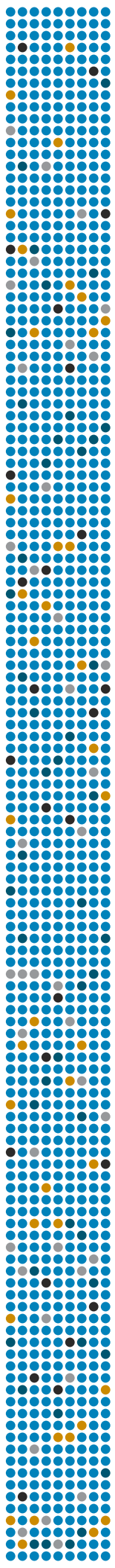




# Senstar Thin Client

3.x  
User Guide



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# Introduction

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The Senstar Thin Client is a secure, reliable, and cost-effective server alternative that displays 1080p video from network cameras quickly and easily.

The Thin Client includes a Web interface, for administrators, that includes configuration options and a client interface, for users, that displays footage and includes viewing options. In addition, the Remote application allows users to view footage and access viewing options from mobile devices.

## System requirements

Component	Requirements
Touchscreen monitor	<ul style="list-style-type: none"> <li>• iiyama ProLite T1731SR-B1</li> <li>• iiyama ProLite T1931SR-B1</li> <li>• Capacitive or optical touchscreen monitors that are compatible with the generic single/multi touch HID drivers</li> </ul>

## Performance guidelines

The Thin Client performs best when you do not exceed the settings below.

Views	Maximum resolution	Maximum FPS	Aspect ratio
1-View	1920 x 1080	25	1.77778
2-View	960 x 1080	25	0.88888
4-View	960 x 540	25	1.77778
6-View	640 x 540	20	1.18519
9-View	640 x 360	20	1.77778
12-View	480 x 360	10	1.33333
16-View	480 x 270	10	1.77778

## Log in to the Web interface

Use a browser to log in to the Thin Client Web interface. By default, the IP address (without using DHCP) of the Thin Client is 192.68.0.20.

1. In a browser, navigate to the IP address of the Thin Client.
2. Type your password.
3. Select the language for the interface.
4. Click **Login**.

# Configuration

Configure the Thin Client using the settings page in the Web interface or by running the setup wizard.

The Thin Client prompts you to run the setup wizard when it starts for the first time or after restoring factory settings. You can also run the setup wizard at any time from the settings page in the Web interface

You can connect the Thin Client to Symphony using the Mobile Bridge.

## Configure the Thin Client

1. In the Web interface, click **Settings**.
2. In the **About** pane, set general information.
3. In the **Network Setup** pane, set the parameters that the Thin Client uses to connect to the network.
4. In the **Security** pane, set and confirm the password.
5. In the **Video Source** pane, set how the Thin Client connects to cameras.
6. In the **Digital Signage** pane, configure the
7. In the **Display Options** pane, select the options for displaying camera views.
8. In the **Server Time** pane, set the time for the Thin Client.
9. In the **Management** pane, configure a connection between the Thin Client and Enterprise Manager.
10. In the **Maintenance** pane, perform maintenance functions.
11. Click **Save**.

## Settings

### About

Setting	Description
Device Name	Define the name of the Thin Client.
Firmware Version	This field displays the current firmware version on the Thin Client.
On-screen Interface Language	Select the language for the Thin Client.
Model	This field displays the Thin Client model.
Serial	This field displays the Thin Client serial number.

### Network Setup

Setting	Description
Configure IP automatically	Select to set network parameters automatically.
Manually configure IP	Select to set network parameters manually.
IP Address	This field contains the IP address of the Thin Client. By default, the IP address (without using DHCP) of the Thin Client is 192.68.0.20.

Setting	Description
Subnet Mask	This field contains the subnet mask for the network to which the Thin Client connects.
Default Gateway	This field contains the default gateway for the network to which the Thin Client connects.
DNS Server	This field contains the IP address of the DNS server.

## Security

Setting	Description
Username	This field displays the username for the Thin Client. You configure the username when the setup wizard runs after installation or a reset.
Password	This field contains the password for the Thin Client. You configure the password when the setup wizard runs after installation or a reset.
Confirm password	This field contains the password confirmation.

