

# BORDER SECURITY SYSTEM – 2022-2023



**MAKBİM**  
TEKNOLOJİ

# Border Security Solution

About the project ;

From 2011, when the civil war started in Syria which directly reflected the instability in the region since the border wall as Turkey's measures have started to knit. When the walls are completed, the Great Wall will be the third wall in the world in terms of length, after the wall planned to be built on the US-Mexico border. The following elements are planned for the safety of the line created.

- Razor Wire
  - PTZ Cameras
  - Thermal Cameras
  - Infrared Sensors
  - Video Analysis Systems
  - Special Lighting Solutions
  - Lighting and Alarm Automations
- 
- ***The border security project was carried out in the border area of Ardahan, Ağrı and Iğdır provinces and was completed in April 2020.***



# Border Security Solution



## General Purposes

- Terrorist Activities
- Refugee Activities
- Smuggling Activities

# Border Security Solution

## Project Processes;

Considering the processes of the project, in the first application, human movements at the border were determined by sensors. Considering the implementation of the project for different provinces in the future, it was decided to use thermal cameras and smart analysis software, as the use of sensors in environmental conditions will create a disadvantage.

In order to meet the demands of monitoring and managing the systems perceived by these systems, additional software and hardware were designed and produced, and field-appropriate solutions were produced.

# Special Designs



## Lighting System;

### Special Design Led Projectors

- Brightness level can be adjusted.
- Industrial Design
- Long Life
- Led Flasher

### Special Design Pole

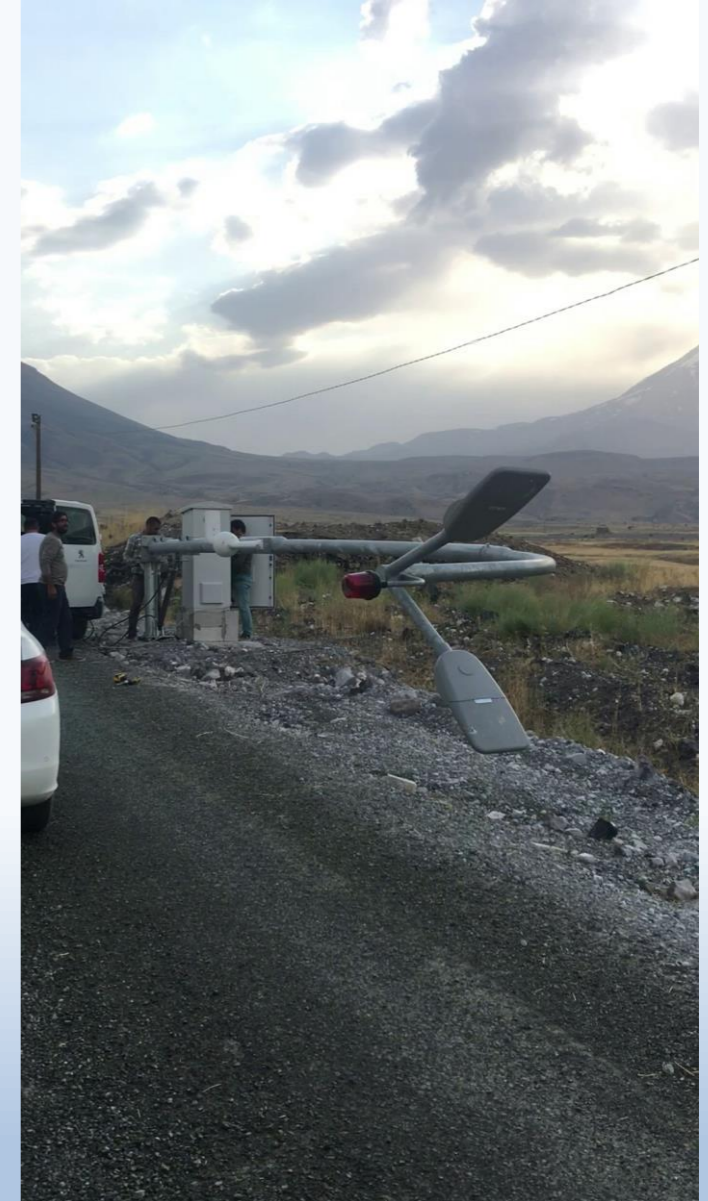
- Design suitable for harsh weather conditions
- Can be tilted 90 degrees for service

### Field Cabinet

- Design suitable for harsh weather conditions

### Network Equipments

### Electrical Equipments



# Special Designs



## Automation Control Board

### Automation Board

- 2x Led Projector Control
- 1x Flasher Control
- 1x Cover Switch ( Sabotage )
- 1x RJ45 Network Connection
- 1x 5v Power Input

### Thermal Control Board

- Makes Processor Movements to the Monitor.

