TRASSIR®

Smart retail video surveillance solutions 4.0

Business intelligence as a tool to improve performance management

TRASSIR®

20 YEARS

of experience in video surveillance

5000+

Loyal customers worldwide

800+

Qualified staff

28

Countries
with TRASSIR
integrated solutions

Great Britain

Estonia

Latvia

Belarus

Germany

Moldova

Ukraine

Russia

Romania

Armenia

Kazakhstan

Spain

Georgia

Israel

USA

Azerbaijan

Tajikistan

Kyrgyzstan

Mexico

Turkey

China

Kuwait

India

Taiwan

Thailand

Vietnam

Brazil

Ecuador

Why TRASSIR?

Building a seamless security suite and controlling all systems from a single interface is easy

A quick and easy way to design a security system

- Assistance in choosing the right equipment during the design phase

- TRASSIR-based integration with video surveillance systems,
  Security and fire alarm (SFL), access control system (ACS), intercom

Fine-tuning customizing

- Solution variation based on customer requirements: from the colour of the cameras to the form factor

- Ability to extend the functionality of the system with customised scripts

Quick setup and easy operation

- Flexible algorithm setup for each type of event

- Intuitive interface and quick search for events in the archive

Full-cycle post-project support

- Prompt technical support, warranty service and after-warranty service

- Hot equipment swapping

TRASSIR Retail installations

2000+
Stores

SUNLIGHT
Детский мир
ВИКТОРИЯ
Здесь начинается дом
SELGROS cash & carry

SPAR
THE FRESH MARKET
Булочные Ф. Вольчека est.1979
Auchan

BILLA
ЛЕНТА
МарияРа
McDonald's

PENNY MARKET
grillcafe
АЗБУКА ВКУСА
KFC

10K+

Neuroanalytics modules installed in retail

99,9%

Hardware compatible with the TRASSIR ecosystem

95%

Customers implement video analytics after pilot project

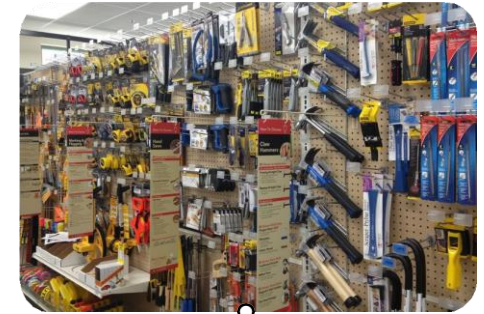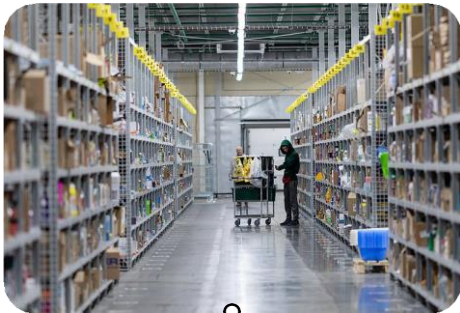# TRASSIR Retail installations

Hypermarket

Store chains

Convenience stores

Specialty stores

Dark stores

Marketplaces,
Giveaway Outlet Distribution
centres

Stand-alone shops

Petrol stations

TRASSIR

Objectives

Security challenges

- Decrease in thefts
- Securing property against tampering
- Ensuring the safety of visitors and staff
- Theft protection
- Preventing staff fraud

Business objectives

- Collecting customer data
- Data analysis
- Data visualisation
- Transaction report
- Customer traffic analysis

Objectives

Cash desk area

- Cashier fraud prevention
- Staff errores minimisation
- Cash discipline control
- Reputation losses reduction
- Queue management
- Cashier schedules optimisation
- Outlet capacity increase

Trading floor

- Display supervision
- Staff supervision
- Marketing analytics acquisition
- Theft prevention
- People flow behaviour analysis
- Data collection for merchandising planning
- Compliance monitoring in a pandemic management
- Ensuring safety

Office

- Reports collection
- Automated equipment performance diagnostics
- Single control centre
- Customisable notifications

