TRASSIR ®

CCTV ECOSYSTEM

Intelligent video analytics for Smart Business

TRASSIR TODAY

18 YEARS
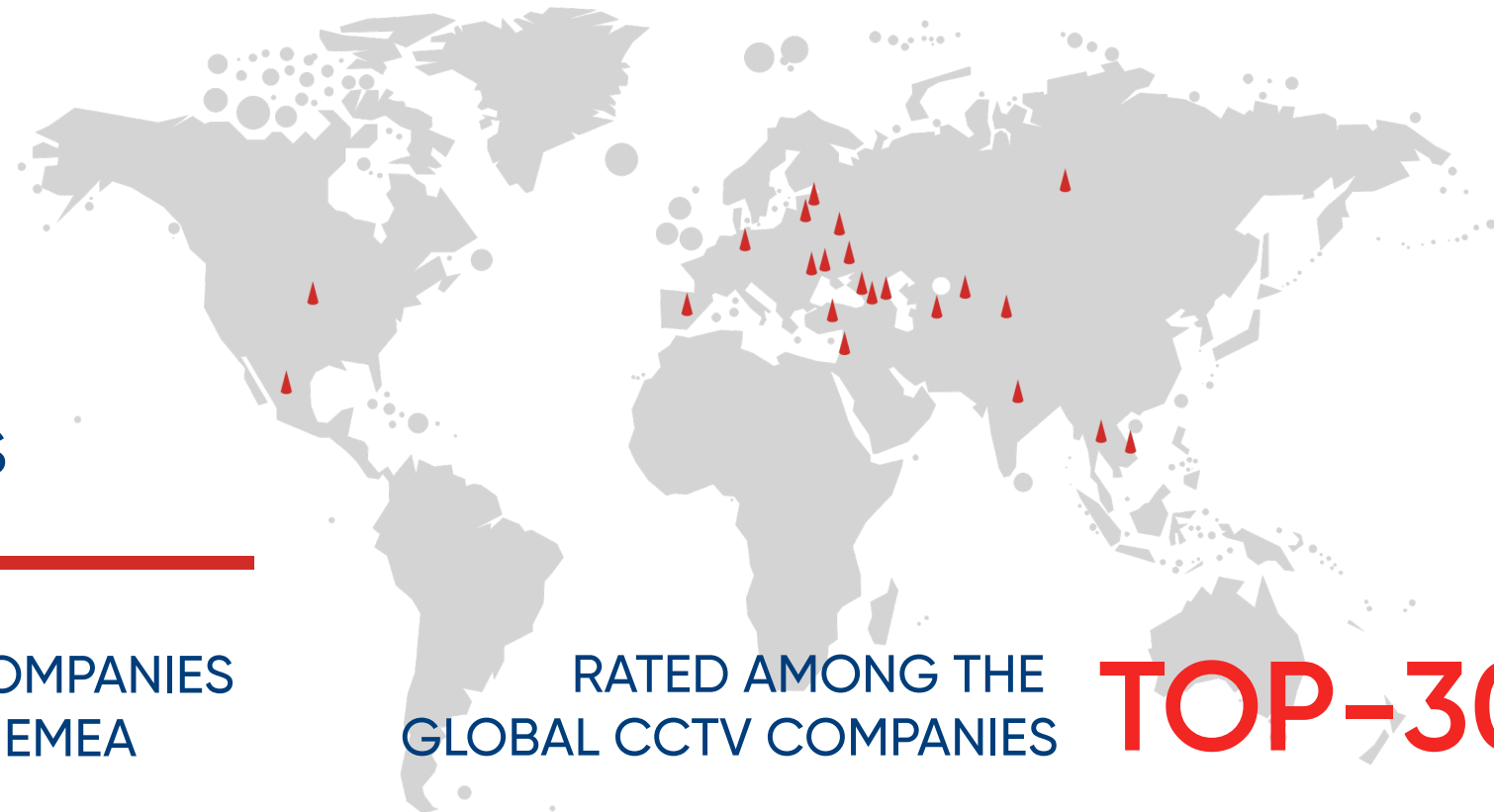OF EXPERIENCE IN
CCTV SURVEILLANCE

1700+
LOYAL CUSTOMERS
ALL OVER THE GLOBE

30%
COMPOUND ANNUAL
GROWTH RATE

22
COUNTRIES
OF TRASSIR
INSTALLATIONS

TOP-10 COMPANIES
IN EMEA

RATED AMONG THE
GLOBAL CCTV COMPANIES **TOP-30**

TRASSIR
CCTV ECOSYSTEM

CAMERAS

NETWORK VIDEO RECORDERS

VMS

VIDEO ANALYTICS

CMS

NEURAL NETWORKS | **ARTIFICIAL INTELLIGENCE** | **MACHINE LEARNING**

03

WIDE RANGE OF SOLUTIONS FOR VARIOUS INDUSTRIES

BANKING

WAREHOUSES

HORECA

EDUCATIONAL INSTITUTIONS

RETAIL

MANUFACTURING ENTERPRISES

04

OUR CLIENTS AND PARTNERS ACROSS THE GLOBE

TRASSIR: BASIC VIDEO ANALYTICS

TRASSIR: BASIC ANALYTICS

TRASSIR MULTISEARCH

Trassir MultiSearch allows you to play back several fragments from the archive simultaneously from different time points at once and view several recoardings from selected areas. Up to 7 independent fragments can be launched simultaneously.

