User manual

version 1.0

NVIP-2DPT-8701/30/T
NVIP-2DPT-8711/30/T
NVIP-2DPT-8721/30/T
NVIP-2DPT-8721M/30/T
NVIP-2DPT-8731/30/T
NVIP-2DPT-8741/30/T
NVIP-2DPT-8741M/30/T

Dual PTZ IP Camera series
(Thermal/Visual)

8000 VSS IP

NOVUS®

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PRELIMINARY INFORMATION

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PRELIMINARY INFORMATION

This user manual contains detailed information on how to operate the 8000 series Dual PTZ IP cameras.

ⓘ | **The following chapters describe all the functionalities of the Dual PTZ IP cameras. However, depending on the firmware version, some of the functions may not be available, not supported or the scope of operation may differ from that described. Detailed information about the camera's functions are contained in the catalog card on the website *www.aat.pl*, and in the "Quick User's Manual" attached to the camera.**

ⓘ | **Technical data of the cameras, construction description, method of installation, start-up and basic operation are included in the "Quick Start Guide" attached to the camera. When using this "User's manual", always have the quick reference guide close at hand so that you can refer to it for matters not covered in the instructions for use.**

ⓘ | **AAT SYSTEMY BEZPIECZEŃSTWA Sp. z o.o. has made every effort to ensure that the information contained in this publication is complete, accurate and up-to-date.**
However, due to the continuous development of the product line, the appearance of graphics, menu layout or function descriptions contained in this publication may differ from those implemented in your device. This does not limit or invalidate this manual.

ⓘ | **References in this publication of photos the camera and images can be simulations. The actual images from the cameras may vary depending on the type, model, settings, observation area or external conditions.**

ⓘ | **The description of the remote preview window, its elements and functions can be found in the quick start guide attached to the camera. For information on these parts and functions, please refer to the quick start guide that came with your device. The quick start guide is also available for download in the product card at www.aat.pl**

WWW INTERFACE - MAIN WINDOW

ⓘ **Since the remote viewing windows and menus of the vision and thermal imaging modules are functionally almost identical, their description is based on the viewing window and menu of the thermal imaging module. Any differences are marked in the text.**

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1. WWW INTERFACE
1.1. Thermal module remote viewing window - main page
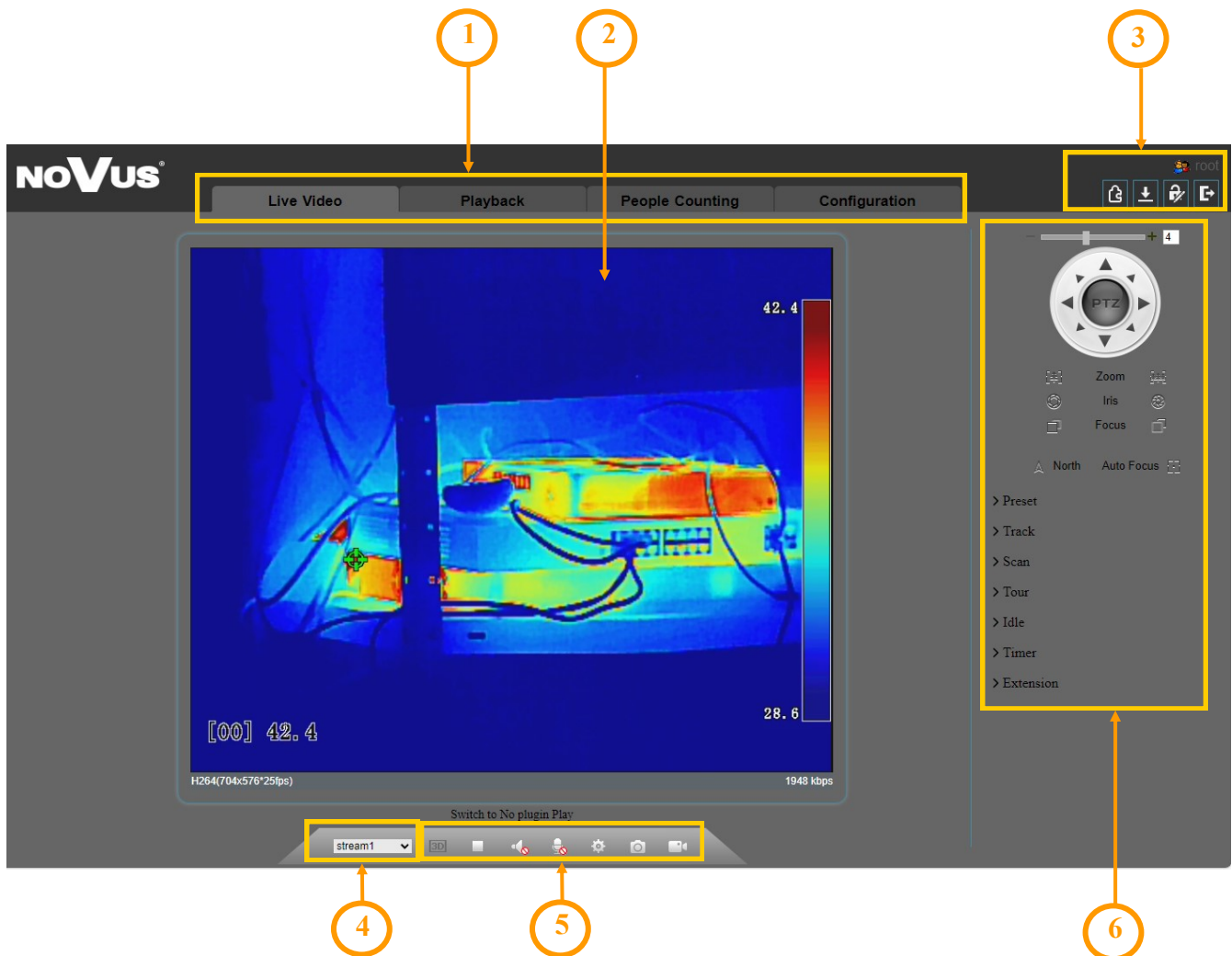
1.Buttons for selecting the operating mode and configure the camera:

2. Live preview window.

3. Camera access icons.

4. Selecting a stream to display in the remote view window

5. Icons controlling additional functions.

6. PTZ control panel.

WWW INTERFACE - PLAYBACK

2. CAMERA OPERATION - PLAYBACK

Option not supported.

3. CAMERA OPERATION - PEOPLE COUNTING

People Counting menu displays people counting function statistics.

When you select a search scope in the Query Condition menu, statistics will be displayed. The statistic can be shown by line chart, histogram or list. The searched data can be presented in the menu window or saved on the computer's disk.

WWW INTERFACE - CONFIGURATION

4. CAMERA OPERATION - CONFIGURATION

This menu allows user to modify and configure all parameters and camera settings available in a given model. Most of the settings can be changed conveniently and safely by selecting a parameter value from the drop-down list. In the case of fields that allow to enter your own parameter value, an acceptable range is given.

However, any changes should be made carefully in order not to lose the stream or communication with the camera.

4.1. "Device Info" group of settings

This menu allows to view information about the cameras. It is possible to obtain information about the type, name and ID of the device, hardware and software version and MAC address. Each module's menu displays its own information.

4.2. "Stream" group of settings

This menu allows to modify camera stream settings. It is possible to set the audio and video stream coding method, resolution and frame rate and other parameters. The menu also allows to configure snapshots. The vision module menu also allows to configure the "ROI" (Region Of Interest) function. ROI is an area to be monitored and analyzed in particular. Thanks to this, the user can focus attention on those areas that are most important for a specific camera application. Reducing the number of frames in the rest of the image also allows to reduce the bitrate and save disk space. Up to eight ROI areas can be set.

4.3. "Image Settings" group of settings

Image parameters configuration menu.

4.3.1. "Mode" tab

If, before configuring the sensor settings, we select one of the schemes from the "Scheme" drop-down list, then after saving the changes, they will be assigned to the selected scheme. In this way, user can create up to four schemes with different settings and quickly switch between them by selecting them from the list. The "Mode" tab allows to assign a time range to each scheme, thus enabling automatic switching between different groups of settings.
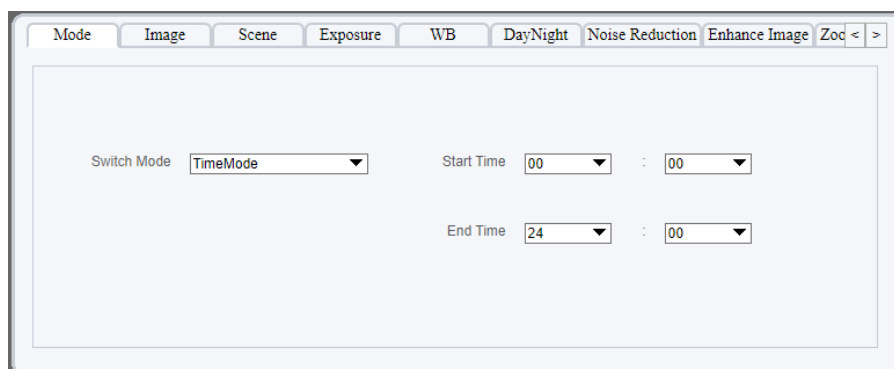
4.3.2. "Image" tab