Entrance

- Conversion counting
- Unique and repeat people flow counting
- Target Audience defining
- Store window marketing promotions evaluation

Parking and unloading area

- Car access control arrangements
- Parking space counting
- Special vehicle operating procedures control

Warehouse

- Theft and damage of goods prevention
- Warehouse supervision operations
- Staff supervision
- Working hours tracking

ActivePOS

All store formats

Smart cash register control module

50%
reduced cash loss

100+
types of irregularities

Compatibility with most cash registers

✔ Reduced losses due to cashier errors/ misconduct

✔ Reduced time to investigate incidents

✔ Forecasting demand for goods

✔ Increased compliance with cash discipline and warning of potential fraudsters

✔ Conversion counting to purchase (in conjunction with the **Neuro Detector** module)

✔ Easy monitoring of several stores using statistical reporting

Shelf Detector

All store formats

Automated control of shelf space and merchandise display

+5% **revenue per category of goods**

✔ Control of merchandise display

✔ Notifications of empty shelves

✔ Forecasting demand for goods

✔ Generating reports

✔ Increasing product turnover

✔ Merchandise inventory planning

✔ Adjusting baking plans

Heat Map on Map

All store formats

Multicamera customer-flow 'heat map' for the retail space

● **Retail space management**　　● **Checking stock conversions**

✔ Diagram traffic intencity and direction on a dashboard

✔ Collection of marketing and statistical data on customer behaviour
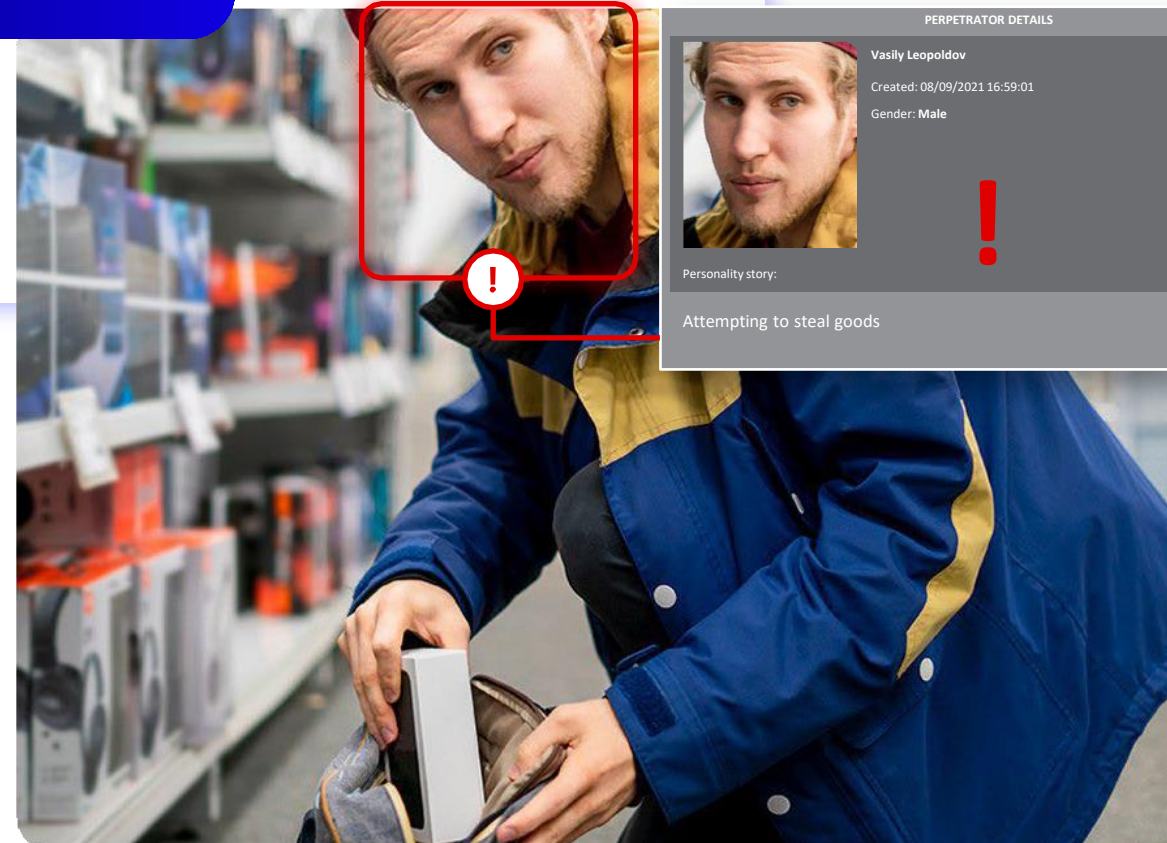
✔ Optimising and placement

