Active POS

Smart monitoring of checkout transactions

RECORDED LOSSES IN RETAIL

Bar chart values:
- 20% — Receipt fraud
- 10% — Theft from cash register
- 19% — Cash fraud
- 9% — Forgery of payments
- 28% — Theft of money in collusion with management
- 12% — Forgery of financial statements
- 34% — Forgery of cashless transactions
- 13% — Theft of customer bank card information

Legend:
- Receipt fraud
- Theft from cash register
- Cash fraud
- Forgery of payments
- Theft of money in collusion with management
- Forgery of financial statements
- Forgery of cashless transactions
- Theft of customer bank card information

Donut chart:
2-2.5% of sales
- Administrative and others — 13%
- Supplier fraud — 6%
- Shoplifting by customers — 34%
- Supplier fraud — 47%

47%

losses in statistics

DIRECT LOSSES:

cases of obvious theft and fraud. Lead to a shortfall that can be identified during stock-taking

Beyond the statistics

INDIRECT LOSSES:

when the cashier shortchanges the customer. The resulting loss is higher due to reputational costs

MORE THAN HALF OF ALL LOSSES OCCUR AT THE POS

Common examples of violations:

Deliberate theft	Mistakes and carelessness	Violation of cash register discipline
Cancellation or partial receipt printing	Cashier gets the goods mixed up (regrading)	Shop opening and closing time
Unsettled receipt, when the cashier's accomplice takes goods using previous customer's receipt	Errors in the quantity of goods	Talking on the phone while working at the POS
Returns	Ignoring deliberately under-weighed goods	Leaving the workplace
Extra goods	Errors when taking goods off the receipt	Mess at the workplace
1+1 offer positions		
Customer loyalty card fraud		

TRASSIR ACTIVE POS

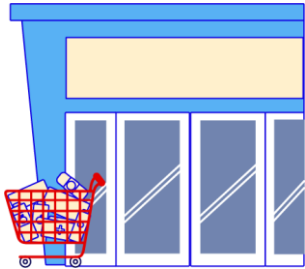**The smart module ensures synchronisation of the POS with the video stream:**
upon reaching ActivePOS, events from the POS go through a checklist according to set parameters, in case of a violation an incident (notification of a violation with a short video clip) is generated and output to the operator for checking. The module also improves the efficiency of conflict resolution with customers.
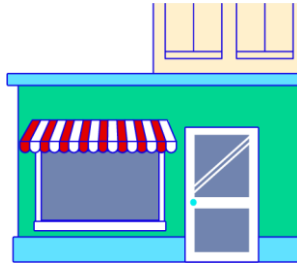
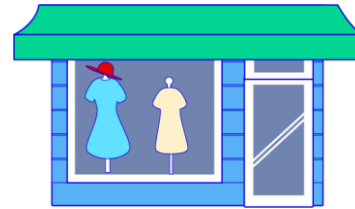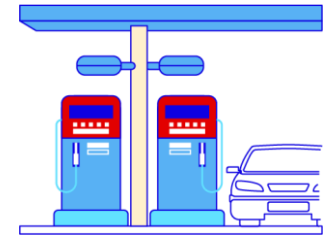Events from the POS and checkweigher are synchronised with a video stream

