

IRScan Alarm Software



IR scan®

IRScan Alarm Software

WHAT IS IT?

- IRSCAN Alarm is a software developed by Telea Tecnovision that allows to manage the communication between Thermal imaging cameras and remote I/O modules or other devices/SW platform.
- IRSCAN software platform works together with “TPIX Connect software” (a IR analysis program supplied as free license with thermal imaging cameras), providing additional functions.

IRScan Alarm Software

WHEN IS IT USED?

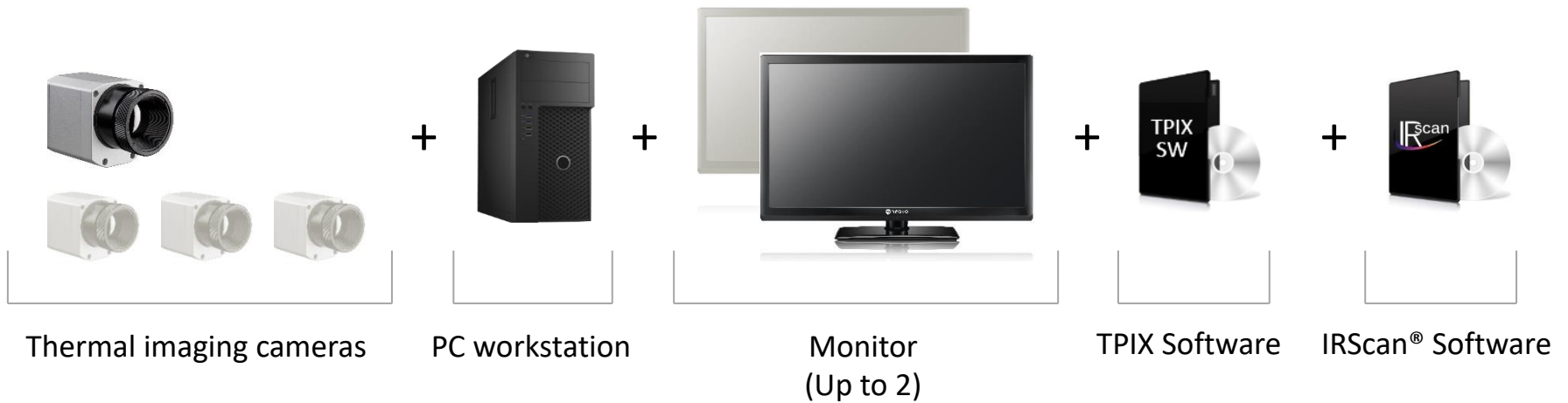
IRSCAN Alarm software is recommended in all situations where more thermal imaging cameras have to be used for :

- Fire detection for coal/sulfur deposit, waste landfill or bunker, forest area;
- Liquid level monitoring for gas storage tanks;
- Temperature measurement of industrial process;
- Flame detection;
- Boiler monitoring;
- Electrical substation monitoring;



IRScan Alarm Software

SYSTEM BASIC REQUIREMENTS:



IRScan Alarm Software

MAIN FEATURES:

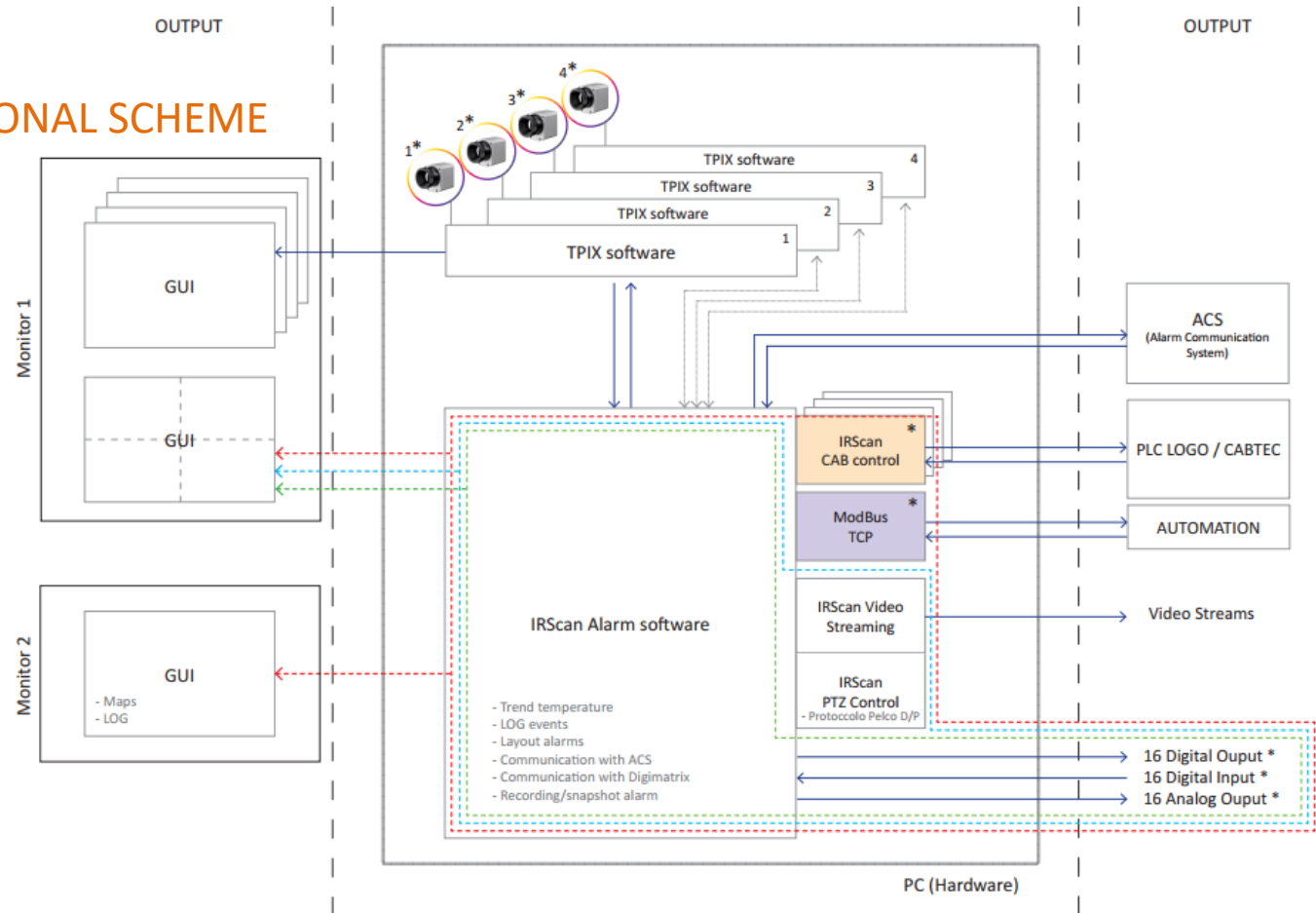
1. Intuitive & simple graphic user interface (GUI)
2. Display up to 4 real time thermal images
3. Wide range of temperature measurement functions
4. On line temperature analysis
5. Off line post processing of infrared images/videos
6. Alarm setting and management
7. Process data interface with automation system (HW modules, SW protocols)
8. Pan& Tilt device (PTZ) management
9. Video streaming (RTSP) for interface with CCTV video management software
10. Map management with Icons and interactive alarm status
11. Complete set up of parameters and remote control of the cameras