TRASSIR HEATMAPS

Trassir HeatMaps helps increase attentiveness of operator via showing colored trail of each moving object. Colored trail disappears in time.

TRASSIR ACTIVESEARCH

Trassir ActiveSearch – for interactive motion search video archive in any selected zone of a frame.

TRASSIR EVENTSEARCH

Trassir EventSearch – for interactive event search based on system log.

TRASSIR SABOTAGE DETECTOR

Trassir Sabotage Detector – video analytics, that detects sabotage: defocusing effect, field of vision changing, object-glass closing or light striking, connection fault, signal losing. Incident reaction tuning capability, for example: audio signal and/or message, alarm, contacts control.

TRASSIR FIRE & SMOKE

Trassir Fire & Smoke video analytics that detects fire and smoke. Incident reaction tuning capability, for example: audio signal and/or message, alarm, contacts control.

TRASSIR SOUND DETECTOR

Trassir Sound Detector – allows to detect loud sound, start recording based on sound threshold before motion starts.

TRASSIR PLANS

Trassir Plans – Multi-level maps software module for Trassir. Map reflects cameras, servers, other system objects.
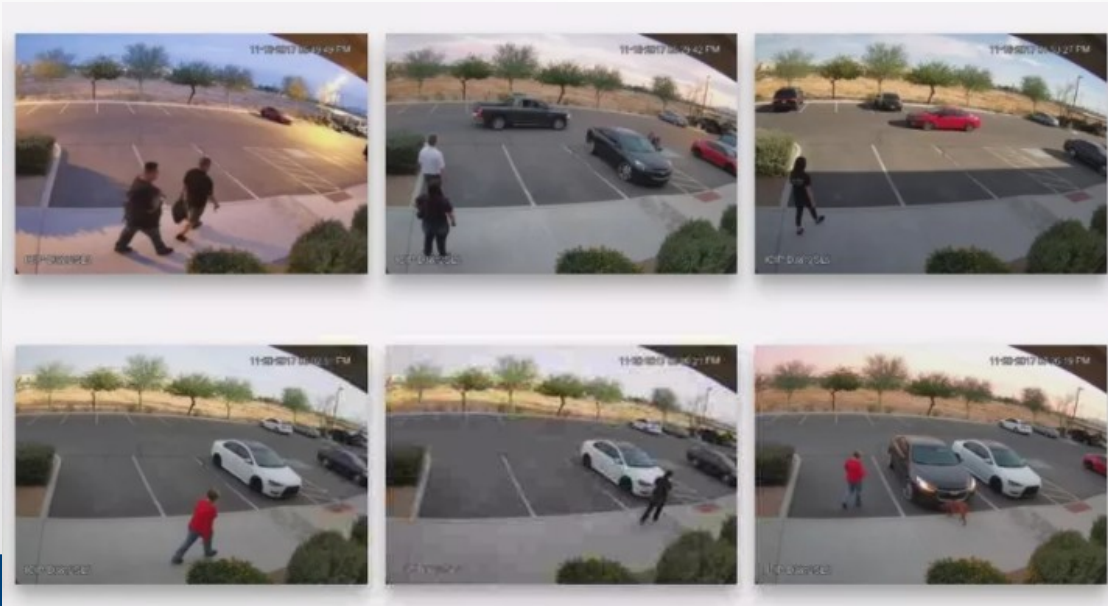
TRASSIR MOBILE CLIENT

Trassir Mobile Client – mobile applications for remote connection to Trassir servers directly via IP adress or via Trassir Cloud. Live video, archive access, PTZ, sound and other capabilities.

TRASSIR CLIENT

Trassir Client – Software application for remote access to Transsir servers. Supported OS: Windows, Linux, MacOS.

TRASSIR MULTISEARCH is designed for the efficient video analysis of a large video storage.

TRASSIR ACTIVE SEARCH is an interactive archive search system based on metadata.

- Simultanious video repeat from indicated by an operator time points and selected areas
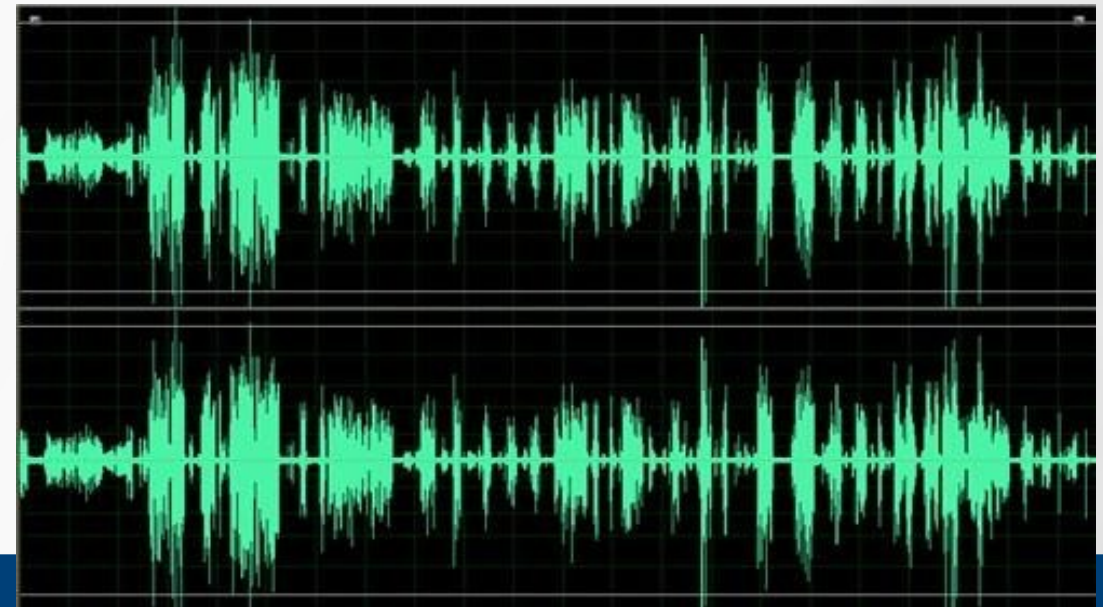- Up to 7 independent video fragment launch at one time