# Special Designs



SECON Otomasyon

Harita Lok. Sayısı: 105

Toplam Lok. Sayısı: 105

Kapak Alarmı: 0

Alan Alarmı: 0

Pasif Cihazlar: 0

Aktif Işık Seviyesi: Kapalı

Kontrol

Enlem : 41.0873733599987 Boylam : 43.2445907592773 Zoom : 12

CihazID	IP Adresi	Lokasyon Adı	Alarm Alanı	Alarm Bilgisi	Bağlı Lokasyonlar	Alarm Zamanı
62	192.168.2.63	Direk 62	Direk 62	Bağlantı Hatası	Direk 62	07.10.2019 16:01:17
1	192.168.0.223	İvanovits	Direk 62	Durum Normal	Direk 18, Direk 19	07.10.2019 15:27:51
1	192.168.0.223	İvanovits	Direk 62	Durum Normal	Direk 33, Direk 34	07.10.2019 15:02:19
1	192.168.0.224	İvanovits	Direk 62	Durum Normal	Direk 4, Direk 5	07.10.2019 14:27:25
1	192.168.0.221	İvanovits	Direk 62	Durum Normal	Direk 60, Direk 61	07.10.2019 14:24:16

7.10.2019 17:18:35

Secon Otomasyon Sistemleri Ver 1.0 | Bağlı Kullanıcı ID : admin | Kullanıcı Adı Soyadı : Secon Teknoloji |

TeamViewer 17:18 7.10.2019

## Secon Alarm Management and Lighting Automation Control SW

- Lighting Automation
- Flasher Control
- Alarm Management
- PTZ Camera Integration
- Alarm Record / Take Photo
- Multi Control Structure
- System Reporting
- Special User Interface

# Özel Tasarımlar



## Secon Monitoring & Management Platform

- Network Recorders
- 55'' Monitor / Display
- Workstation PC
- Android Joystick
- Industrial Network Equipments
- UPS

## Hikvision Perimeter Security Solutions

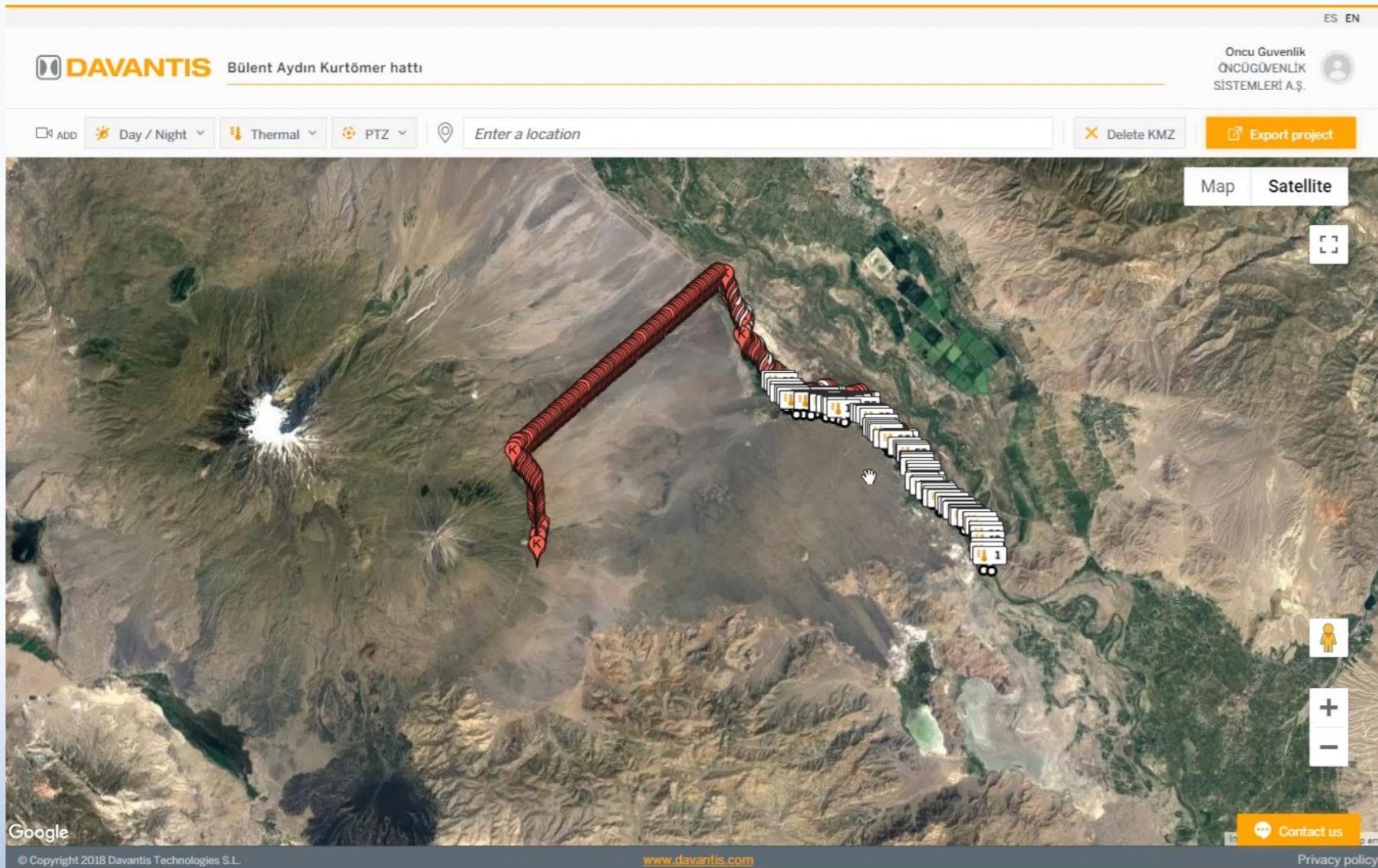
- 25-35-50mm Thermal IP Cameras
- Darkfighter PTZ IP Cameras
- 64 Channel / 16 Channel NVR Devices
- LCD Keyborad

