TRASS |

CCTV ECOSYSTEM



TRASSIR TODAY 20 YEARS OF EXPERIENCE IN CCTV SURVEILLANCE

5000+ LOYAL CUSTOMERS ALL OVER THE GLOBE

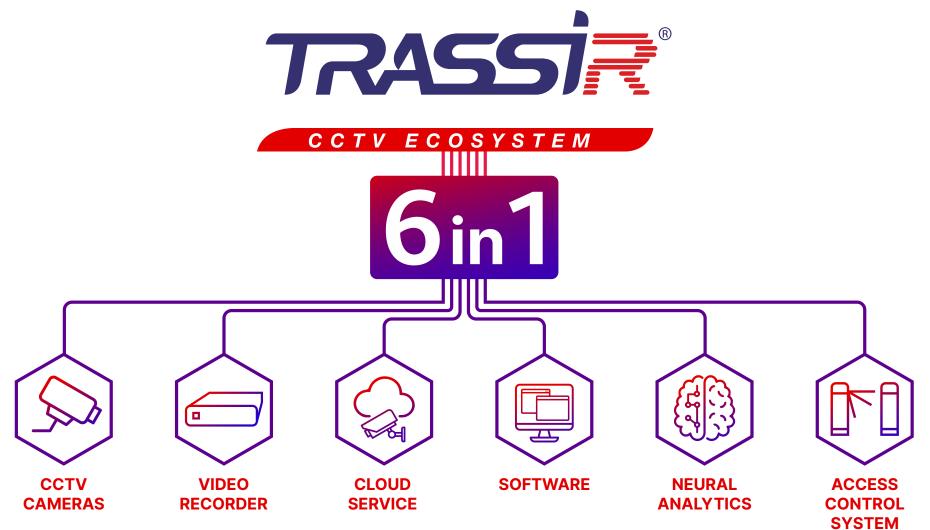
30% COMPOUND ANNUAL GROWTH RATE

35 COUNTRIES OF TRASSIR INSTALLATIONS











TRASSIR: WIDE RANGE OF SOLUTIONS FOR VARIOUS INDUSTRIES





OUR CLIENTS AND PARTNERS ACROSS THE GLOBE

Coca:Cola	Ruch	an o Rinascente	IMAX	INTERN	MATY ATIONAL PORT	McDonald	
	Burger CLUB	BURGER	MAGNIT		FC	MMBE MICEX	Shymbulak
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renfe Ave	SPAR	٩		BiZiM Topton Market		SUKHOI	KOTE MARJANISHVILI STATE DRAMA THEATRE



CERTIFICATION

The TRASSIR equipment meets the EU safety a nd other applicable requirements (CE certification).

- Electromagnetic compatibility (EMC)
- Low Voltage Directive (LVD)
- RoHS Directive
- Radio Equipment Directive (RED)

Additional certificates can be obtained upon the specific customer's case or the partners' request.

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TRASSIR: THE RIGHT CHOICE

We support our clients and partners through all stages of work. Technical specialists will consult and help to solve problems related to our systems and tech environment in direct interactions.

PROJECT SUPPORT

TRASSIR professionals build complete solutions for your projects

ADVERTISING SUPPORT

Printed and electronic promotional materials are available to the partners

PRE-SALE DEMO

Our engineers can demonstrate system functions remotely

TECHNICAL SUPPORT

Agile customer service and direct response to complaints

TRAINING



TRASSIR: BASIC ANALYTICS

By purchasing licenses for the device, TRASSIR users get access to a large list of features. Our solutions focused on simplifying the work with the system and automatize actions of the operator.





TRASSIR: BASIC ANALYTICS

TRASSIR HEATMAPS

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

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 PLANS

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

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 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 MOBILE CLIENT

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

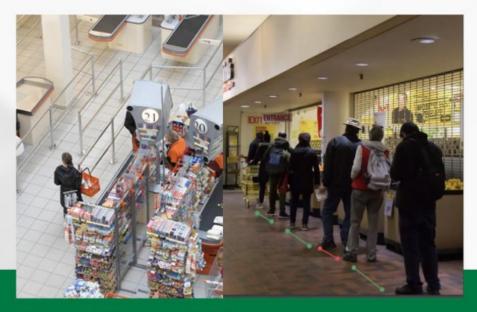
TRASSIR CLIENT

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

SOLUTIONS FOR INDUSTRIES

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.