Event search and selection based on parameters

- Displaying alarm events for the
- operator
- Viewing instances in the recording
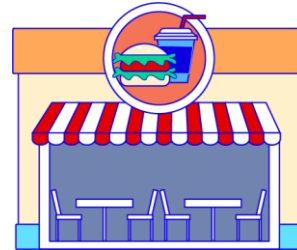Creating a report
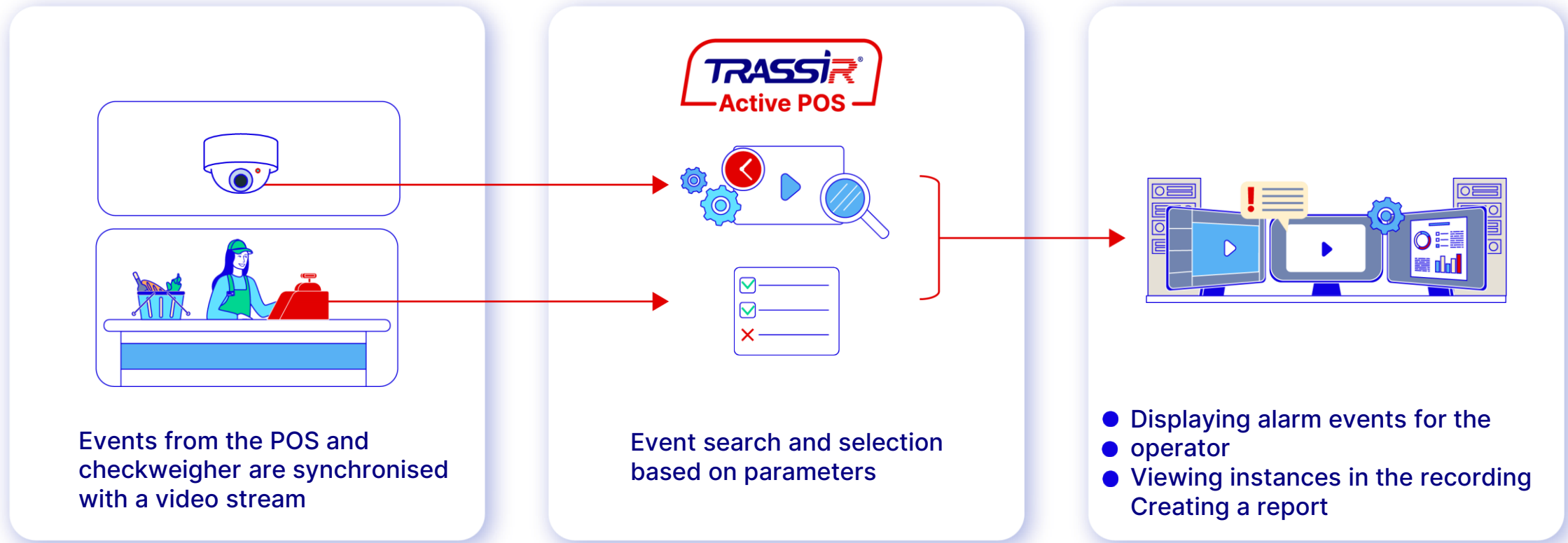
SOLUTION BEST SUITED FOR

Hypermarket

Convenience store

Specialised stores

Fuel station

Banks

Fast food restaurants

Pharmacy

DETECTING THEFT AND FRAUD

VIOLATION	DETECTION:
Receipt cancellation The customer did not wait for the receipt and left. The cashier cancelled the purchase and kept the money	→ Viewing incidents of cancelled receipts paid in cash
Fake return Using the receipt left by the customer, the cashier returns the goods that were actually sold and takes the money	→ Viewing cases of returned goods
Cashier's personal discount card The cashier does not clear the receipt and waits for the customer to leave. Uses own discount card. Takes the resulting difference between the amount paid and the sum total	→ Viewing cases when the same discount card is used – for example, more than twice per working day

DETECTING CASHIER ERRORS

VIOLATION

Error when letting through a group of products

When scanning a multipack, the cashier scans the barcode of one product and forgets to enter the actual number of items in the multipack. As a result, the amount on the receipt is for just one item and not the whole package

Error when entering the product code manually

When entering the product code manually, the cashier makes an error and sells another product with a different price. As a result, there is a mix-up

Error in the quantity or weight of goods

The cashier makes a mistake when entering the quantity of goods (for example, enters 77 instead of 7), deletes the wrong digit, and does not enter the correct quantity of goods. The customer gets the goods for free because of the error

DETECTION:

→ Viewing the entry of groups of goods into the system, during the sale of which such an error might occur

→ Viewing manual entry of product codes

→ Viewing instances when the number of goods is changed, after which the goods disappeared from the receipt

DETECTION OF VIOLATIONS
CASH REGISTER DISCIPLINE

VIOLATION	DETECTION:

Opening a cash register without payment

Unjustified opening of a cash box with the threat of the cashier pocketing cash that is unaccounted for

→ Viewing instances of a cash box being opened without the customer paying in cash

Selling alcohol without verifying the customer's age

Before selling alcohol, the cashier must make sure the customer is an adult by checking their ID

→ Checking the sale of all goods from a given list (alcohol, cigarettes)

Not checking high-value notes

High-value notes shall be checked on a detector to avoid payment with counterfeit banknotes