- Navigation through storage of all sizes to find the necessary video data
- Ability to specify a seach area in the image
- Minimal use of CPU resources

TRASSIR FIRE & SMOKE DETECTOR based on the image analysis allows to detect smoke and fire faster than fire sensors.

TRASSIR SOUND DETECTOR allows to detect loud sounds and starts recording based on a sound threshold.

- Response to an incident: attracting the operator's attention with audio signal/or message, turning on the siren, managing dry contacts, etc.

- Fire protection in open spaces

-> Application: Streets | Stadiums | Concert venues | Parks | Manufacturing enterprises

- Flexible setting of the trigger threshhold

- Video starts recording before of the motion and informs an operator on the incident.

09

TRASSIR SABOTAGE DETECTOR automatically detects any problems with the camera image.

TRASSIR HEAT MAPS – thermal analysis of video images.

◎ Response to an incident: attracting the operator's attention with audio signal/or message, turning on the siren, managing dry contacts, etc.

◎ Reports image issues: camera defocus, change in the angle of view, lens flare or covering, link interruption, loss of the signal

◎ Dynamic mode – any moving object on the screen is highlighted with warm tail area: the more activity is recorded, the more intense of the color is.

◎ Static mode – accumulates activity map highlighting on video «cold» and «hot» areas.

TRASSIR: NEURO VIDEO ANALYTICS

ANTI-COVID SOLUTIONS

Intelligent video analytics to respond to pandemics

TRASSIR Social Distance Detector

was designed as a response to the COVID-19 pandemic
for keeping social distance while in a crowd.

- Customized set up of the appropriate distance
- Alert system via notification bars, sms
- Speakerphone notifications

TRASSIR Face Mask Detector

helps control if people are wearing protective masks
in public areas.

- Alert system via notification bars, sms
- Speakerphone notifications
- Access lock if synchronized with doors or turnstiles

Trassir Active POS

helps bring down both planned and unplanned POS losses

50+
active scenarios

Versatility:
supermarkets | restaurants
gas stations | pharmacies
fast food cafes |
boutiques | etc.

**10+ available
live reports:**
- employees' KPI
- cash transactions' KPI
- the amount of losses

**Customization
available upon
request**

CONNECTED TO THE ACTIVEPOS THE VIDEO ANALYTICS MODULES WILL EXPAND THE CAPABILITIES OF ANALYTICS AND CONTROL:

- Store traffic monitoring
- Automatic sales conversion report
- Queue monitoring

- Customer flow analysise
- On-shelf availability control
- Customer activity and places of interest monitoring

- Automatic time sheets
- Employees' presence in the workplace control

TRASSIR QUEUE DETECTOR is an intelligent video analytics based on neural networks designed to count people in the queue.

TRASSIR PEOPLE COUNTER counts customers crossing the border indicated on the image in one direction or another.

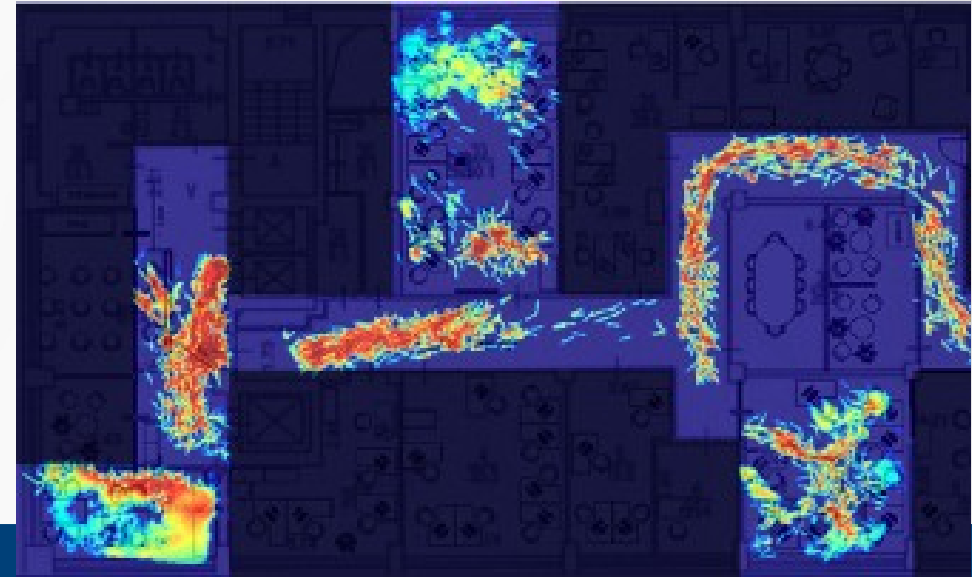- ◉ Automatic reporting: number of people in the queue, time spent in the queue.
- ◉ Notification module for exceeding the queue length

