SILENT SENTINEL ARE SPECIALISTS IN LONG RANGE OPTICAL SENSORS INCLUDING BOTH COOLED AND UNCOOLED THERMAL CAMERAS

FIXED MODUM – LAPTOP CONFIGURATION GUIDE

Version: V1.6

Date: 19/08/2020

SILENT SENTINEL
VISION & MOTION CONTROL

This manual is used as a guide. The photos, graphics, diagrams, and illustrations provided in the manual are only used for explanation, which may be different from the specific product. Please refer to the actual product. We try our best to make sure all the contents in this manual are accurate. We do not provide any representations or warranties in this manual.

If you need the latest version of this manual, please contact us. Silent Sentinel recommends that you use this manual under the guidance of professionals.

Version Control

Version	Author	Approver	Date
1.0	Xueer Lin	Matthew Short	15th May 2020
1.1	Xueer Lin	Matthew Short	15th May 2020
1.2	Xueer Lin	Matthew Short	19th May 2020
1.3	Xueer Lin	Matthew Short	20th May 2020
1.4	Xueer Lin	Matthew Short	21st May 2020
1.5	Xueer Lin	Matthew Short	30th May 2020
1.6	Xueer Lin	Matthew Short	19th Aug 2020

Contents

Prerequisites

Please refer to the help desk to ensure you have the latest version of the software applications and user guides;

https://silentsentinelhelp.helpdocs.com/fixed-modum

Configuring the Laptop

Network Configuration

In order to connect to the MODUM camera the Laptop / Desktop must have an IP address in the same subnet as the MODUM Camera. The default values for the cameras are as follows;

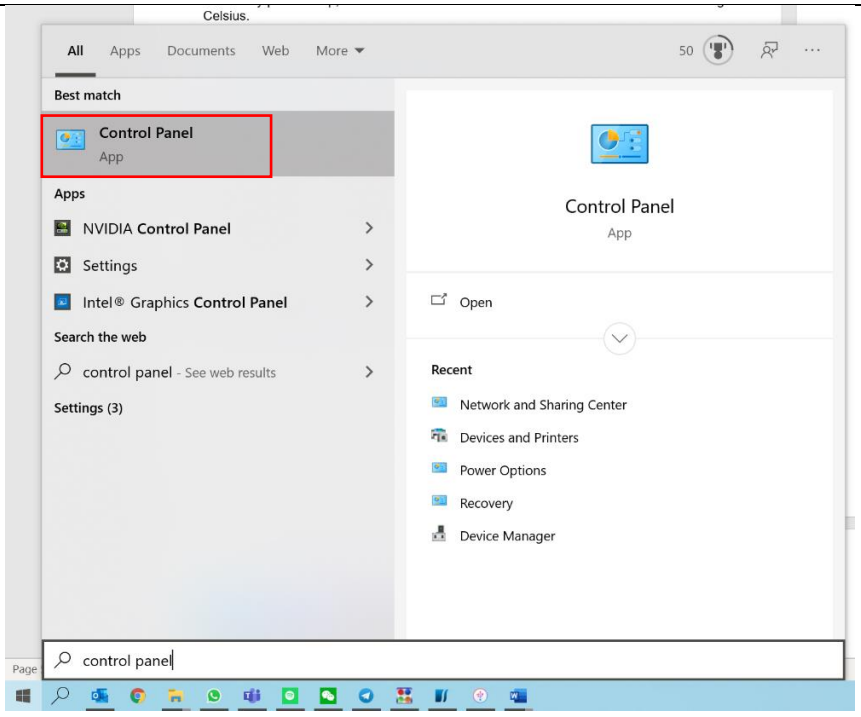
Thermal:

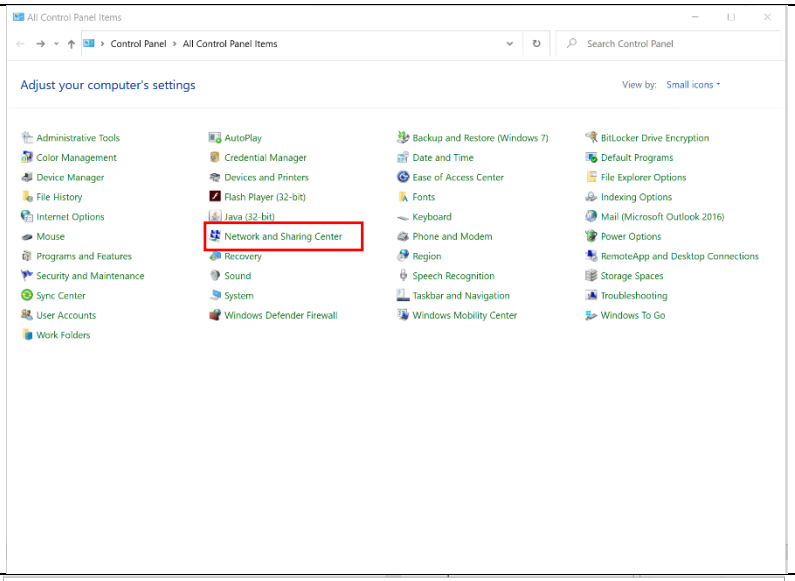
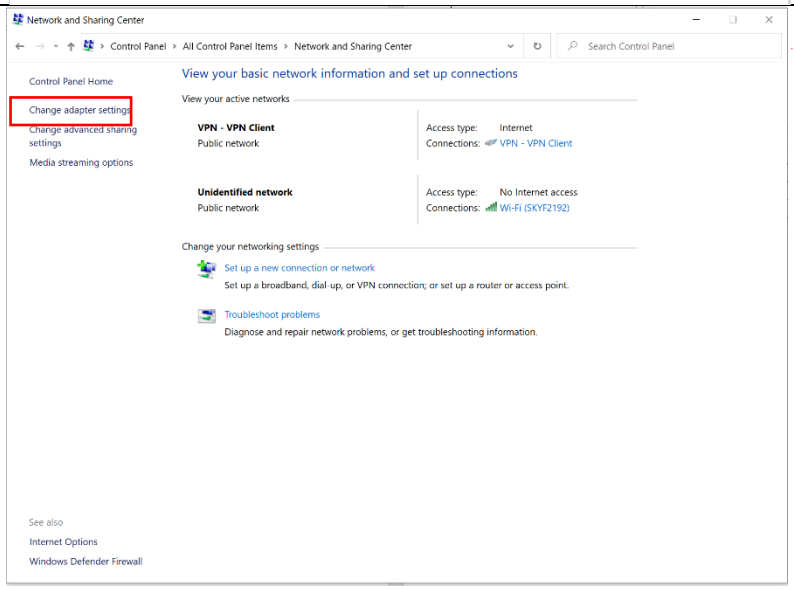
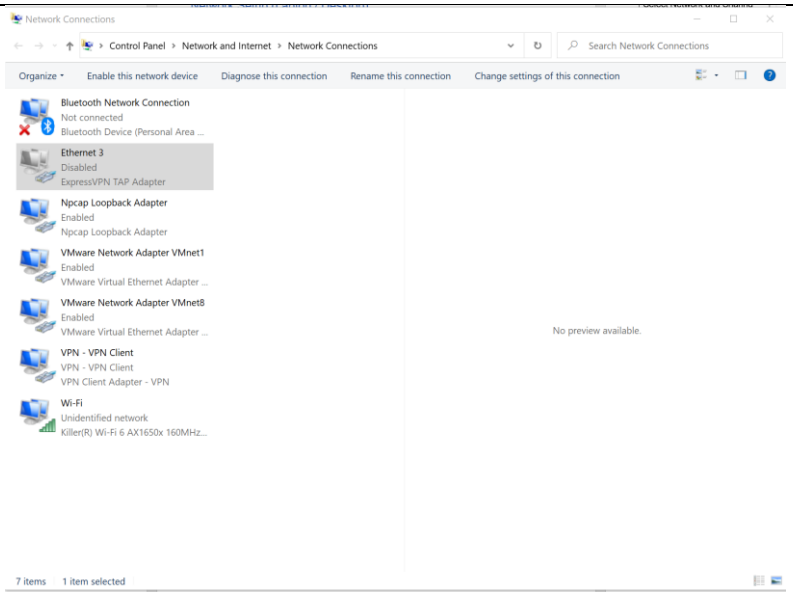
- IP Address: 192.168.1.101
- Subnet Mast: 255.255.255.0
- Default Gateway: 192.168.1.1

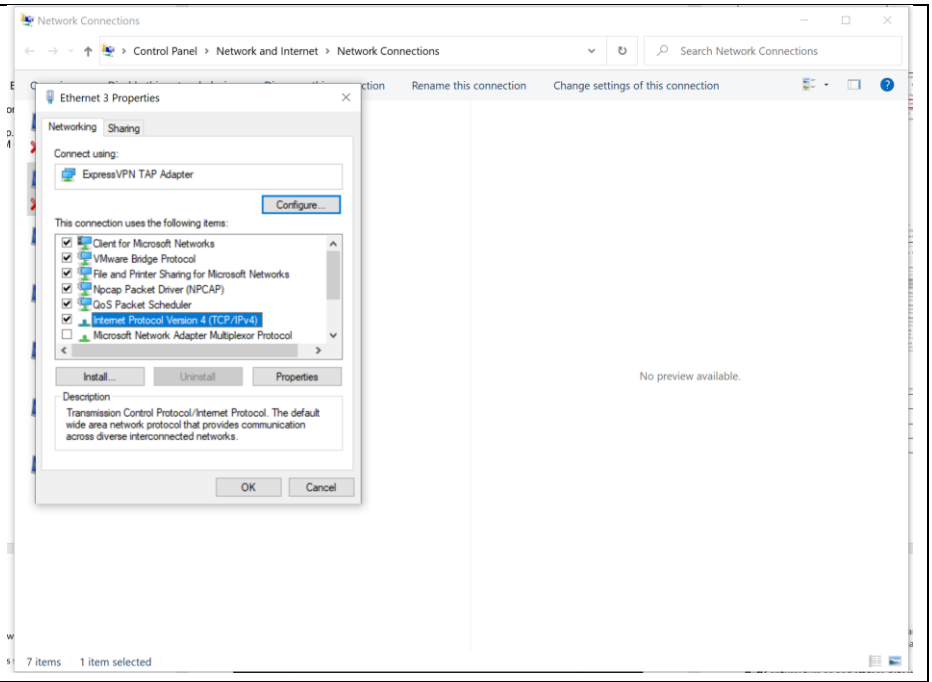
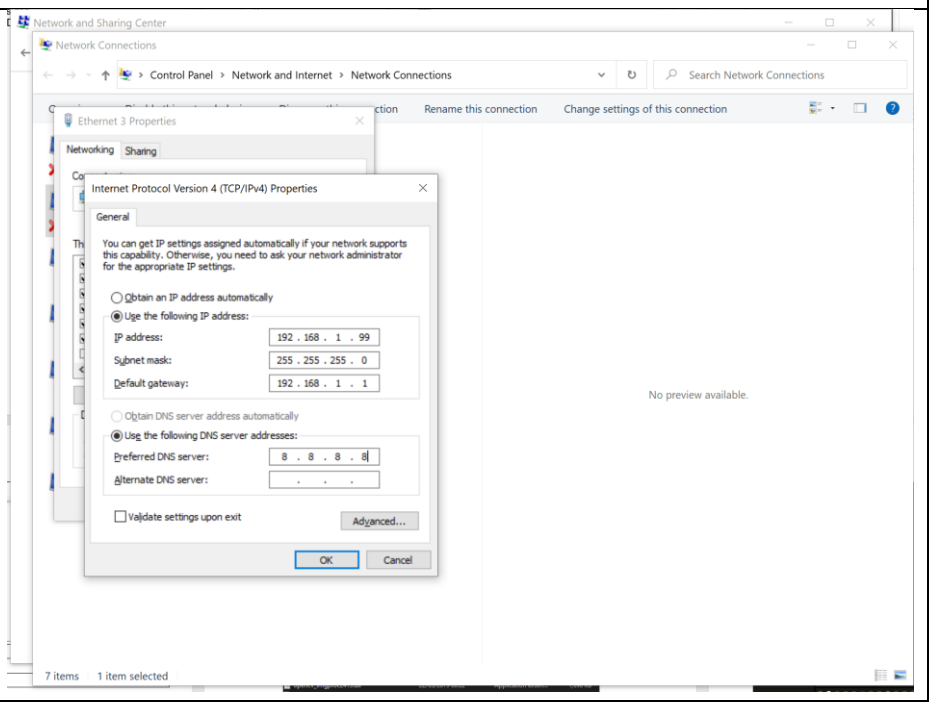
Daylight:

- IP Address: 192.168.1.100
- Subnet Mast: 255.255.255.0
- Default Gateway: 192.168.1.1

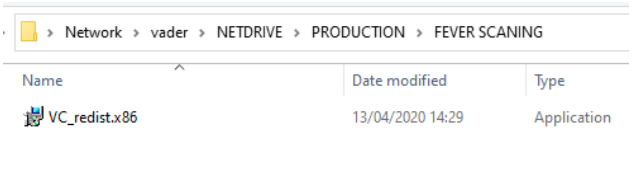
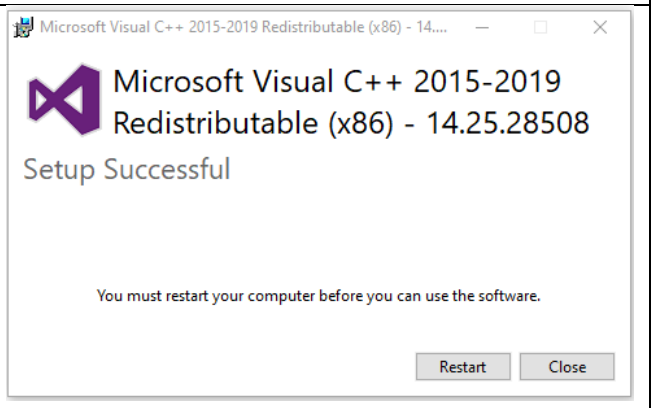
Setting Laptop IP Address;

Select the Start Button and Type ‘Control Panel’.	