HOW MANY VERSIONS?

- IRSCAN Alarm is available in three different versions: *Light, Standard and Professional*

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LOGICAL / FUNCTIONAL SCHEME



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MAIN FEATURES:

Versions	Product code	Max n° of cameras	DO signals	DI signals	AO signals	IRScan Video Streaming	IRScan PTZ Control	Second monitor
LIGHT	IRScanAlarm_Li	4	16	16	16	-	-	-
STANDARD	IRScanAlarm_Std	4	16	16	16	Yes	Yes	-
PROFESSIONAL	IRScanAlarm_Pro	4	16	16	16	Yes	Yes	Yes

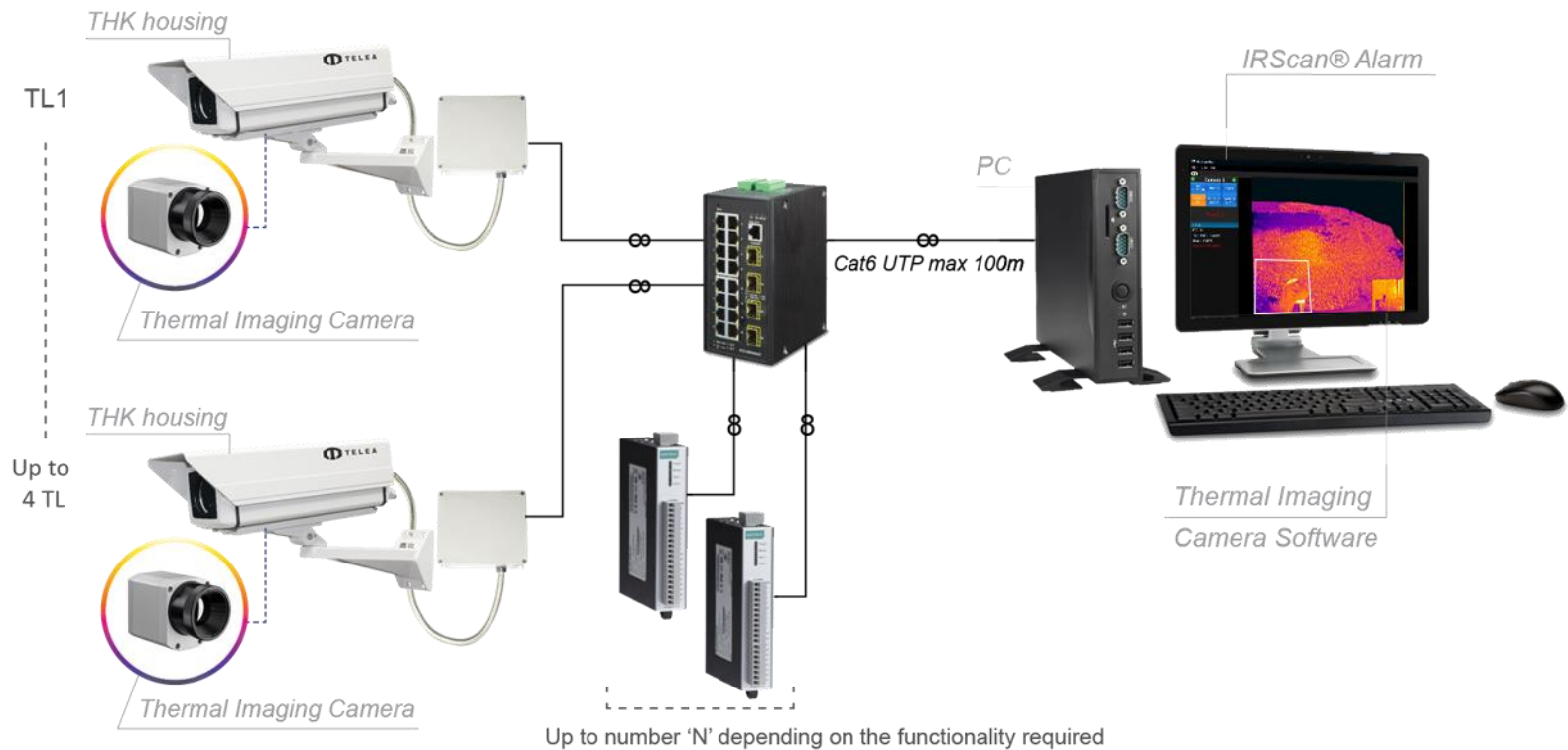
*DO=Digital Output; DI=Digital Input; AO=Analog output;

ADD-Ons:

- **IRS_Lic_1TL:** Single thermal camera activation license for IRSCAN platform
- **MAT_Lic_1IO:** Single I/O digital or analogue signals Ethernet module
- **IRScan_Lic_CAB:** Activation license for communication with PLC Logo Siemens
- **Modbus TCP:** Activation license for communication based on Modbus TCP