-> Application: Retail | Banks

- ◉ Works from the «top view» angle
- ◉ Enables conversion calculation at a point of sale
- ◉ Helps to determine peak load periods, the number of people entered and exited the facility, as well as the number of people inside.
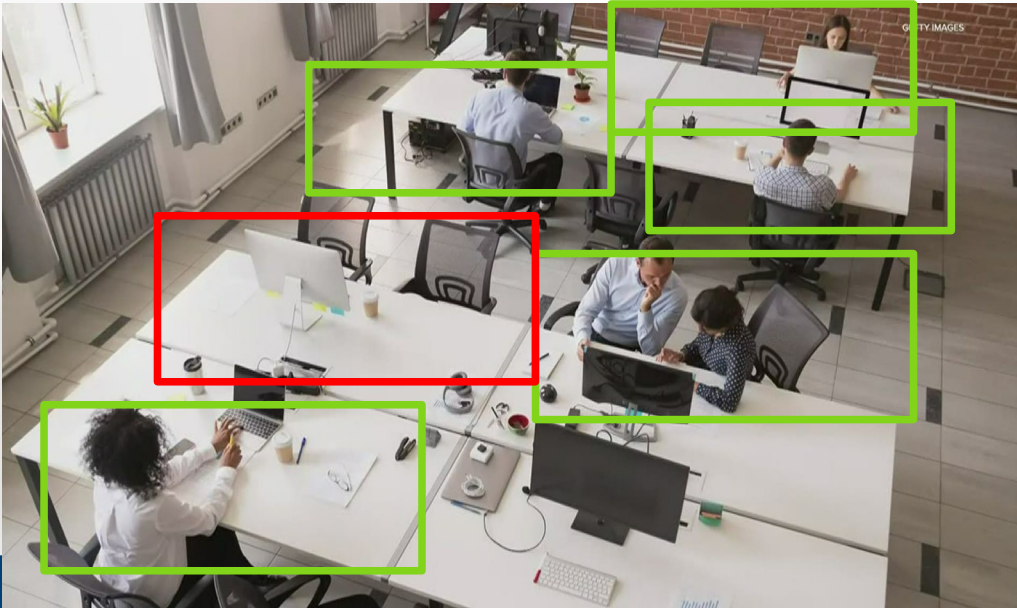
-> Application: Retail | Banks

TRASSIR SHELF DETECTOR enables intelligent video analytics based on neural networks designed to spot empty/occupied shelf spaces.

TRASSIR HEAT MAP ON MAP is an advanced thermal image analysis technology.

- Shelves merchandising monitoring
- Out-of-shelf notification
- Automatic reporting to forecast the customers demand on certain SKUs
- Automatic monitoring of the staff performance

- **Kinetic map** - shows the areas with high human traffic flow
- **Stationary map** - shows the areas where people are more likely to stop
- **Trajectories** - the approximate movement direction on the map

TRASSIR WORKPLACE DETECTOR tracks a person's absence from the workplace.

TRASSIR STAFF TRACKER allows to inspect the personnel work performance in offline retail: sellers, promoters or managers.
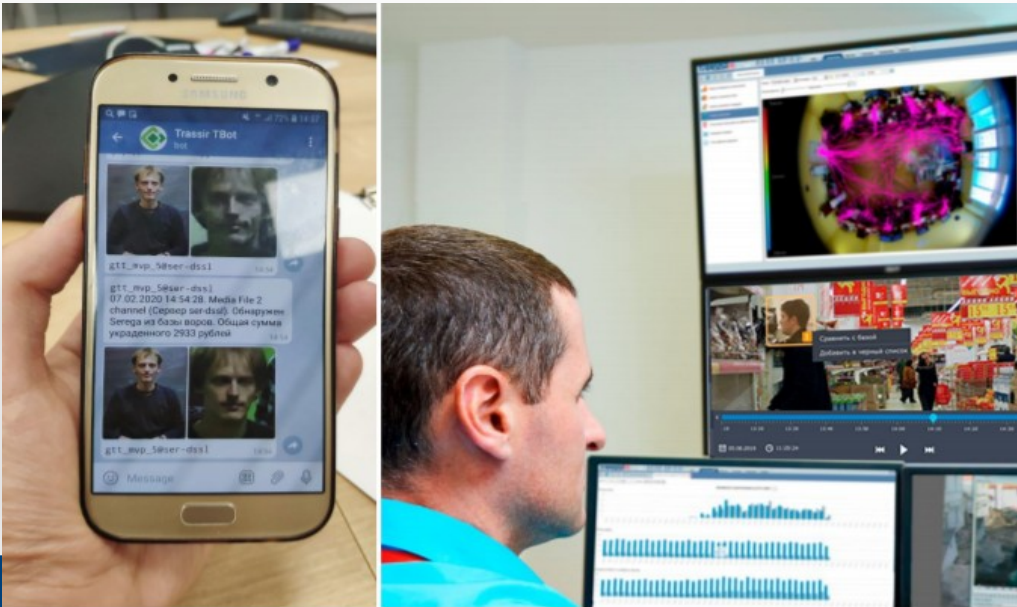
- Alarm notification via email or sms in the absence of the worker
- Daily reporting on employee's actual time on-site and time off

-> Application: Retail | Manufacture | Construction

- Tracks the availability of the required personnel in the service areas
- Keeps the record of customers received the service and left unattended, reports on the service quality and speed
- Alert system in real time if violation of customer service standarts occured

TRASSIR THEFT PREVENTION allows to reduce or compensate the losses from a theft at the point of sales.