## Video Source

Setting	Description
Connect through Mobile Bridge	Select to connect to a Symphony Server using Mobile Bridge.
Direct camera connection	Select to connect to cameras directly.
Address	Type the address of the Mobile Bridge. This field is available if you select Connect through Mobile Bridge.
Port	Type the port that the Mobile Bridge uses. This field is available if you select Connect through Mobile Bridge.
Use HTTPS	Select whether the Mobile Bridge uses HTTPS for communication. This field is available if you select Connect through Mobile Bridge.
Use Video Proxy	Select this option to route the video stream through the Mobile Bridge. Use this option with when you want to stream video over the Internet with Symphony 7.0.
Username	Type the username for the Mobile Bridge. This field is available if you select Connect through Mobile Bridge.
Password	Type the password for the Mobile Bridge. This field is available if you select Connect through Mobile Bridge.

Setting	Description
Manage Cameras	Click this button to add, edit, or remove cameras. This option is available if you select Direct camera connection.
Import Cameras	Click this button to import a list of cameras. This option is available if you select Direct camera connection.
Export Cameras	Click this button to export a list of cameras. This option is available if you select Direct camera connection.

## Digital Signage

Setting	Description
Enable Digital Signage	Select whether to enable digital signage.
Manage Files	Click to manage the files that the Thin Client can display as digital signage.
Add File	Click to add files for digital signage.
Select All	Click to select all of the files that you have added to the Thin Client.
Deselect All	Click to clear all selections.
Use Selected Files	Click to add all of the selected files to the files list.

## Display Options

Setting	Description
Show date and time	Select whether the Thin Client shows the date and time over video.
Show camera name	Select whether the Thin Client shows the name of the camera over video.
Show message when no camera is assigned	Select whether the Thin Client identifies camera panels to which you have not assigned cameras.
Maintain Aspect Ratio	Select whether the Thin Client maintains the aspect of the ratio of the camera when displaying video.
Fit To Window	Select whether the Thin Client fits the video from a camera into window on the screen.

## Server Time

Setting	Description
Synchronize with Symphony Server	Select whether the Thin Client synchronizes with the time from the Symphony Server.  This option is available if you select Connect through Mobile Bridge.
Time Zone	Select the time zone for the Thin Client.  This option is available if you clear the Synchronize with Symphony Server check box.
Synchronize with NTP server(s)	Select whether the Thin Client synchronizes with an NTP server.  This option is available if you clear the Synchronize with Symphony Server check box.
Use default NTP servers	Select whether to use the default NTP servers.  This option is available if you select Synchronize with NTP server(s).
Set manually	Select whether to manually set the NTP server and add the address for the NTP server pool.  This option is available if you select Synchronize with NTP server(s).
Set manually	Select to manually set the NTP server.  This option is available if you clear the Synchronize with Symphony Server check box.
Date	Set the date for the Thin Client.
Time	Set the time for the Thin Client.

## Management

Setting	Description
Enable Management	Select to use Enterprise Manager to manage the Thin Client.
Organization Name	Type the organization name in Enterprise Manager.  This field is available if you select Enable Management.
Address	This field displays the address for Enterprise Manager.  This field is available if you select Enable Management.
Passphrase	Type the password for Enterprise Manager.  This field is available if you select Enable Management.
Enable Proxy	Select to connect to Enterprise Manager through a proxy server.



Setting	Description
Proxy Address	Type the address of the proxy server. This field is available if you select Enable Proxy.
Proxy Port	Type the port on the proxy server that the Thin Client uses. This field is available if you select Enable Proxy.
Proxy Username	Type the username for the proxy server. This field is available if you select Enable Proxy.
Proxy Password	Type the password for the proxy server. This field is available if you select Enable Proxy.

## Maintenance

Setting	Description
Calibrate	Click to calibrate a touchscreen monitor. The touchscreen monitor prompts you to touch the four corners and the center of the touchscreen monitor.
Restart	Click to restart the Thin Client.
Restore	Click to restore the Thin Client to factory settings.
Update	Click to check the for updated firmware file. If an update is available, the Thin Client prompts you to install it.
Upload	Click to select a firmware file to upload to and install on the Thin Client.
System Log	Click to download log files.