TRASSIR Face Mask Detector

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

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

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

TRASSIR SOLUTIONS: RETAIL

Intelligent cash control video Analytics

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

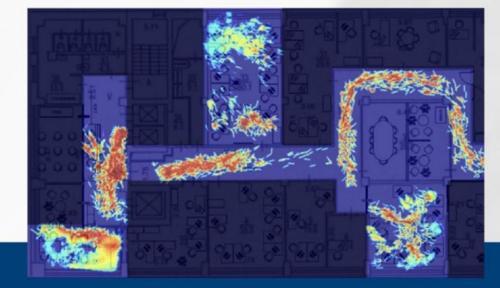
- Customer flow analysise
- On-shelf availability control
 - Customer activity and places of interest monitoring

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

TRASSIR SOLUTIONS: RETAIL

Improve your business with the intelligent video analytics





TRASSIR Shelf Detector enables

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

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 SOLUTIONS: TRANSPORTATION

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.).



MANUFACTURING: TRASSIR SOLUTIONS

Video analytics controls help meet safety rules



Trassir HardHat Detector enables HSE

compliance for industrial and other manufacturers and construction projects.



Trassir Wear Detector is an analytical module detecting if staff wear their workwear based on the garment color.

Notification system: email, sms

- High accuracy object recognition
- Definition of hardhats and clothes colors
- Customization available upon request
- Various color classification for different types of employees

TRASSIR SOLUTION: PUBLIC AREAS



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



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.

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

- 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).

TRASSIR SOLUTION: PUBLIC AREAS



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).

es not nid 961: normal id 950: normal id 949: normal ; id 948: normal

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

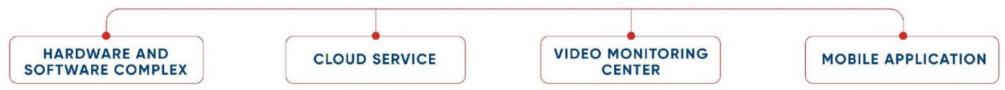
- raised right hand
- bending over raised left hand
- both hands raised

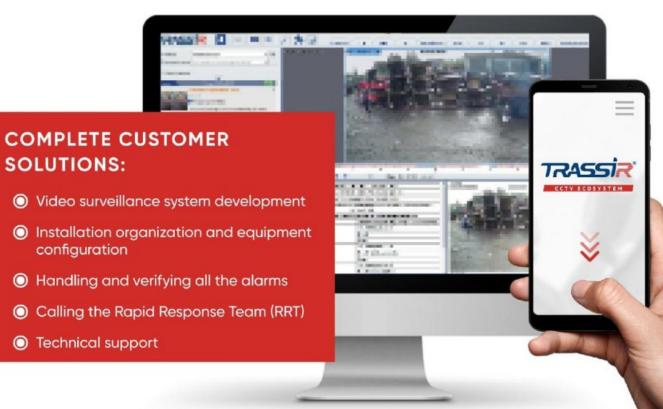
All other postures are classified by the detector as "normal pe

COMPLEX SOLUTIOS

COMPLEX SOLUTION: TRASSIR DEFENDER

TRASSIR DEFENDER CONSISTS OF:





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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

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.



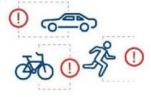
AUTOTRASSIR

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



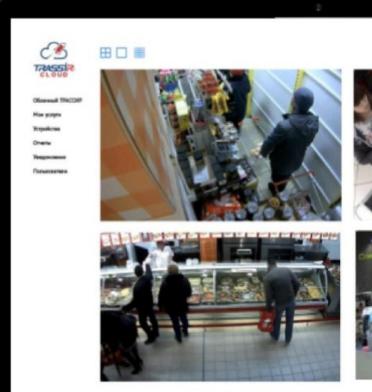
VIDEO ANALYTICS

- 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

TRASSIR CMS

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

MAIN ADVANTAGES: Supports an unlimited instant alerting: Archive video storage $\overline{}$ ~ ~ number of IP-cameras e-mails or push with customizable and video servers. alerts. archive depth. Exports video **Private Cloud** Double-stream $\overline{}$ ~ ~ archive to the file. installation for archive record: main Video archive is and sub stream. companies that stored at the Cloud require Stream back-up and can be independent allows to save all data downloaded to any local-based video even with low-speed surveillance. or unstable device. 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



TRASSI

trassir.com W welcome@trassir.com



Hardware catalog







Success stories