In the "Image" tab, user can adjust the level of brightness, contrast and sharpness (clarity) of the camera image. The vision module menu also allows to adjust color saturation.
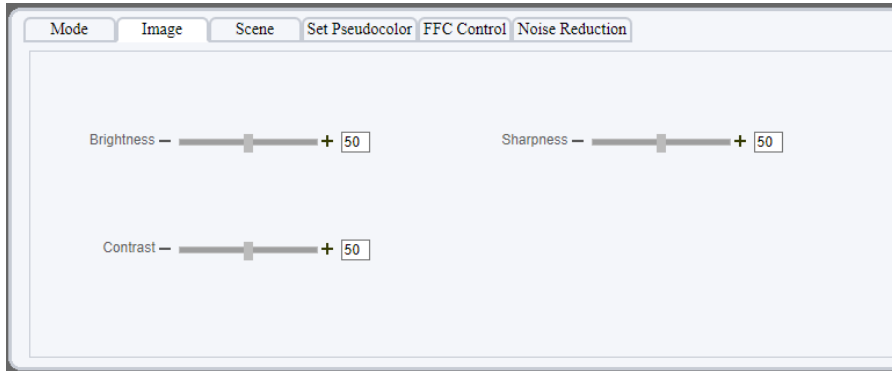
4.3.3. "Scene" tab

In the "Scene" tab, you can select the image rotation way.
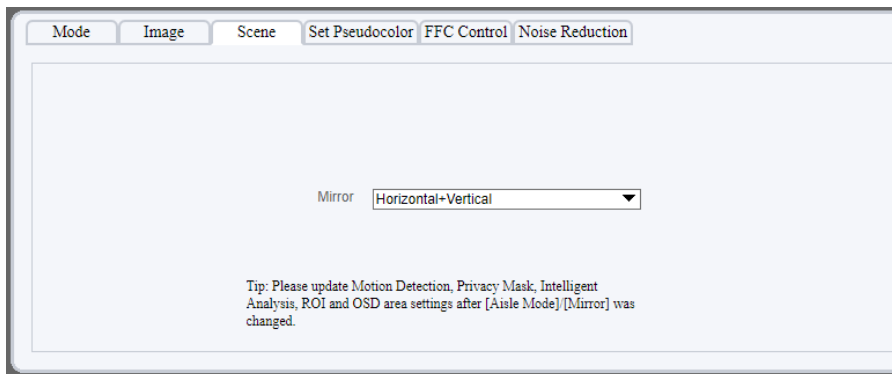
4.3.4. "Set Pseudocolor" tab

In this tab, it is possible to select one of the available thermal image display modes, and to enable the display of the temperature range bar.
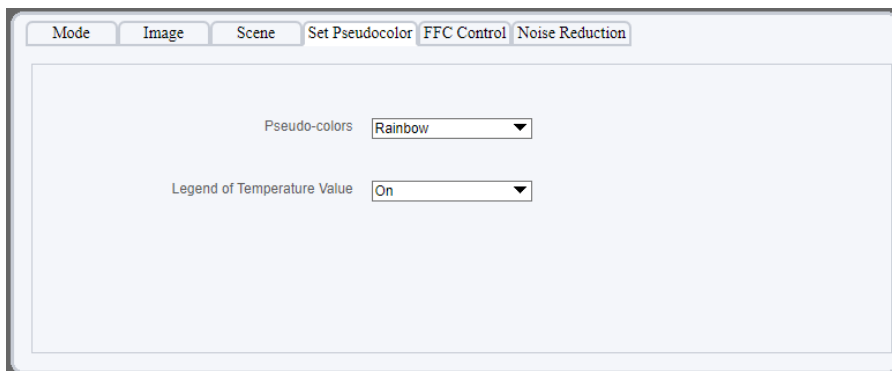
WWW INTERFACE - CONFIGURATION

4.3.5. "FFC Control" tab

The tab allows to configure the operation of the FFC function.
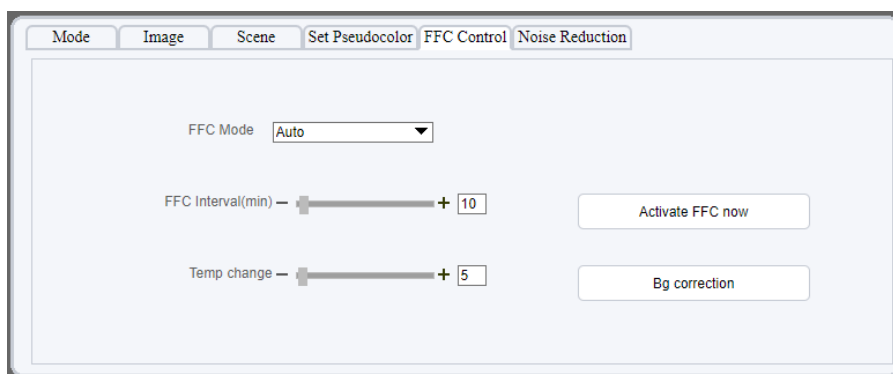
The FFC (Flat Field Correction) function improves the quality of the thermal image, which degrades over time due to the accumulation of small sensor errors related to changes in the ambient temperature or the observation of static elements. The FFC function temporarily overrides the sensor, thanks to which each pixel is restored to the same reference parameters, which allows for reliable mapping of temperatures.

The operating mode of the function is selected from the "FFC mode" list: automatic or manual. In automatic mode, the camera activates the FFC when its temperature changes by a certain amount or after a certain time (whichever comes first). The time and temperature intervals after which the FFC will be activated are set using the appropriate sliders.

In manual mode, the camera does not perform FFC automatically. If you feel that the image is clearly degraded, you can press the "Activate FFC now" button to manually activate the FFC and see if the image quality can be improved.

The "Background Correction" button extends the diaphragm that covers the sensor. Thanks to this, all sensor pixels detect the same temperature, which allows the correction algorithms to remove accumulated errors in temperature measurement. The diaphragm should cover the sensor for about 15 seconds, and then the sensor should be uncovered again by pressing the "Activate FFC now" button.

⚠ To ensure the reliability of the camera operation and the most accurate representation of the thermal image, it is recommended to leave the FFC function in automatic mode.

4.3.6. "Exposure" tab (vision module)

This tab allows you to configure how exposure works.

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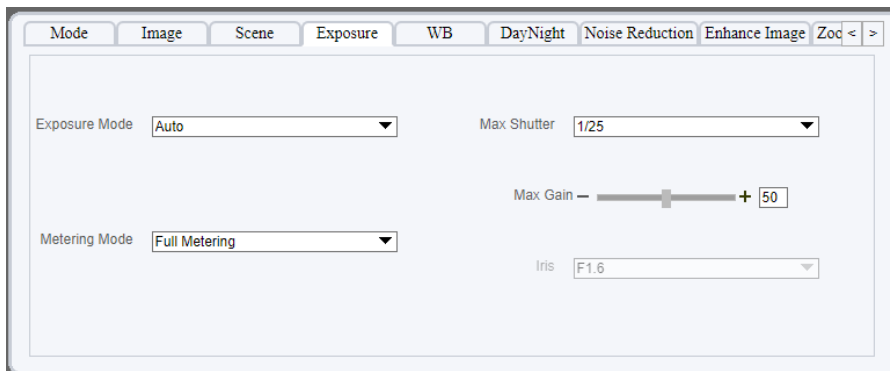
4.3.7. "WB" tab (vision module)

The tab allows to set way of working a white balance mechanism.
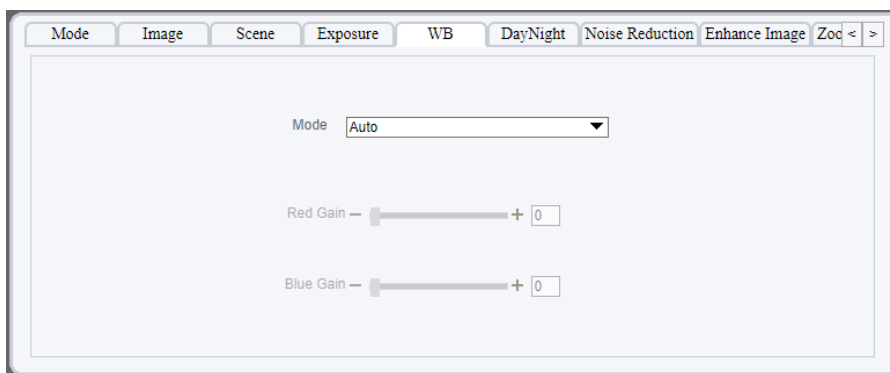
Available options: Auto - the automatics corrects the color balance itself, Tungsten - adjusts the settings to the lighting with incandescent bulbs, Daylight - adjusts settings to daylight, Manual - manual white balance setting.