TRASSIR NEURO DETECTOR allows to detect intrusion into a protected area by a stranger, a car or a bicycle with the advanced filters for no false positives.

- Stores video evidences of an incident
- Keeps the record of the amount of losses for each person
- Alarm via notification bars or sms on theft revisit

-> Application: Retail

- High accuracy object recognition
- Up to 16 trigger zones or lines can be set
- Alarm notification via email or sms
- Customization available upon request

-> Application: Manufacture | Construction | Retail | Warehousing | Transportation

TRASSIR HARDHAT DETECTOR enables HSE compliance for industrial and other manufactures and construction projects.

TRASSIR WEAR DETECTOR is an analytical module detecting if staff wear their workwear based on garnment colour.

- Alarm notification via email or sms
- High accuracy object recognition
- Definition of hard hats and clothes colour
- Customization available upon request
- Various color classification for different type of employees

-> Application: Manufacture | Construction | Retail

18

TRASSIR ACTIVE STOCK serves for event-based video monitoring of warehouses operations.

TRASSIR BAG COUNTER allows to count objects of the same type going through the manufacturing pipeline.

- ◉ Allows to regulate potential disputes, determine responsibility for the availability of goods, and investigate cases of damage in the warehouse
- ◉ Available offline and online monitoring
- ◉ Event search: numbers of reporting documents, product name, quantity, cell IDs, pallet, customer name or organization name, and much more.
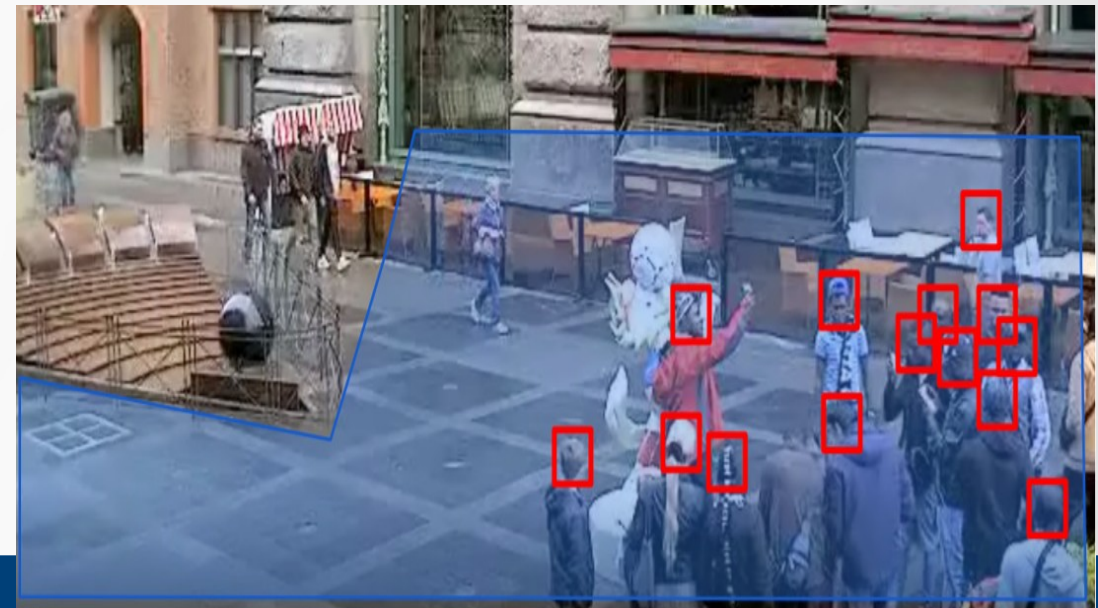
- ◉ Tracks the availability of the required personnel in the service areas
- ◉ Keeps the record of customers received the service and left unattended, reports on the service quality and speed
- ◉ Alert system in real time if violation of customer service standarts occured

Detected:
14 people;
36 vehicles.

TRASSIR NEURO COUNTER is an intelligent video detector that allows counting unique oblects in a certaint area.

TRASSIR CROWD DETECTOR is an intelligent detector of excessive crowding of people with a configurable trigger threshold based on neural networks.

- Counts people, cars and bicycles.
- Allows to count objects crossing the set up line - up to 16 lines can be supported at one time
- Number of active scenarious: traffic control, store's convertion measurement, promo efficiency estimation

-> Application: Retail | Transportation | Public places

- Automatic reporting: number of people, minimum time spent in the crowd, etc.
- High accuracy oblect recognition
- Alert system via notification bars, sms, emails

-> Application: Public places | Stadiums | Schools | Train stations | Manufactures

20

AUTO TRASSIR IS DESIGNED TO AUTOMATICALLY RECOGNIZE LICENSE PLATES ONCE CAPTURED BY CAMERAS.