## Connect to Mobile Bridge

1. In the Thin Client Web interface, click **Settings**.
2. In the **Video Source** pane, select **Connect through Mobile Bridge**.
3. Type the address and port for the Mobile Bridge.
4. Select whether to use HTTPS for the connection.
5. Type the username and password for the Mobile Bridge.
6. Click **Save**.

## Connect to Enterprise Manager

1. In the Thin Client Web interface, click **Settings**.
2. In the **Management** section, select **Enable Management**.
3. Type the organization name and passphrase.
4. To connect to Enterprise Manager through a proxy server, select **Enable Proxy**.
5. Click **Save**.

## Restore factory settings using the hardware

1. Press and hold the **RST** button on the back of the Thin Client device.
2. Remove the PoE network cable.
3. Connect the PoE network cable.
4. When the LED light on the Thin Client device stops blinking, release the **RST** button.

## Restore factory settings using the Web interface

1. In the Thin Client Web interface, click **Settings**.
2. Click **Restore**.
3. Click **OK**.

## Digital signage

The Thin Client can display video media on attached monitors.

The Thin Client supports the following file formats:

- .3pg
- .avi
- .flv
- .m4v
- .mkv
- .mov
- .mp4

## Add a video file

1. In the Thin Client Web interface, click **Settings**.
2. In the **Digital Signage** pane, select **Enable Digital Signage**.
3. Click **Manage Files**.
4. To add a new video file, perform the following steps:
  - a) Click **Add File**.
  - b) In the **File Path** field, type the full name of the video file (including the file extension) or click **Browse** and navigate to the file.
  - c) In the **Alias** field, type the name for the file that will appear in the files list.
  - d) Click **Connect**.
5. Select the video files.  
You can also click **Select All** or **Deselect All**.
6. Click **Use Selected Files**.

## Display a video file

1. In the Thin Client Web interface, click **Remote Control**.
2. Click a camera view.
3. Click **Files**.
4. Click the video file.

# Cameras

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The Thin Client can either connect directly to cameras or connect to Mobile Bridge to access cameras from Symphony. The Thin Client can connect directly to both ONVIF and RTSP cameras.

For ONVIF cameras, the Thin Client can search for cameras on the network or you can add them manually with the IP address of the camera.

For RTSP cameras, you must manually add the cameras using the media stream URL. The Thin Client supports both unicast and multicast streams.

The Thin Client supports streams up to 1920 x 1080 resolution at 25 fps. The Thin Client can automatically select the best stream based on the layout of camera views. For the best performance with high-resolution cameras, configure an additional, lower-resolution stream for the cameras.

## Connect to an ONVIF camera directly

1. In the Thin Client Web interface, click **Settings**.
2. In the **Video Source** pane, select **Direct camera connection**.
3. Click **Manage Cameras**.
4. To detect a camera automatically, perform the following steps:
  - a) Type the username and password for the camera.
  - b) Click **Find Devices**.
  - c) Select the camera. Click the **Next** or **Previous** button to navigate through pages.
  - d) Select **Audio** to stream audio from the camera.
  - e) Click **Test ONVIF compliance**.
5. To add a camera manually, perform the following steps:
  - a) Click **Manually Add Device**.
  - b) Type a device name.
  - c) Type the IP address or, if the camera does not use port 80, the IP address and port (for example, xx.x.x.x:xxxx) for the camera.
  - d) Type the username and password for the camera.
  - e) Select **Audio** to stream audio from the camera.
  - f) Click **Connect**.
  - g) Click **Test ONVIF compliance**.
6. Click **Save Devices**.

## Connect to an RTSP camera directly

1. In the Thin Client Web interface, click **Settings**.
2. In the **Video Source** pane, select **Direct camera connection**.
3. Click **Manage Cameras**.
4. Click **Manually Add Device**.
5. In the **Device Name** field, type a name for the camera.
6. In the **Address**, perform one of the following tasks:
  - To add a unicast stream, type the media stream URL.
  - To add a multicast stream, type the multicast stream URL.
7. To add another unicast stream, perform the following steps:
  - a) Click the **Add** button.
  - b) In the **Address**, type the media stream URL for the additional unicast stream.

8. In the **Credentials** fields, type the username and password for the camera.
9. Select **Audio** to stream audio from the camera.
10. Select whether to use multicast for the media stream.
11. Click **Connect**.
12. Select the camera and click **Save Devices**.