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BASIC SYSTEM ARCHITECTURE:



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INTUITIVE & SIMPLE GUI (Graphic User Interface):

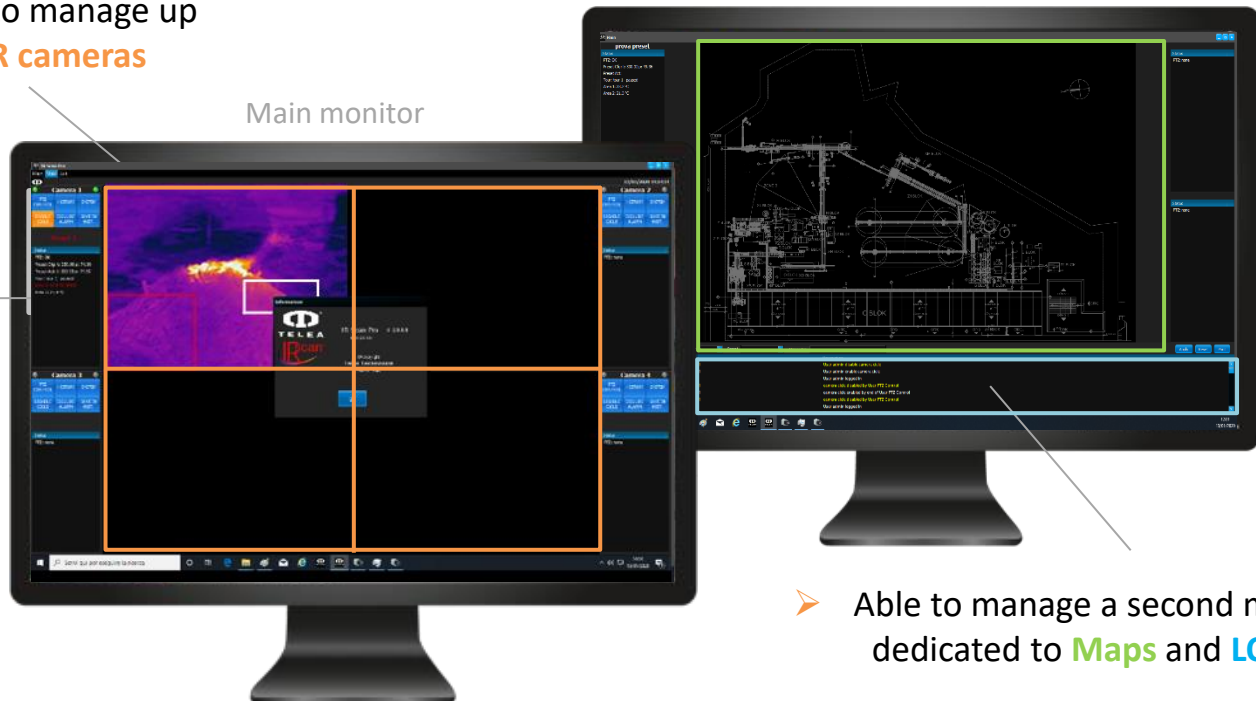
- Able to manage up to **4 IR cameras**

Optional second monitor

Camera info and status:

Main monitor

- (A) PTZ Control
- (B) History
- (C) System
- (D) Enable/Disable Tour
- (E) Exclude alarm
- (F) Save in history



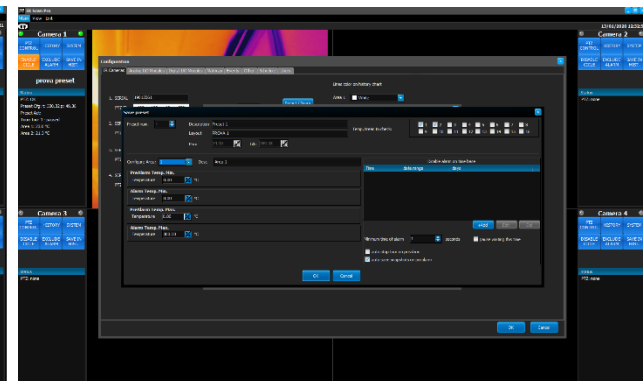
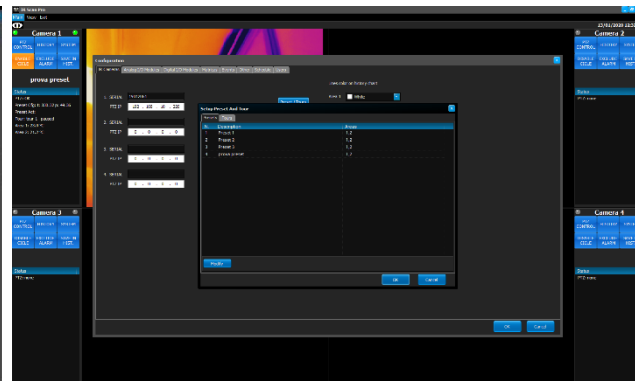
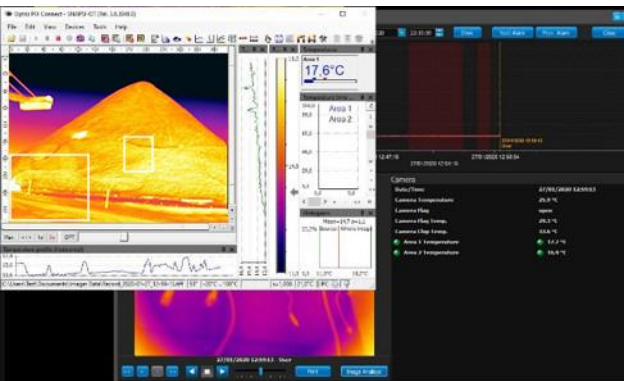
- Able to manage a second monitor dedicated to **Maps** and **LOG**

IRScan Alarm Software

INTUITIVE & SIMPLE GUI (Graphic User Interface)

HOW TO START?