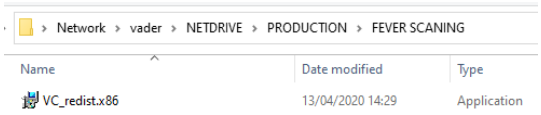
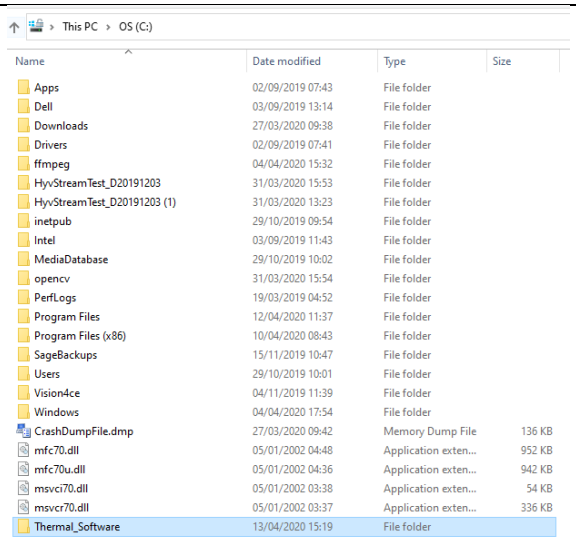
Select Network and Sharing Center.	
Select Adapter Options.	
Double Click on the relevant network adapter.	

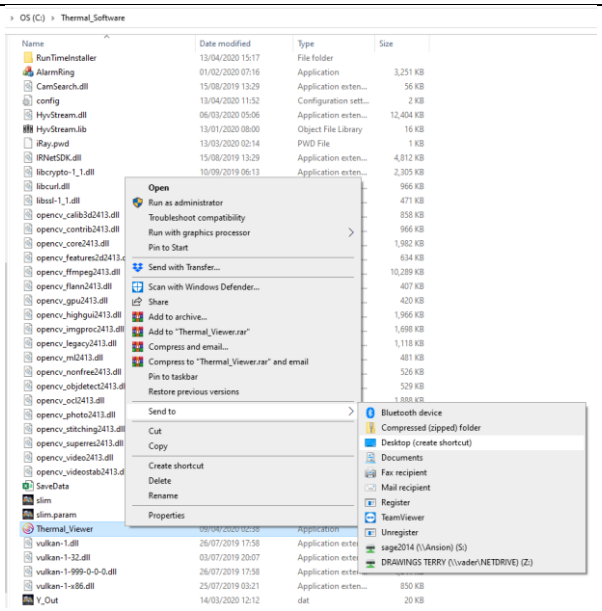
Double Click on ‘Internet Protocol Version 4 (TCP/IPv4).	
Select the radio button named ‘Us the following IP address’. Enter the information shown in the image to the right. Select ‘Okay’ and the ‘Okay’ on the sub menu.	

Install C++ Package

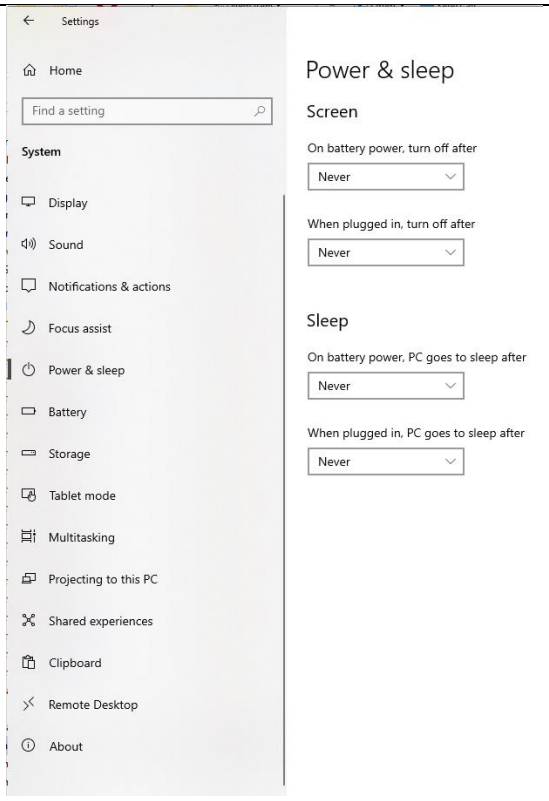
Step	Description	Image
1.	Locate the VC_redist.x86 package on the provided USB drive, OR Download from the support website: https://silentsentinelhelp.helpdocs.com/fixed-modum/modum-software	
2.	Run the installer and follow the installation process through to completion.	

Install Thermal Viewer Software

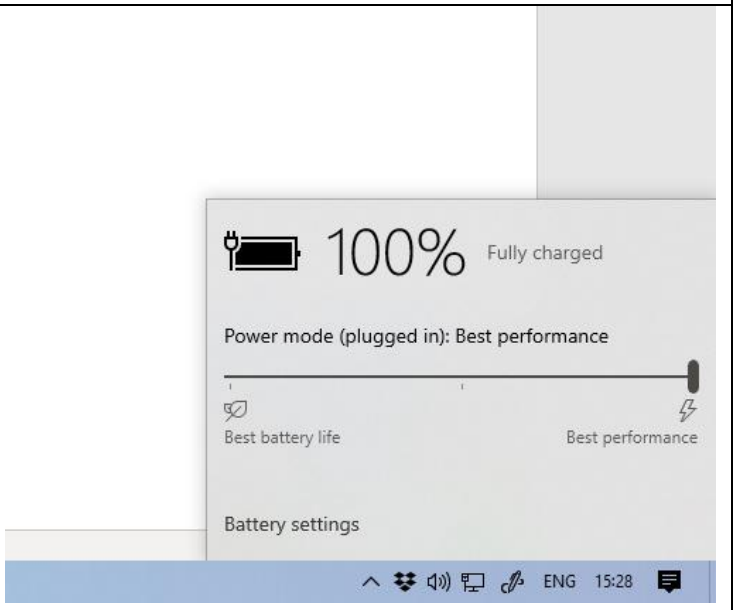
Step	Description	Image
1.	Locate the Thermal_Software folder on the provided USB drive, OR Download from the support website: https://silentsentinelhelp.helpdocs.com/fixed-modum/modum-software	
2.	Copy the folder and paste to the C:\\ on the Laptop	

3.	Navigate to C:\\Thermal_Software on the laptop Right click on the file 'Thermal_Viewer.exe' and hover over 'Send to' then 'Desktop (create shortcut)'	

Disable Screen Saver / Sleep Modes

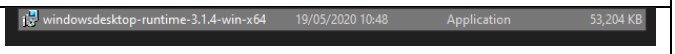
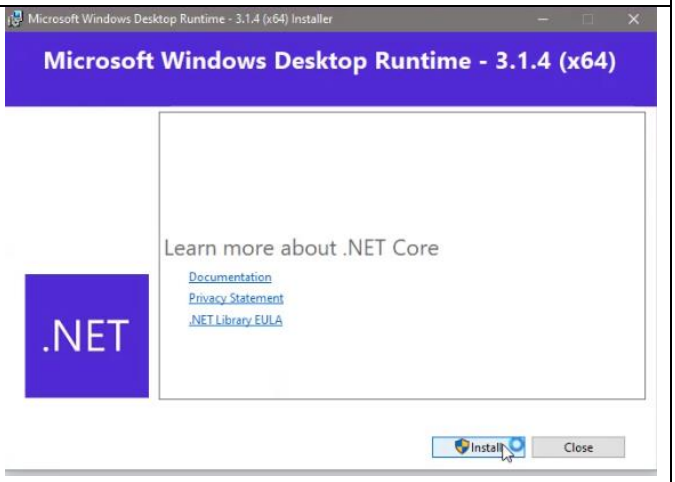
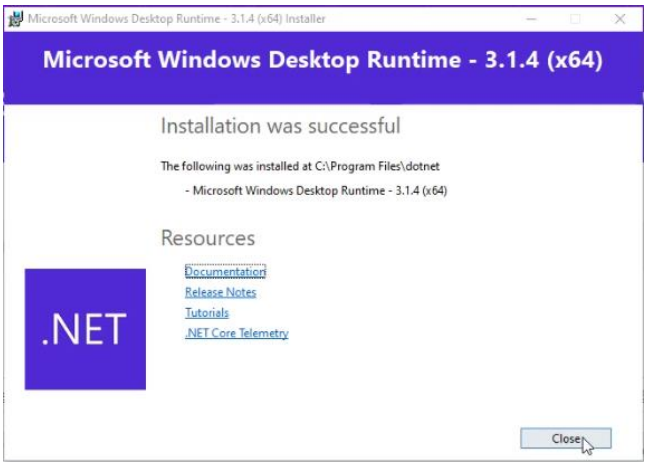
Step	Description	Image
1.	Navigate to Start Bar, Settings, System, Power & Sleep. Set all options to 'Never'.	

Set Laptop to ‘Best Performance’

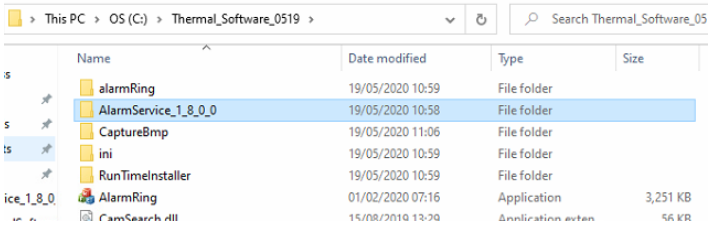
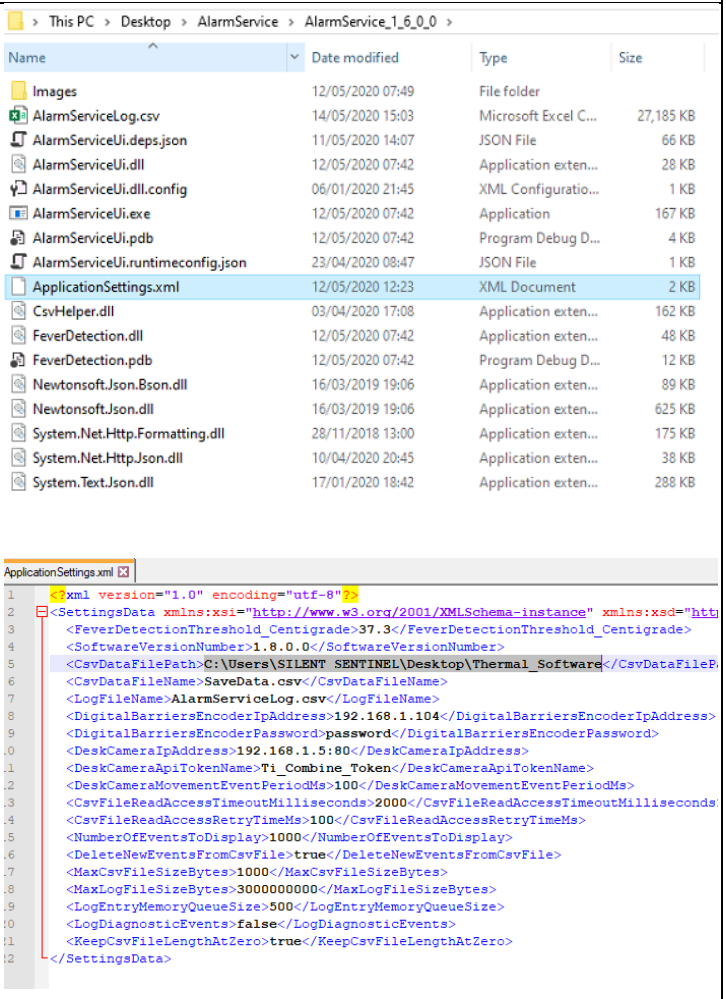
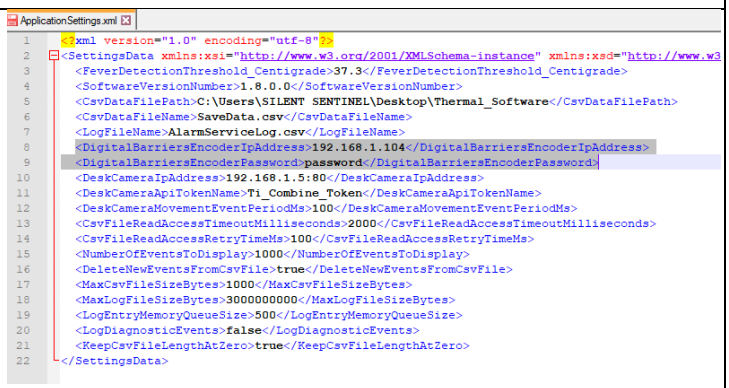
Step	Description	Image
1.	Navigate to the System Tray and Click on the Battery Icon. Set the slider to ‘Best Performance’	

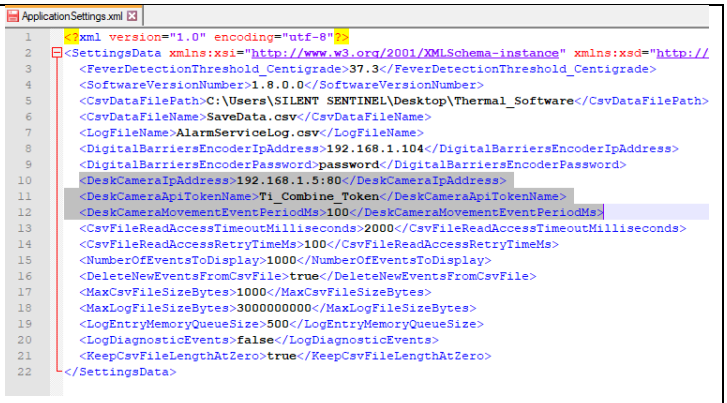
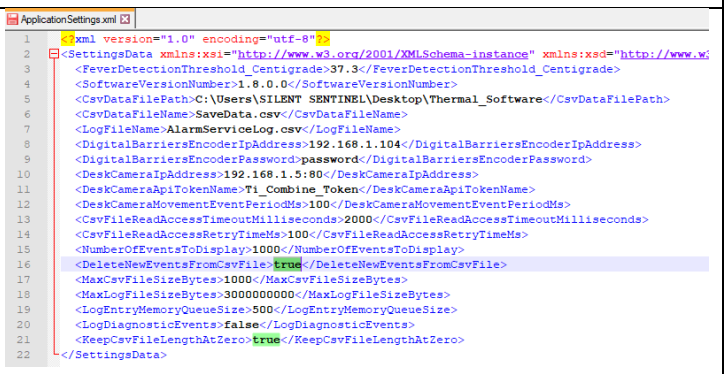
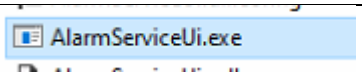
Configuring Alarm Service software

Install Desktop Runtime package

Step	Description	Image
1.	Locate the windowsdesktop-runtime-3.1.4-win-x64 package on the provided USB drive, OR Download from the support website: https://silentsentinelhelp.helpdocs.com/fixed-modum/modum-software	
2.	Run the installer and follow the installation process through to completion.	 

