



# MANUFACTURING ENTERPRISES AND INDUSTRIAL FACILITIES

**TYPICAL ISSUES  
NEED TO BE SOLVED TO ENSURE  
THE SECURITY OF THE ENTERPRISE  
OR INDUSTRIAL FACILITIES:**

## **MONITOR**

- the perimeter twenty-four-hours;
- the employees movement through the territory;
- the movement of any vehicles on the territory;
- handling operations;
- the movement of the material values.



TRASSIR offers a wide range of solutions for each of these points. All these modules have deep integration among themselves which helps to build one integrated video surveillance system.





## FOR THE HEAD OF THE SECURITY SERVICE

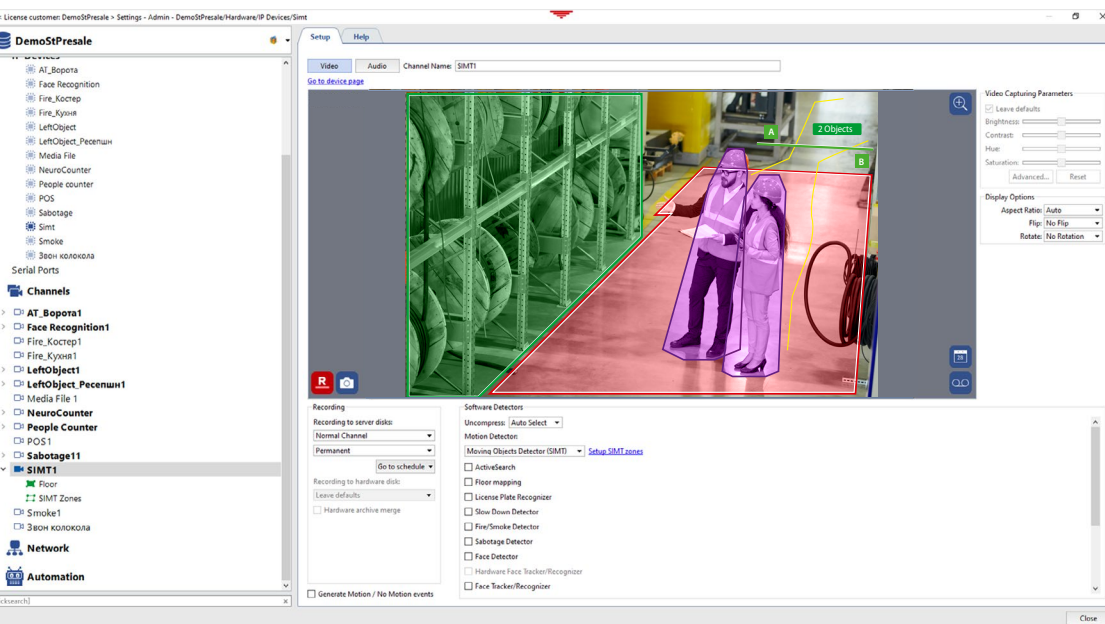


### Control the perimeter of the territory

TRASSIR ActiveDome video analytics will become an optimal choice for controlling the perimeter of the territory. This solution is designed for video surveillance on large areas which allows you to run the high-speed PTZ-cameras.