## Davantis Video Analysis System

- Davantis LR( Long Range ) Video Analysis Server
- AI & Deep Learning Algorithm
- Thermal Camera Support
- 3. Party Software Integration ( SECON )

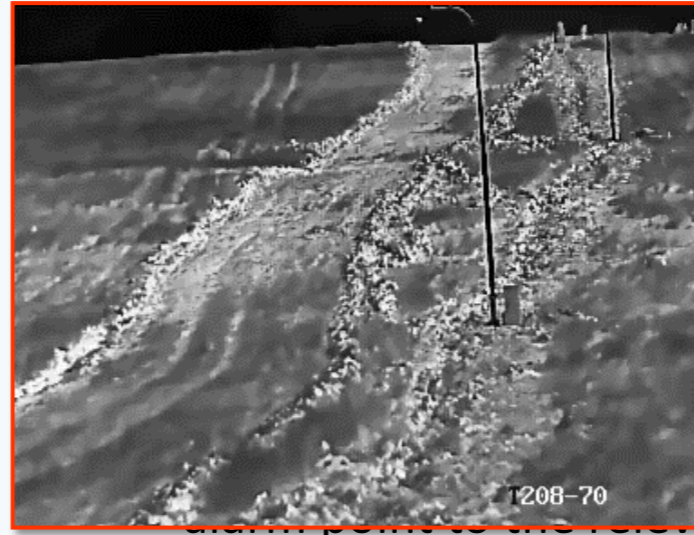
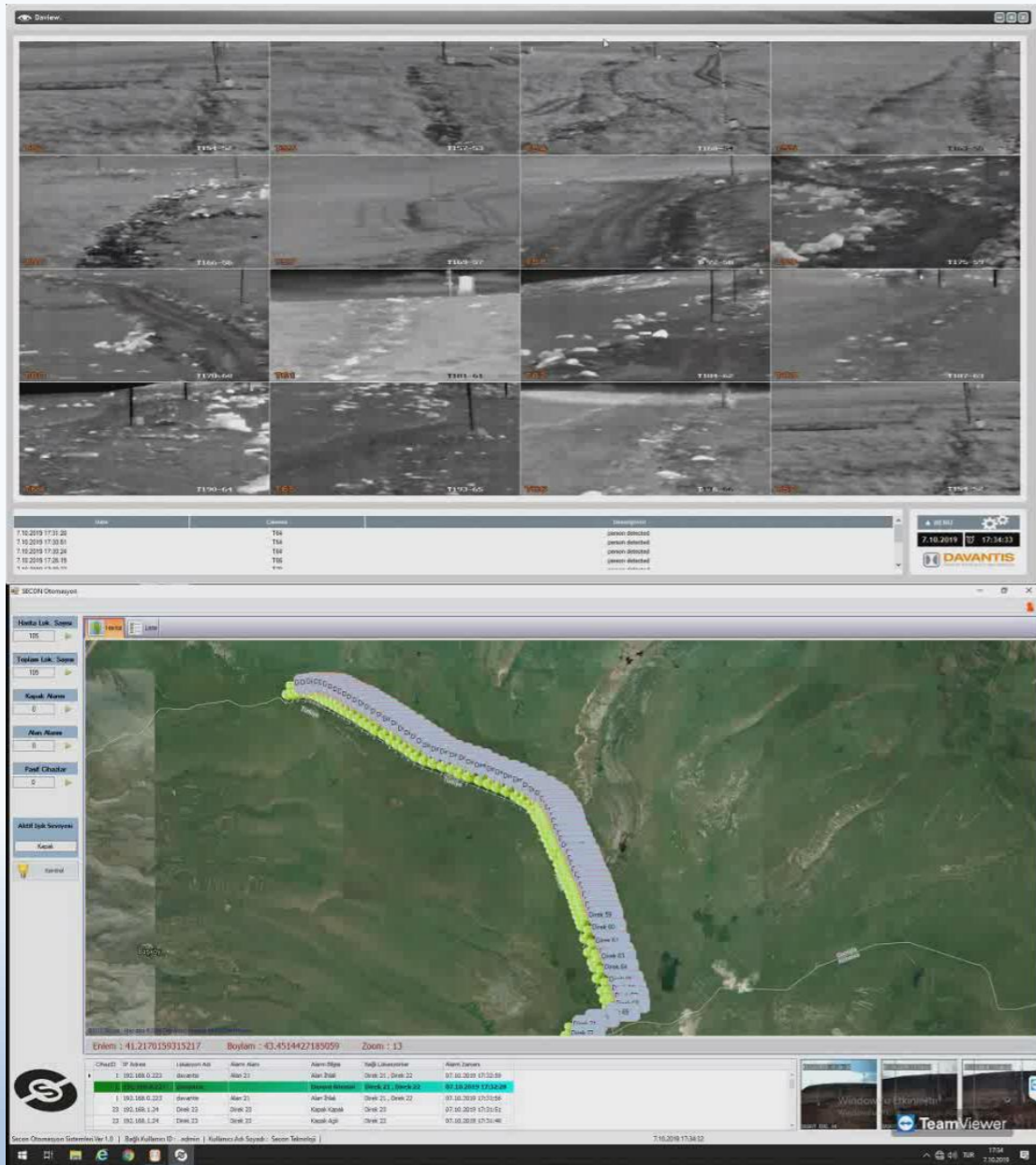


# Special Designs



In the project designs, the field applications were planned in advance by using special project design tools.