- 1 Install the cameras on the SW, using serial number and IP address
- 2 Definition of the camera / PTZ presets on field (what should the camera display?)
- 3 Creation of the layout for each preset (definition of the areas, color range, temperature hot spot, etc.)
- 4 Preset analyse and event definition



IRScan Alarm Software

INTUITIVE & SIMPLE GUI (Graphic User Interface)

HOW TO START?

1

Open IRSCAN and go to configuration

Enter the serial number of the IR camera and the IP address of the PTZ

2

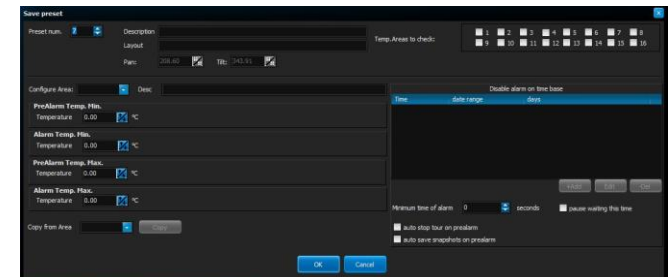
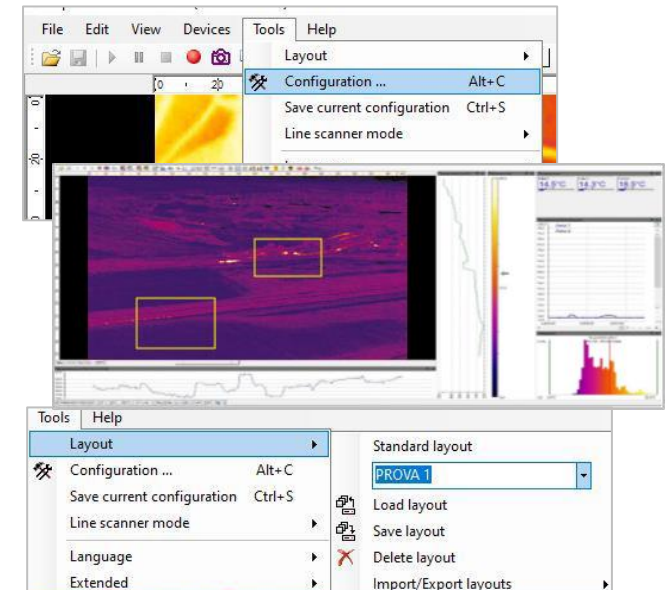
3

4

Place the PTZ and then configure the areas using TPIX SW

Save the Layout in the TPIX SW (for each area)

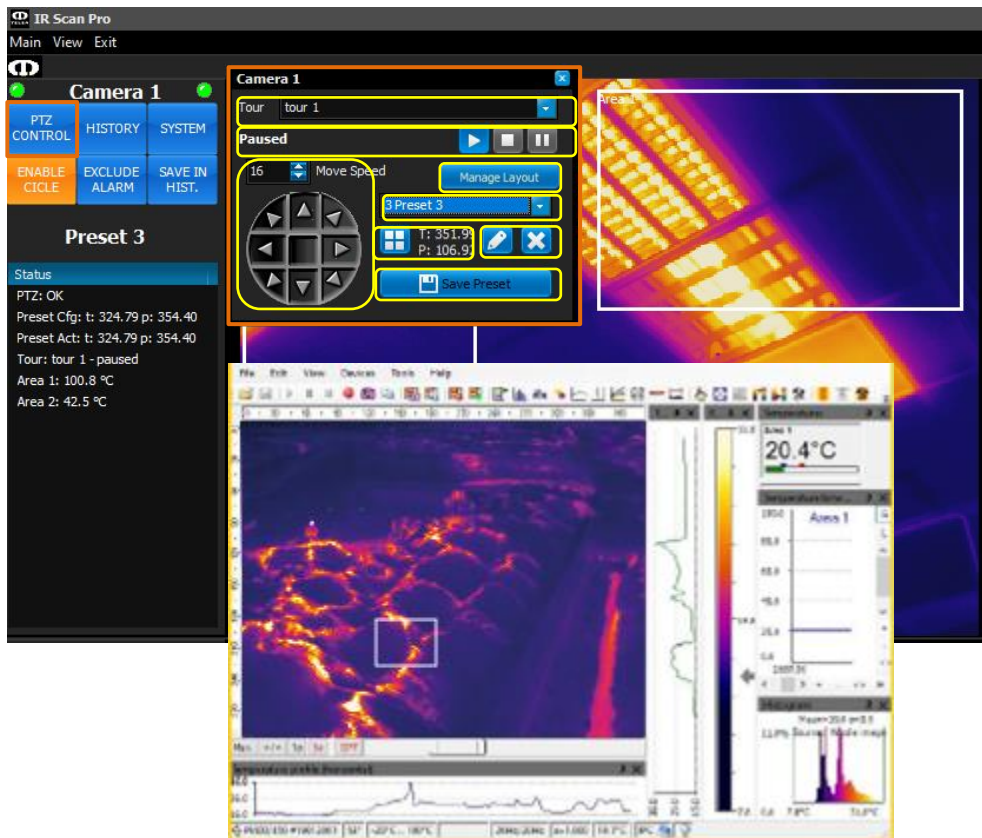
Save the preset and recall the Layout on IRScan SW



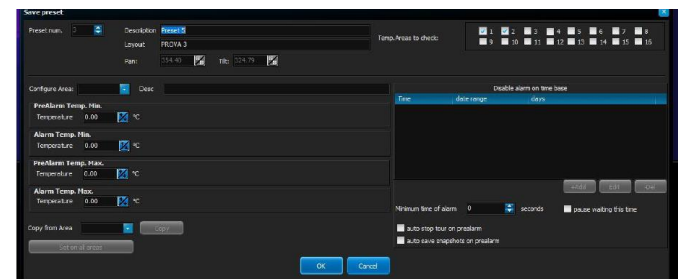
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INTUITIVE & SIMPLE GUI (Graphic User Interface)

