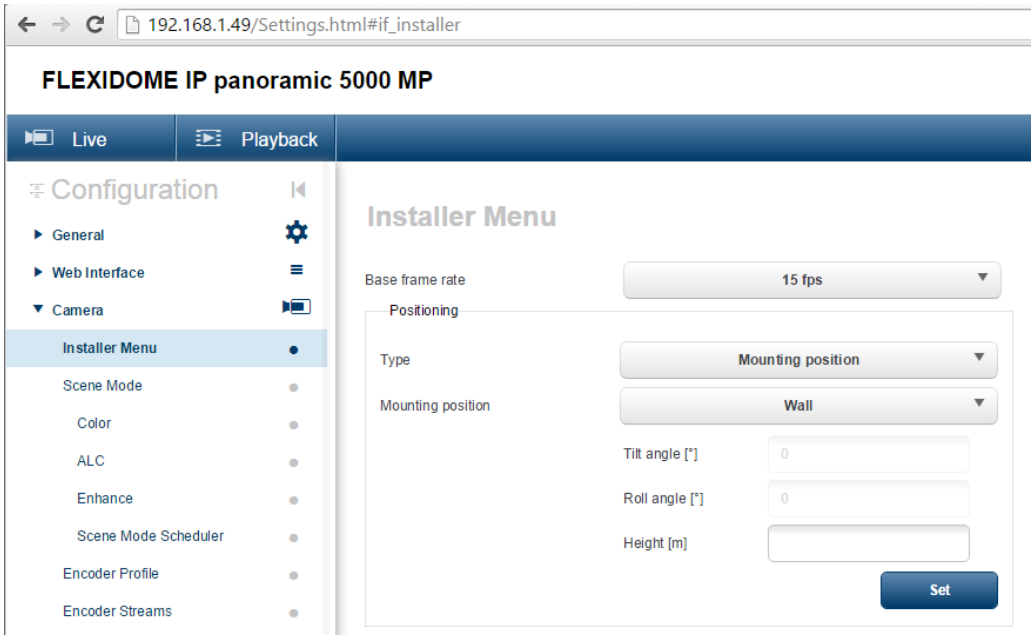
The following features are available in **Live** and **Playback** modes:

- Dewarping mode selection
- Virtual PTZ control
- Presets
- Snapshots
- Report printing

1.2 Prerequisites

- Operating system: Windows 7, Windows 8, Windows 8.1, or Windows 10
- Milestone VMS: XProtect VMS 2014 or 2016 with Device Pack 8.1 or above, XProtect Smart Client 2014 (9.0) or 2016 (10.1). Please note that Milestone XProtect Essential doesn't support the use of plug-ins.
- A graphics card that supports DirectX 11 9_3 feature level.
- A Bosch panoramic camera connected to the Milestone XProtect VMS Product.

The camera needs to be setup properly (mounting position) on the device's web page:



1.3 Installation procedure

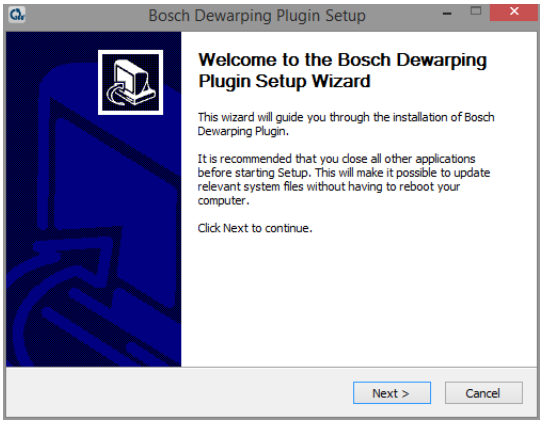
Two different installers are available:

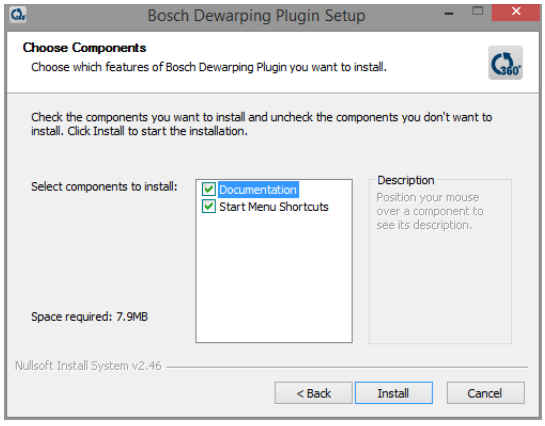
– Bosch_DewarpingPlugin_x86_1.1.exe (32-bit installer for the 32-bit XProtect Smart Client)

– Bosch_DewarpingPlugin_x64_1.1.exe (64-bit installer for the 64-bit XProtect Smart Client)

The current versions of both installers can be downloaded from the website **https://ipp.boschsecurity.com/**.