# System Scenario

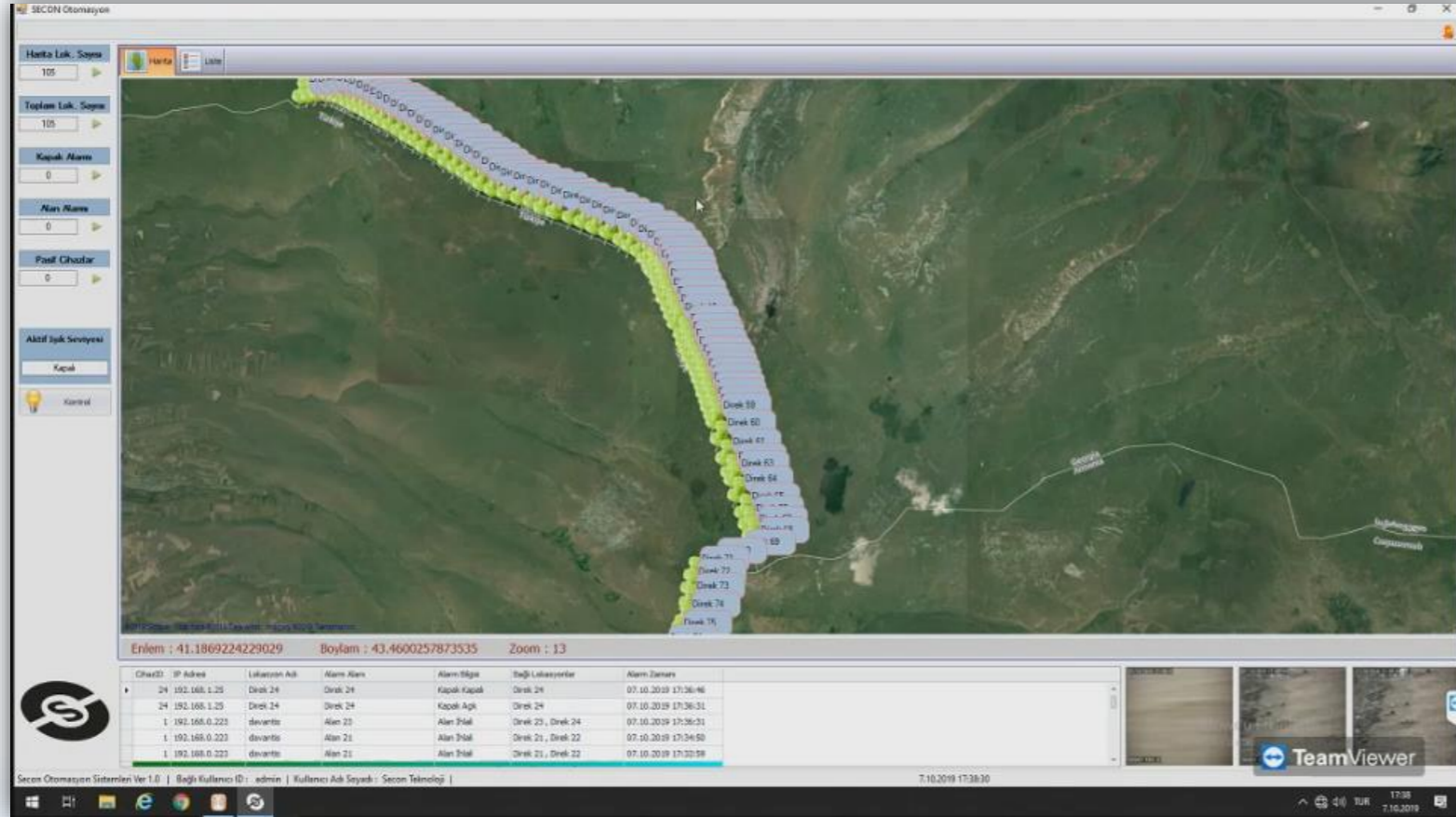


Thermal Cameras are analyzed 24/7. Based on the created area, it uses motion detection software. The software automatically rotates the camera of the relevant camera to the relevant area, takes 3 pictures and

saves them in the archive.

- The software simultaneously monitors the area where the alarm occurred. Lighting levels of the related poles are set as 100%.
- The flashers (start flashing) on the relevant two poles are activated. In this way, when viewed from a distance, the point where an alarm occurs can be detected by eye. (For patrol teams)

# System Scenario



The screenshot displays the SECON Otomasyon software interface. The main window shows a satellite map of a field with a series of green and yellow markers representing cabinet locations. The interface includes a sidebar with various control buttons and a data table at the bottom. The data table lists cabinet details such as ID, IP address, location name, alarm name, alarm type, and alarm status.