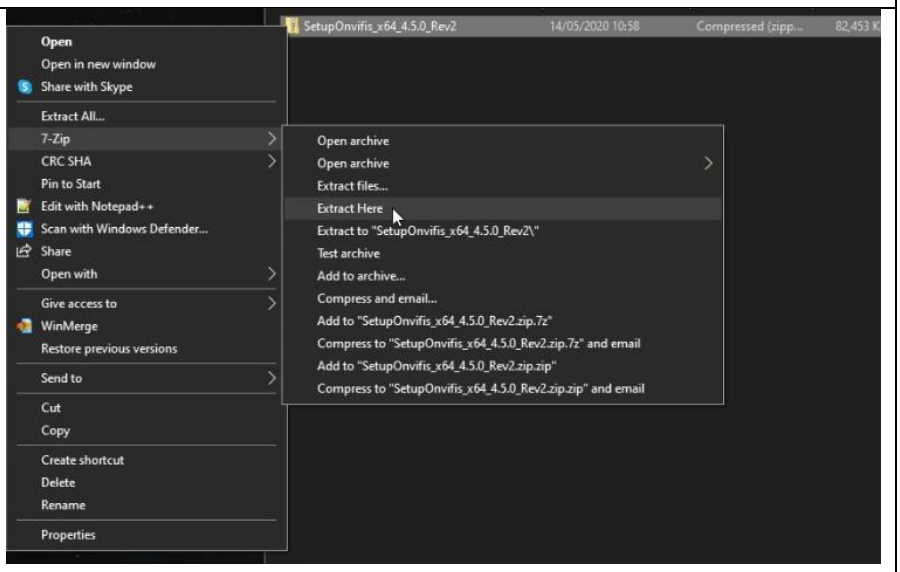
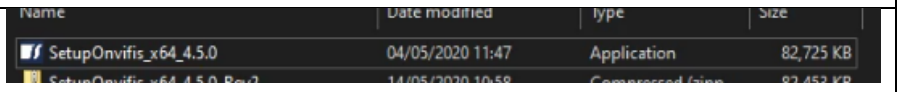
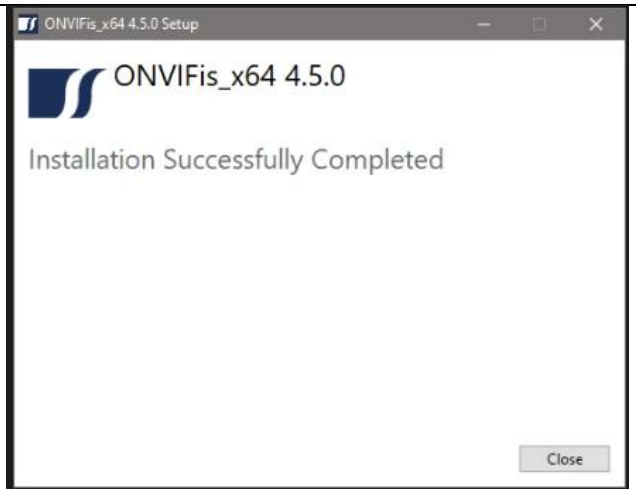
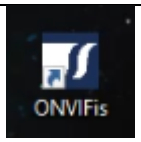
Install & configure AlarmService packet

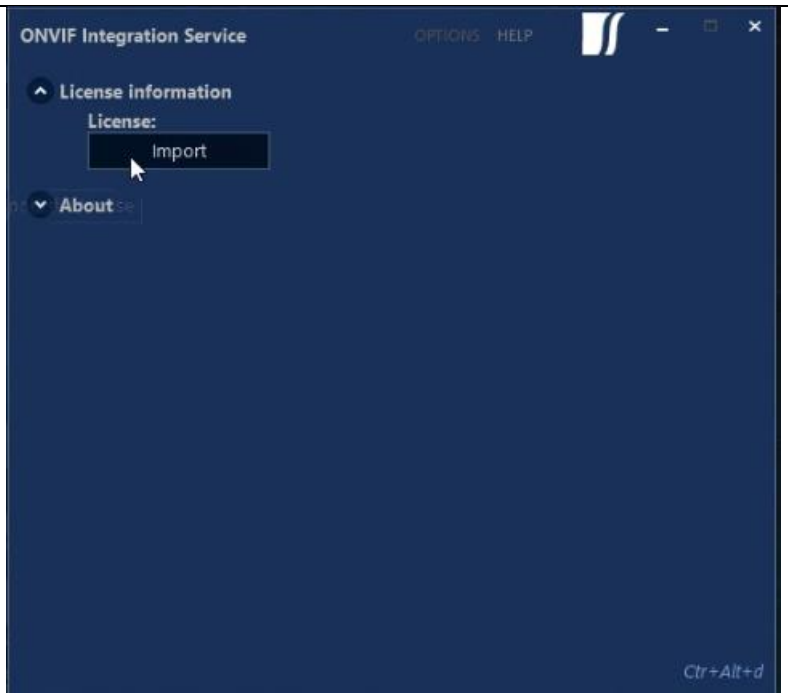
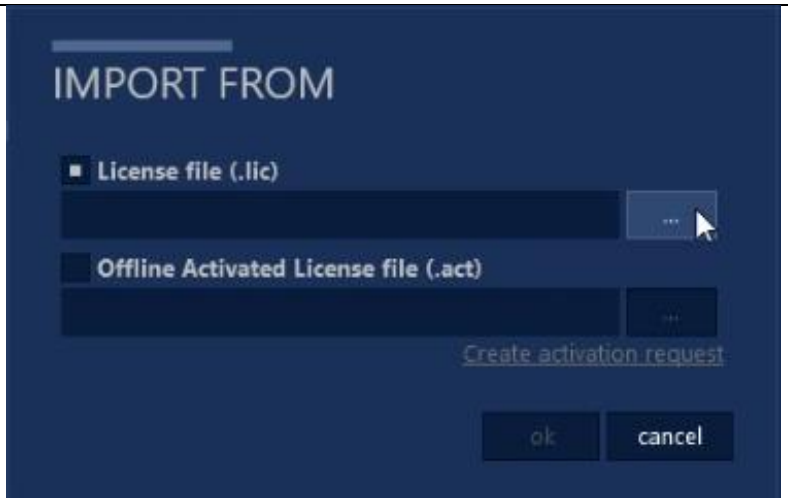
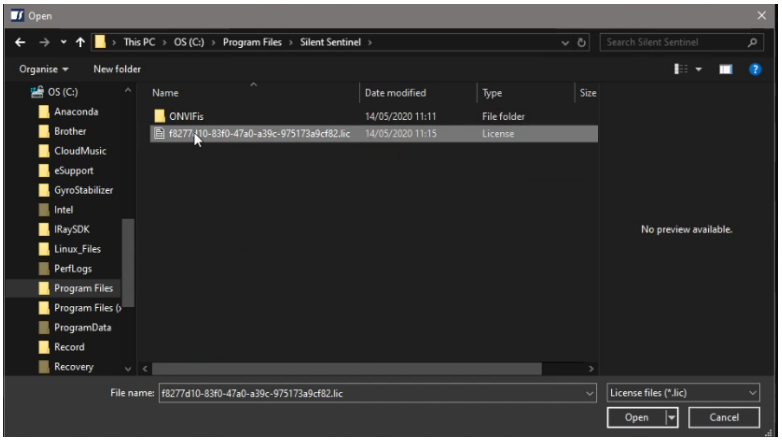
Step	Description	Image
1.	Locate AlarmService folder in the Thermal Software folder and open it.	
2.	**<u>Configure path for thermal raw data</u>** Open the AlarmService folder and open the file ApplicationSetting.xml with NotePad++ or NotePad. Change the *CsvDataFilePath* to the Thermal_Software path.	
3.	**<u>Configure setting for DB encoder</u>** Stay in ApplicationSetting.xml. Set *DigitalBarriersEncoderIpAddress* to 192.168.1.103. Set *DigitalBarriersEncoderPassword* to password Save the file.	

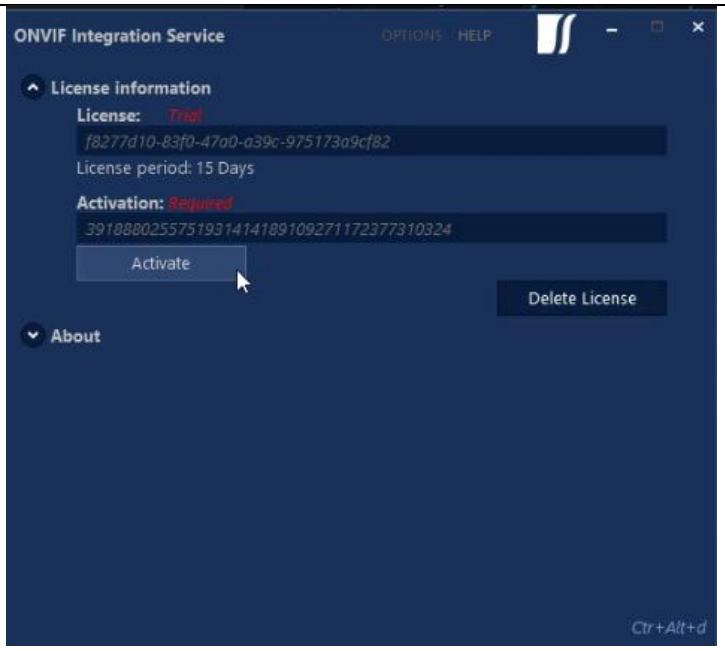
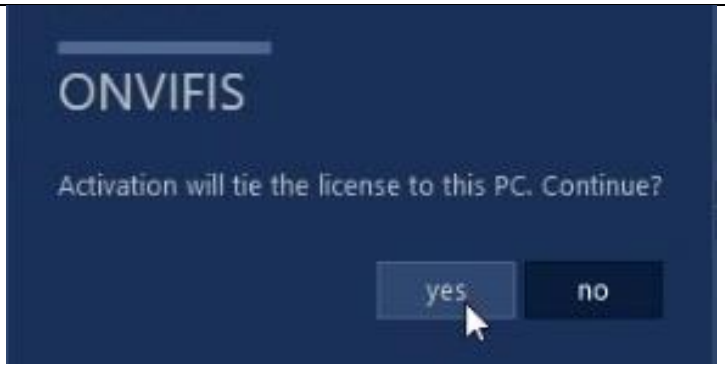
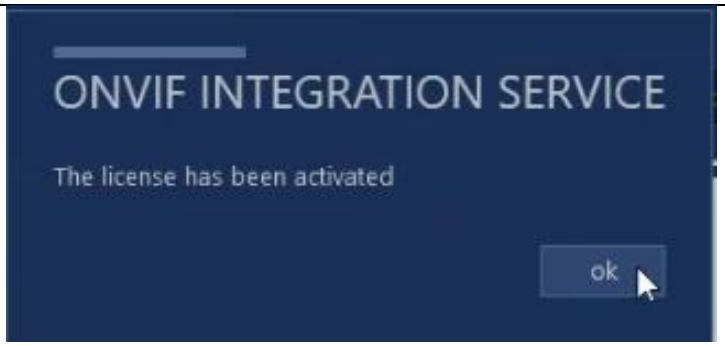
4.	**<u>Configure setting for DeskCamera</u>** In ApplicationSetting.xml, set *DeskCameraIpAddress* to the PC's IP address (in the image, it is 192.168.1.5), with port 80. Set *ApiTokenName* to Ti_Combine_Token. Set *DeskCameraMovementEventPeriodMs* to 100. Save the file.	
5.	**<u>Configure setting for CSV size management</u>** Set *DeleteNewEventsFromCsvFile* to true. Keep the rest parameters the same as picture. Save the file.	
6.	Double click AlarmServiceUi.exe to start running at the background.	