→ Viewing purchases paid for in high-value notes

KEY ADVANTAGES

100+ types of violations

50% reduction of cash losses

10k+ TRASSIR modules reduce the financial losses of our customers every day

99,9% equipment is compatible with the ecosystem

TRASSIR®

Reduction of financial losses at POS via quick search of incidents

Common interface for multiple locations

Creation of any search algorithms and combinations of events

Flexible filter parameters and events sorting

Only **1 operator per 100 POS** at several stores

Reduced service time in case some receipt positions are cancelled

COMMON INTERFACE
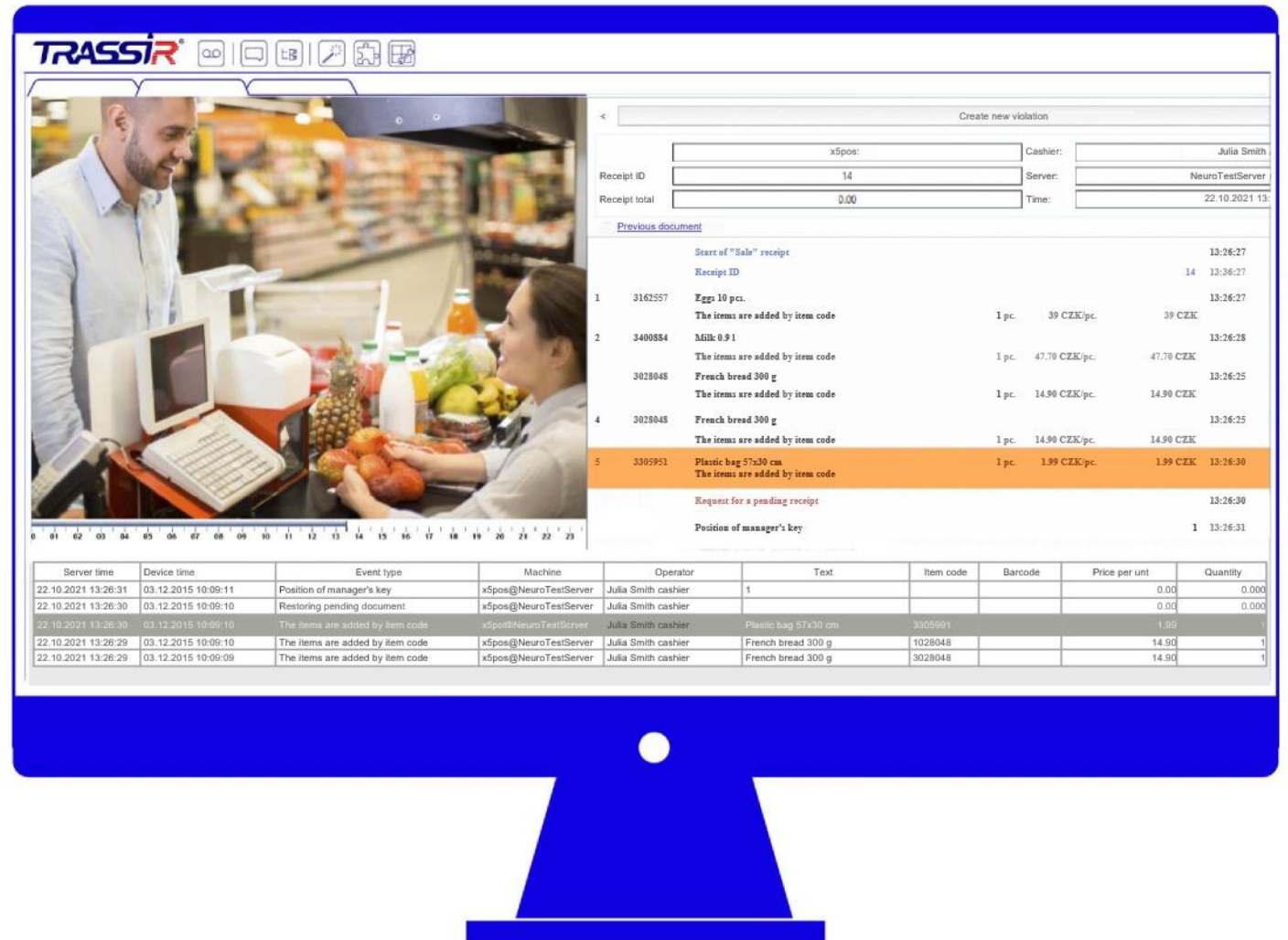### One-contact principle

- Timely prevention of violations
- Multiple stores at the same time
- 100+ Types of violations for analysis
- Generating detailed and convenient reports with one click