- ☑ High accuracy of license plate recognition
- ☑ Defines the vehicle classes: motorcycles, passenger cars, minivans/vans, trucks, buses.
- ☑ Defines two-line numbers
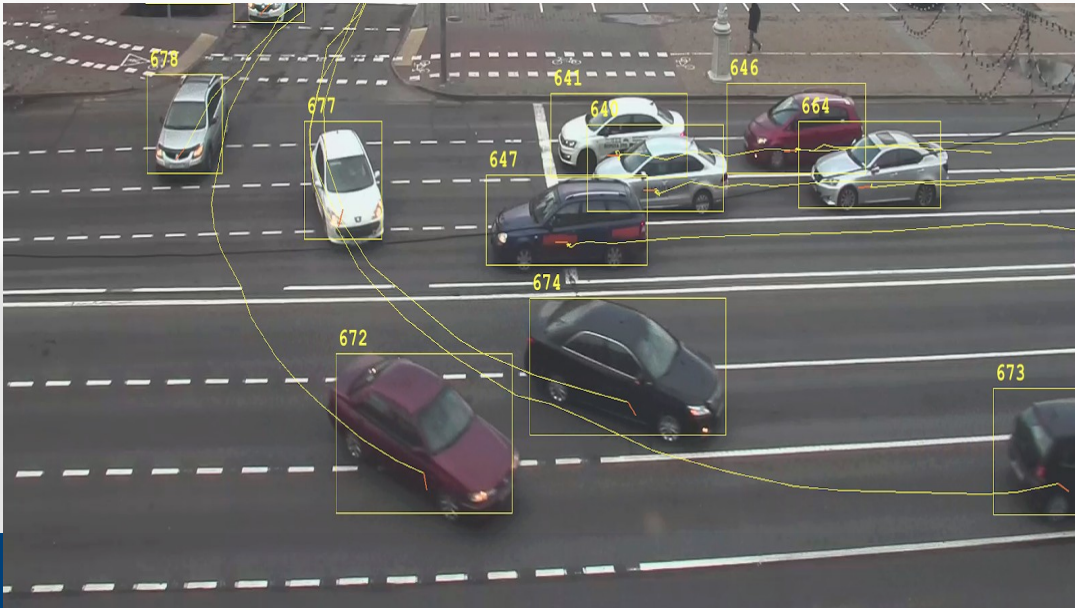- ☑ Recognizes license plates from difficult angles

APPLICATION:

To monitor/control the in-/outcoming vehicle flow (public and private parking lots or garages, checkpoints)

To control automobile traffic at all types of roads

THE MODULE'S CAPABILITIES MAY BE ENHANCED BY INTEGRATING IT WITH THIRD-PARTY SYSTEMS (ACCESS CONTROL SYSTEMS, VIDEO AND AUDIO CONTROL) AND EQUIPMENT (BARRIERS, ACTUATORS, ETC.).

AB 7448 B

TRASSIR SIMT (Simple Intelligent Motion Trassir) allows to separate moving objects from the randomly moving background.

TRASSIR DIRECTION DETECTOR allows to detect any movement in the forbidden direction of a person, car or bicycle.

- High resistance to precipitation, interference and other noises
- Detection of speed, direction of movement, distance passed and size of moving objects
- Control of border crossing by objects
- Minimum of settings, automatically adjusts to the working conditions

-> Application: Perimeter protection | Transportation | Public places | Manufactures

- Up to 16 lines can be supported at one time for direction control
- High accuracy object recognition
- Alert system via notification bars, sms, emails

-> Application: Public places | Transportation | Airports | Trainstations

![TRASSIR CCTV ECOSYSTEM logo]

Face recognition - intelligent face recognition and search module based on a pre-configured database of people (residents, staff, etc.).

⦿ Prevent access of undesirable people to the facility;

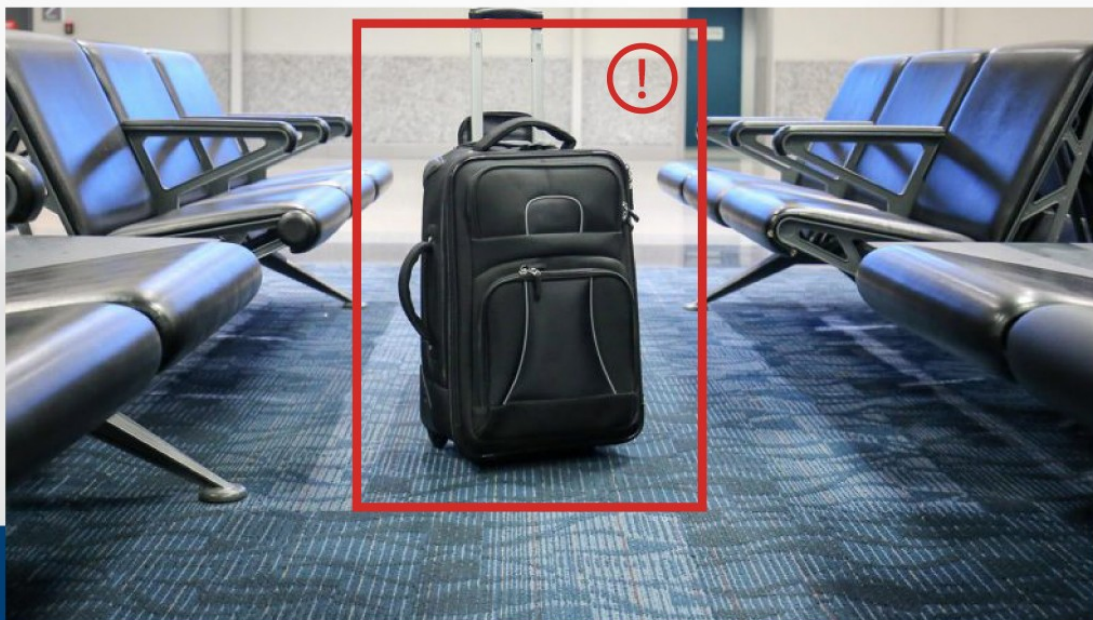⦿ Detects special guests (VIP) to improve the customer service.