Cher#2	IP Adresi	Lokeasyon Adı	Alarm İsmi	Alarm Şişi	Bağı Lokeasyonlar	Alarm Durumu
24	192.168.1.25	Direk 24	Direk 24	Kapak Kapat	Direk 24	07.10.2019 17:36:46
24	192.168.1.25	Direk 24	Direk 24	Kapak Açık	Direk 24	07.10.2019 17:36:31
1	192.168.0.223	devante	Alan 23	Alan 3'Hal	Direk 23, Direk 24	07.10.2019 17:36:31
1	192.168.0.223	devante	Alan 21	Alan 3'Hal	Direk 21, Direk 22	07.10.2019 17:34:50
1	192.168.0.223	devante	Alan 21	Alan 3'Hal	Direk 21, Direk 22	07.10.2019 17:32:09

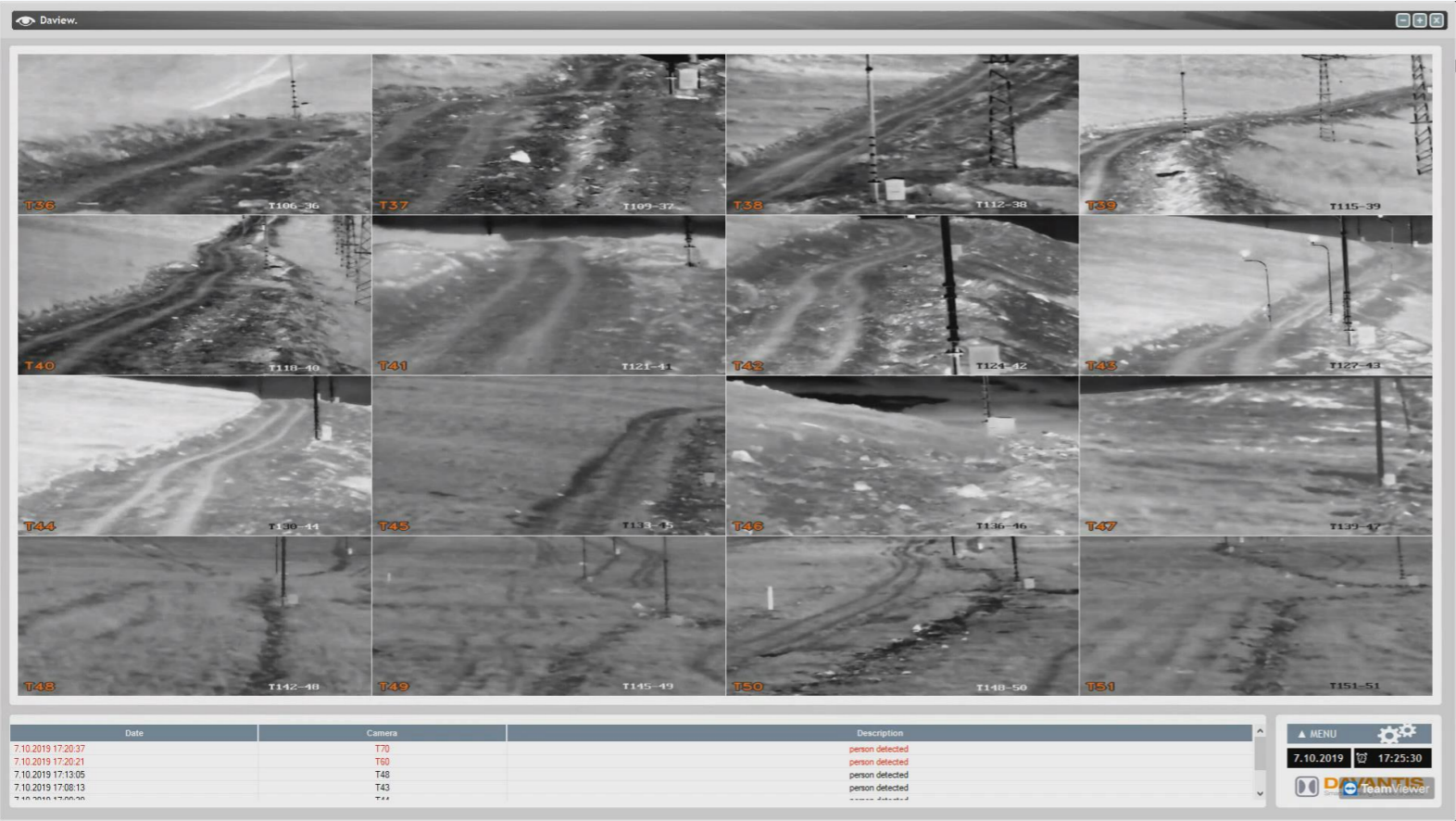
Enlem : 41.1869224229029 Boylam : 43.4600257873535 Zoom : 13

7.10.2019 17:38:30

## Field Cabinet / Cover Alarm

- When the doors of the cabinets in the field are opened, the control card sends an alarm signal to the center.
- Rotated to see the closest PTZ camera cabinet.
- The relevant field cabinet is monitored on the map.
- PTZ camera is recorded by taking 3 pictures.