Theft prevention

All store formats

Theft recurrence prevention module

Decrease in thefts by **75%**

PERPETRATOR DETAILS

Vasily Leopoldov
Created: 08/09/2021 16:59:01
Gender: **Male**

Personality story:

Attempting to steal goods

!

✔ Recognition of faces and other facial attributes

✔ Easy search and uploading of evidence

✔ Quick notifications

✔ Thieves base availability at all retail outlets

✔ Using offload analytics

Face Recognition & Face Analytics

All store formats ___

Biometric recognition module

VIP know your customer

8 key parameters to identify the TA

✔ Marketing analytics and data collection

✔ Counting % of repeat purchases and unique visitors to the outlet

✔ Creating a base with demographic segmentation

✔ Defining the Target Audience

✔ VIP customer identification

✔ Personalising in-store offers

✔ Timekeeping accounting and attendance monitoring

✔ Integration with access control systems ACS

INFO

Male

Age 31

No moustache
Dark, short hair
No headwear

Queue Detector

Smart queue control module

9% increase in the number of receipts per cash register

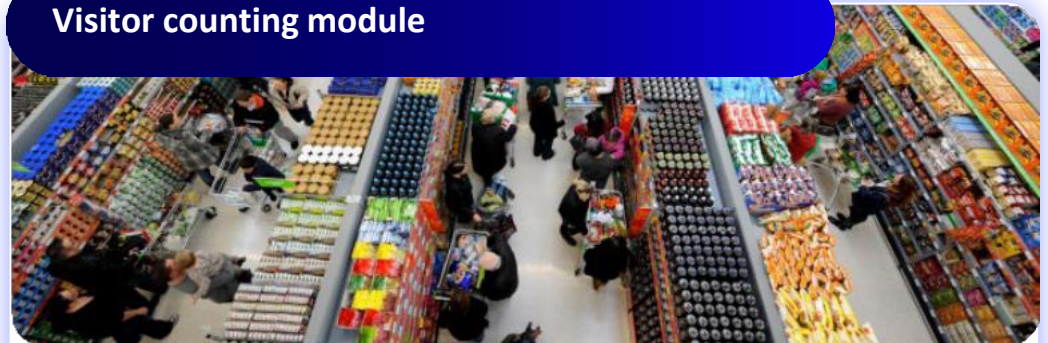**2** reduction in the number of complaints and queues

by **10%** reduction in refusal rates

- High accuracy > 99%
- Increase loyalty and repeat purchase %
- Optimise cashier schedules
- Increase outlet capacity
- Statistical records

Neuro Counter

Visitor counting module
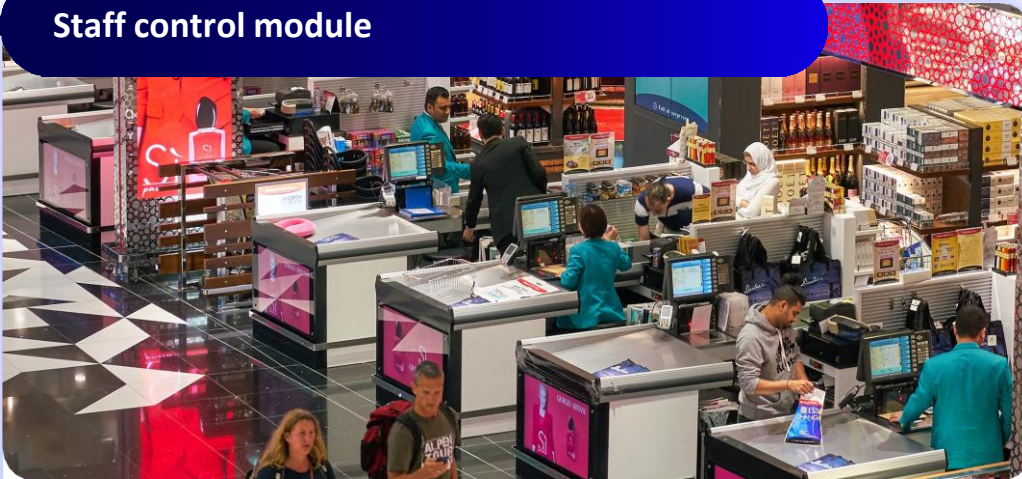
+99.9% counting accuracy