4.3.8. "Day/Night" tab (vision module)

The menu allows you to configure the day-night switching method.
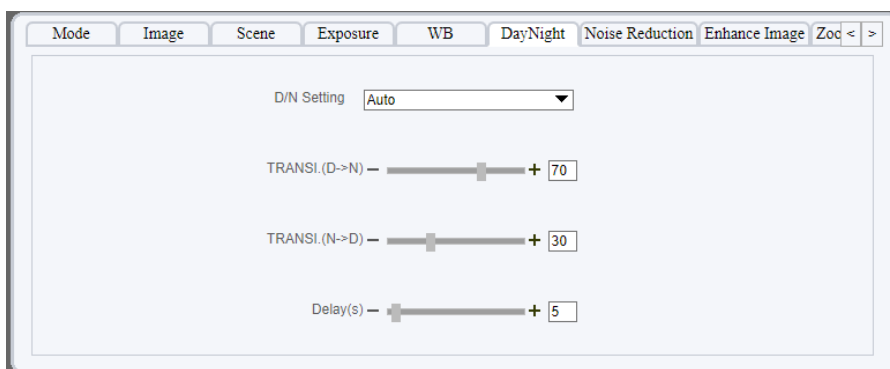
It is possible to select the camera operating mode by selecting an option from the "D/N Setting" list. The available options are Auto, Day Mode, Night Mode and Timing. For the Auto option, it is possible to set the sensitivity and switching delay.

WWW INTERFACE - CONFIGURATION

4.3.9. "Noise Reduction" tab

The tab allows to configure the operation of the noise reduction function.
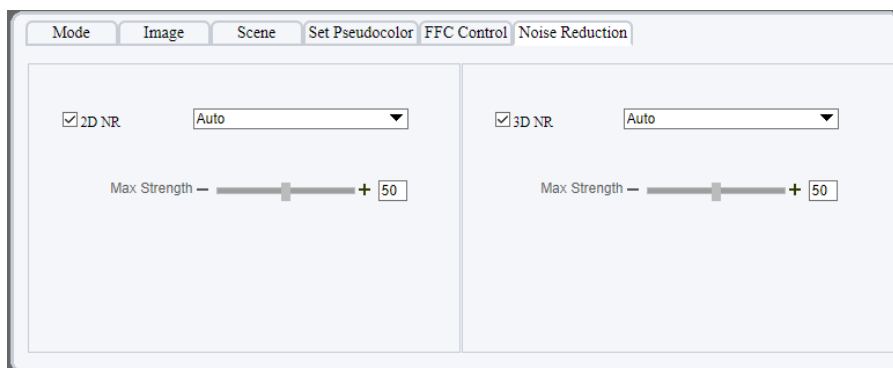
It is possible to set the reduction level manually or select automatic mode.

4.3.10. "Enhance Image" tab (vision module)

The tab allows to configure one of the image enhancement functions.
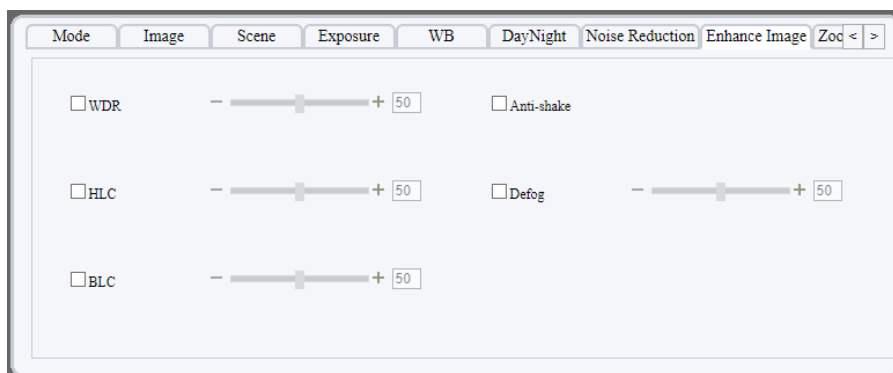
Available options: WDR - enables or disables the wide dynamic range, HLC - a function of compensating strong light sources and automatically balanced their impact on the camera's sensor, BLC - rear backgrounds compensation function that eliminates the effect resulting from observing the area with too strong light source in the background, Defog - feature to improved visibility in bad weather, Anti Shake - turns on digital image stabilization

4.3.11. "Zoom Focus" tab (vision module)

This tab allows to configure the focusing method and enable digital zoom.
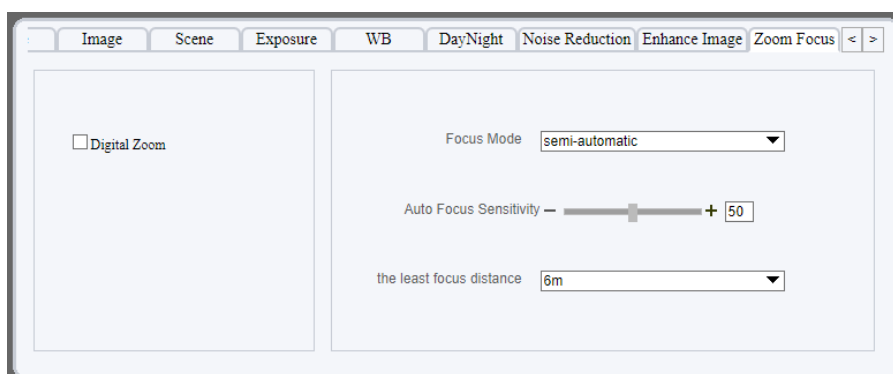
4.4. "Device" group of settings

This menu allows you to configure camera parameters and functions.

4.4.1. "Local Network" menu

This menu allows to configure the basic network settings.

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The menu allows to set the method of obtaining the IP address (static or DHCP), allows to select the IP protocol (IPv4 or IPv6), and to set basic network parameters (IP address, subnet mask, gateway, DNS server addresses).

4.4.2. "Device Port" menu

This menu allows to configure the ports used by the camera.

4.4.3. "Date and Time" menu

This menu allows to configure the date and time settings. It is possible to set the time zone, manually set the time (by the user or by synchronizing it with the computer's time) and/or enable time synchronization with an NTP server.

4.4.4. "Camera" menu

The menu allows you to select the video standard and refresh rate.

4.4.5. "OSD" menu

This menu allows you to turn on the display and select the position of the time and date on the screen. It is also possible to enable the display of up to seven of your own OSD texts. Pressing the "Advanced" button displays an additional menu where you can select the date display format, color and font size. It is also possible to turn on the display of the device name, choose between 12- and 24-hour time display, and turn on and off the display of the day of the week.

WWW INTERFACE - CONFIGURATION

4.4.6. "Audio Input" menu

This menu allows to turn on and set the volume for audio input.

4.4.7. "Audio Output" menu

This menu allows to turn on and set the volume for audio output.

4.4.8. "Dome PTZ" menu (themal module)

This menu allows to set the PTZ address.

4.4.9. "CVBS" menu

Option not supported.

4.4.10. "System" menu

This menu allows to set the system language, network protocol and install a security certificate.

4.4.11. "Voice Denoise" menu

This menu allows to turn on the noise reduction system.

4.4.12. "Software Licenses" menu

This menu allows to view license information.

4.5. "External Device" group of settings

This menu allows to configure communication with external devices.

4.5.1. "PTZ Keyboard" menu (themal module)

This menu allows to configure the PTZ protocol for communication via the RS485 port.

4.6. "Advanced Intelligent Analysis" group of settings

This menu allows you to configure advanced thermal image analysis functions.

4.6.1. "Smoke and Flame Detection" menu (vision module)

This menu allows to recognize fire by the vision module. To recognize an object, the camera uses the people recognition function combined with the detection of a point increase in temperature.

Output Channel - selection of the alarm output to be activated when an object is detected

Audible Alarm - turning on and selecting the voice message that the camera can play when an object is detected

Sensitivity - sensitivity of the function

Alarm Record - option not supported

SMTP - enabling push message sending

FTP Upload - sending photos to an FTP server

Video Stream Draw Line - enabling the display of detection lines in the video stream.

After configuring the desired functions, select the operating time areas in the schedule field.

4.6.2 "Smoker Detection" menu (themal module)

This menu allows to recognize smokers. To recognize an object, the camera uses the people recognition function combined with the detection of a point increase in temperature.

WWW INTERFACE - CONFIGURATION

Output Channel - selection of the alarm output to be activated when an object is detected

Audible Alarm - turning on and selecting the voice message that the camera can play when an object is detected

Sensitivity - sensitivity of the function

Alarm Record - option not supported

SMTP - enabling push message sending

FTP Upload - sending photos to an FTP server

Video Stream Draw Line - enabling the display of detection lines in the video stream.

After configuring the desired functions, select the operating time areas in the schedule field.

4.6.3. "Fire Spot Detection" menu (themal module)

This menu allows to configure the early fire detection function.

Output Channel - selection of the alarm output to be activated when an fire is detected

Audible Alarm - turning on and selecting the voice message that the camera can play when an fire is detected

Sensitivity - sensitivity of the function

Alarm Record - option not supported

SMTP - enabling push message sending

FTP Upload - sending photos to an FTP server

After configuring the desired functions, select the operating time areas in the schedule field.

4.7. "Intelligent Analysis" group of settings

This menu allows you to configure thermal image analysis functions.

4.7.1. "Intrusion" menu

The menu allows you to configure up to eight detection zones. An alarm event is generated when the object crosses the zone boundary in any direction. It can be any object, or - with object classification turned on - a person and/or a vehicle.

Sensitivity - sensitivity of the function

Limit Type - setting of the object classification rule. *Person* - enables recognition of people, *Car* - enables recognition of vehicles, *Person or Car* - enables recognition of people and cars. If none of the options is selected, object classification is disabled, which means that any object that violates the detection zone will trigger an alarm event.