1. Double-click on the appropriate exe file to start the installation.
2. Follow the instructions of the setup wizard.





When the installation is complete, the plug-in files are installed in the default plug-in directory

– for the 32-bit XProtect Smart Client:
C:\Program Files (x86)\VideoOS\MIPPlugins\BoschDewarpingPlugin(x86)

– for the 64-bit XProtect Smart Client:
C:\Program Files\VideoOS\MIPPlugins\BoschDewarpingPlugin(x64)

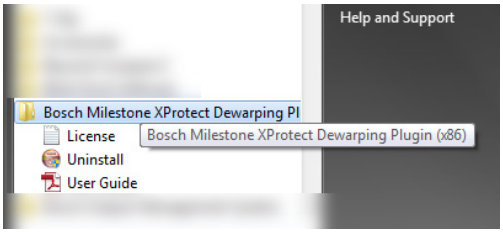
Previous versions were to be found in

– C:\Program Files (x86)\Milestone\MIPPlugins\BoschDewarpingPlugin(x86)
for the 32-bit client, and in

– C:\Program Files\Milestone\MIPPlugins\BoschDewarpingPlugin(x64)
for the 64-bit client.

These directories should no longer be available on the computer!

The plug-in will now be available in the Milestone XProtect Smart Client. The **User Guide** can be accessed via the start menu, in case this option was selected during the installation process.



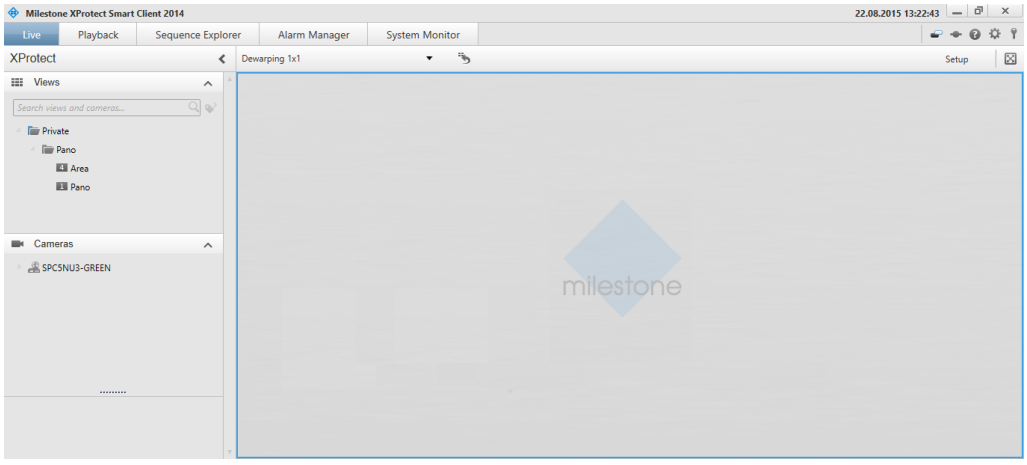
2 Setup

After successful installation you can setup the dewarping plug-in.