16 zones crossings to count visitors in the frame

- Unique object counting based on neural network
- Excludes employee counting
- Estimating traffic flow
- Counting conversions to sales
- Evaluating the conversion rate of marketing promotions
- Displacement analysis

All formats

Staff Tracker

Wear Detector and Neuro Detector

Staff control module

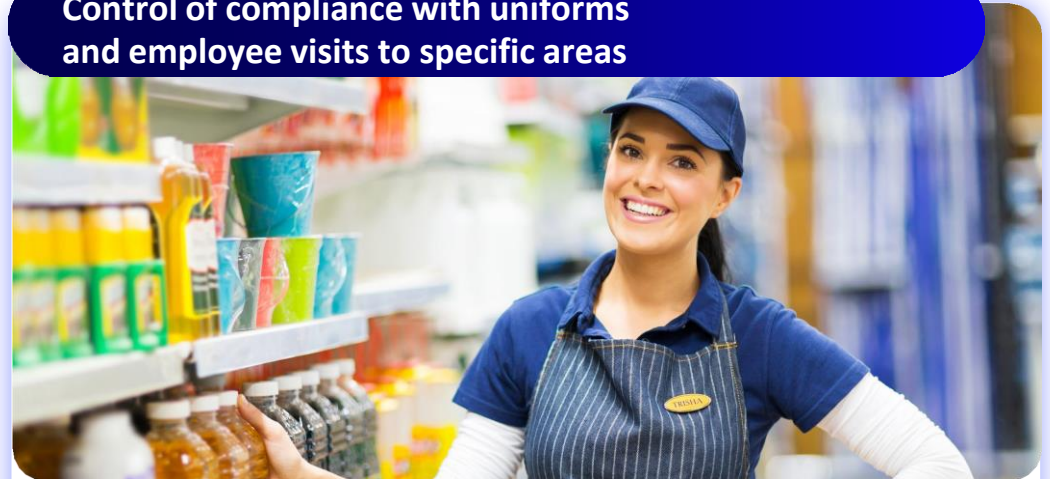**Control of compliance with uniforms and employee visits to specific areas**

99%
Recognition accuracy

- Monitoring the availability of staff in the service areas
- Monitoring the implementation of work procedures
- Tracking KPIs
- Record of visitors served and neglected
- Report on the speed of service

- Identifies and classifies people wearing uniforms of a particular colour
- Generates reports
- Monitoring of safety and sanitary standards
- Control of staff visits to specific areas at specified intervals

Marketplaces, Giveaway outlet Distribution centres | Dark stores | Petrol stations | Specialty stores | Store chains| Hypermarket | Convenience store

FaceMask detection and temperature control

Social Distance Detector

Sanitation in a pandemic

- Alerting visitors without a mask to the mandatory of wearing personal respiratory protection
- Streamlining the work of staff in controlling irregularities
- Notices to staff
- Staff supervision

Keeping a social distance

- Alerting visitors to the imperative of keeping a social distance
- Streamlining the work of staff in controlling irregularities
- Notifications to staff

Active Stock

Smart warehouse operation control module

Reduction of incident investigation time

Reducing the number of unidentified losses

- Tracking where and at what stage goods are lost or damaged
- Monitoring staff performance and safety procedures
- Monitoring the movement of goods and the picking process
- Detecting errors and fraud
- Adherence to schedules