Configuring Desk Camera

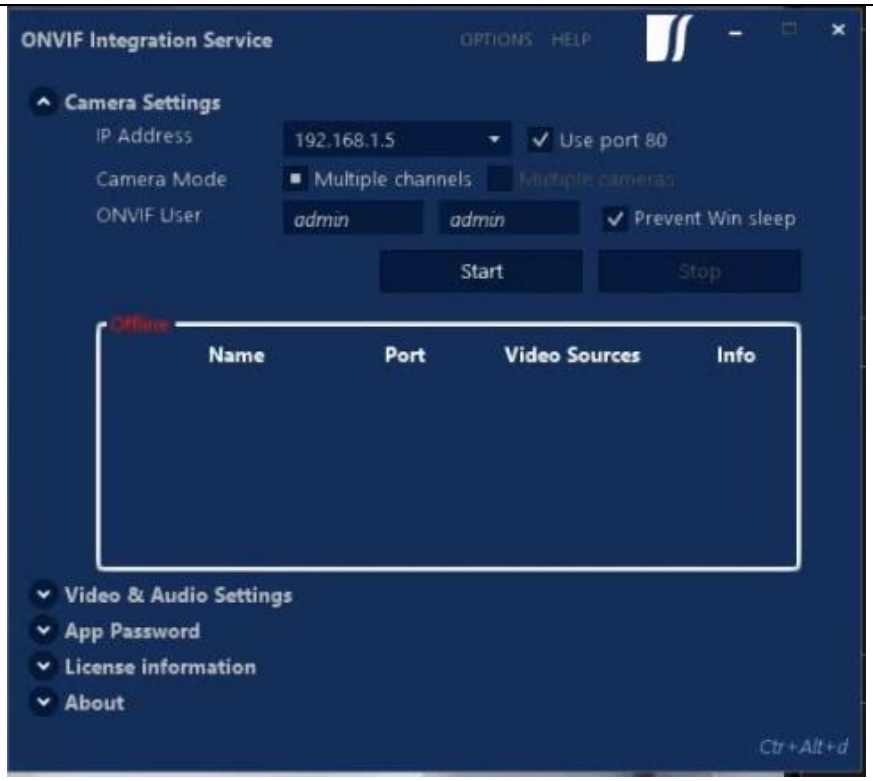
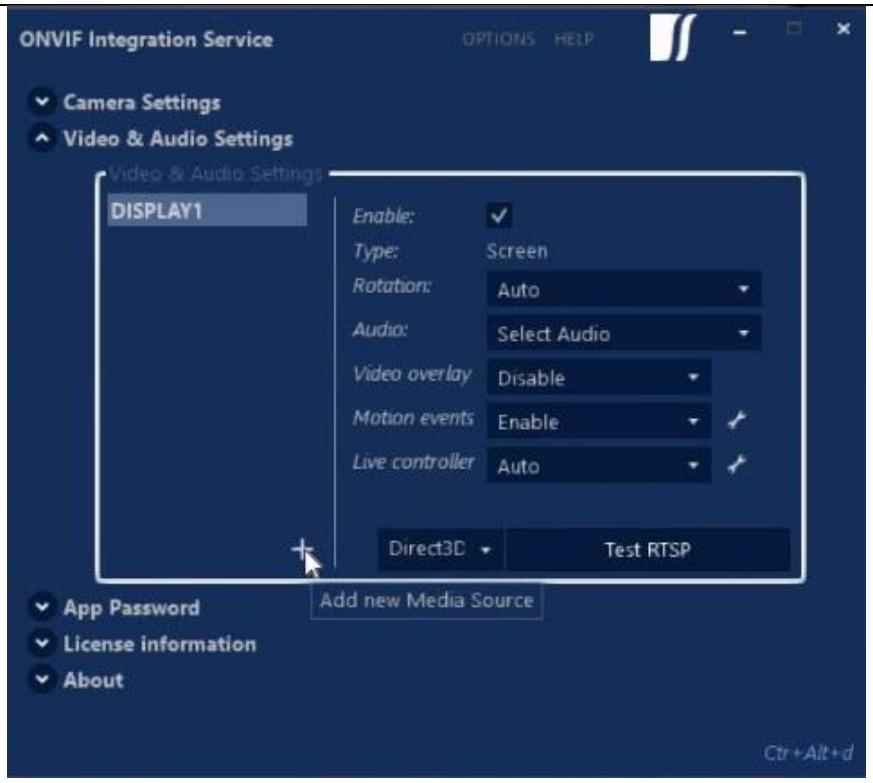
Install Desk Camera Software

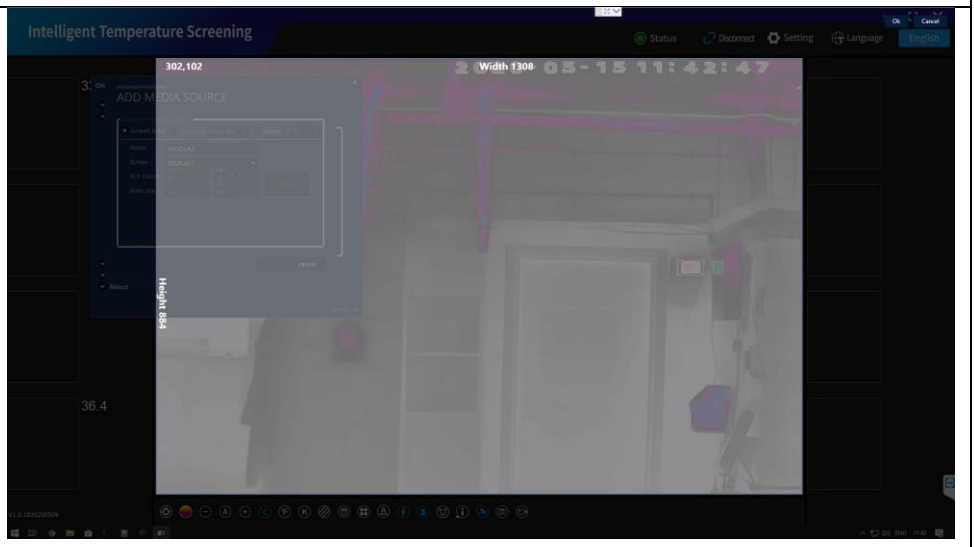
Step	Description	Image
1.	Locate the Onvifis installer from the provided USB disk or download from Silent Sentinel help site. Extract to to desired directory (e.g. C://). For Silent Sentinel supplied laptop, extract to C://	
2.	Locate the SetupOnvifis application in the extraction path.	
3.	Run the installer and follow the installation process through to completion.	
4.	Open the shortcut created on desktop.	

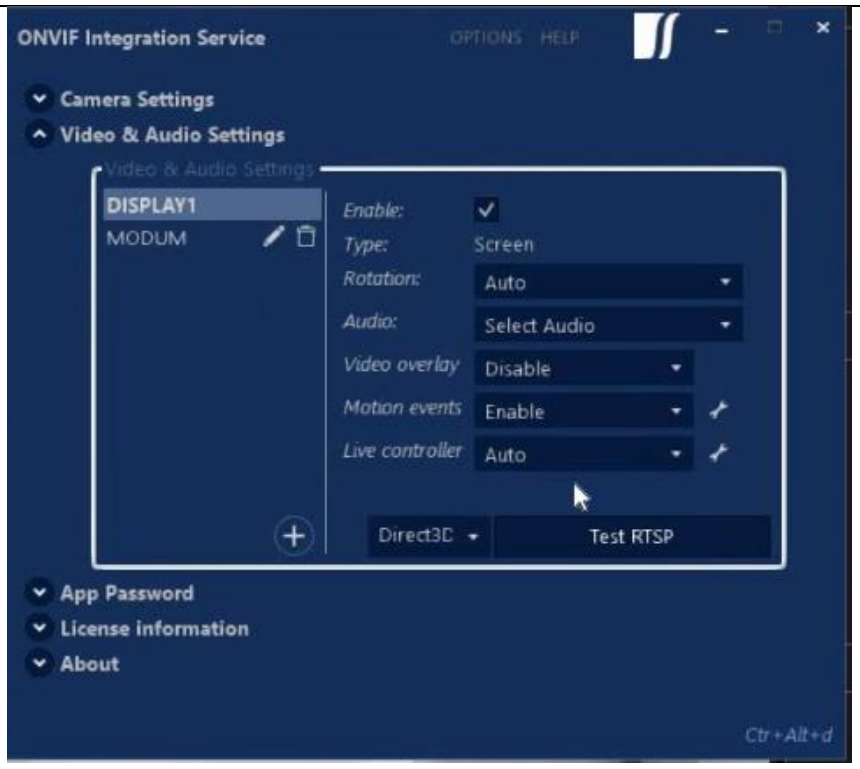
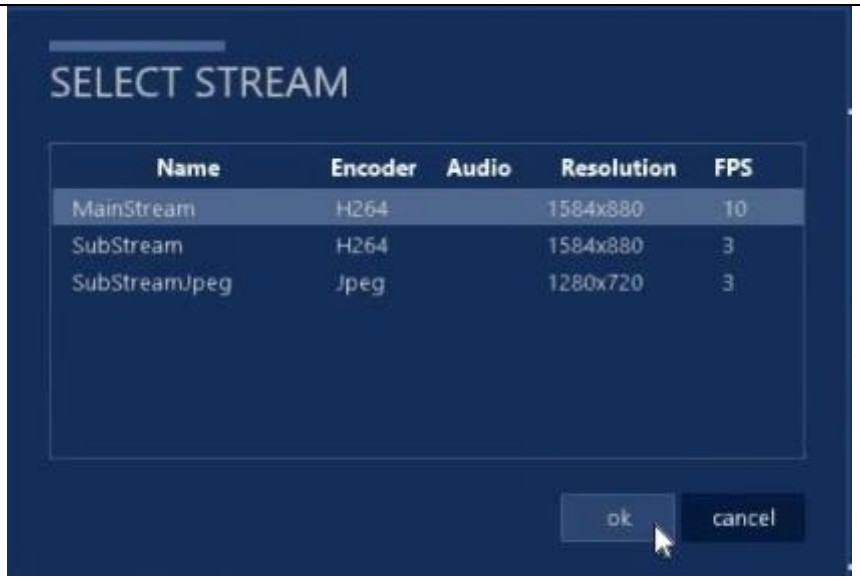
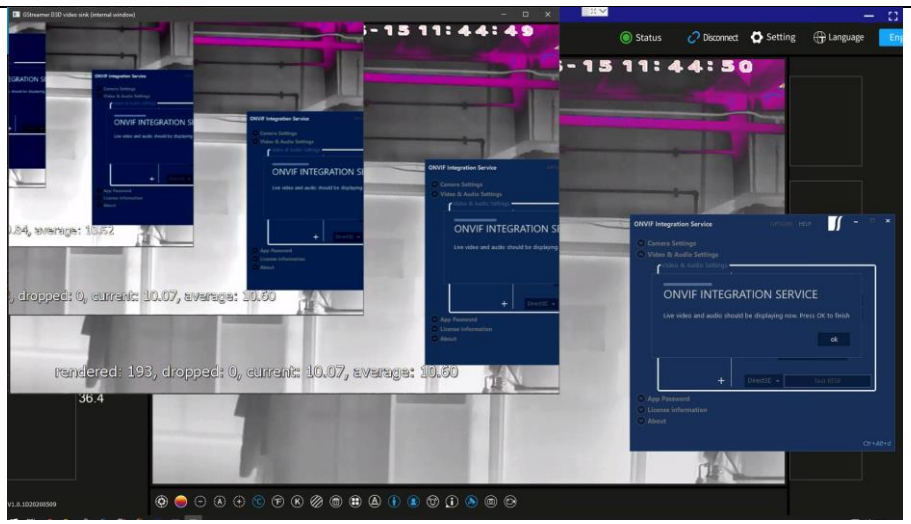
5.	Click Import button to import license file for DeskCamera.	
6.	Select and import the license file (.lic). Noted that each license is tied to the hardware on which it is activated. It cannot be transferred to any other PC. Note: if a laptop has been purchased the license will have been preactivated against that laptop. If a laptop was not purchased, the license will be saved on the provided USB stick.	 

7.	Activate the license.	
8.	Click yes.	
9.	Finish the activation.	

Add Thermal Video to RTSP Stream

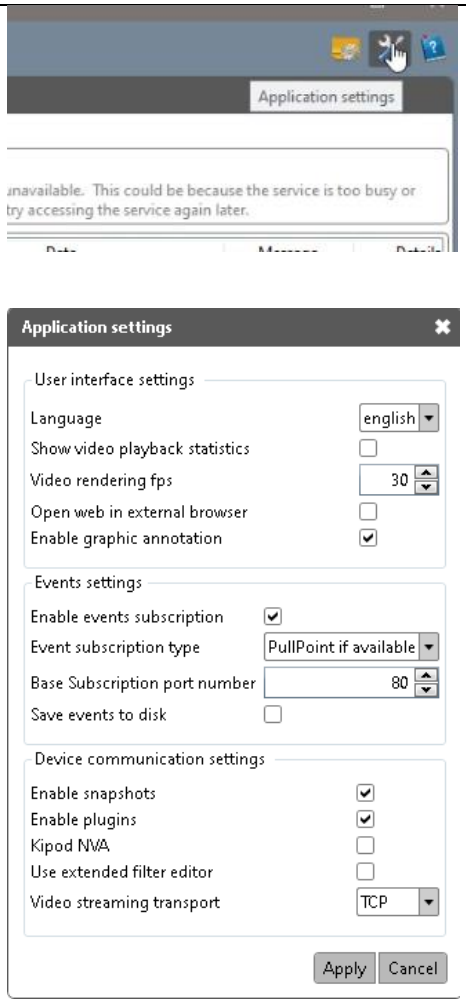
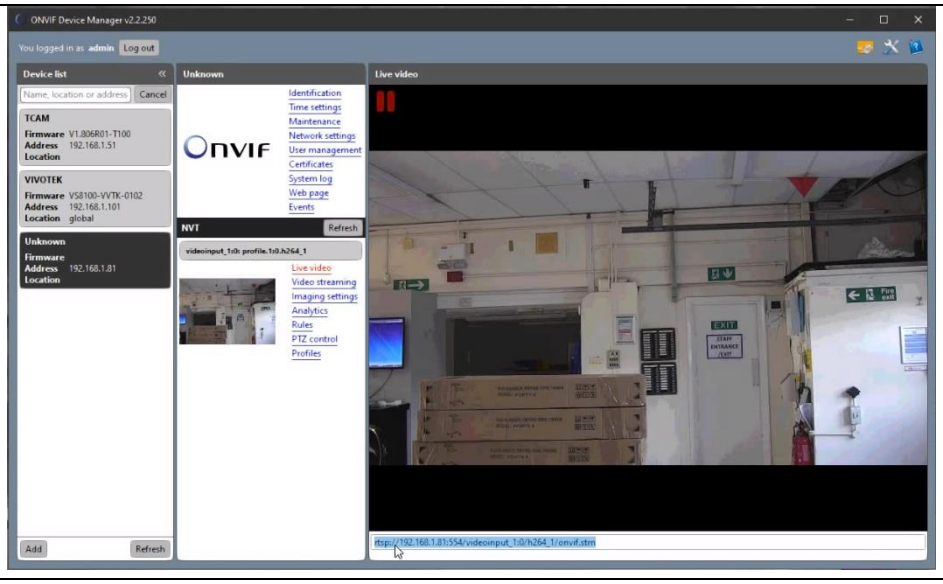
Step	Description	Image
1.	Open up Onvif Integration Service (i.e. DeskCamera). Make sure the IP Address is the same as the PC's IP Address. Tick the box "Use port 80".	
2.	Go to Video & Audio Settings. Click Add new Media Source.	