Output Channel - selection of the alarm output to be activated when an object is detected

Audible Alarm - turning on and selecting the voice message that the camera can play when an fire is
                    detected

Alarm Record - option not supported

SMTP - enabling push message sending

FTP Upload - sending photos to an FTP server

After configuring the desired functions, select the operating time areas in the schedule field.

The detection zone is set by marking its corners with the left mouse button. Right-click completes the setting. A zone can have a maximum of 8 corners.

WWW INTERFACE - CONFIGURATION

4.7.2. "Single Line Crossing" menu

This menu allows to configure up to eight detection lines. An alarm event is generated when object crossing determined line, and its movement is carried out in a direction specific in the settings.

Limit Type - setting of the object classification rule. *Person* - enables recognition of people, *Car* - enables recognition of vehicles*, Person or Car* - enables recognition of people and cars. If none of the options is selected, object classification is disabled, which means that any object that violates the detection zone will trigger an alarm event.

Output Channel - selection of the alarm output to be activated when an object is detected

Audible Alarm - turning on and selecting the voice message that the camera can play when an fire is detected

Alarm Record - option not supported

SMTP - enabling push message sending

FTP Upload - sending photos to an FTP server

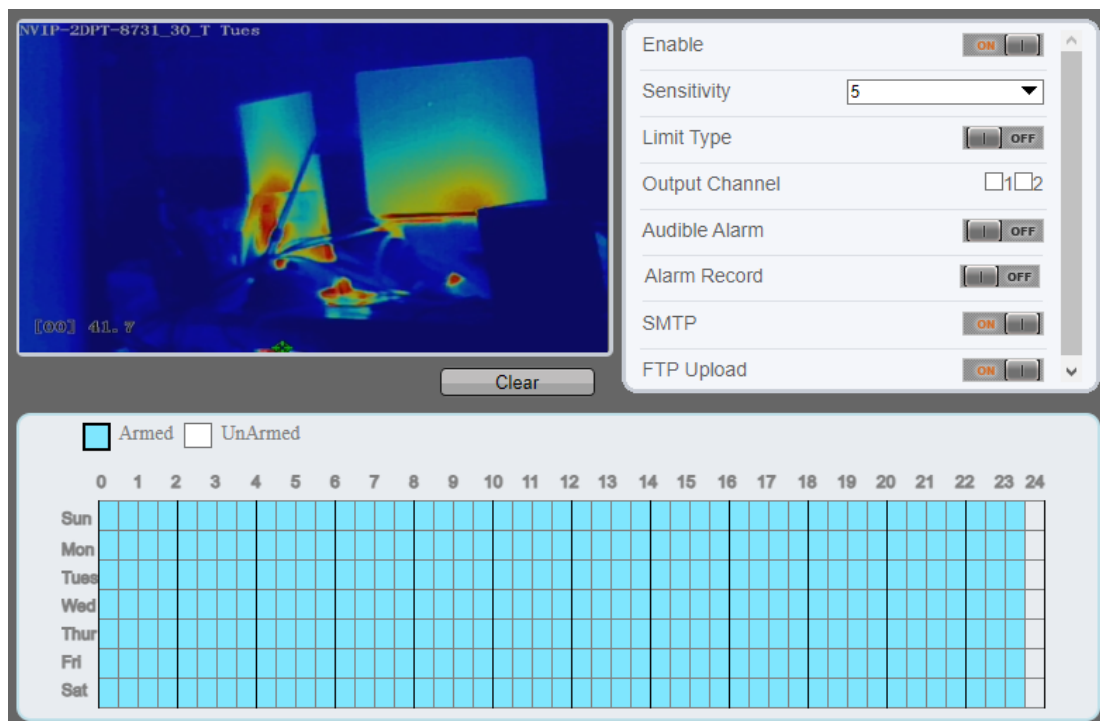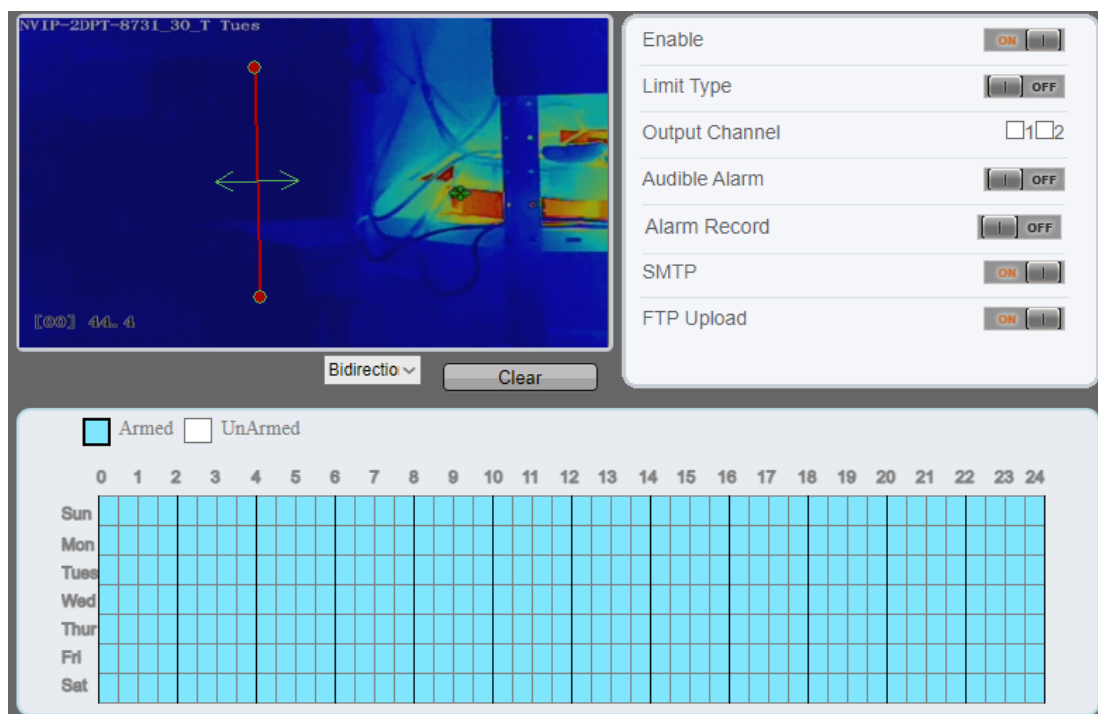After configuring the desired functions, select the operating time areas in the schedule field.

The detection line is set by marking its beginning with the left mouse button pressed, dragging and releasing the button. The detection direction can be set independently for each line.

4.7.3. "Double Line Crossing" menu

This menu allows to configure up to one pair of detection lines. An alarm event is generated when object crossing both determined lines, and its movement is carried out in a direction specific in the settings.
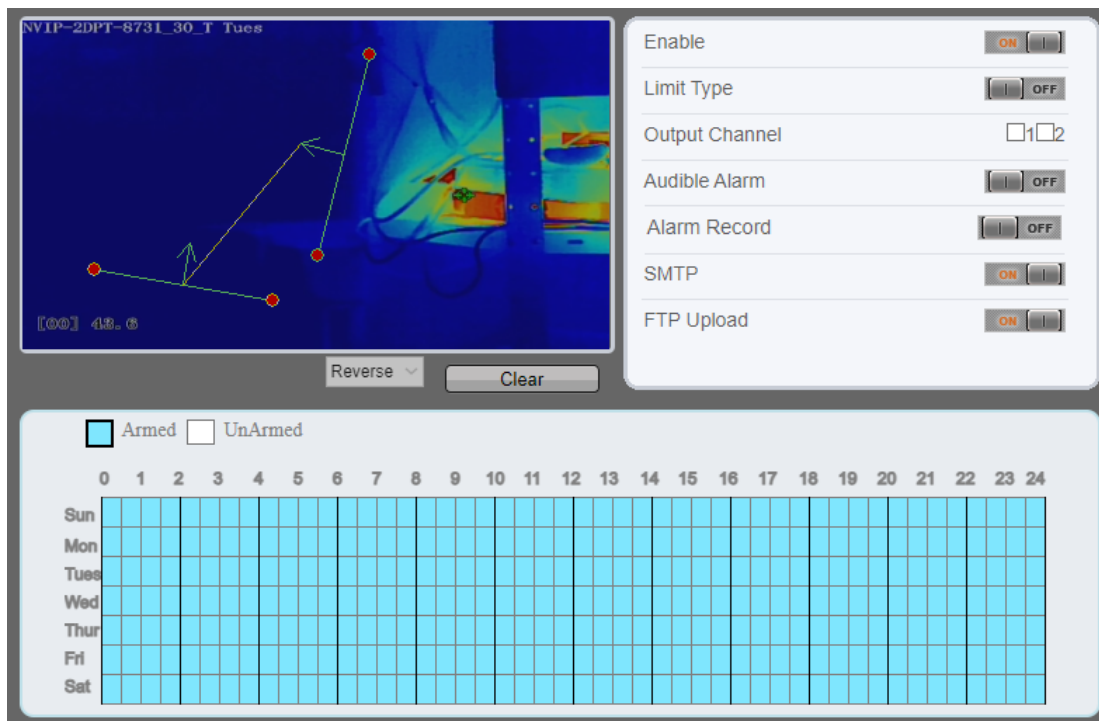
Limit Type - setting of the object classification rule. *Person* - enables recognition of people, *Car* - enables recognition of vehicles*, Person or Car* - enables recognition of people and cars. If none of the options is selected, object classification is disabled, which means that any object that violates the detection zone will trigger an alarm event.