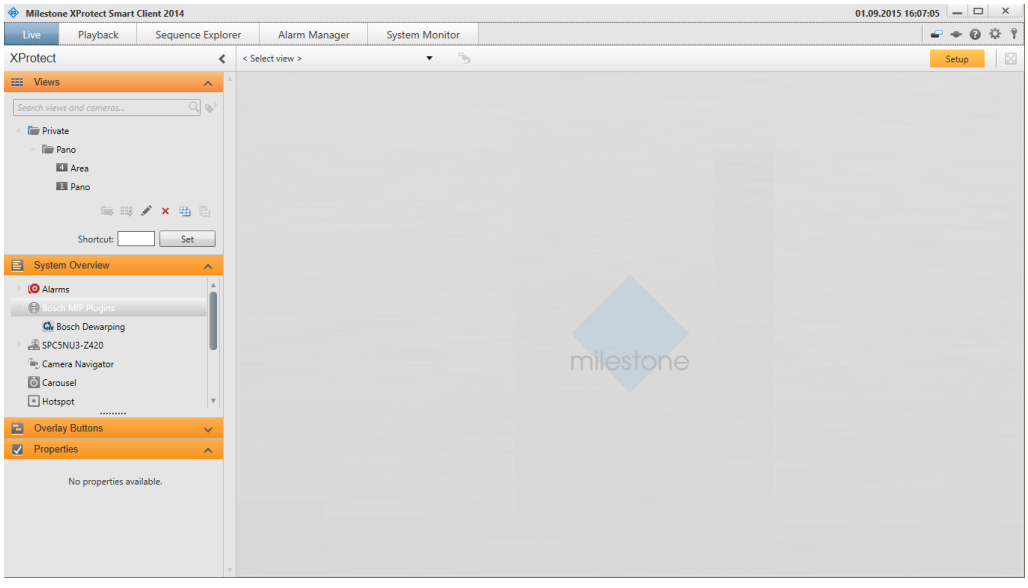
Note:

A camera needs to be added to a plug-in instance in **Live** mode. Adding a camera for the first time during **Playback** will result in an error.

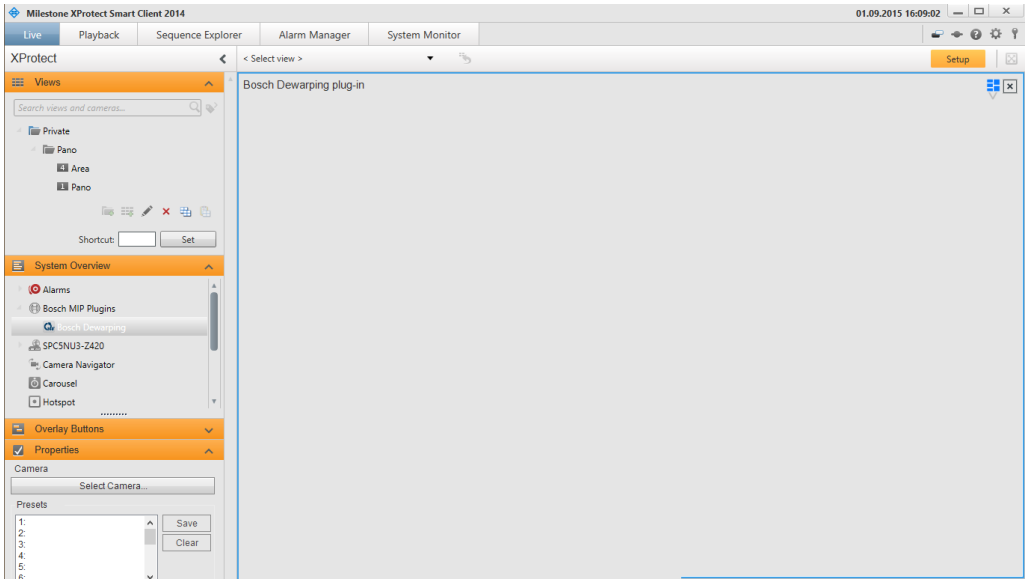
1. Start the XProtect Smart Client.
2. If necessary change to **Live** mode.
3. Click on **Setup** in the upper right corner of the window.