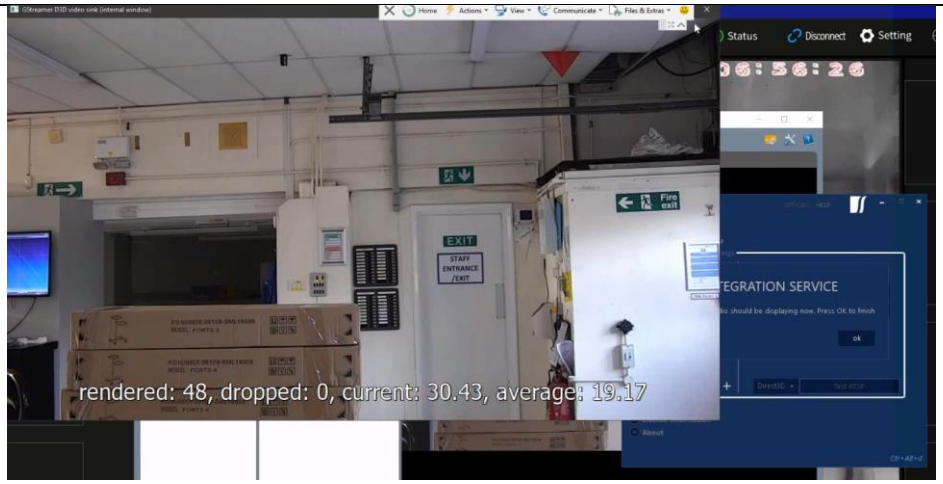
3.	Tick Screen Area and change Name to MODUM. Have Thermal software opened and running. Then click Setup to sketch the streaming area of the thermal software.	
4.	Adjust the highlight area to cover the thermal video display. Press keyboard Enter to save the area data. Click OK to finish the Add Source process.	

5.	Click Test RTSP on the main window.	
6.	Select MainStream and press ok.	
7.	A popup window of the streaming video of the enclosed area in step 4 should be displayed. Once verified, press ok to finish.	

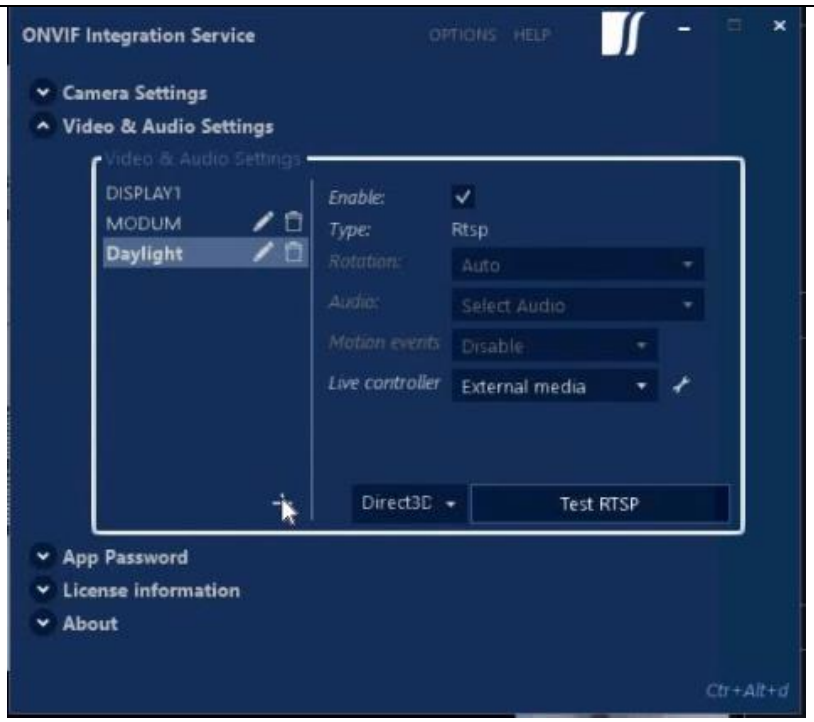
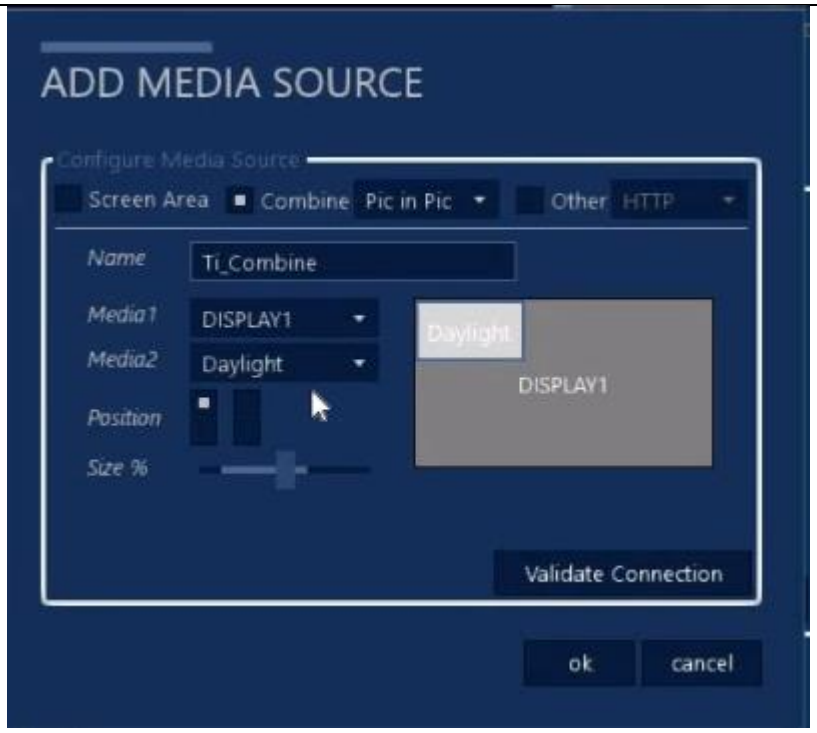
Add Daylight Video to RTSP Stream

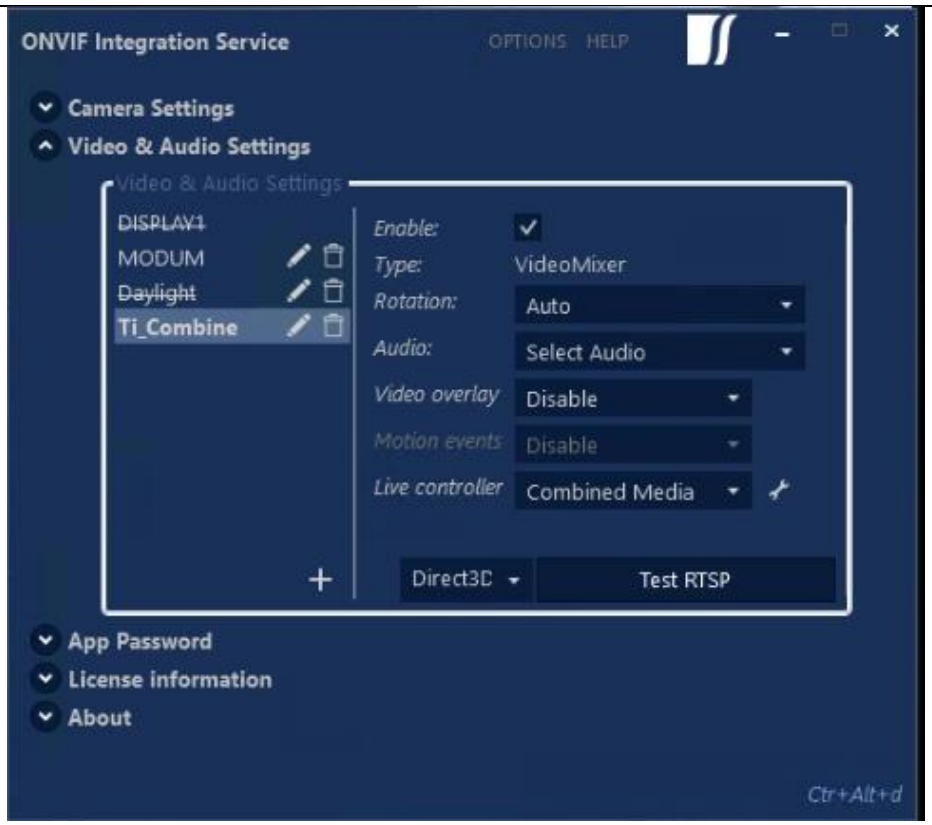
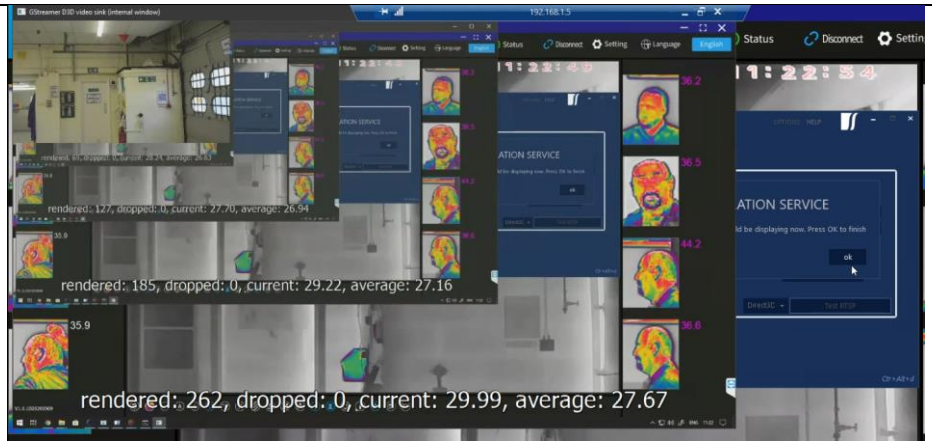
Step	Description	Image
1.	Go to Video & Audio Settings. Click Add new Media Source.	
2.	Tick Other and select RTSP in the drop-down box. Change Name to Daylight.	

3.	Open ONVIF Device Manager. Click the tool icon at the top right corner to open *Application settings*. Set *Video streaming transport* as **TCP**.	
4.	Open the daylight camera live video. Copy the RTSP link at the bottom of the display.	