APPLICATION:

Hotels and Restaurants | Schools

Clinics | Sport facilities | Banks

Integration TRASSIR video surveillance system with ACS (Access Control System) provides the client with an integrated ACS will help you to keep track of all events with time reference: each check-in to the parking lot and every passage to the hotel room will be recorded and stored in the archive.
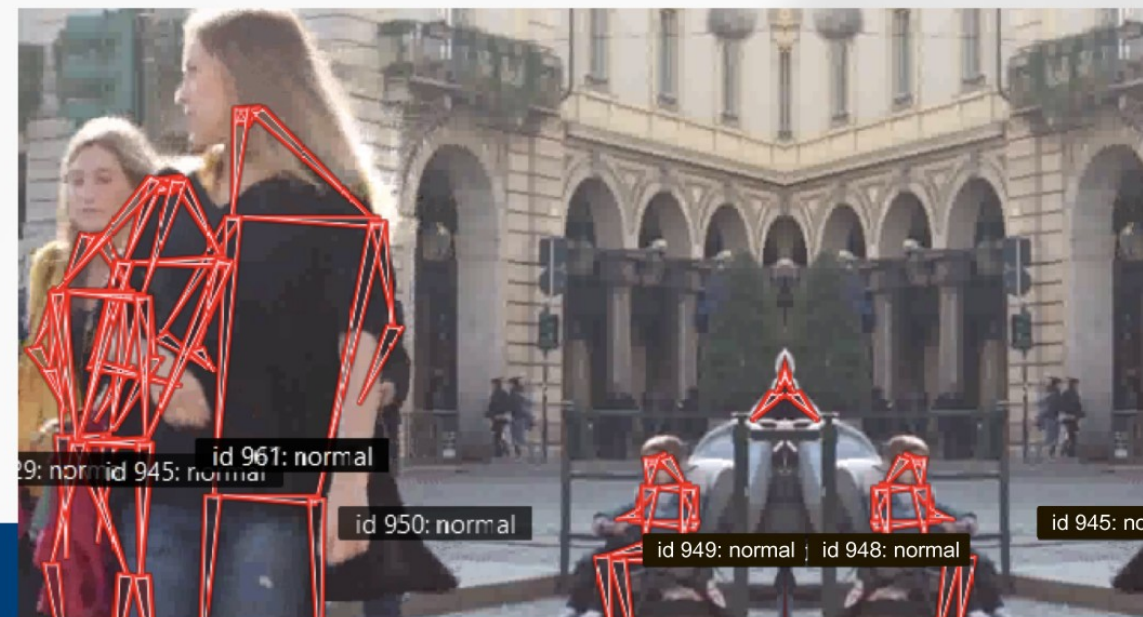
⦿ Receive all the movement statistics immediately for both the hotel guests and the staff;

⦿ Quickly access to all the information about the latest cases of entering the hotel room;

⦿ Set the desired reaction on specific events using the built-in TRASSIR system of rules (scripts).

The abandoned object detector is designed to detect abandoned and forgotten things left in the areas monitored by cameras. The detector has the ability to determine the class of the abandoned object: suitcase, backpack, box (and objects similar in shape), bag, duffle (large sports bag) and bag (usually a small woman's bag).

Neural Pose Detector allows to detect different people's postures and classify them. For instance it helps to track a non-typical behavior of people at ATMs, falls of people in hospitals or nursing homes, raising hands up in an armed attack.

APPLICATION:

Airports | train stations | streets

⦿ Recognition of the following set of poses is currently supported:
- sitting
- lying
- raised right hand
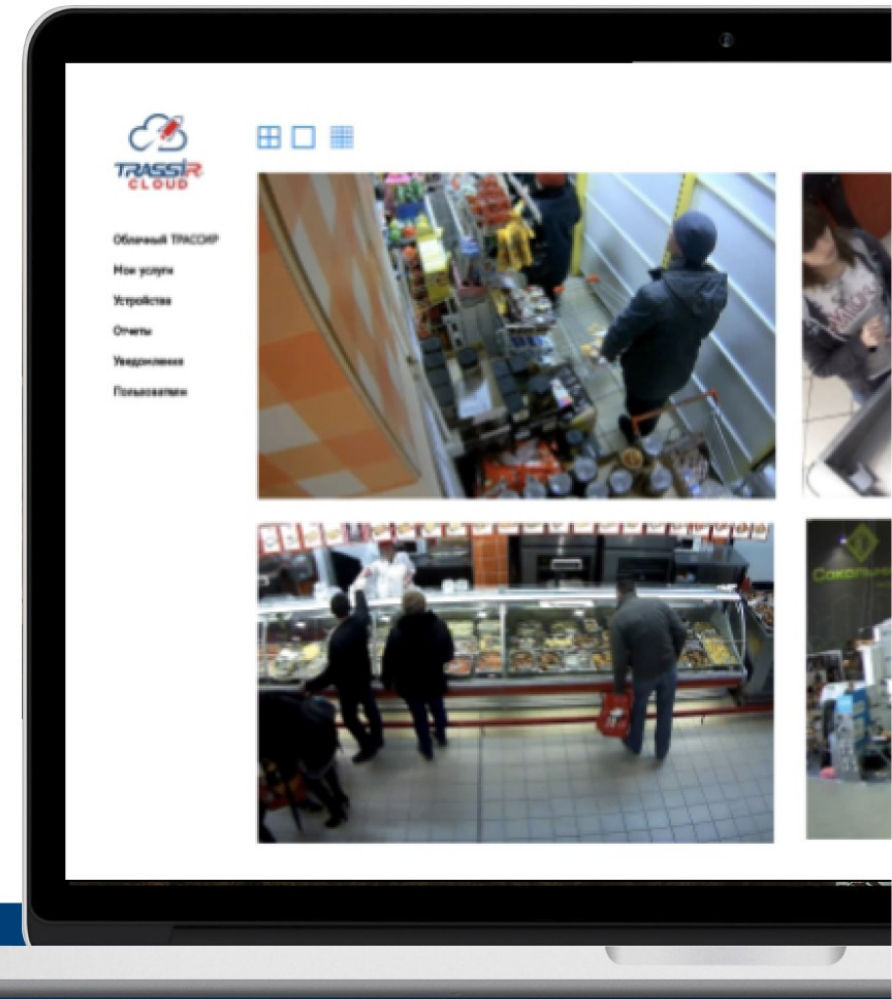- bending over
- raised left hand
- both hands raised