### TRASSIR ActiveDome allows you to:

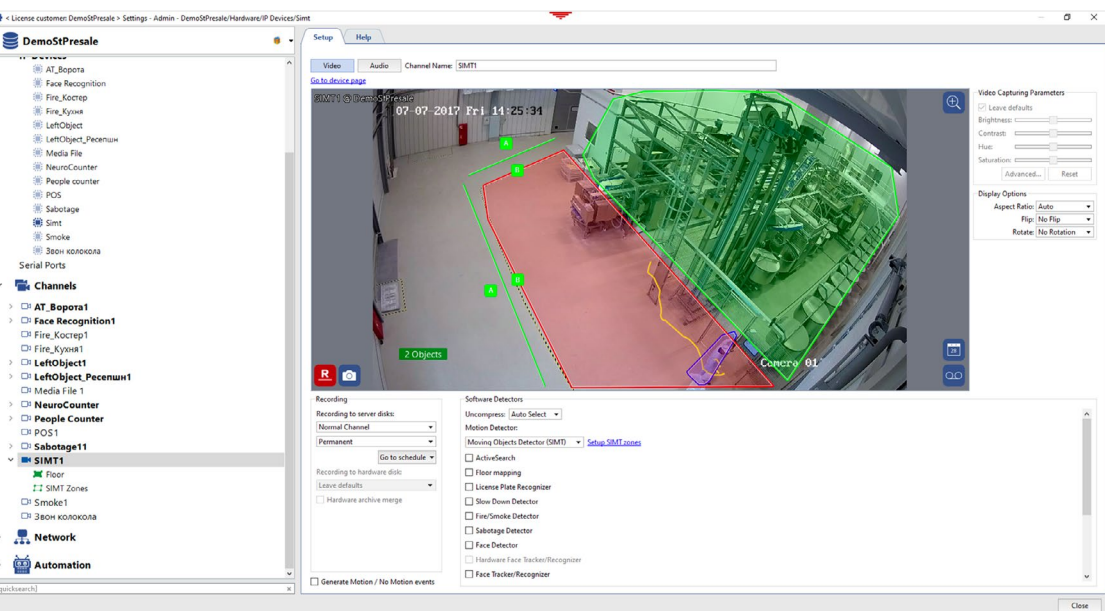
- Monitor and conduct a review of a large area. TRASSIR ActiveDome provides PTZ-camera tracking of moving objects on the territory (people, animals and vehicles);
- Receive the desired level of video detail: 36X optical zoom will allow you to see the moving objects in details, detect people's faces, license plates even who was driving;
- Find and view the desired video recording at anytime: everything came in camera coverage is recorded and stored in the archive;
- Provide total control over the area of responsibility: Combination of panoramic and PTZ-cameras allows you to control a large area with the desired specifications and you always know who has been at the territory and what he has been doing;
- Monitor the situation manually: When the guard is using the control panel and selecting the moving objects directly on a panoramic video from a viewing camera manually. Selected objects are immediately mapped close-up on a next monitor displaying a picture from PTZ video camera;
- Monitor the situation in automatic mode: In automatic mode TRASSIR video analytics is able to display objects to the image of viewing camera using special algorithms;
- Gain the most effective use of video cameras with fish-eye lenses: ActiveDome video analytics allows you to get the full picture using cameras with wide angle fish-eye lens;
- Using automated algorithm intended to eliminate geometric distortions: TRASSIR Dewarp intelligent video analytics (a part of TRASSIR professional software) allows you to split the image from the Fish-eye camera into an arbitrary number of virtual channels. Splitting the image coming from wide angle lens eliminates image distortion. Using such approach you can perform PTZ-control operations for each virtual channel separately.



## Movement control of people through the territory

Simple Intelligent Motion (SIMT) allows you:

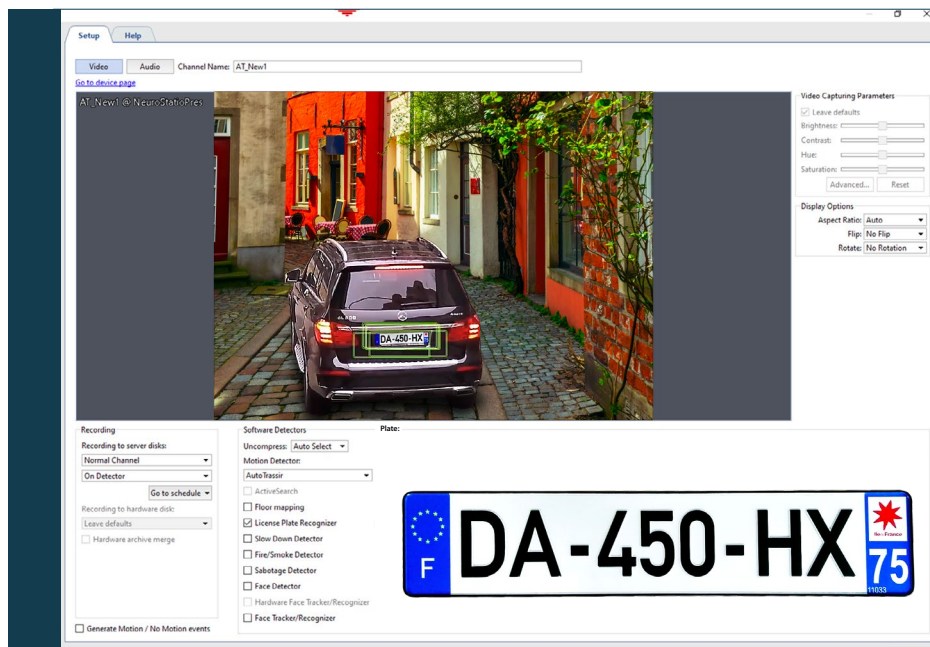
- Select the target with the specified parameters against the background of numerous and chaotic motion (which in most cases is noise);
- Track objects according to different parameters: by size relative to speed and direction when crossing the border or by the distance traveled;
- Avoid damages due to high resistance to weather conditions and other disturbances.



## Control over the movement of the employees inside the Industrial facilities

Professional TRASSIR video surveillance system in combination with ACS (Access Control System) and intelligent Face Analytics allows:

- Maintain records of employees using face analytics. All employees entering the territory of the facility will be identified not only by the access card, but also using facial recognition. TRASSIR Face Analytics is used exactly for this purpose. This smart video analytics performs automatic face recognition by comparing the image from the video camera with a pre-created database of employees.



## Control the movement of any vehicles entering the territory

**AutoTRASSIR intelligent video analytics provides:**

- Automatic identification of vehicles license plates in the field of view of the video camera;
- Detection of all the vehicles entering the territory of the facility and the time they stayed;
- Tracking the passage of a particular vehicle using the recordings from the video archive;
- Control the shipment of weight goods;
- Support for logging and detailed reporting;
- Integration with complex security systems, including ACS (access control systems) and security and fire alarm systems equipment (barriers, gates).



## Safety and Security Monitoring

**TRASSIR Wear Detector and TRASSIR Hardhat Detector will help you in solving the following tasks:**

- Monitor safety and security compliance;
- Identify a person in a frame and detect the presence of work clothing (for example, the presence of the vest or other uniforms of specified color);
- Detect the presence of the hard hat on the head;
- Receive automatic notifications in real time in case the absence of a hardhat or uniform was detected in the field of camera view.



**TRASSIR Wear Detector** video analytics allow you to detect the work vest or coverall by colors. It helps you to control safety and security compliance on the territory. **TRASSIR Wear Detector** allows you to detect objects in a frame with a very high accuracy and significantly reduce false positives using deep Learning neural networks.



## TRASSIR AND ACCESS CONTROL SYSTEM (ACS) INTEGRATION

The screenshot displays the Trassir software interface for face recognition and access control. On the left, a grid shows a list of recognized faces with their names and timestamps. The main area features a live video feed of a person being recognized, with a green bounding box around their face. Below the video feed, a detailed profile for 'Кочеров Дмитрий' (Kocherov Dmitry) is shown, including a 99% match score, a small reference photo, and personal details like date of birth and gender.