Output Channel - selection of the alarm output to be activated when an object is detected

Audible Alarm - turning on and selecting the voice message that the camera can play when an fire is detected

Alarm Record - enable recording to the SD card

SMTP - enabling push message sending

FTP Upload - sending photos to an FTP server
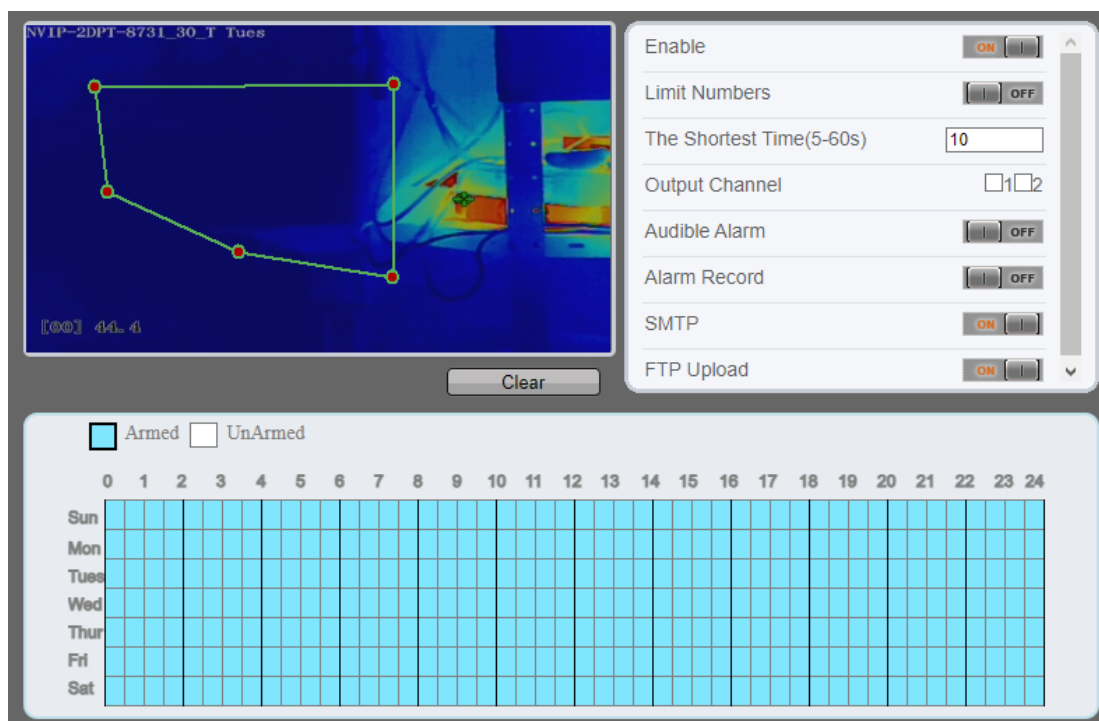
After configuring the desired functions, select the operating time areas in the schedule field.

Both detection lines are set simultaneously by marking its beginning with the left mouse button pressed, dragging and releasing the button. The position of each line can be independently changed by left-clicking and dragging. Also, the detection direction can be defined for each line independently.

WWW INTERFACE - CONFIGURATION

4.7.4. "Multi - Loitering" menu

The menu allows you to configure up to eight detection zones. An alarm event is generated when the specified number of objects stays in the detection zone for a specified period of time.

Limit Numbers - setting the minimum and maximum number of objects allowed in the zone.

The Shortest Time - allowed time for an object to stay in the zone.

Output Channel - selection of the alarm output to be activated when an object is detected

Audible Alarm - turning on and selecting the voice message that the camera can play when an fire is detected

Alarm Record - option not supported

SMTP - enabling push message sending

FTP Upload - sending photos to an FTP server

After configuring the desired functions, select the operating time areas in the schedule field.

The detection zone is set by marking its corners with the left mouse button. Right-click completes the setting. A zone can have a maximum of 8 corners.

4.7.5. "Retrograde" menu

The menu allows you to configure up to eight detection zones. An alarm is generated when an object moves in the zone in the direction opposite to that indicated by the arrow.

Limit Type - setting of the object classification rule. *Person* - enables recognition of people, *Car* - enables recognition of vehicles*, Person or Car* - enables recognition of people and cars. If none of the options is selected, object classification is disabled, which means that any object that violates the detection zone will trigger an alarm event.

Output Channel - selection of the alarm output to be activated when an object is detected

Audible Alarm - turning on and selecting the voice message that the camera can play when an fire is detected

Alarm Record - option not supported

SMTP - enabling push message sending

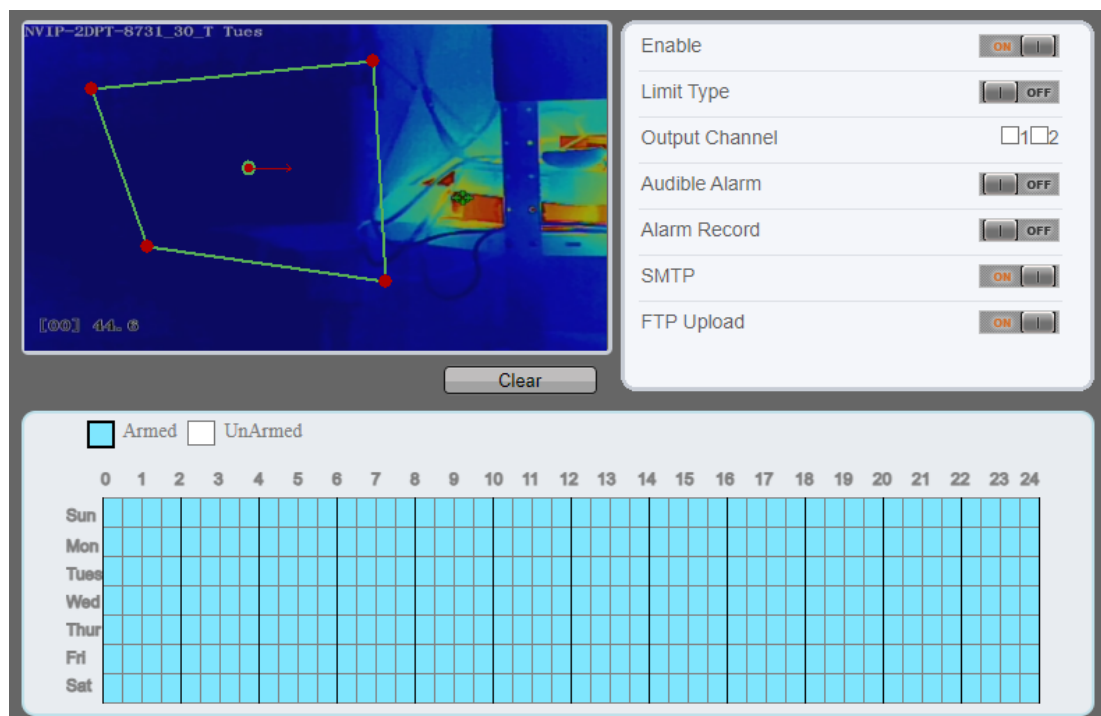*FTP Upload* - sending photos to an FTP server

After configuring the desired functions, select the operating time areas in the schedule field.

The detection zone is set by marking its corners with the left mouse button. Right-click completes the setting. A zone can have a maximum of 8 corners.

⚠ The vision module menu does not include the "Limit Type" option.