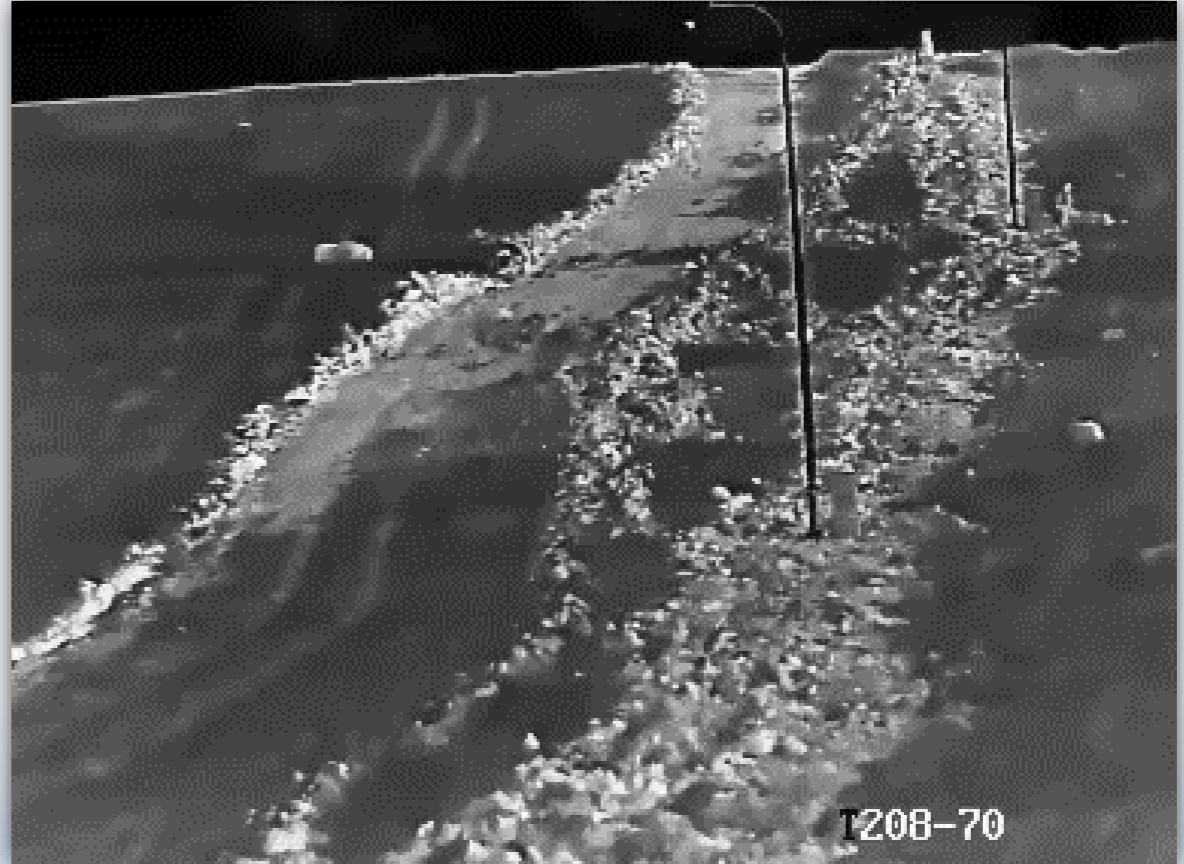
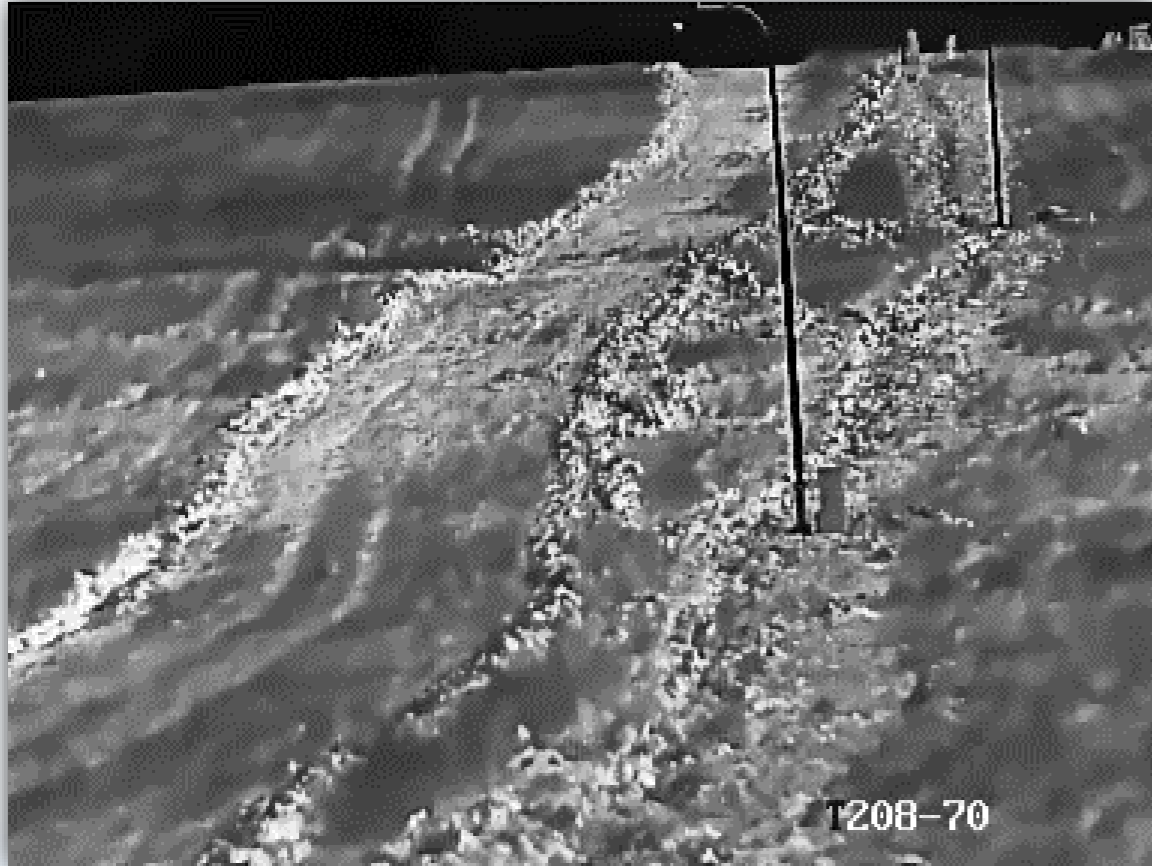
# Border Security Solution