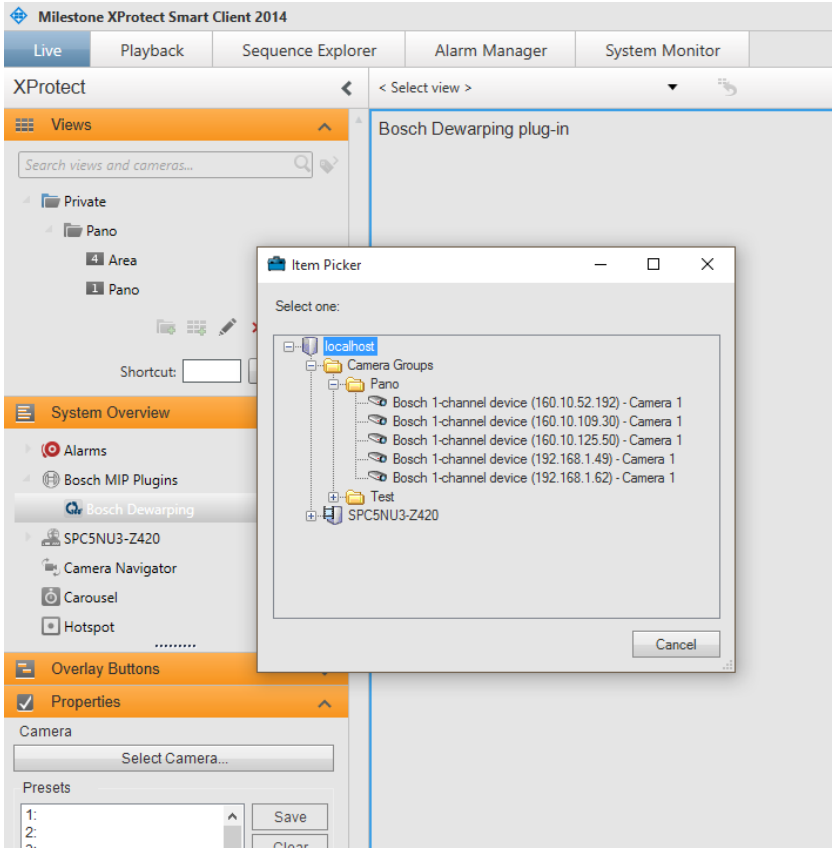
4. Expand the **Bosch MIP Plugins** node under **System Overview**.



5. Drag and drop the **Bosch Dewarping** plug-in into an empty view item. The name of the plug-in will be shown in the upper left corner of the view.



6. Expand the **Properties** section and click on **Select Camera...**



7. Pick a Bosch panoramic camera from the device tree.
8. Click on **Setup** in the upper right corner of the window to exit the setup.

3 Features

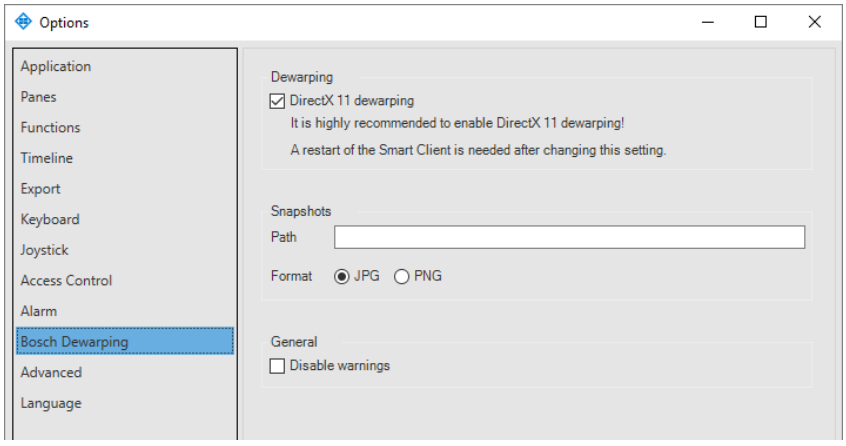
3.1 DirectX 11 video processing

By default, DirectX 11 is used for the image processing to achieve best performance and reduce workload from the CPU. It is highly recommended to use DirectX 11 video processing, but a fallback CPU implementation is available, when necessary.

To disable DirectX 11 processing:

1. In the XProtect Smart Client window click on the symbol to open the **Options** dialog.

2. Clear the appropriate tick box.



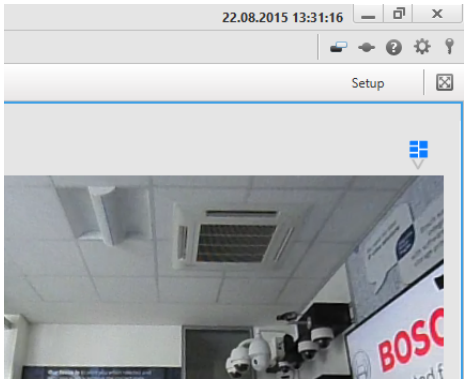
3.2 Dewarping view mode selection

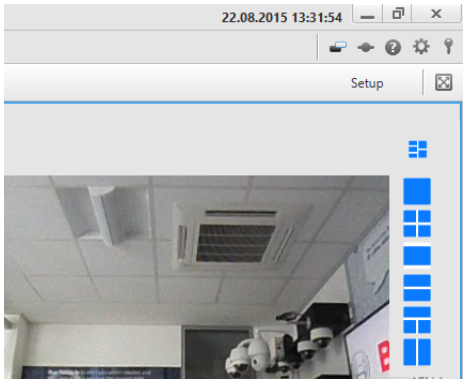
Note:

Dewarping view mode selection is only available with activated DirectX 11.