WWW INTERFACE - CONFIGURATION

4.7.7. "People Counting" menu

This menu allows to count people crossing the virtual line. The number of counts is displayed on the OSD and saved and presented in the statistics. The direction of movement of objects is also analyzed and depending on the settings of the detection line, objects are classified as "entering" or "leaving". An alarm event is generated when a predetermined number of counted objects is exceeded.
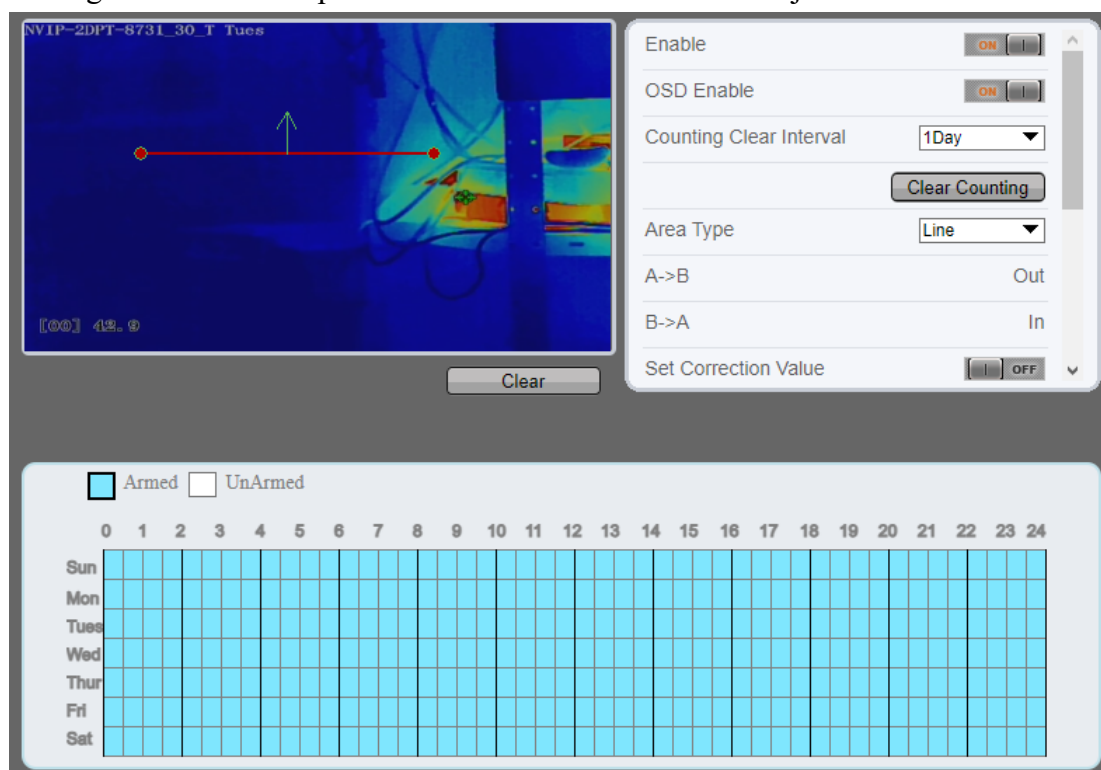
OSD Enable - turns on the OSD with the counting results

Counting Clear Interval - selection of counter reset frequency

A->B, B->A - information about how to interpret a person's movement

Set Correction Value - setting the counting start value

Over People Number Alarm - setting the alarm threshold

Output Channel - selection of the alarm output to be activated when an object is detected

Audible Alarm - turning on and selecting the voice message that the camera can play when an fire is detected

Alarm Record - option not supported

SMTP - enabling push message sending

FTP Upload - sending photos to an FTP server

After configuring the desired functions, select the operating time areas in the schedule field.

The detection line is set by marking its beginning with the left mouse button pressed, dragging and releasing the button.

WWW INTERFACE - CONFIGURATION

4.7.8. "Enter Area" menu (themal module)

The menu allows to configure up to eight detection zones. An alarm event is generated when the object crosses the zone boundary with movement towards the inside of the zone. It can be any object, or - with object classification turned on - a person and/or a vehicle.

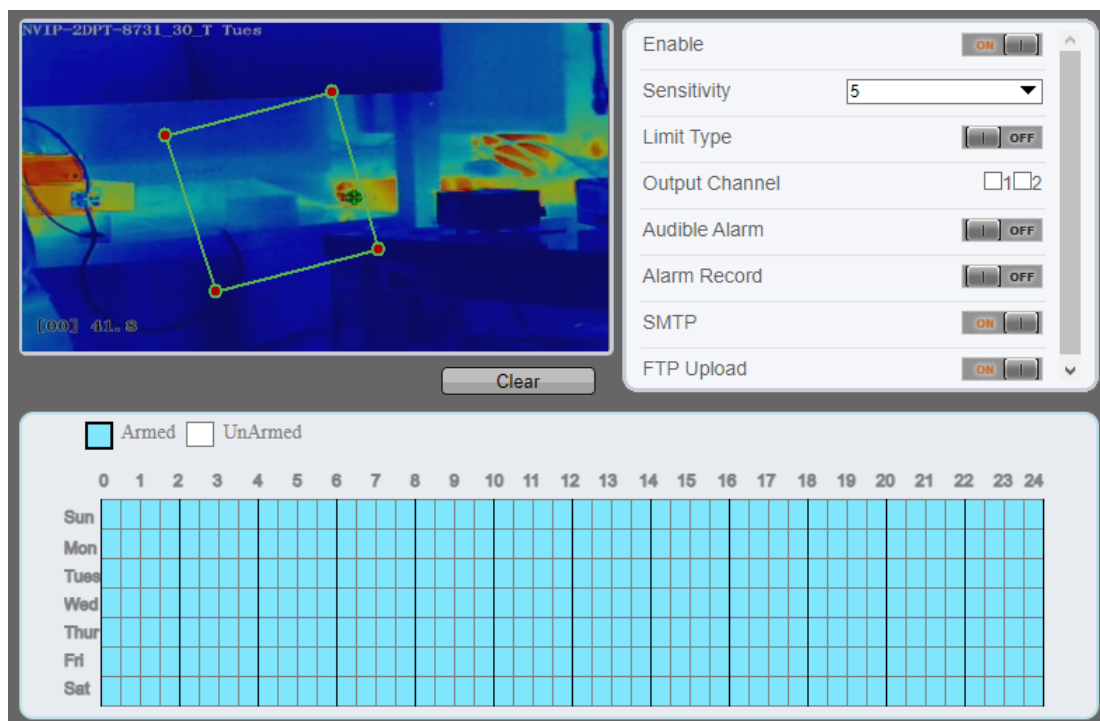*Sensitivity* - sensitivity of the function

Limit Type - setting of the object classification rule. *Person* - enables recognition of people, *Car* - enables recognition of vehicles, *Person or Car* - enables recognition of people and cars. If none of the options is selected, object classification is disabled, which means that any object that violates the detection zone will trigger an alarm event.

Output Channel - selection of the alarm output to be activated when an object is detected

Audible Alarm - turning on and selecting the voice message that the camera can play when an fire is detected

Alarm Record - option not supported

SMTP - enabling push message sending

FTP Upload - sending photos to an FTP server

After configuring the desired functions, select the operating time areas in the schedule field.

The detection zone is set by marking its corners with the left mouse button. Right-click completes the setting. A zone can have a maximum of 8 corners.

4.7.9. "Leave Area" menu (themal module)

The option is functionally identical to "Enter Area", except that the alarm event generates an object crossing the zone boundaries outwards.

4.7.10. "Smart Motion" menu (themal module)

The menu allows to configure up to eight detection zones. An alarm event is generated when the object crosses the zone boundary with movement towards the inside of the zone. It can be a person and/or a vehicle.
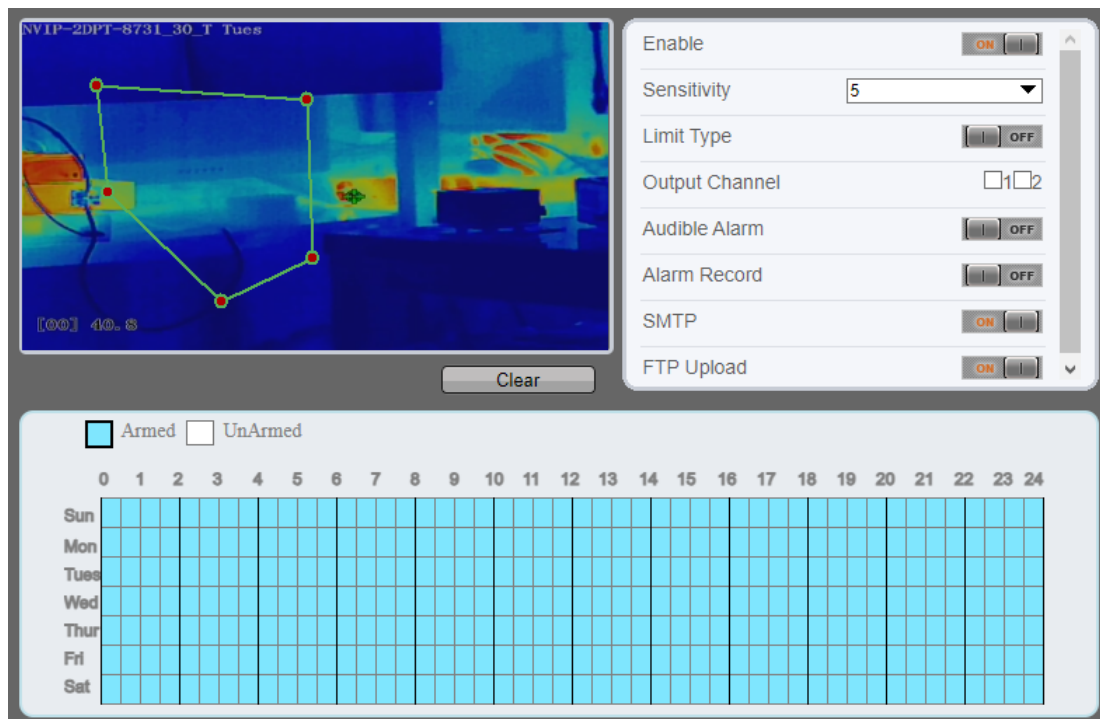
Sensitivity - sensitivity of the function

Limit Type - setting of the object classification rule. *Person* - enables recognition of people, *Car* - enables recognition of vehicles, *Person or Car* - enables recognition of people and cars.

Output Channel - selection of the alarm output to be activated when an object is detected

Audible Alarm - turning on and selecting the voice message that the camera can play when an fire is detected

Alarm Record - option not supported

SMTP - enabling push message sending

FTP Upload - sending photos to an FTP server

After configuring the desired functions, select the operating time areas in the schedule field.