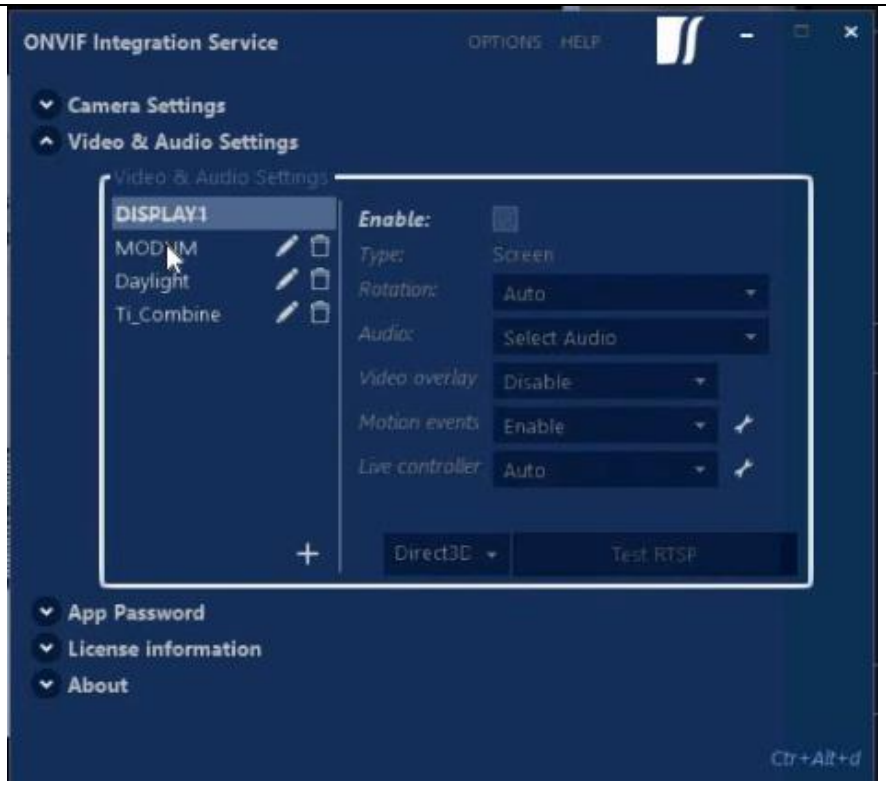
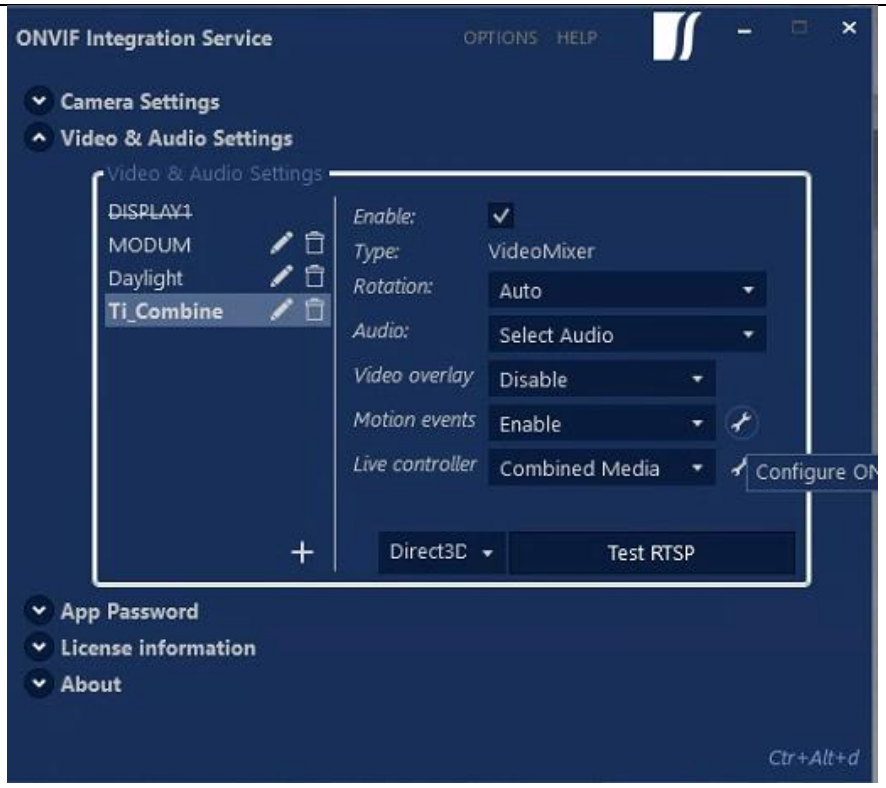
5.	Paste the link in Source URL. User/Pass: admin / admin Resolution 1920*1080 Click Validate Connection and press ok to finish,	
6.	Click Test RTSP.	
7.	Check if the pop window displays the daylight video. Once verified, press ok to finish.	

Add Thermal & Daylight Video to RTSP Stream as Pic-in-Pic

Step	Description	Image
1.	Go to Video & Audio Settings. Click Add new Media Source.	
2.	Tick Combine and select Pic in Pic in the drop-down box. Change Name to Ti_Combine. Media1: DISPLAY1 Media2: Daylight Press ok to finish the process.	

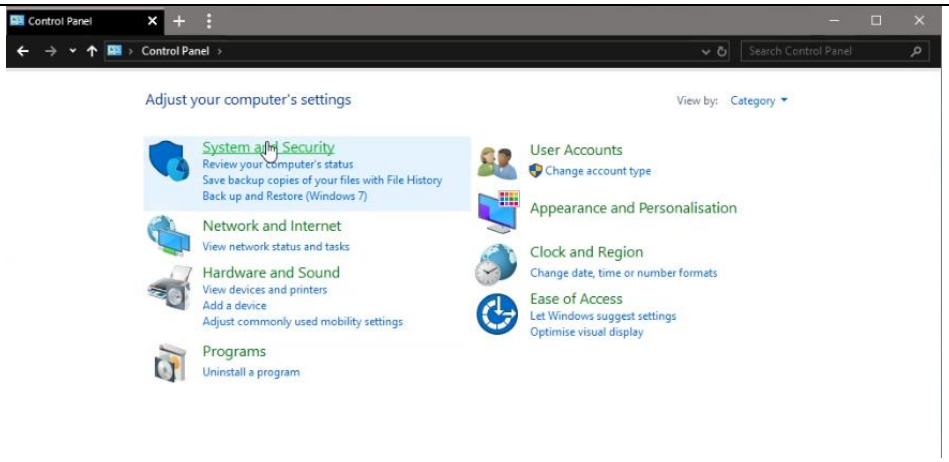
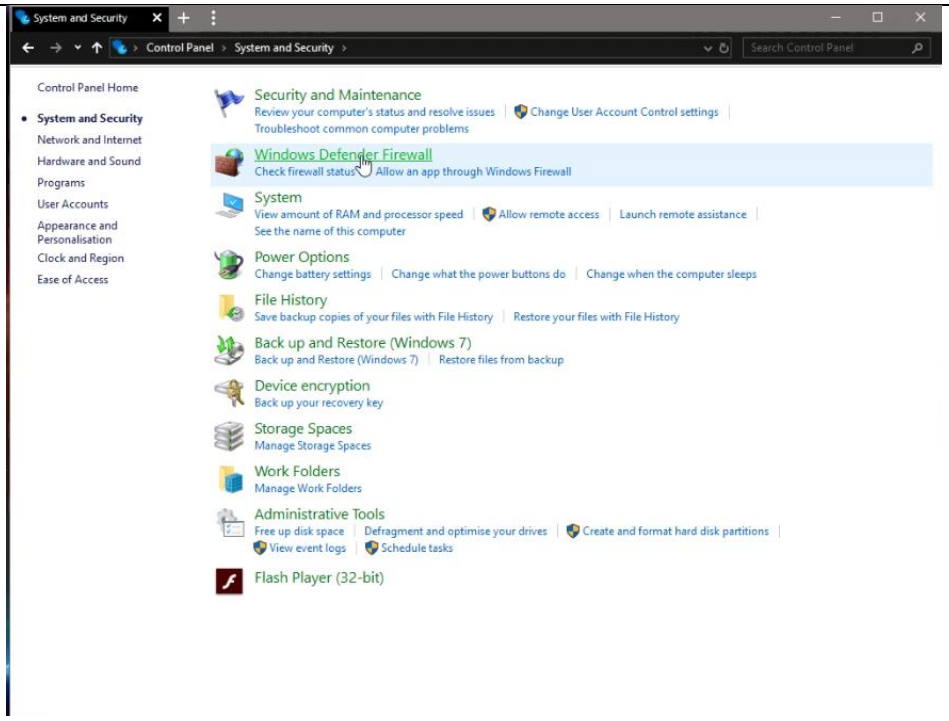
3.	Click Test RTSP.	
4.	Check if the pop window displays the daylight and thermal combined video. Once verified, press ok to finish.	

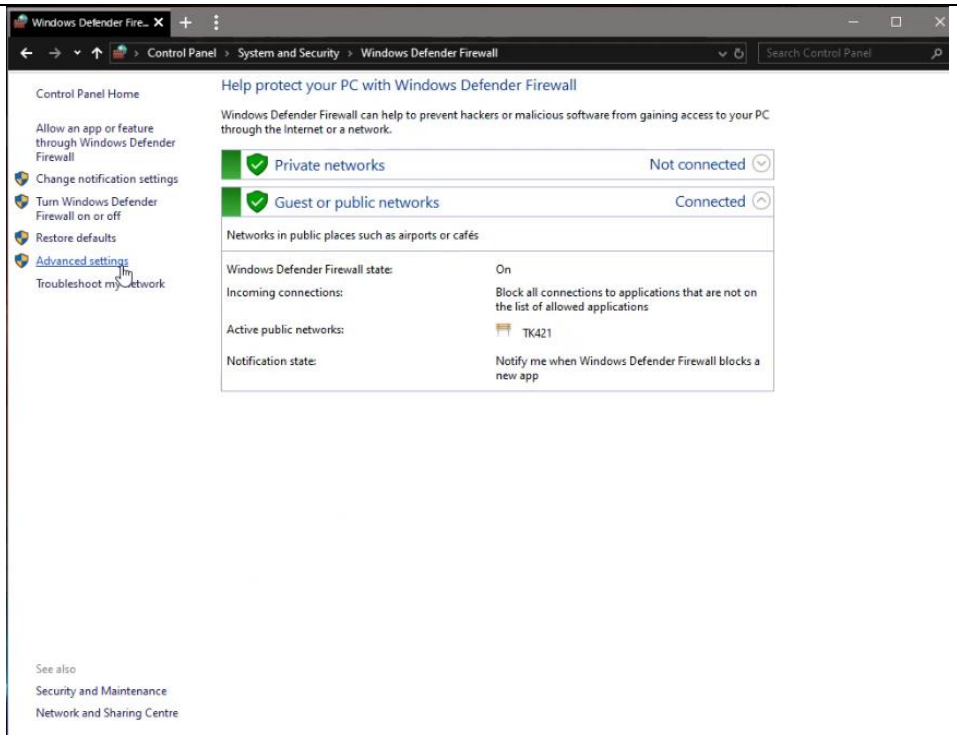
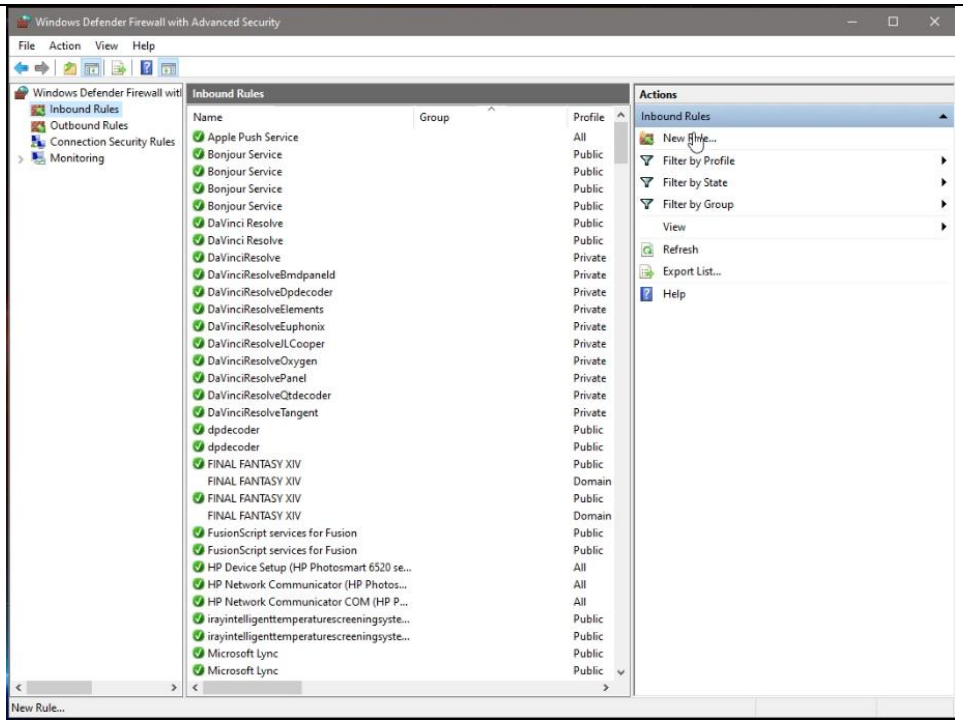
Set Up Motion Alert on Desk Camera