A. PTZ CONTROL



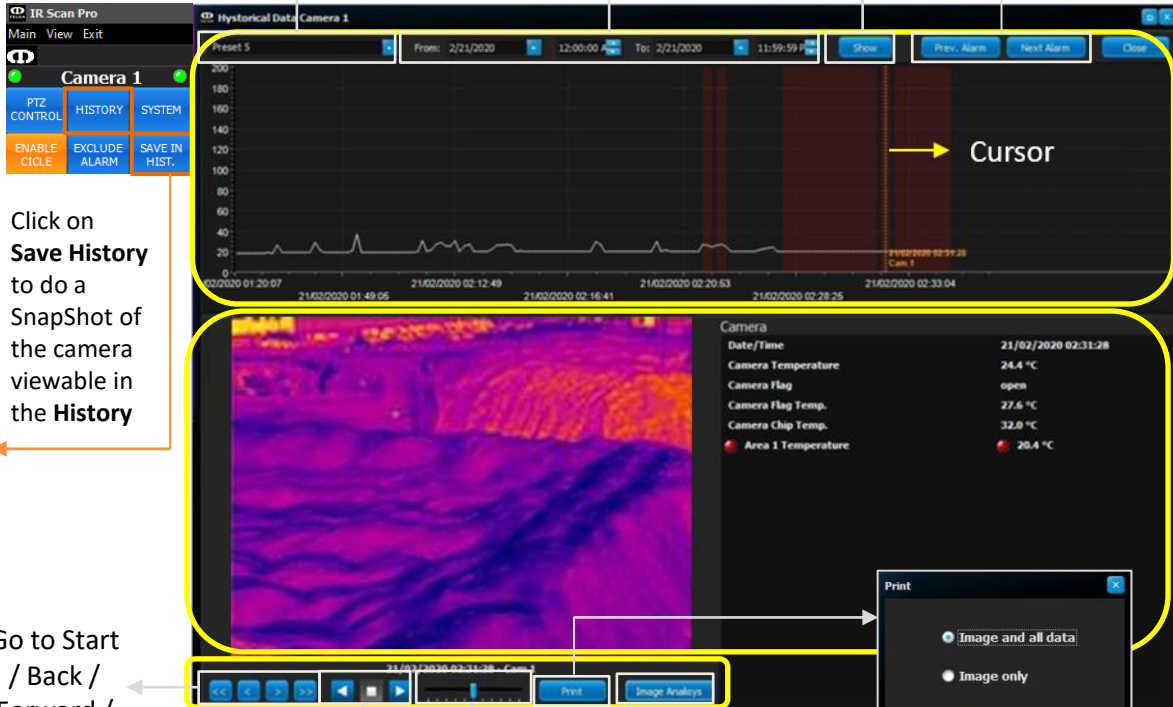
- Tour selection (if created and configured previously);
- Play / Stop / Break functions;
- Management of PTZ speed (1-254) & movement;
- Opening camera's page for modify layouts and areas;
- PTZ preset selection (if created and configured previously);
- Show Pan (P) and Tilt (T) coordinates;
- Modify preset / Delete preset functions;
- Save preset;



IRScan Alarm Software

INTUITIVE & SIMPLE GUI (Graphic User Interface)

B. HISTORY & SAVE



The screenshot shows the 'Historical Data' window for 'Camera 1'. The interface includes a menu bar (Main, View, Exit), a control panel with buttons for PTZ CONTROL, HISTORY, SYSTEM, ENABLE CIRCLE, EXCLUDE ALARM, and SAVE IN HIST., and a main display area. The main display area features a 'Configured preset' dropdown, a 'Time filter' section with 'From' and 'To' date/time pickers, and a 'Show' button. Below these is a 'Graphic trend' graph showing temperature over time. A 'Cursor' is positioned on the graph. To the right of the graph is a table of 'Camera's data during selected snapshot'. At the bottom, there are navigation buttons (Go to Start, Back, Forward, Go to end), a 'Speed selector for automatic replay', and buttons for 'Print' and 'Image Analysis'. A 'Print' dialog box is open, showing options for 'Image and all data' and 'Image only'.

Click on to see the preset and time filter selected

It allows to see previous or next alarms in the graph

Click on **Save History** to do a SnapShot of the camera viewable in the **History**

Go to Start / Back / Forward / Go to end

Automatic Back/Forward / Stop

Speed selector for automatic replay

Open image on Optris for analysis

Cursor

Camera's data during selected snapshot:

Camera	Date/Time
Camera Temperature	21/02/2020 02:31:28
Camera Flag	24.4 °C
Camera Flag Temp.	open
Camera Chip Temp.	27.6 °C
Area 1 Temperature	32.0 °C
	20.4 °C

- Graphic trend;