The detection zone is set by marking its corners with the left mouse button. Right-click completes the setting. A zone can have a maximum of 8 corners.
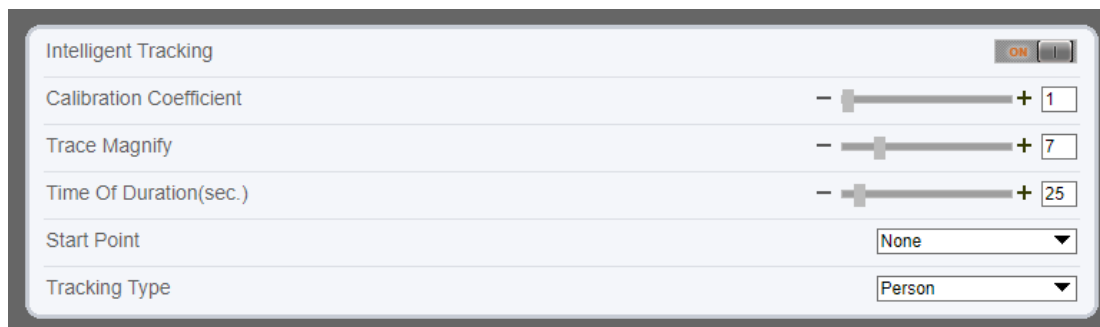
WWW INTERFACE - CONFIGURATION

4.8. "Intelligent Tracking" menu (themal module)

The menu allows to configure object tracking features.

Intelligent tracking is used to a certain algorithm for the basic features of the target. After comparing and matching with each frame of image, the position of the target in each frame of the video image is generated, and the motion track of the target is generated. The method performs real time monitoring of targets and automatically controls the heads to track moving objects.

Calibration Coefficient - it is a control coefficient for real-time tracking. Usually the higher the installation height, the greater the calibration coefficient value

Trace Magnify - it is the value of zoom, it has a large influence on the real-time tracking magnification,

Time Of Duration - the maximum time of a tracking action

Start point - selecting the tracking starting point. "Preset" or "None" are available. When the "Preset" is selected, camera returns to the preset scene when the moving target disappears. And when "None" is selected, camera remains in the position where tracking ended.

4.9. "Alarm" group of settings

This menu allows to configure alarm events.

4.9.1. "Alarm Output" menu

This menu allows to configure the camera's alarm output options. It is possible to define the active state, operating mode (continuous, timed or pulsating), and output activity schedule. The settings are independent for each output.

4.9.2. "Disk Alarm" menu

Option not supported.

4.9.3. "Network Alarm" menu

This menu allows to configure the network connection loss alarm options.

4.9.4. "I/O Alarm Linkage" menu

This menu allows to configure alarm input options. It is possible to enable the input and link it with alarm outputs and PTZ functions.

⚠️ | The number of alarm inputs is different for each module.

4.9.5. "Day Night Switch Alarm" menu (vision module)

This menu allows to configure alarm related to day-night and night-day switching.

4.9.6. "Motion Alarm" menu

This menu allows to configure the motion detection options. To set the motion detection zone, select the appropriate part of the image with the left mouse button pressed. Then set the camera's sensitivity options and save the changes.

After configuring the desired functions, select the operating time areas in the schedule field.

4.9.7. "Push Message" menu

This menu allows to enable the push option.

4.9.8. "Audible Alarm Output" menu

This menu allows you to configure the voice messages function. It is possible to listen to each message, select the number of repetitions, and upload your own files. Uploading your own file is possible by clicking the icon in the "Operate" column. Audio files must be in .wav format.

4.9.9. "Abnormal Sound Detection" menu

This menu allows to configure options for detecting exceeding the set sound levels.

This function uses a microphone connected to the camera's audio input, to detect sudden changes in the sound level surrounding the camera and trigger an alarm. The function has two options: "Sudden Rise", which detects a sudden increase in sound level above the level set with the "Rise Sensitivity" slider, and "Sudden Drop" for detecting a drop in the level below the level set with the "Drop Sensitivity" slider.

WWW INTERFACE - CONFIGURATION

4.10. "Device Communication" group of settings (vision module)

Option not supported.

4.11. "Thermal" group of settings (themal module)

This menu allows to configure parameters related to temperature measurement and imaging.

4.11.1. "Temperature Parameters" menu

This menu allows to configure the parameters of the thermal imaging module.

Temperature Units - temperature scale selection

Length Units - selection of distance units

Cavity Temperature - information about the camera's internal temperature

Correction Coefficient - parameter is refer to the deviation of measured object temperature and actual temperature. For example:

1. The measured object temperature is 30, and actual temperature is 37, so the correction coefficient should be 7.

2. The measured object temperature is 37, and actual temperature is 30, so the correction coefficient should be -7.

WWW INTERFACE - CONFIGURATION

Area ID Display Mode - selecting the method of displaying the name of the temperature measurement zone

Area Temperature Display Mode - selection of temperature display location

Font Border, Custom Colors, Font size - font modification

Area Temperature Type - selection of temperatures displayed for the zone

Display Alarm Area - enables the option to change the color of the zone in which the alarm occurred

Area Alarm Interval - selection of temperature alarm duration

Area Alarm Delay - selection of the temperature alarm delay time (time between the event occurrence and the alarm generation)

Prevent Overheating - a heat source (e.g. sun) with too high a temperature can damage the detector. If detected, the shield will be lowered to provide protection

Duration - the time duration of prevent overheating.

"Advanced" menu

Dimming Mode - setting the temperature display colors, depending on its value

Greater Prominent, Section Prominent, Less Prominent - *Dimming Mode* function configuration options

Raw Data Upload Interval - the interval of temperature raw data upload
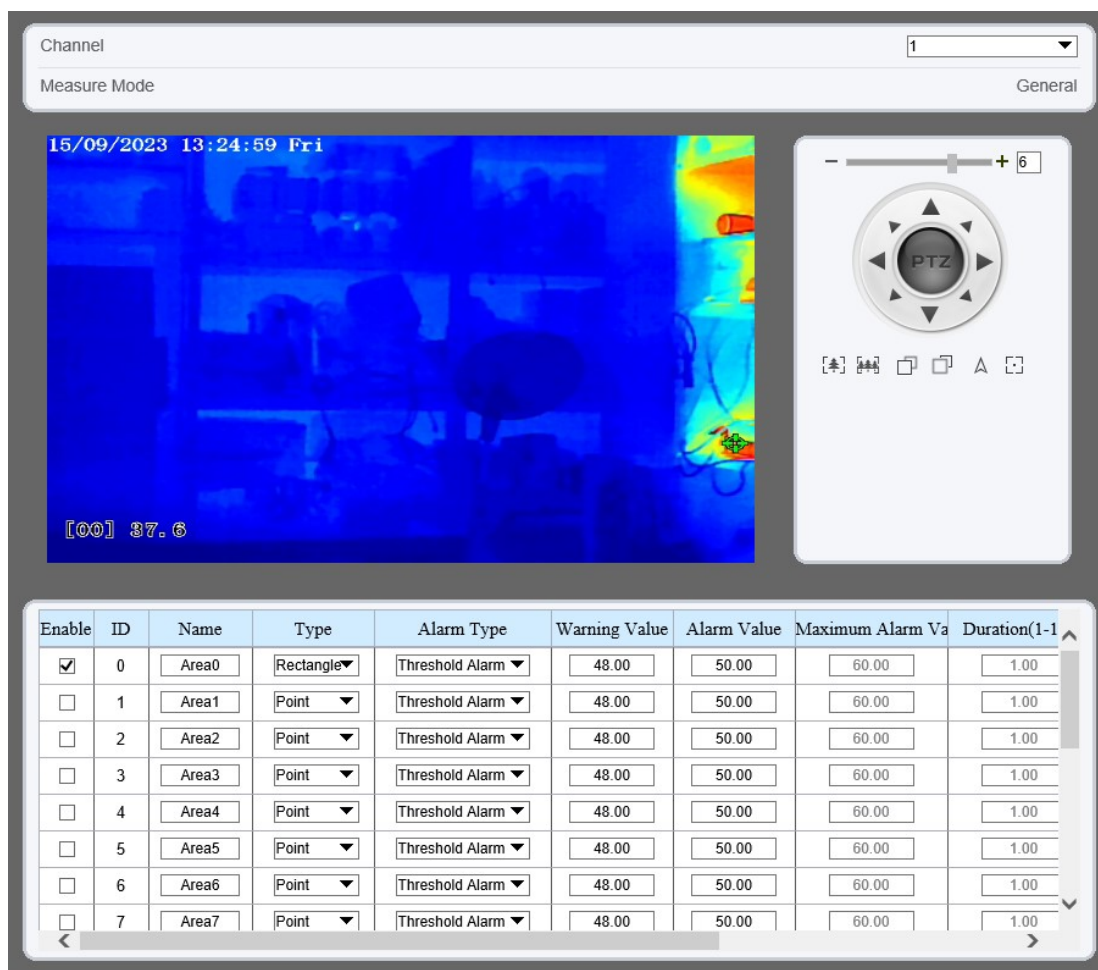
WWW INTERFACE - CONFIGURATION

4.11.2. "Ambient Temperature" menu

This menu allows to configure reference temperature.