AutoTrassir

Neural network-based recognition of vehicle licence plates

28 **number plate standards**

Organising access control

- Organising access control to the parking space and unloading
- Automatic gate control
- Vehicle and parking space counting
- Prompt investigation of incidents
- Special vehicles monitoring
- Speed detection
- Database generation

Marketplaces, Giveaway outlet distribution centres | Dark stores | Petrol stations | Store chains| Hypermarkets | Convenience stores

Neuro Left Object Detector

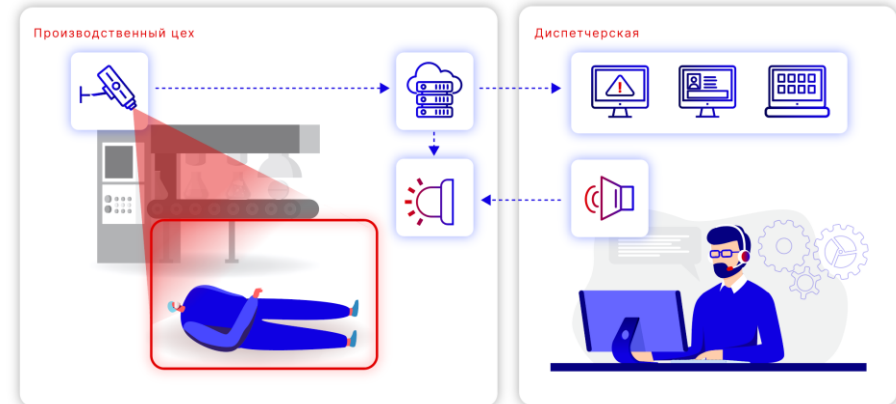## Detecting forgotten and deliberately abandoned items

6 **Typical objects for recognition** | Suitcase | back pack | box | bag | duffle bag

- Defining the object type
- Notification after a set period of time
- Automatically links an object to a host

Pose Detector

Identifying abnormalities in people's behaviour

6 **Basic behavioural patterns** | Arms outstretched and firer's position | Arms raised above head | Squatting person | Falling person | Person holding handrail | Fighting positions

- Notification of homeless people, of a fallen person, of suspicious visitor behaviour characteristic for intruders
- Offload analytics are possible

TRASSIR ACS

_____ All formats

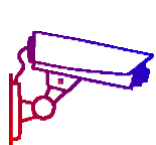## Access control and management system for rule-based security arrangements

● **Biometrics**

● **Mobile access**

● **1 server for ACS and video operation**

✔ Personnel management

✔ Setting access levels

✔ Flexibility of work schedules

✔ Photo verification of passageways

✔ Object monitoring and manual control of devices

✔ Event log

✔ Working time record

✔ Mobile remote access

TRASSIR CMS

Petrol stations | Store chains | Hypermarkets

System for centralised management of a large-scale video surveillance system and the possibility of organising a situation room via a single interface

Auto-surveillance system performance monitoring

Saving on traffic

Backup of settings, centralised update

- Single entry point for all users
- Provides a convenient work with video on distributed objects when the system has a large number of video registrators
- Management accesses for users
- Centralised data collection of video analytics
- Automated distribution of updates with an option of individual servers selective update
- Saves traffic when simultaneous viewing live video from endpoints by multiple operators

To whom this solution suits:

- Who has a large number of recorders. From 10 pieces.
- Who cares about the usability of a large, distributed system and needs a single entry point

- Who needs a situation centre
- Who has a large number of users and/or where users change frequently

- Starting from 20 users
- Who maintains and runs the system

TRASSIR Cloud

Petrol stations | Store chains| Hypermarkets | Convenience stores

Cloud video surveillance

6 years
Cloud infrastructure development examinations

200 000
Satisfied users worldwide

10+
Tier III security modern data centres

Low costs
Minimal maintenance costs and constant updating of the system without owner involvement

Customisable notifications
Receive notifications by email or phone, e.g. if the camera has detected movement or is switched off

Easy to operate
The single video surveillance control centre and fine access rights setting