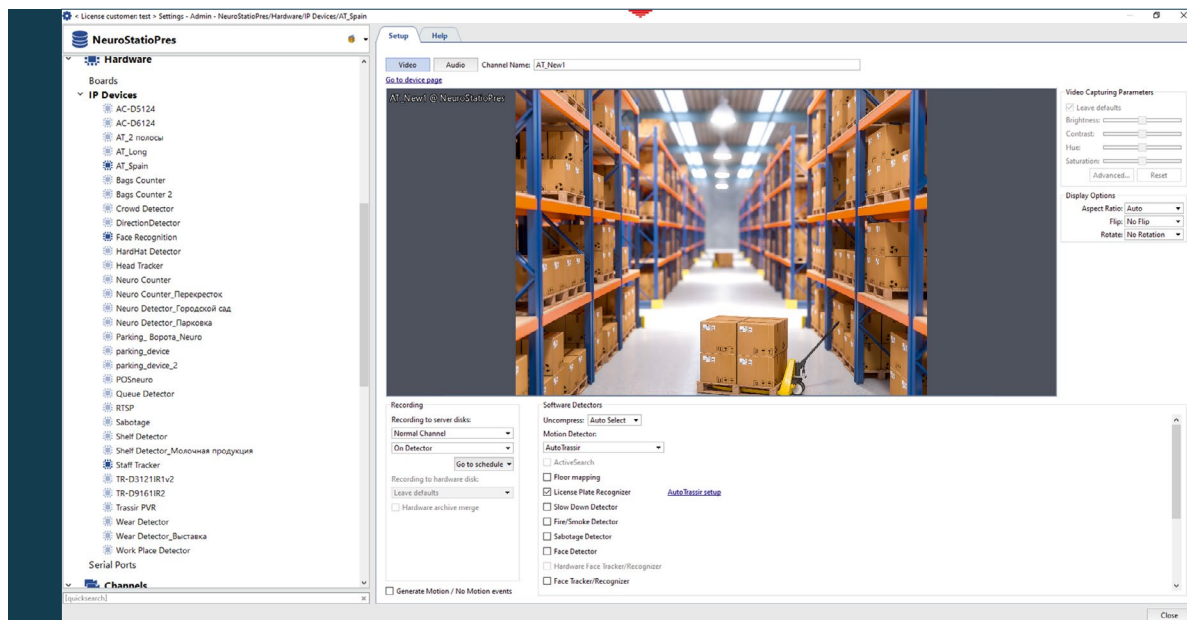
Время	Сервер	Камера	Возраст	Пол	Атрибуты
24 Июль 2019, 12:29	CCTV1-MSK-Офис-5_этаж	Выход из коридора (face)	~ 19	Мужской	Европеоид, Светлый, Счастливые, Брови, Обычные очки, Б...

**Кочеров Дмитрий**  
 Похожести: 99%  
 Дата рождения: 1 Января 1980 (39)  
 Пол: Мужской  
 База данных: CCTV1-MSK-Офис-5\_этаж  
 Примечание:

### 3 types of integration:

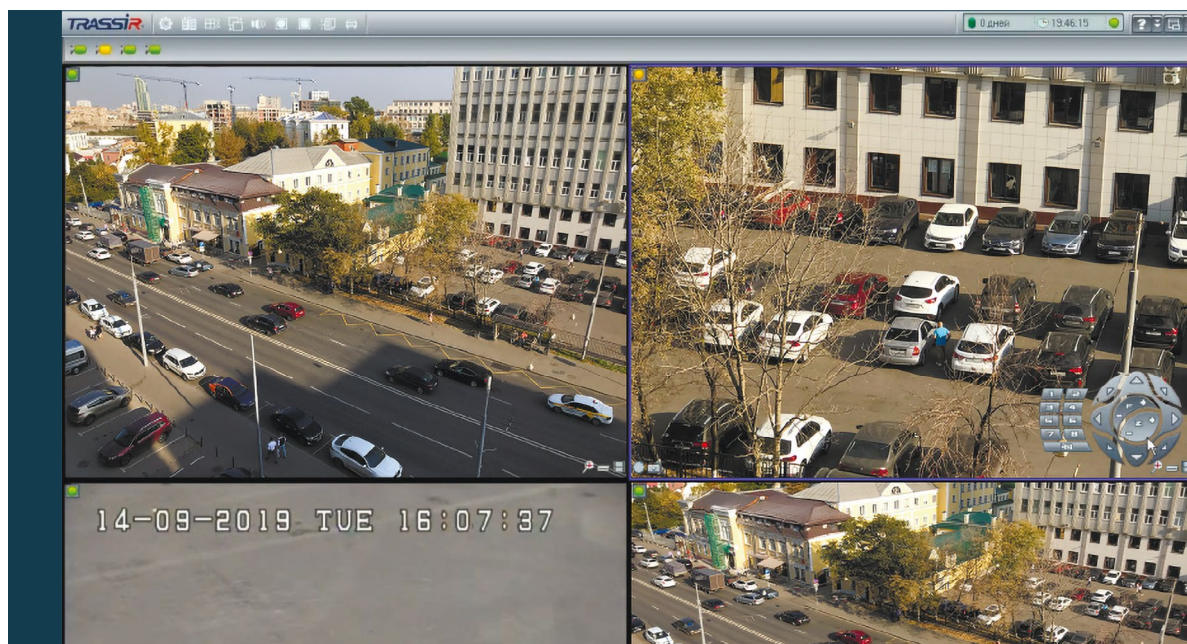
1. Getting the information about all the events from the ACS and database searching: verification in manual mode;
2. Automatic verification of a person using Face Recognition video analytics at the access point;
3. Two-factor authentication (2-FA) at the access point using Face Recognition technologies and access cards.





## ACTIVEDOME

- SpeedDome video analytics for PTZ cameras in manual mode and **TRASSIR ActiveDome+** in automatic mode provide you with total control over the area of responsibility such as warehouse complexes or secured area.
- **TRASSIR ActiveDome+** allows you to point the camera to the selected objects in combination with the existing TRASSIR neural analytics, for instance, TRASSIR Neuro Detector.



## Safe and security control

**TRASSIR Crowd Detector and TRASSIR Direction Detector allow you:**

- Detect the situation when the number of people exceeds the predefined settings (by the number of people);
- Detect the objects moving in restricted direction (people, cars, bicycles);
- Significantly reduce the false positives using video analytics based on neural networks.

**TRASSIR detects** all the suspicious events without operator participation and reduces the number of false positives caused by weather conditions or other disturbances.



## USE CASES



### Solution for ROMCARTON

**TRASSIR** has been chosen as the video surveillance solution by ROMCARTON. Located in Bucharest, it is the largest and most modern factory in Eastern Europe. ROMCARTON produces corrugated cardboard and corrugated cardboard packaging with a covered area of 35,400 m<sup>2</sup>.

- This complex, integrated project was implemented by our partners, AZITREND Distribution.
- TRASSIR conducts video surveillance throughout the territory of the plant. A total of 16 servers and 221 video cameras are involved in the project. Providing security at the facility with a total area of more than 35,000 m<sup>2</sup>.
- One of the important points is the task for effective perimeter control.







Here is where TRASSIR advanced video analytics come into play. Intelligent TRASSIR Neuro Detector is using sophisticated algorithms to detect any intruder that enters the prohibited area. Since the system is based on neural networks it can easily identify the type of an object. This allows to significantly reduce the number of false alarms.

- TRASSIR VMS is integrated with the access control system implemented at the premises. This allows for advanced control over the movements of people. To top it off TRASSIR Face Recognition detects all the faces and is used as an additional layer of security.
- At the same time, an in-house developed LPR solution allows for effective monitoring of all the vehicles entering and leaving the territory of the factory. AutoTRASSIR automatically recognizes and captures all license plates. Thus allowing to automate the checkpoint system at the facility.
- As result of installing TRASSIR at the factory, the number of manned guarding posts have been significantly optimized and security budgets have been reduced by 25%.





[www.trassir.com](http://www.trassir.com)

*Intelligent video analytics for business*

## CONTACT US



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**Download a remote DEMO version for free:**

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**Our technical support specialists are ready to answer your questions 7 days a week:**

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