Ambient Temperature - the temperature in device ambient. If you not setup a parameter here, the device use cavity temperature to calculate the target temperature.

4.11.3. "Temperature Alarm" menu

This menu allows to configure temperature alarms.

Enable - tick to enable the zones

ID - Zone number. It ranges from 0 to 19

Name - zone name temperature measurements. It is possible to change it to your own.

Type - selection of the type of temperature measurement zone. Possible options are: point, line and polygon.

Alarm Type - selecting the type of temperature alarm. *Threshold Alarm* - alarm when the set threshold is exceeded, *Temperature Difference Alarm* - alarm when the temperature difference between selected zones exceeds the set threshold, *Temperature Rise Alarm* - alarm when the temperature rises above the set value, *Section Alarm* - alarm when the temperature is lower or higher than the set limits.

Warning Value - camera will warn when the surveillance object temperature reaches the warning value. At *Threshold Alarm* and *Temperature Difference Alarm* this value can be set.

Alarm Value - camera will alarm when the surveillance object temperature reaches the alarm value.

Maximum Alarm Value - at *Section Alarm* type, the device would not alarm when the temperature is higher than maximum alarm value.

Duration - the time duration of alarm.

Emission Rate - the emission rate is the capability of an object to emit or absorb energy. The emission rate may be changed if objects made of non-standard materials are observed. The emission rate table can be found on pages 35 - 36.

Distance - the distance between camera and object.

Alarm - activation of alarming for a given zone

Group ID - multi region temperature difference alarm: When the difference between the maximum temperature and the average temperature of Multi regions (the average temperature of Multi regions is then averaged) in Multi regions of the same group ID reaches the set warning value/alarm value, an alarm is trigger. That is how Group ID means

4.11.4. "Privacy Zone Masking" menu

This menu allows to set zones excluded from temperature measurement. It allows to enable up to eight excluded zones.

4.11.5. "Schedule Linkage" menu

This menu allows to connect temperature alarms with reactions, and allows you to set schedules.

4.11.6. "Defect Pixel Correction" menu

This menu allows to correct damaged pixels.

The points that cant move when the environment or scenario change is bad point. To correct a defective pixel, click on it and press the "Apply" button.
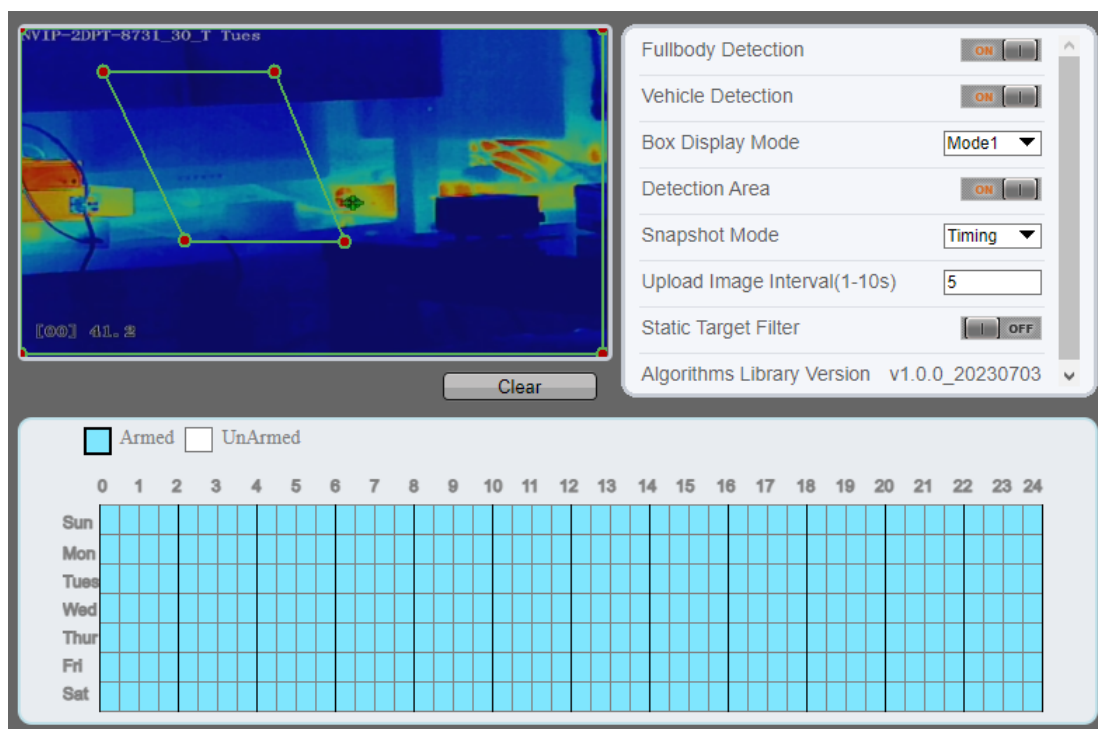
4.11.7. "Version Information menu

This menu displays the version of the thermal imaging analyzer.

WWW INTERFACE - CONFIGURATION

4.12. "AI Multiobject" group of settings

This menu allows to configure image analysis with object classification.

Fullbody Detection - turns on people detection

Vehicle Detection - turns on vehicle detection

> ⚠ The vision module additionally has the "Face Detection" option.

Box Display Mode - selecting the tracking visualization method

Detection Area - turns on the detection zone display

Snapshot Mode - selecting the snapshot mode

Upload Image Interval - selecting the snapshot interval

Static Target Filter - turns on ignoring stationary objects

4.13. "Device Record" group of settings

Option not supported.

4.14. "Privacy Masking" group of settings

This menu allows to set zones excluded from observation. It allows to enable up to four excluded zones. The menu allows you to give your own name to each zone and choose the masking color.

Note: Setting the privacy zone does not exclude the masked area from temperature measurement.

4.15. "Network Service" group of settings

This menu allows to configure the network services, like 802.1x, DDNS, PPPoE and others.

4.16. "Privilege Manager" group of settings

This menu allows to manage the rights of the camera users. The camera allows to add, remove and change permissions.

4.17. "Protocol" group of settings

This menu allows to configure the network protocols.

4.17.1. "Protocol Info" menu

This menu displays information about the ONVIF and RTSP protocols.

4.17.2. "Security" menu

This menu allows you to enable RTSP user verification.

4.17.3. "ONVIF Configuration" menu

This menu allows you to configure ONVIF protocol.

4.17.4. "Multicast" menu

This menu allows you to configure multicast option.

4.18. "Device Log" group of settings

This menu allows to view device logs. It is possible to display operational and alarm logs and download them to your computer's disk.

4.19. "Maintenance" group of settings

This menu allows you to manage your camera. It is possible to restart, update firmware, reset to factory settings and export and import configuration.

4.20. "Local Config" group of settings

This menu allows to set paths for saving photos and videos on your computer.

EMISSION RATE TABLE

Common emission rate table

The emission rate is the capability of an object to emit or absorb energy. An ideal transmitter provides an emission rate of emitting 100% of intake energy. An object with an emission rate of 0.8 can absorb 80% of intake energy, and reflect the remaining 20%. The emission rate is the ratio of the energy emitted by an object at a specific temperature to that emitted by an ideal radiator at the same temperature. The range of emission rate value is 0.0 to 1.0 generally.

Materials	Temperature (℃/℉)	Emissivity
Gold (High-purity)	227/440	0.02
Aluminum foil	27/81	0.04
Aluminum sheet	27/81	0.18
Aluminum used for families (flat)	23/73	0.01
Aluminum plate (98.3% purity)	227/440	0 04
	577/1070	0.06
Aluminum plate (rough)	26/78	0.06
Aluminum (oxidized @ 599℃)	19 /390	0.11
	599/1110	0.19
Polished aluminum	38/100	0.22
Tin (light tinned Iron sheet)	25/77	0.04
Nickel wire	187/368	0.1
Lead (99.9% purity, No oxidized)	127/260	0.06
Copper	199/390	0.18
Cobalt	599/1110	0.19
Steel	199/390	0.52
	599/1110	0.57
Tinned iron sheet (Light)	28/82	0.23
Brass(High-polish)	247/476	0.03

EMISSION RATE TABLE

Brass (Tough rolled, polished metal wire)	21/70	0.04
Tinned Iron (Light)	-	0.13
Iron plate (Rust eaten)	20/68	0.69
Rolled steel sheet	21/71	0.66
Ferric oxide	100/212	0.74
Wrought-iron	21/70	0.94
Fused iron	1299-1399/2370-2550	0.29
Copper (Polished)	21-117/70-242	0.02
Copper(Polished, not reflected)	22/72	0.07
Copper (Heavy oxide Board)	25/77	0.78
Enamel (Fuse on iron)	19/66	0.9
Formica Plate	27/81	0.94
Frozen soil	-	0.93
Brick (Red, rough)	21/70	0.93
Brick (Unglazed, rough)	1000/1832	0.8
Carbon (T - carbon 0.9% ash)	127/260	0.81
Concrete	-	0.94
Glass (Glossy)	22/72	0.94
Granite (Surfaced)	21/70	0.85
Ice	0/32	0.97
Marble (I Polished, grey)	22/72	0.93
Asbestos board	23/74	0.96
Asbestos paper	38/100	0.93
	371/700	0.95
Asphalt (Paving the road)	4/39	0.97

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