Cell phone access
Mobile app for easy system management

Flexible payment option
Pay for the archive recording on a monthly basis or for a year at a time

Access from wherever you are worldwide
Remote and convenient video monitoring of your business from any device

Autocheck of all cameras
Automatic camera and recorder monitoring system

Video footage cloud storing
A failsafe solution and cutting-edge encryption ensures high security and safety

Video analytics available:

- Face recognition
- Object recognition
- License number recognition
- Neural network based counter
- Queue management
- Heat map of people's traffic

Cases | SPAR Supermarkets

A wide network of outlets that have service areas with their own kitchen. The network is actively expanding, opening new facilities in Moscow

Objectives:

- To reduce losses due to theft in stores
- To provide a solution to combat fraud at the cash registers
- To supervise the process of self-weighing of goods by customers in self-service areas

Solutions:

- During the month, **Face Recognition**, **Active POS**, weight data control modules and special recorders for video analytics were installed. Thanks to these solutions, cash is now automatically counted together with the cashier when shifts are closed, cash shortage has been reduced by **30%** and theft losses have fallen by **40%**. Weight data control has also been developed to track the process of self-weighing of goods by customers. Thanks to the Face Recognition module, the customer estimates a **60%** reduction in the theft risk.

TRASSIR   **2 NeuroStation servers**

30% reduced inadequacies   **40%** reduced theft losses   **60%** reduced theft risk

Cases | Fresh Market "Yes!"

The Yes! brand is owned by Fresh Market LLC, part of the O'Key Group, one of Russia's largest and most successful retailers

Objectives:

- To create a system to control cash transactions
- To minimise cash shortage at cash registers due to staff errors and misconduct
- To implement the project in the shortest possible period

Solutions:

- Trassir cameras were used for the project. The cash analytics module was implemented and took **2 months** to install. As a result of the work done, the customer's needs can be fully met. Following the phased implementation of the proposed solutions, cash losses were reduced by 30-50% and now account for only 5% of cash turnover. The customer continues to use video analytics at new outlets.

TRASSIR ActivePos

9 NeuroStation servers

1466 cameras

TRASSIR Cloud

30-50% Reduced cash losses

100% Chain stores are gradually introducing video analytics

Cases | Hypermarket chain

The Russian largest hypermarket chain.
16,960 stores, of which 12,503 convenience stores,
244 hypermarkets, 213 supermarkets and 4000 drogeries. Outlets are located in
2808 locations across the Russian Federation. Total number of employees of the
company is more than 270,000

Objectives:

- national developer;
- scalability;
- hardware fault tolerance;
- a flexible, client-oriented system that allows customised developments to
  suit the customer's specific situation;
- warranty, service and technical support.

Solution:

- The TRASSIR Cloud network was implemented based on the scale of the customer's needs. Currently, 10,000 servers are running at the same time. This makes TRASSIR eligible for the nomination for Russia's largest cloud-basedvideo surveillance system with a record number of servers connected. And, most importantly, tested in the field.
- **The Active POS module is installed in the stores.**

Result:

- **Theft of cashiers by 400,000 roubles in one of the stores in a month was confirmed**, staff was replaced and business processes were created taking this module into account. The solution has been extended to store chain. Losses from checkout fraud have been minimised.

TRASSIR ActivePos

TRASSIR Cloud

Case studies | Podruzhki laser beauty and epilation salon chain

The largest chain of laser cosmetology and epilation salons with 156 clinics across Russia

Objectives:

- Combating embezzlement and theft of staff
- Supervising staff activities
- Improving customer service

Result:

- Financial losses due to the thefts of their own employees have been reduced to zero. (For example, the value of stolen products and equipment amounted to several million roubles in one case. The perpetrators were quickly identified from the video and charged with the value of the missing equipment);
- General discipline has improved;
- Labour productivity has increased;
- The staff are more polite to visitors;
- The quality of service and the number of repeat customer visits to the chain's salons has increased significantly.

90 ip cameras

TRASSIR Cloud

TRASSIR

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Hardware Catalog

Video Management Software Catalog

Success Cases