The CPU based dewarping does not provide the possibility to switch between different dewarping view modes.

1. To select a dewarping view mode click the icon after expanding the icon panel.

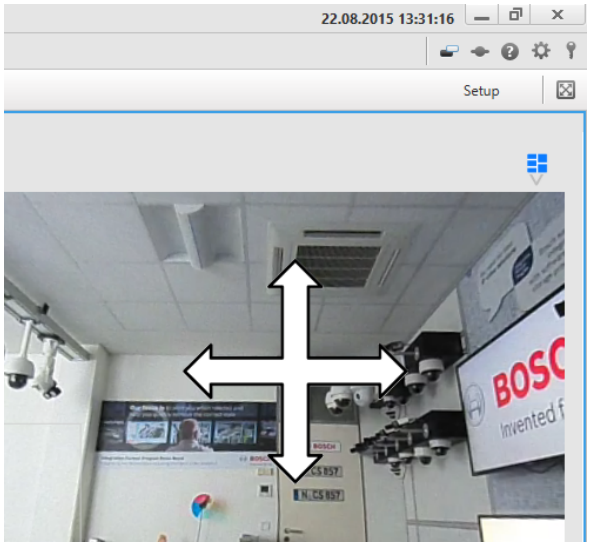




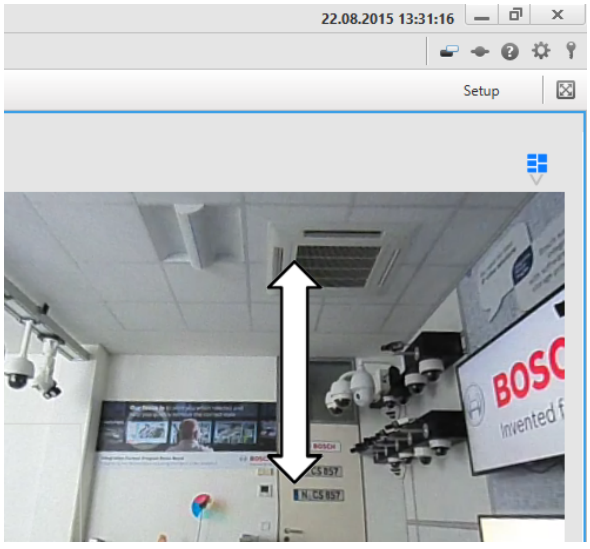
3.3 Virtual pan, tilt and zoom

Virtual PTZ is controlled via the mouse.