## Import a camera list

1. In the Thin Client Web interface, click **Settings**.
2. In the **Video Source** pane, click **Import Cameras**.
3. Navigate to the camera list and click **Open**.

## Export a camera list

1. In the Thin Client Web interface, click **Settings**.
2. In the **Video Source** pane, click **Export Cameras**.
3. Download and save the camera list.

# Camera views

Camera views determine how many panels appear on the screen and what cameras or carousels appear in each pane.

If you connect the Thin Client to Symphony, the Thin Client supports shared views. If you save a camera view in the Symphony client interface, that camera view is available to the Thin Client.

## Select a camera view

1. In the Thin Client Web interface, click **Remote Control**.
2. Click the **Select View** list.
3. Select the view.

## Create a camera view

1. In the Thin Client Web interface, select a view from the **Select View** list.



2. Click each panel to select the camera.
3. Click ....
4. Click **Save As**.
5. Type a name for the camera view.
6. Click **Save**.

## Delete a camera view

1. In the Thin Client Web interface, click **Remote Control**.
2. Click ... > **Delete**.  
The **Delete** option is only available if there is a saved camera view that is not active.
3. Click **Delete** beside the camera view.
4. Click **OK**.

## Enable smart 2-view

1. In a browser, navigate to `http://IP_address/System/EnableSmartTwoView`.  
Where *IP\_address* is the IP address of your Thin Client.
2. Click back in the browser.
3. In the **View** list, select **Smart 2-View**.
4. Select the camera for each panel.

5. Click ...
6. Click **Save As**.

To disable the smart 2-view, navigate to [http://IP\\_address/System/DisableSmartTwoView](http://IP_address/System/DisableSmartTwoView).

# Carousels

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A carousel loops through footage from multiple cameras and pauses on each camera for a defined time.

In Mobile Bridge mode, carousels can include cameras from any server in the server farm and you manage carousels in Symphony.

In direct connect mode, you can add and delete carousels in the Thin Client Web interface.

The Thin Client can display up to 2.7 million pixels in video. If the combined video pixels from all camera streams exceed 2.7 million, the performance of the Thin Client might be affected.

## Select a carousel

1. In the Thin Client Web interface, click **Remote Control**.
2. Click a camera panel.
3. Click the **Carousels** tab.
4. Click a carousel.

## Add a carousel in direct connection mode

1. In the Thin Client Web interface, click **Remote Control**.
2. Click a camera panel.
3. Click the **Carousels** tab.
4. Click **Add**.
5. Type a name for the carousel.
6. Select the cameras to include in the carousel.
7. Set the time for each camera.
8. Click **Save**.

## Delete a carousel in direct connection mode

1. In the Thin Client Web interface, click **Remote Control**.
2. Click a camera panel.
3. Click the **Carousels** tab.
4. Click the delete icon next to the carousel.
5. Click **OK**.

# Client interface

The client interface displays footage and includes viewing options on monitors and televisions connected directly to the Thin Client. The client interface supports input from touchscreen monitors, remotes for CEC enabled televisions, and USB mice.

If you are using the Thin Client with a touchscreen monitor, turn on the monitor before you turn on the Thin Client and you must calibrate the monitor.

## Navigation buttons

Button	Function
	Select a view.
	Select a camera from the camera list.
	Expand or collapse the full-screen view of the panel.
	Select the date for historical view.
	Remove the camera from the panel.
	Rewind footage 10 seconds, 1 second, and 1 frame.
	Play and pause footage.
	Fast forward footage 1 frame, 1 second, and 10 seconds.
	Export the video as a .mkv file.
	Move a PTZ camera.
	Zoom in and zoom out with a PTZ camera.

## Calibrate a touchscreen monitor

1. In the Thin Client Web interface, click **Settings**.
2. Click **Calibrate**.
3. In the client interface on the touchscreen monitor

## CEC commands



## Interface

Button	Function
Select	Select the menu item or expand a camera view to full screen.
Up	Move up in the menu or select the camera view above the current selection.
Down	Move down in the menu or select the camera view below the current selection.
Left	Select the camera view to the left of the current selection.
Right	Select the camera view to the right of the current selection.
Channel up	Show the previous camera.
Channel down	Show the next camera.
Blue button	Open the View menu.
Red button	Zoom in on the timeline.
Green button	Zoom out on the timeline.
Yellow button	Open the camera menu.