## Davantis Client Software

- Alarms can be viewed via software
- Past alarms can be viewed
- Alarm records can be back up
- Device settings can be made through the software

# Border Security Solution



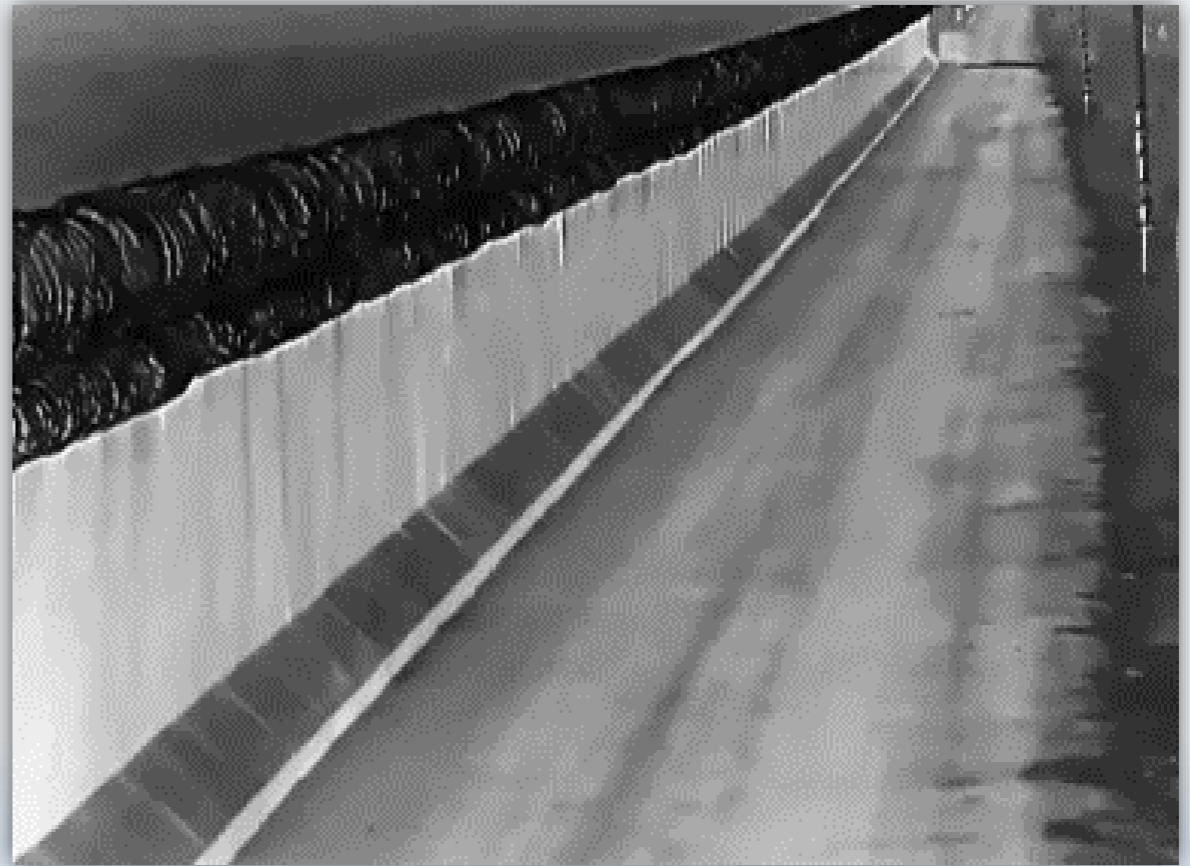
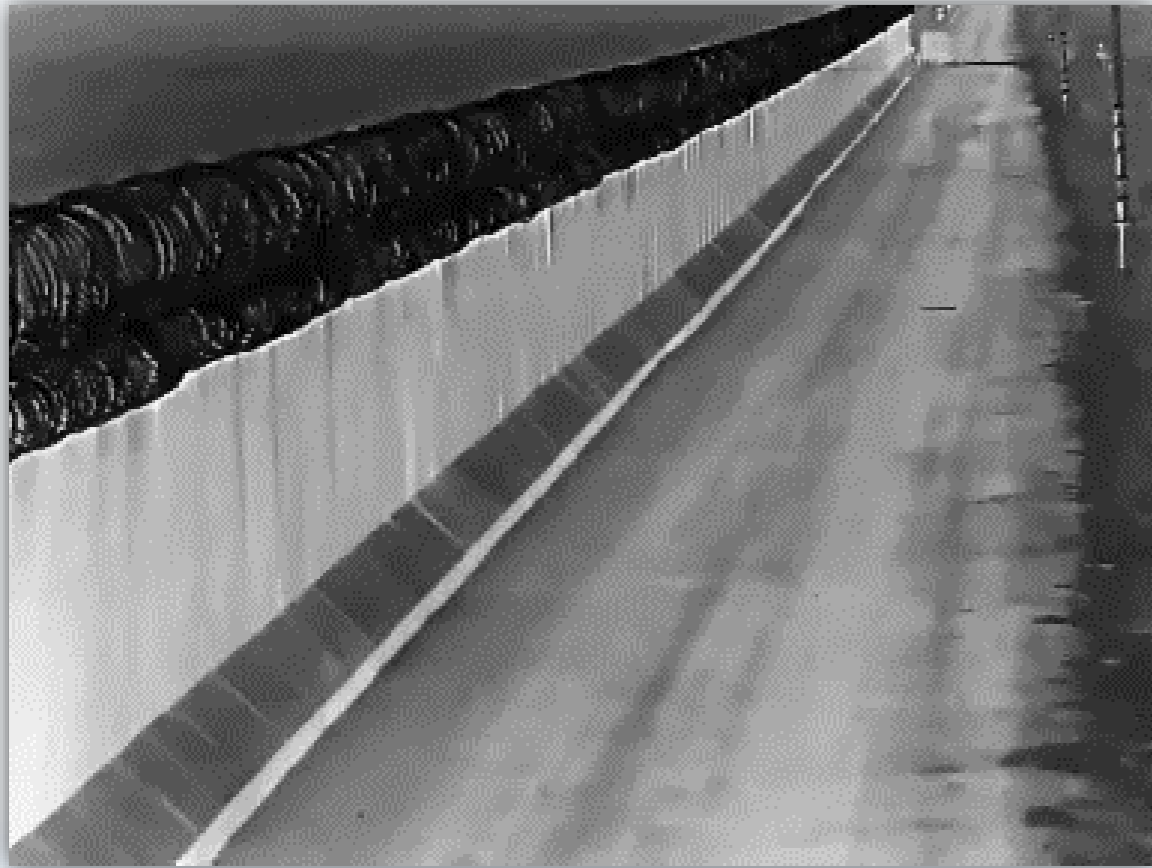
- Video Analysis Software real video clips from the field