1. Hold the *left* mouse button and move the mouse to control pan and tilt.



2. Hold the *right* mouse button and move the mouse up and down to control the zoom.



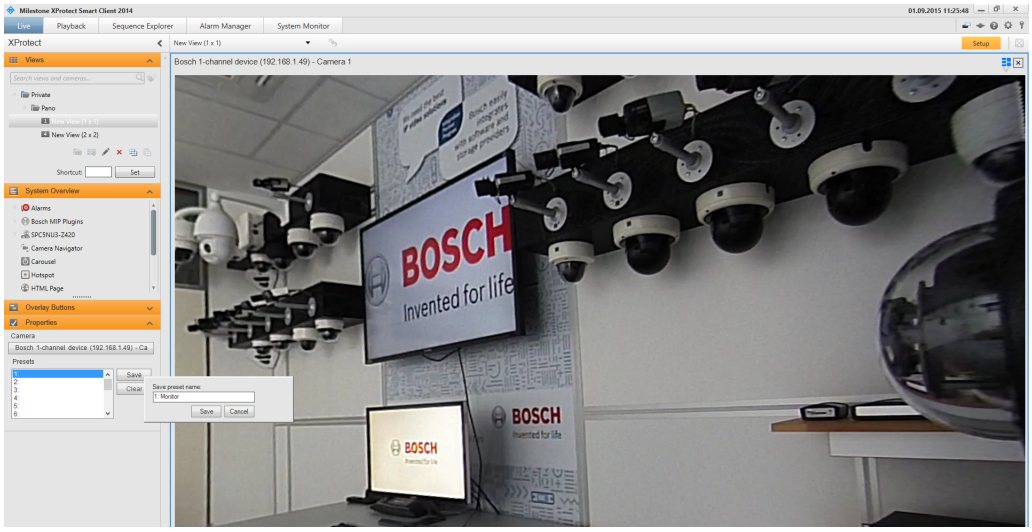
3.4 Presets

Presets contain dewarping mode information and the PTZ values. They are stored per view item and camera, which means that a single camera may have different presets in different view items.

3.4.1 Setting a preset

You can save several presets.

1. Adjust the view that is to be stored in a preset.
2. Click on **Setup** in the upper right corner of the window.
3. Expand the **Properties** section and click on a preset position.



4. Click on **Save** to save the preset.
5. Enter a meaningful name.
6. Click on **Setup** in the upper right corner of the window to exit the setup.

3.4.2 Clearing a preset

You can delete a saved preset.

1. Click on **Setup** in the upper right corner of the window.
2. Expand the **Properties** section and click on a preset position.
3. Click on **Clear** to delete the preset.
4. Click on **Setup** in the upper right corner of the window to exit the setup.

3.4.3 Recalling a preset

You can select and activate a saved preset.

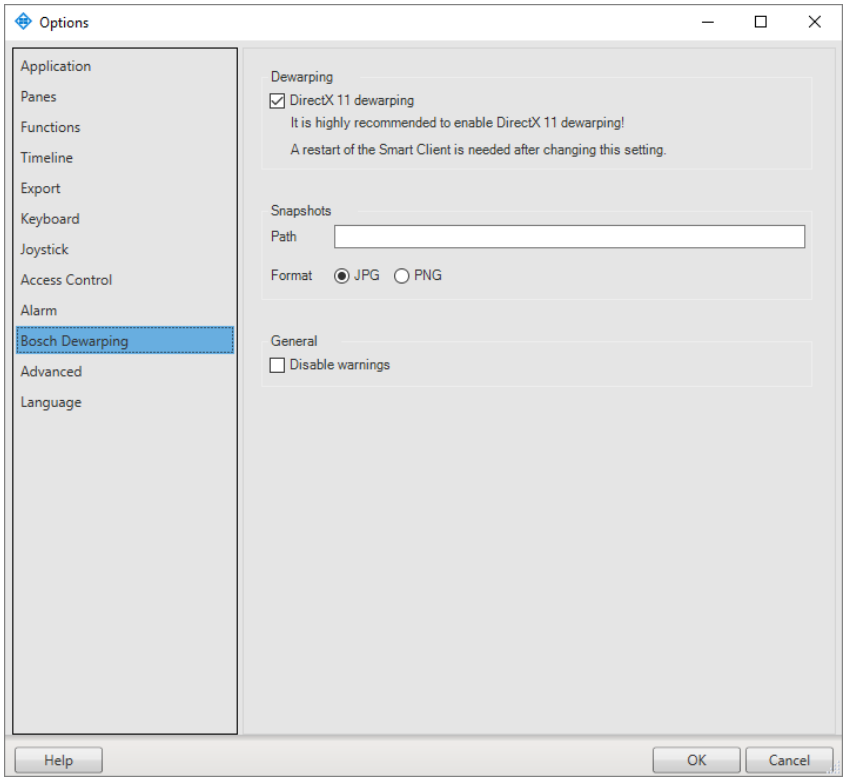
1. To recall a preset click on the symbol in the view item toolbar and select the preset to be activated.

3.5 Snapshots

You can take snapshots of the current view and save them into an existing directory. Storage location and format are defined in the **Options** dialog.

1. Click on the symbol to open the **Options** dialog.

2. Define the storage location and select the file format.



3. To take a snapshot of the current view item, click on the symbol in the view item toolbar.

3.6 Printing

You can use the XProtect Smart Client report printing function.

1. To print click on the symbol in the view item toolbar.

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