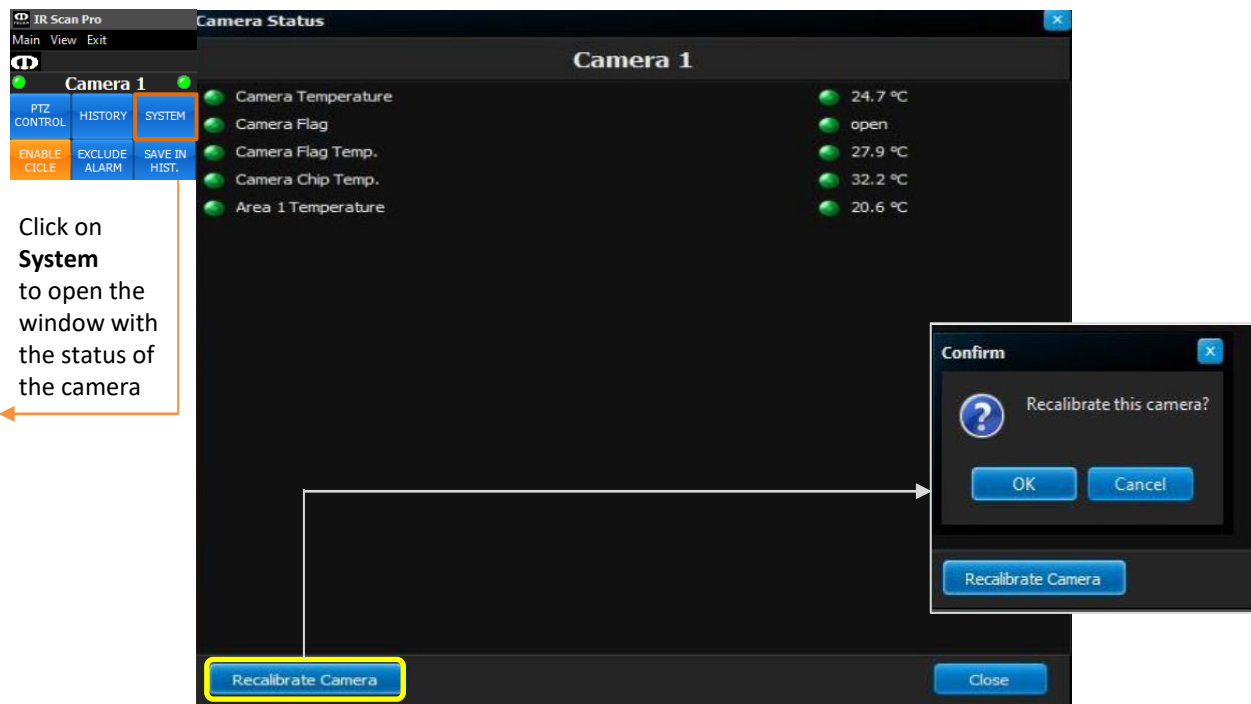
- Camera's data during selected snapshot;

- History's control commands;

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INTUITIVE & SIMPLE GUI (Graphic User Interface)

C. SYSTEM



Recalibrate Camera = Reboot the camera using PTZ's Aux Output.

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D. ENABLE/DISABLE TOUR



Paused tour

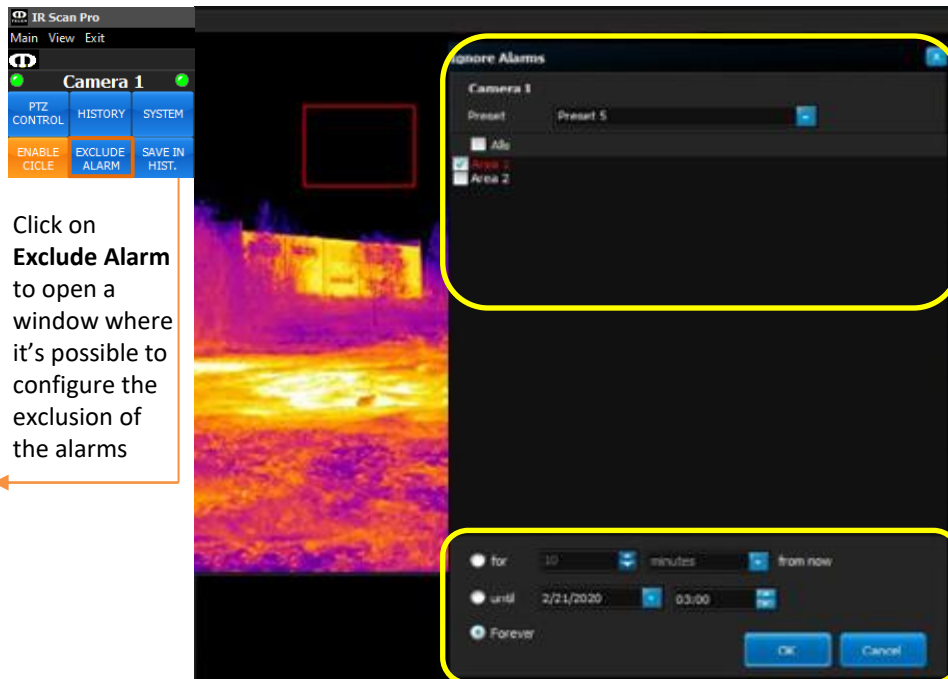
Active tour

Through this command it is possible to enable or disable PTZ tour selected

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INTUITIVE & SIMPLE GUI (Graphic User Interface)

E. EXCLUDE ALARM



- It is possible to select the preset and areas to be excluded;



This features is very useful when temporary activities are carried out in the field.

- It is possible to select how long to exclude the alarm

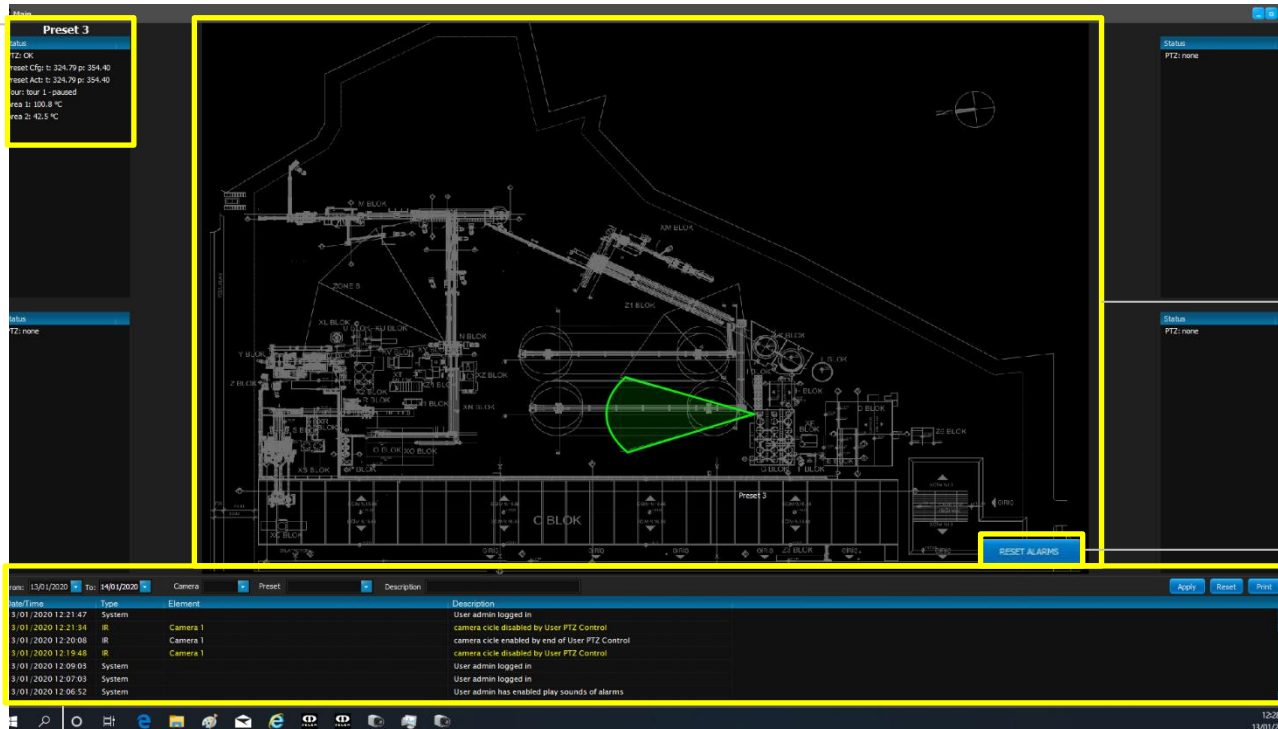
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INTUITIVE & SIMPLE GUI (Graphic User Interface)