# Border Security Solution



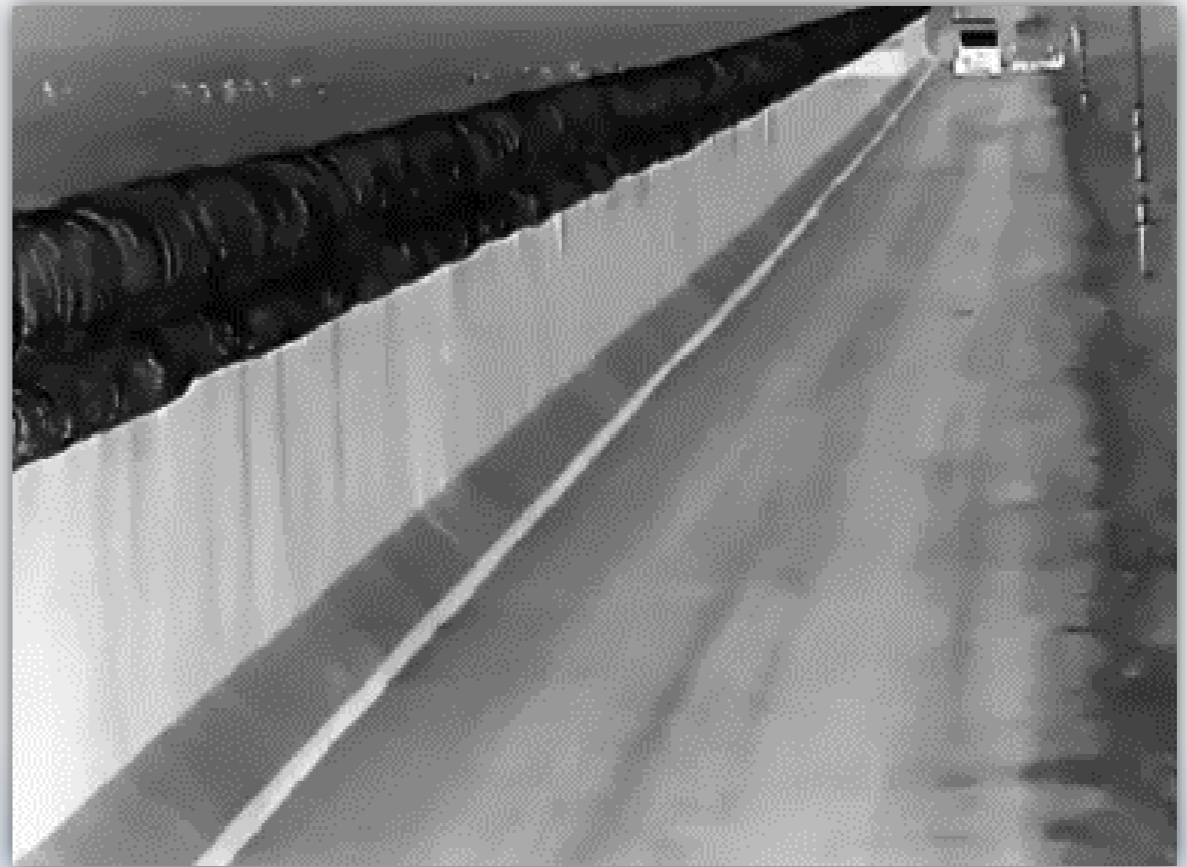
- Video Analysis Software real video clips from the field

# Border Security Solution



- Video Analysis Software real video clips from the field

# Border Security Solution



- Video Analysis Software real video clips from the field



# Border Security Solution



- Real video clips from field



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**Thank you...**