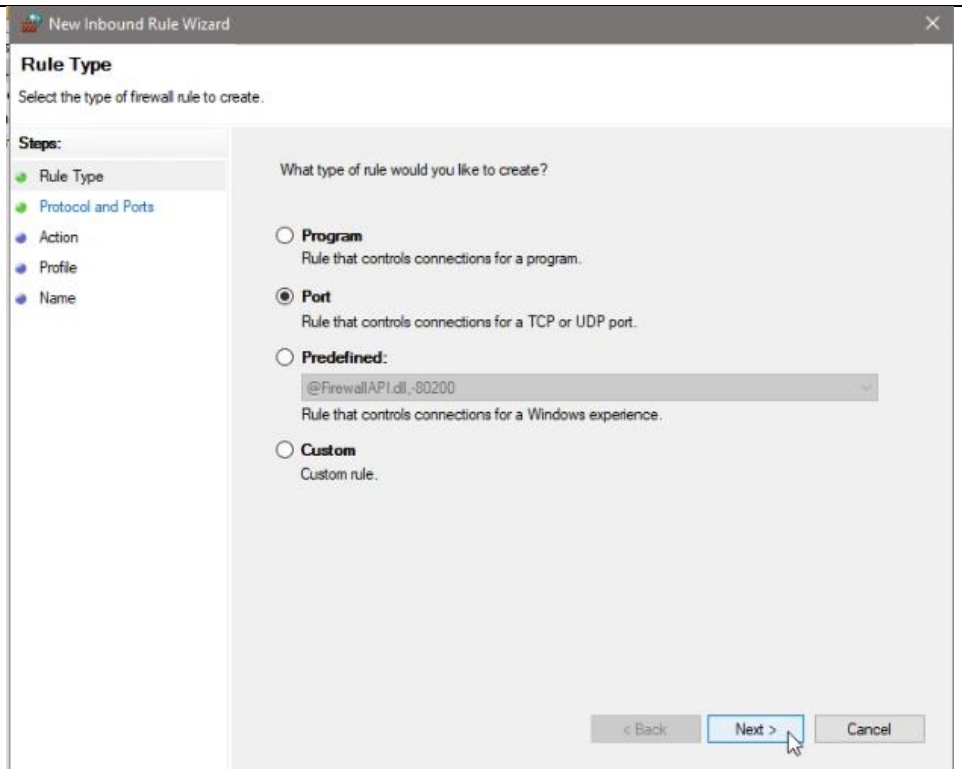
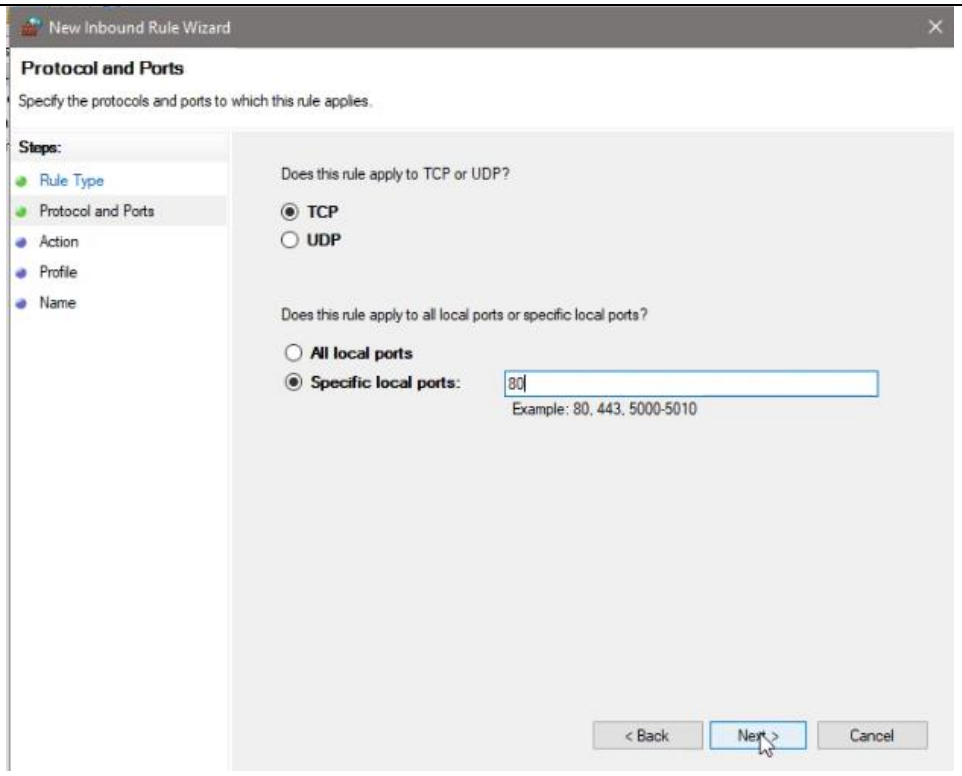
Step	Description	Image
1.	Go back to the main window of Desk Camera and open Video & Audio settings tab. Select DISPLAY1 and untick Enable.	
2.	Select Ti_Combine. Change Motion events to Enable. Open Motion Event configuration window (click the tool bar next to the drop-box).	

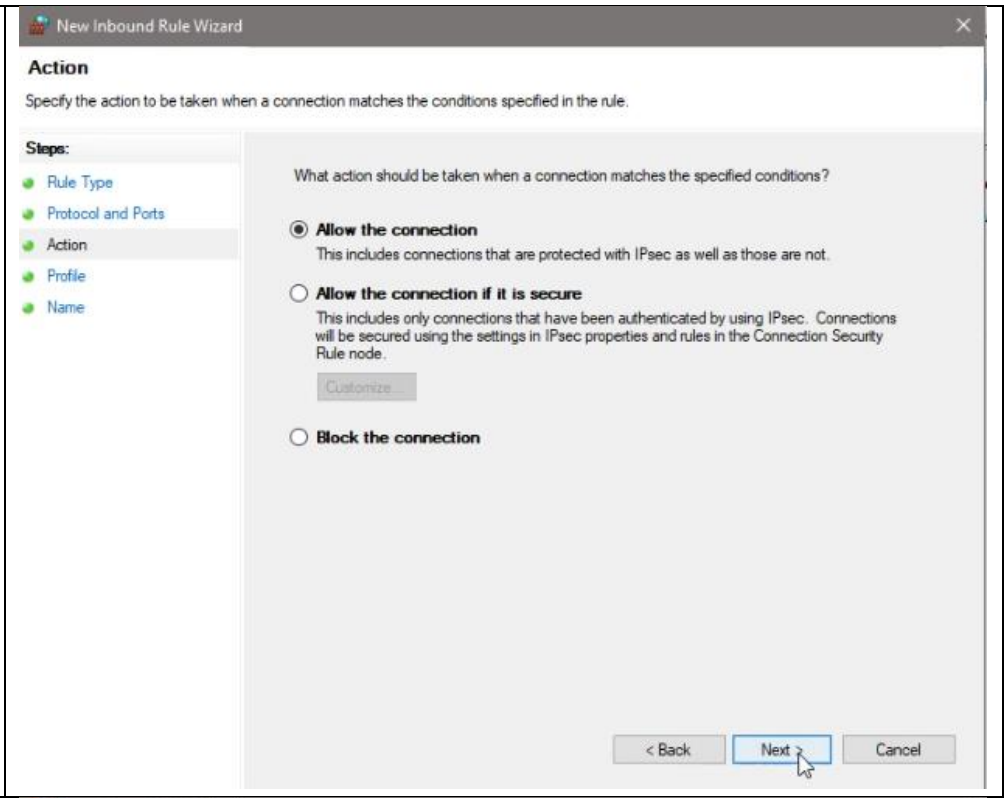
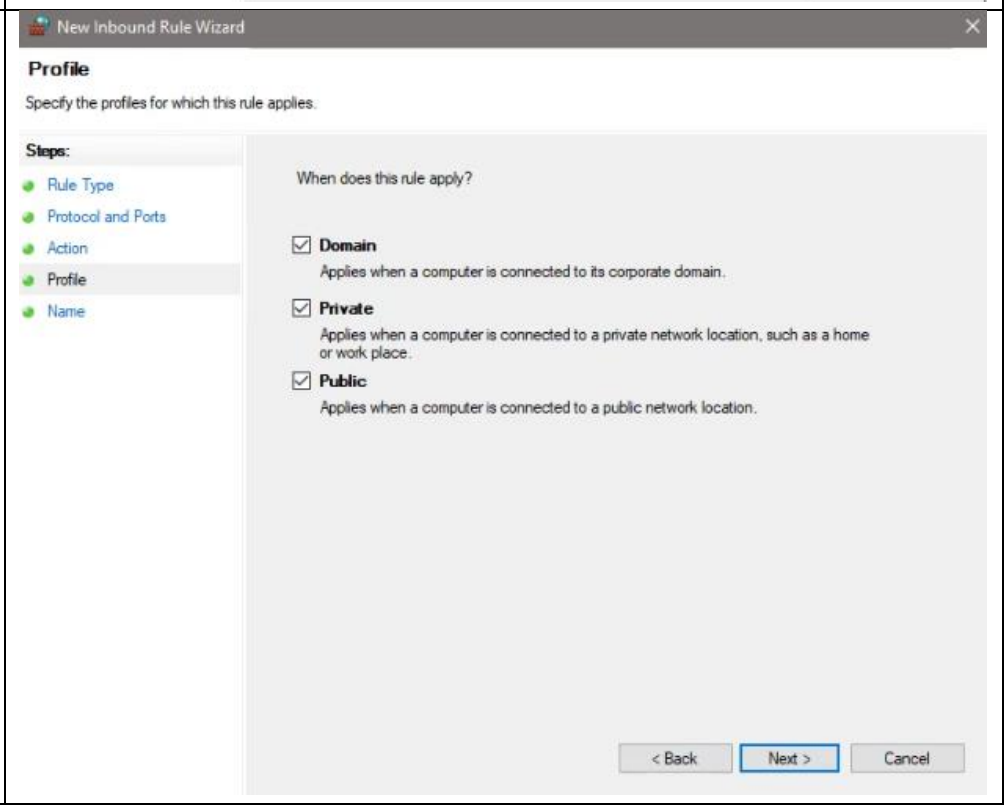
3.	Set the event as following: Keyboard: Disable Mouse click: Disable Mouse move: Disable API call: Enable Press Close to finish.	

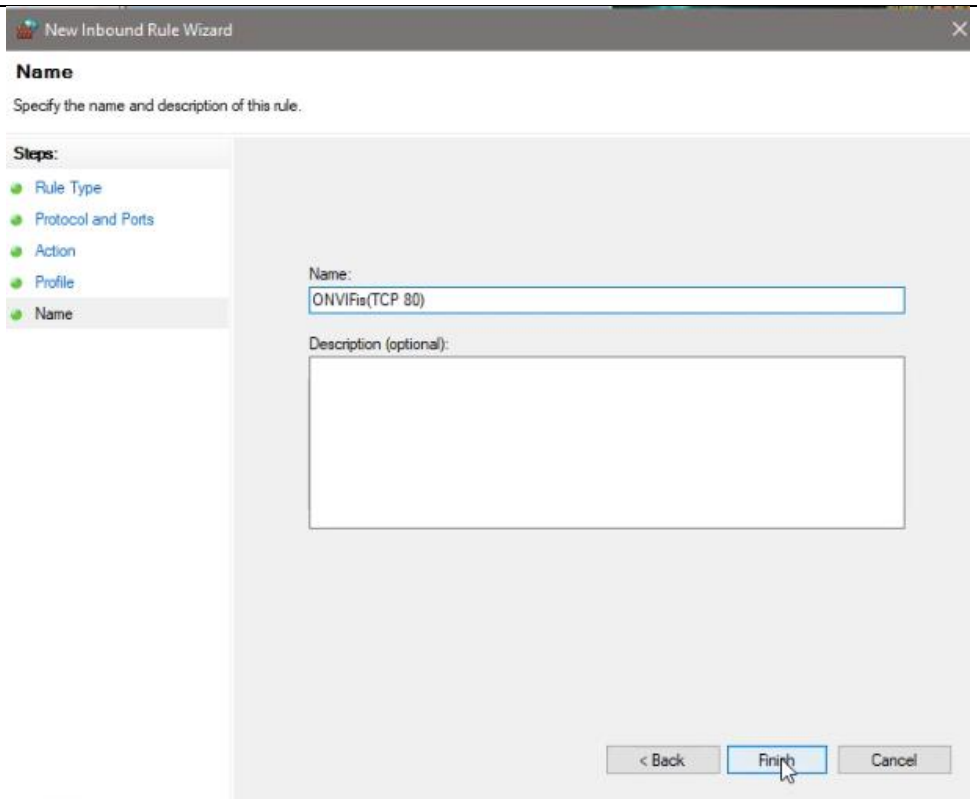
Open TCP port 80 in Windows Firewall

Step	Description	Image
1.	Open **Control Panel** and select **System and Security.**	
2.	Select **Windows Defender Firewall.**	

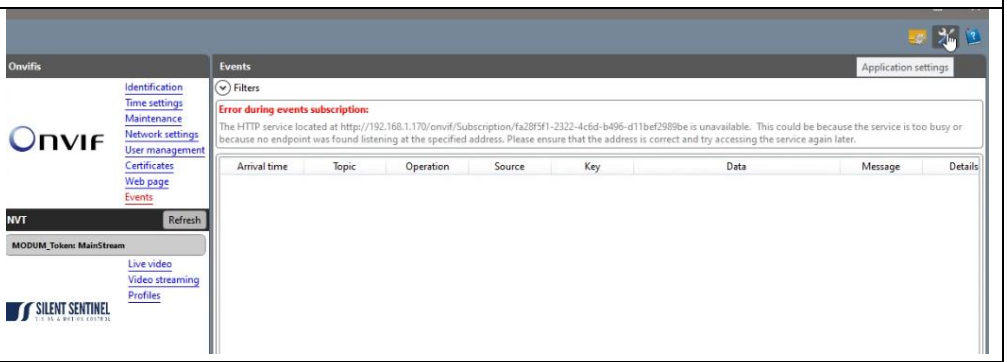
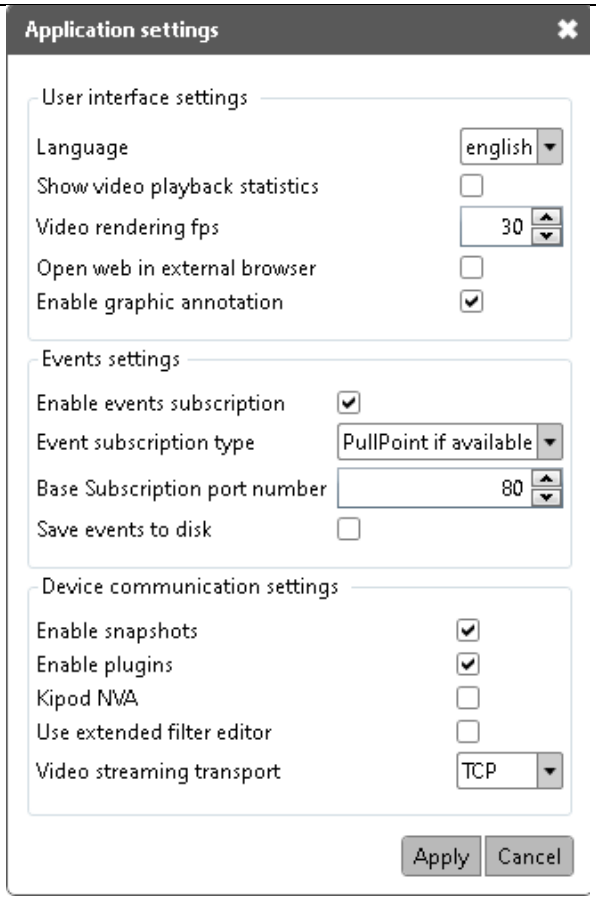
3.	Select **Advanced Settings** in the left column.	
4.	In the popup window, select **Inbound Rules** and click **New Rule**.	