All other postures are classified by the detector as "normal posture".

TRASSIR CMS

TRASSIR CMS is a professional cloud-based web service with the record protection functionality.

MAIN ADVANTAGES:

☑ Supports an unlimited number of IP-cameras and video servers.

☑ instant alerting: e-mails or push alerts.

☑ Archive video storage with customizable archive depth.

☑ Exports video archive to the file. Video archive is stored at the Cloud and can be downloaded to any device.

☑ Private Cloud installation for companies that require independent local-based video surveillance.

☑ Double-stream archive record: main and sub stream. Stream back-up allows to save all data even with low-speed or unstable connection.

ANY TIME. ANYWHERE

Access the system from a mobile device or desktop:

⦿ WWW.CLOUD.TRASSIR.COM   ⦿ TRASSIR APP: ANDROID | IOS   ⦿ CLIENT FOR WINDOWS | LINUX | MACOS

COMPLEX SOLUTIONS

COMPLEX SOLUTION: TRASSIR DEFENDER

TRASSIR DEFENDER CONSISTS OF:

- **HARDWARE AND SOFTWARE COMPLEX**
- **CLOUD SERVICE**
- **VIDEO MONITORING CENTER**
- **MOBILE APPLICATION**

COMPLETE CUSTOMER SOLUTIONS:

- ◎ Video surveillance system development
- ◎ Installation organization and equipment configuration
- ◎ Handling and verifying all the alarms
- ◎ Calling the Rapid Response Team (RRT)
- ◎ Technical support

Violation prevention

Two-way communication with the intruder
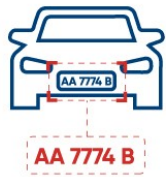
No false positives

Proper verification and artificial intelligence based on deep learning

Cost saving up to 85%

Installed video surveillance and security processes outsourcing reduces the number on security staff and operational expenses
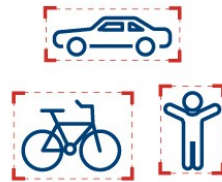
27

COMPLEX SOLUTION: SMART CITY

ANYTHING CAN HAPPEN IN A LARGE CITY, EVERY MINUTE OF EVERY DAY. IT'S IMPOSSIBLE TO BE EVERYWHERE AT ONCE, AND DEFINITELY IS A WASTE OF TIME AND POLICE FORCE. TRASSIR DELIVERS A COMPLEX SOLUTION TO ENSURE EVERYTHING IS UNDER CONTROL.
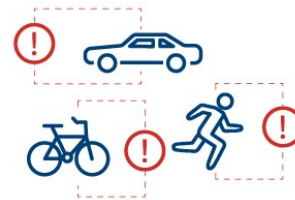
AUTOTRASSIR

License plate recognition module

TRASSIR NEURO DETECTOR

Determines – detects prohibited visitors (people, cars, or bicycles) within protected areas
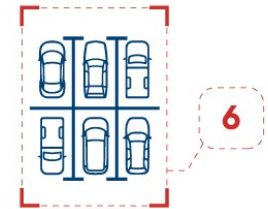
TRASSIR DIRECTION DETECTOR

Detects an object's movement in the prohibited direction (people, cars or bicycles)

TRASSIR ABANDONED OBJECTS

Detects abandoned and forgotten items that potentially threatening the city security.

TRASSIR PARKING

Counts the number of vehicles, as well as the time spent in the parking area

◉ Complete automated video monitoring of large areas:
streets | parks | public | buildings | squares

◉ High accuracy recognition

◉ Open system, compatible with legacy equipment

COMPLEX SOLUTION: TRASSIR INTEGRATION WITH ACCESS CONTROL SYSTEM

ACCESS CONTROL

- Customized rules for access authorization and restriction
- Multi-factor authentication: complex algorithms for human identification
- A convenient smart alert system

MONITORING

- Real time supervision with access from any part of the world
- History of all events and operator's actions

VIDEO ANALYTICS

- Face recognition, employee time record keeping, crowd detection, face masks and uniform recognition
- Non-contact access to the facility of the guests and employees in the current pandemic situation
- Regular reporting to prevent the future violations

CONTACTS

🌐 www.trassir.com

📞 +44 208 187 6001

✉ info@trassir.com

Hardware Catalog

Video Management
Software Catalog