■ MAP MANAGEMENT (It requires the use of a second monitor)

CAMERA INFO:

It shows the status of the PTZ, tour and the temperature of the areas



MAP:

It shows the map of the plant and cameras positioning

RESET ALARMS:

It allows to exclude an alarm

LOGS+FILTERS SEARCH:

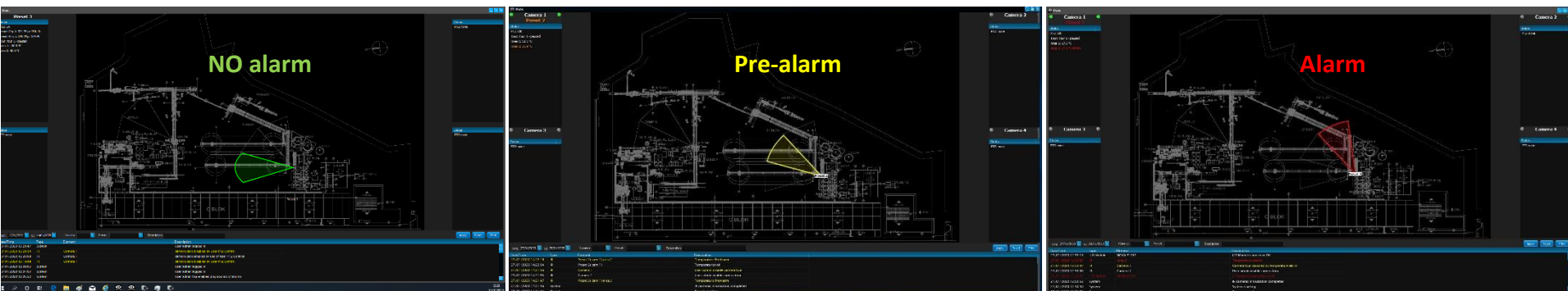
It allows to see the status of the system with filter function

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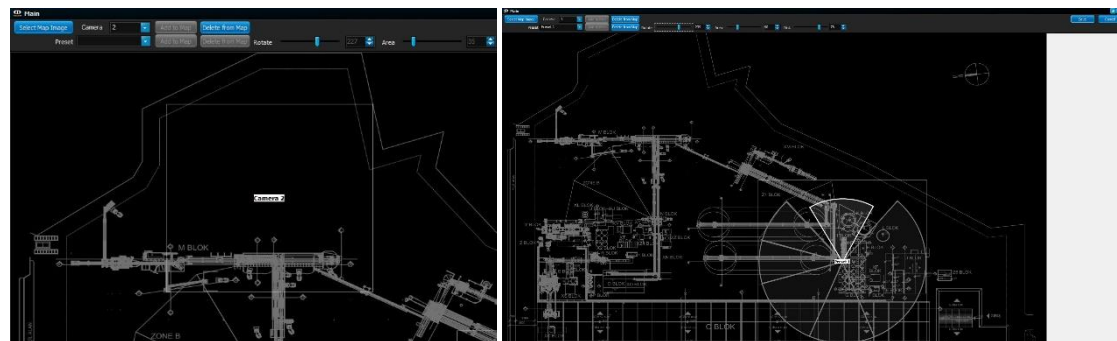
INTUITIVE & SIMPLE GUI (Graphic User Interface)

■ MAP MANAGEMENT

Thanks to the maps management, the operator can immediately visualize in which position (preset) the camera is and the status of the alarm.



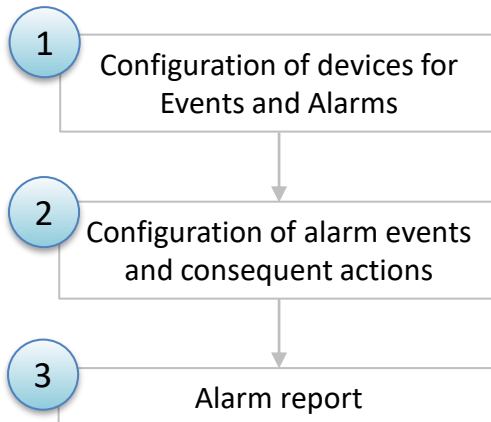
The operator can easily insert the cameras on the map, draw the viewing angles and the various presets.