## Playback

Buttons	Functions
Play	Toggle between playing and pausing footage.
Pause	Toggle between playing and pausing footage.
Stop	Stop playing footage.
Fast forward	Fast forward 10 seconds.
Rewind	Rewind 10 seconds.
1	Play footage at normal speed.
2	Play footage at 2x speed.
3	Play footage at 3x speed.
4	Play footage at 4x speed.
5	Play footage at 5x speed.
7	Rewind 1 second.
9	Fast forward 1 second.
Exit	Exit the full screen.
Return	Exit the full screen.

## PTZ cameras

Buttons	Functions
0	Move the PTZ camera to the home preset position.
1 to 9	Move the PTZ camera to a preset position.

Buttons	Functions
Red	Zoom in on the PTZ camera.
Green	Zoom out on the PTZ camera.
Exit	Return to live video.
Up	Move the PTZ camera up.
Down	Move the PTZ camera down.
Left	Move the PTZ camera to the left.
Right	Move the PTZ camera to the right.

# Firmware Update tool

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The Firmware Update tool can install new firmware on Thin Client devices on the same network.

You can use the Firmware Update tool to update multiple Thin Client devices concurrently or to restore a Thin Client device to a specific version of firmware. To update multiple devices concurrently, all of the devices must have the same administration password.

## Install firmware

1. Download the Firmware Update tool from .
2. Double-click `FirmwareTool.exe`.
3. In the **Step 1: Choose firmware file** field, click browse, navigate to the firmware file, and click **Open**.
4. Type the administration password for the Thin Client.  
The default password for Thin Client devices is blank.
5. Click **Scan** to identify the Thin Client devices on your network.
6. Select the Thin Client device to receive the firmware.
7. Click **Firmware Update**.

# Remote application

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The Thin Client Remote application allows users to connect to the Thin Client using mobile devices. The Remote application requires the Mobile Bridge to connect to a Thin Client.

## Create a connection

1. Tap **Connections**.
2. Tap the **+** icon.
3. Perform one of the following steps:
  - Tap **Detected Thin Clients** and select the select a Thin Client from the list.
  - Type the address and port of the Thin Client.
4. Select whether this connection is a default connection.  
The Remote application connects to the default connection automatically when it starts.
5. Type the username and password for the Thin Client.
6. Tap **Connect**.

## Close a connection

1. Tap **Connections**.
2. Tap the connection that you want to close.
3. Tap **Disconnect**.

## Edit a connection

1. Tap **Connections**.
2. Tap the connection that you want to edit.
3. Tap **Disconnect**.
4. Edit the connection settings.
5. Tap **Connect**.

## Delete a connection

1. Tap **Connections**.
2. Tap **Edit**.
3. Tap the **-** icon beside the connection you want to delete.
4. Tap **Delete**.
5. Tap **Done**.

## Open a connection

1. Tap **Connections**.
2. Tap the connection to open.
3. Tap **Connect**.

## Create a camera view

1. In the Remote application, tap the **Select View** button.

2. Select the view.
3. Tap each panel and select the camera.
4. Tap the ... button.
5. Click **Save As**.
6. Type a name for the camera view.
7. Tap **Save**.

## Select a camera view

1. In the Remote application, tap the **Select View** button.
2. Tap the view.

## Delete a camera view

1. In the Remote application, tap the ... button.
2. Tap **Delete**.
3. Tap the - button beside the camera view.
4. Tap **Delete**.

## Select a carousel

1. In the Remote application, tap the **Select View** button.
2. Tap a camera panel.
3. Tap the **Carousels** tab.
4. Tap a carousel.

## Select digital signage

1. In the Remote application, tap the **Select View** button.
2. Tap a camera panel.
3. Tap the **Digital Signage** tab.
4. Tap a file.

## Configure the Thin Client

You can use the Remote application to configure the Thin Client to which it connects.

1. In the Remote application, tap **Settings**.
2. In the **About** pane,
3. In the **Network Setup** pane, set the parameters that
4. In the **Security** pane, set the password for the Thin Client.
5. In the **Video Source** pane, set how the Thin Client connects to cameras.
6. In the **Display Options** pane,
7. In the **Server Time** pane,
8. In the **Management** pane,
9. In the **Maintenance** pane,
10. Click **Save**.

## Legal information

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