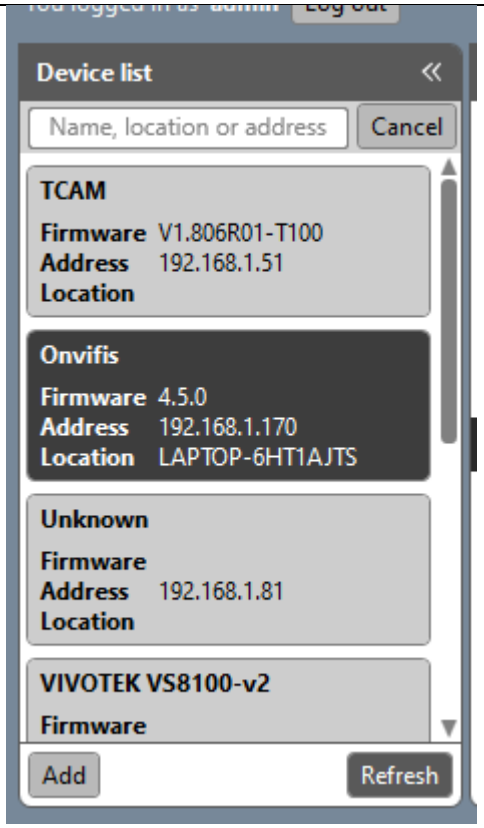
5.	Select **Port** and click **Next**.	
6.	Select **TCP.** Type **80** in **Specific local ports**. Click **Next.**	

7.	Select **Allow the connection** and then click **Next.**	
8.	Select when this rule applies (check all of them for the port to always stay open) and then click **Next**.	

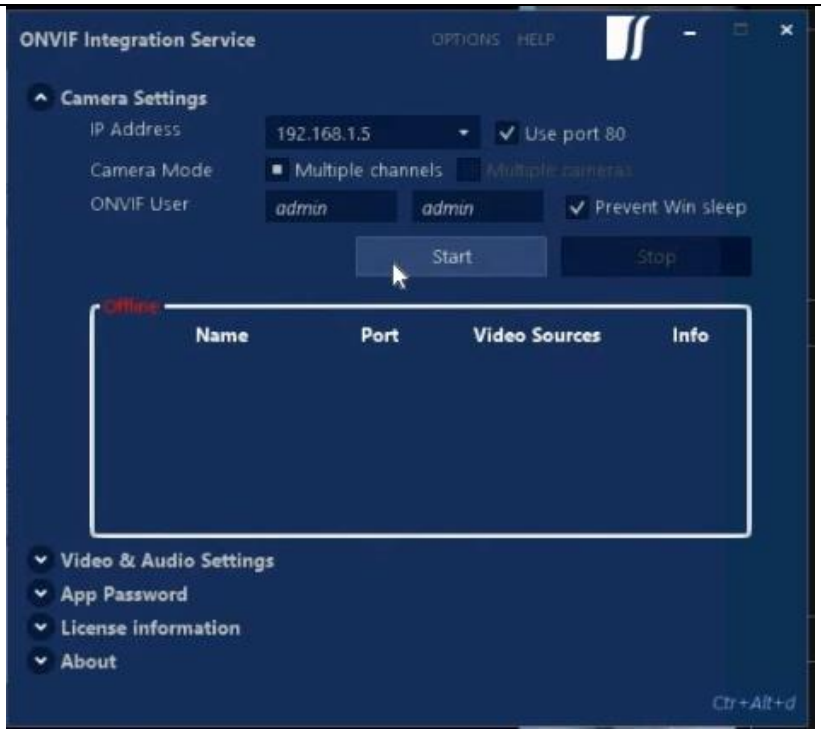
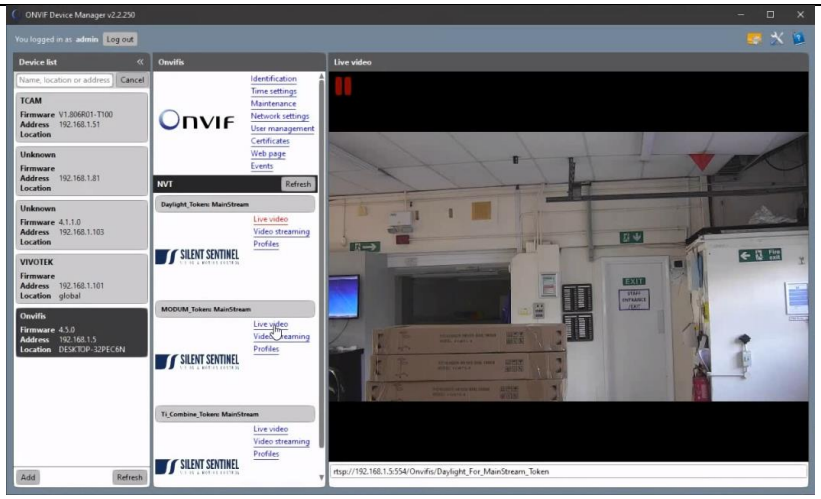
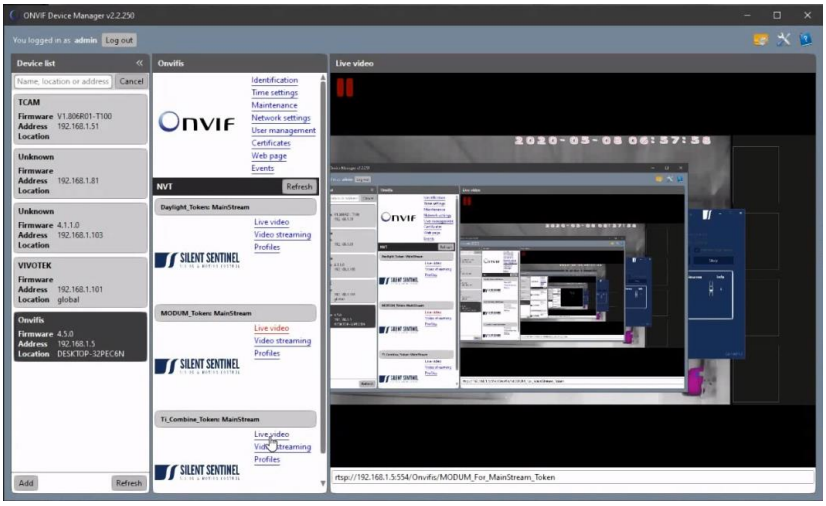
9.	Name with "**ONVIFis(TCP 80)**" and **Finish**.	

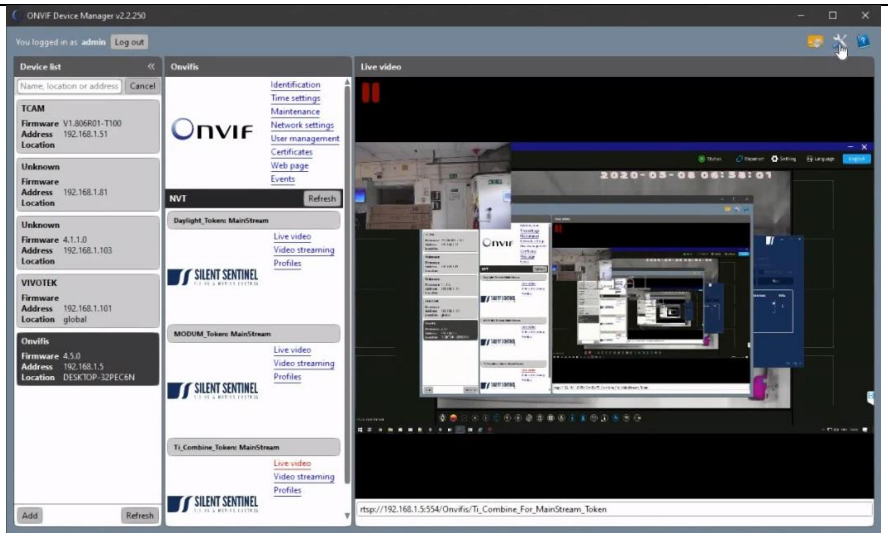
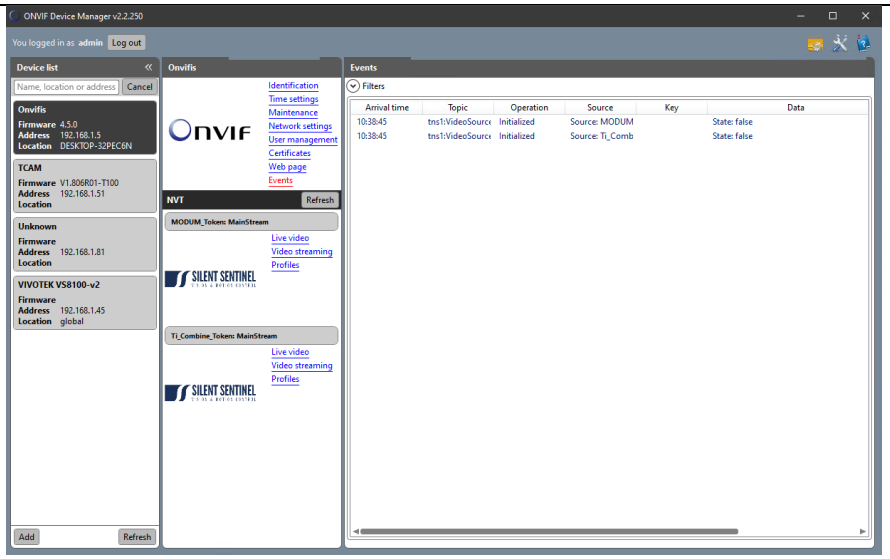
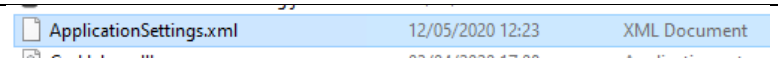
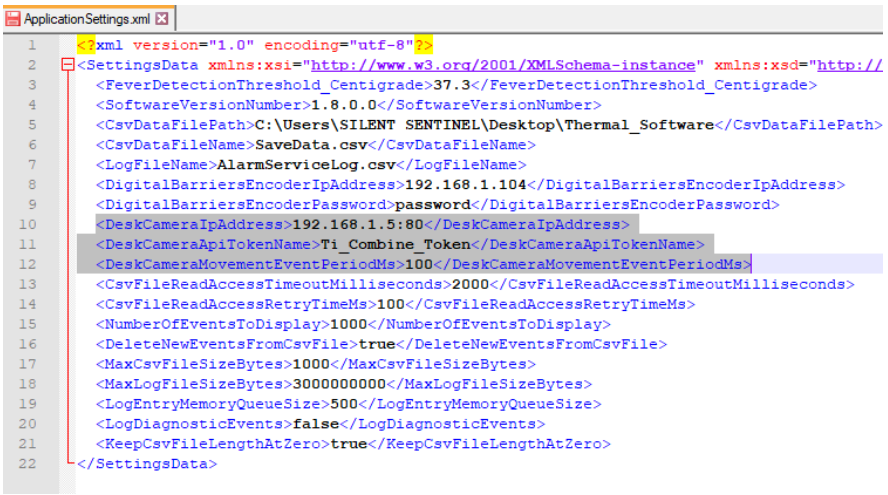
Enable Event Notification on ODM

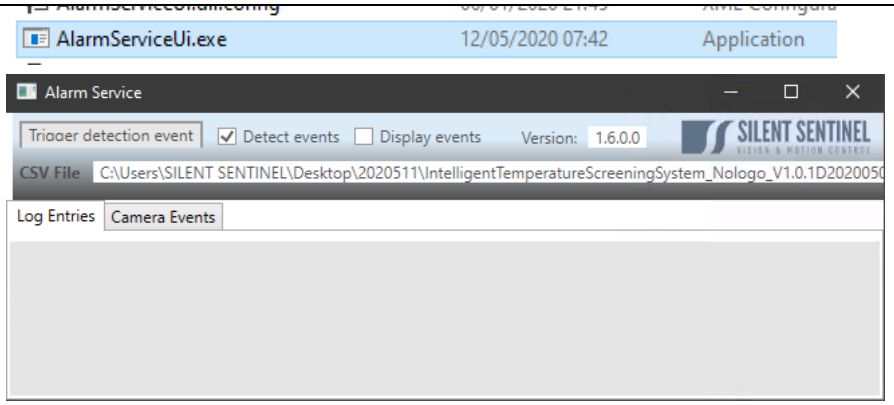
Step	Description	Image
1.	Open ODM. Click the tool icon at the top right corner to open *Application settings*.	
2.	Set *Event subscription type* to **Only PullPoint** or **Pullpoint if available**. Set *Base Subscription port number* to **80**. Click *Apply* to finish the process.	

3.	Click *Refresh* at the bottom of Device list.	

Test stream on ONVIF Device Manager

Step	Description	Image
1.	In Desk Camera Window, go to Camera Settings tab. Click Start to start streaming.	
2.	**<u>Check video display</u>** Open Onvif Device Manager and select the device with PC/DeskCam's IP address (in this case, 192168.1.5). There should be three video souces avaliable: Thermal, Daylight and Combined. Click Live Video of all three of them one by one. Check if the video is displaying properly.	 

		
3.	**<u>Check motion alert</u>** <u>(step 6-9)</u> Select Events tab of the DeskCam device to display all the motion events from DeskCam.	
4.	**<u>Check AlarmService Configuration for DeskCam interface</u>** Double click "ApplicationSettings.xml" in the AlarmService directory to open the config file. Set DeskCameraIpAddress and ApiTokenName to what is previously configured in Desk Camera software (Onvif Integration Services). Note that ApiTokenName should be consistent with the source that has	 

	motion event enabled. The API token name can be found in Configure Motion sub-window.	
5.	Double click AlarmServiceUi.exe in the AlarmService directory to run the Alarm Service software.	
6.	Press Trigger detection event button to generate a simulation of fever alert. Check the event log on ODM. Each pressing of the button should generate two events, like in the image.