IRScan Alarm Software

INTUITIVE & SIMPLE GUI (Graphic User Interface)

■ SETTING of ALARM EVENTS



- IRScan Alarm software allows a wide customized alarms management, in order to satisfy high control and safety needs
- Alarms signals are highlighted in the user interface and also through an audible warning
- For each alarm detected, the system generates an action (preset by the user) and creates a report

IRScan Alarm Software

INTUITIVE & SIMPLE GUI (Graphic User Interface)

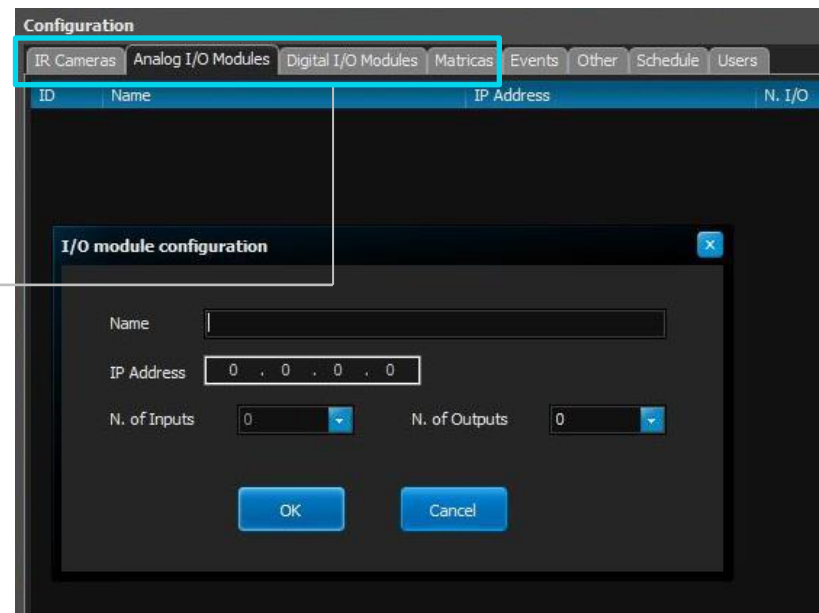
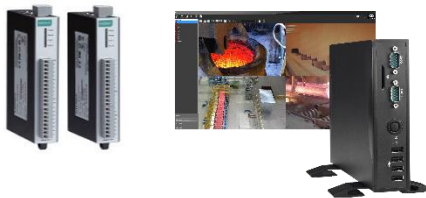
■ SETTING of ALARM EVENTS

1

Configuration of devices for
Events and Alarms

The possible devices to be added are:

- **ANALOG I/O MODULES**
- **DIGITAL I/O MODULES**
- **MATRICA PLATFORM**



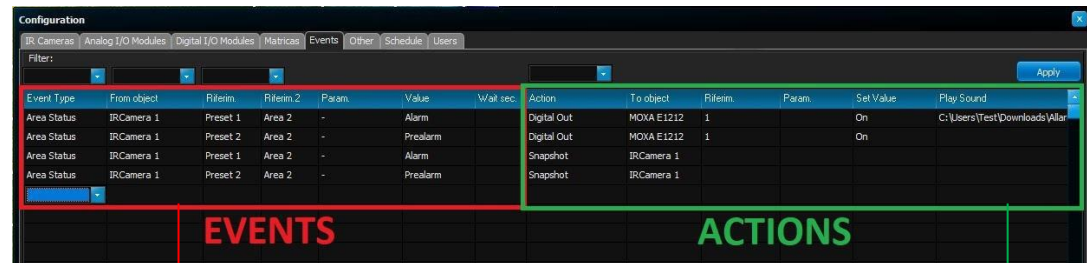
IRScan Alarm Software

INTUITIVE & SIMPLE GUI (Graphic User Interface)

■ SETTING of ALARM EVENTS

2

Configuration of alarm events and consequent actions



The types of **EVENTS** configurable are:

- **DIGITAL INPUT**
- **CONNECTION STATE**
- **CAMERA TEMPERATURE**
- **AREA STATUS**



The types of **ACTIONS** configurable are:

- **DIGITAL / ANALOG OUT**
- **MATRICA VIDEO TOUR**
- **MATRICA CAMERA PRESET**
- **MATRICA VIDEO PRESET**
- **MATRICA EVENT**
- **MATRICA ALERT**
- **SNAPSHOT**

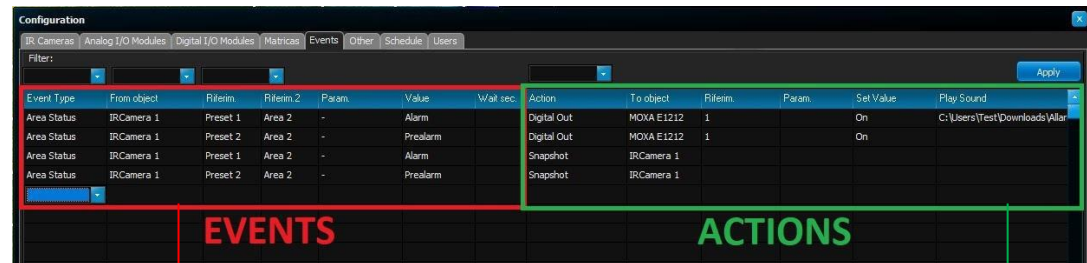
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INTUITIVE & SIMPLE GUI (Graphic User Interface)

SETTING of ALARM EVENTS

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- **MATRICA VIDEO PRESET**
- **MATRICA EVENT**
- **MATRICA ALERT**
- **SNAPSHOT**

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INTUITIVE & SIMPLE GUI (Graphic User Interface)

■ SETTING of ALARM EVENTS

3

Alarm report

From: 27/01/2020 To: 28/01/2020		Camera	Preset	Description
Date/Time	Type	Element	Description	
27/01/2020 12:56:25	IR	Area 2	Temperature Alarm bypassed by configuration	
27/01/2020 12:56:25	IR	Preset 1 - Area 2	User admin disable alarms until 27/01/2020 12:57	
27/01/2020 12:53:18	I/O Module	MOXA E1212	I/O Module connected OK	
27/01/2020 12:53:07	IR	Area 2	Temperature Alarm!	
27/01/2020 12:53:07	IR	Camera 1	Camera tour disabled by temperature alarm	
27/01/2020 12:53:00	IR	Camera 1	User admin enable camera tour	
27/01/2020 12:50:57	I/O Module	MOXA E1212	I/O Module connection error	

The system generates a REPORT, available on LOGS window, where all the alarms, pre-alarms and events are listed with their data and time.