TIMELY PREVENTION OF VIOLATIONS

Timely prevention of violations

Multiple stores at the same time

100+ Types of violations for analysis

Generating detailed and convenient reports with one click

Automatic selection of suspicious incidents and immediate notification

Broadcasting incidents and operations from the cash register in the visual backdrop

Options for filtering and sorting per specific cashier or store

TIMELY PREVENTION OF VIOLATIONS

Automatic withdrawal of incidents online based on specified setting rules
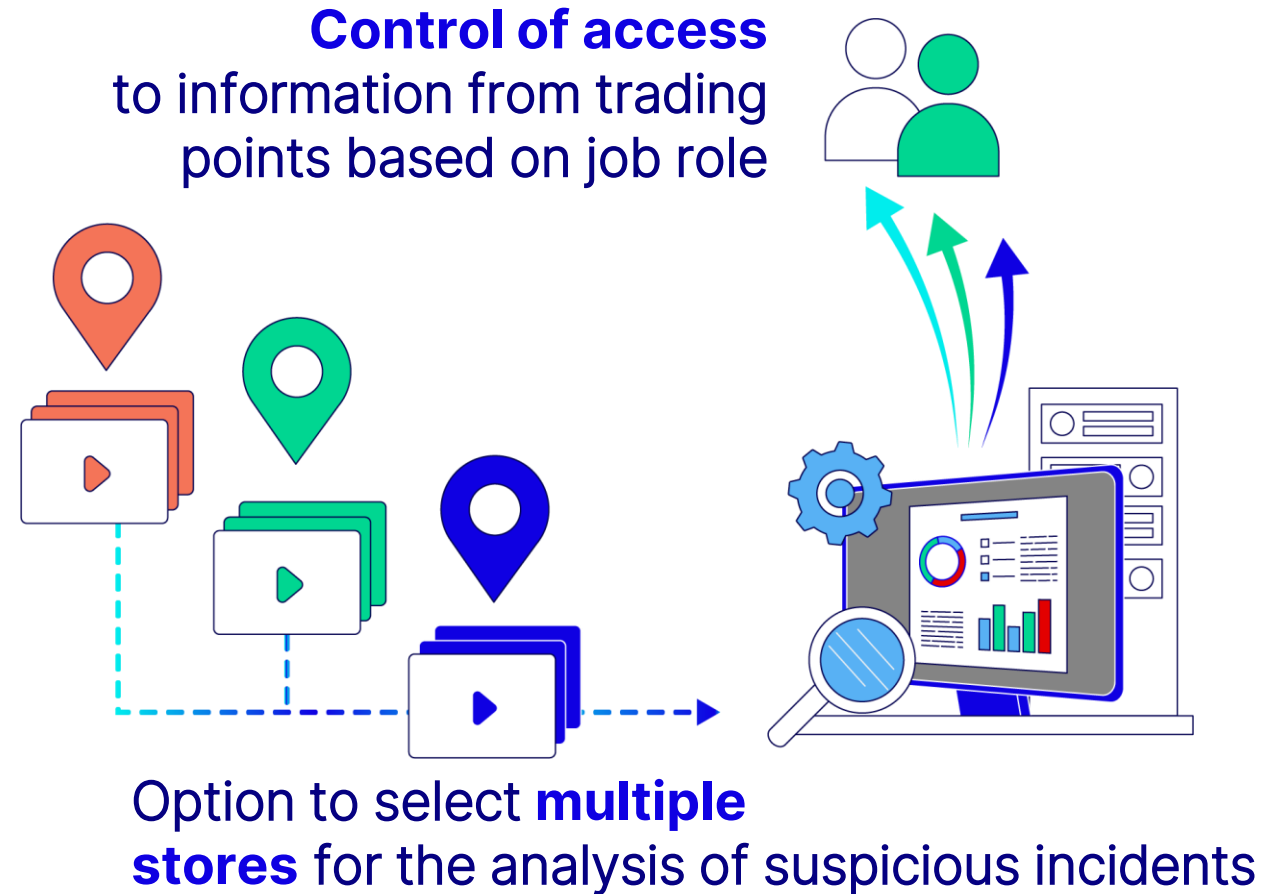
- Timely prevention of violations
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WORKING WITH MULTIPLE STORES AT THE SAME TIME

- Timely prevention of violations
- **Multiple stores at the same time**
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Control of access to information from trading points based on job role

Option to select **multiple stores** for the analysis of suspicious incidents

WORKING WITH MULTIPLE STORES AT THE SAME TIME
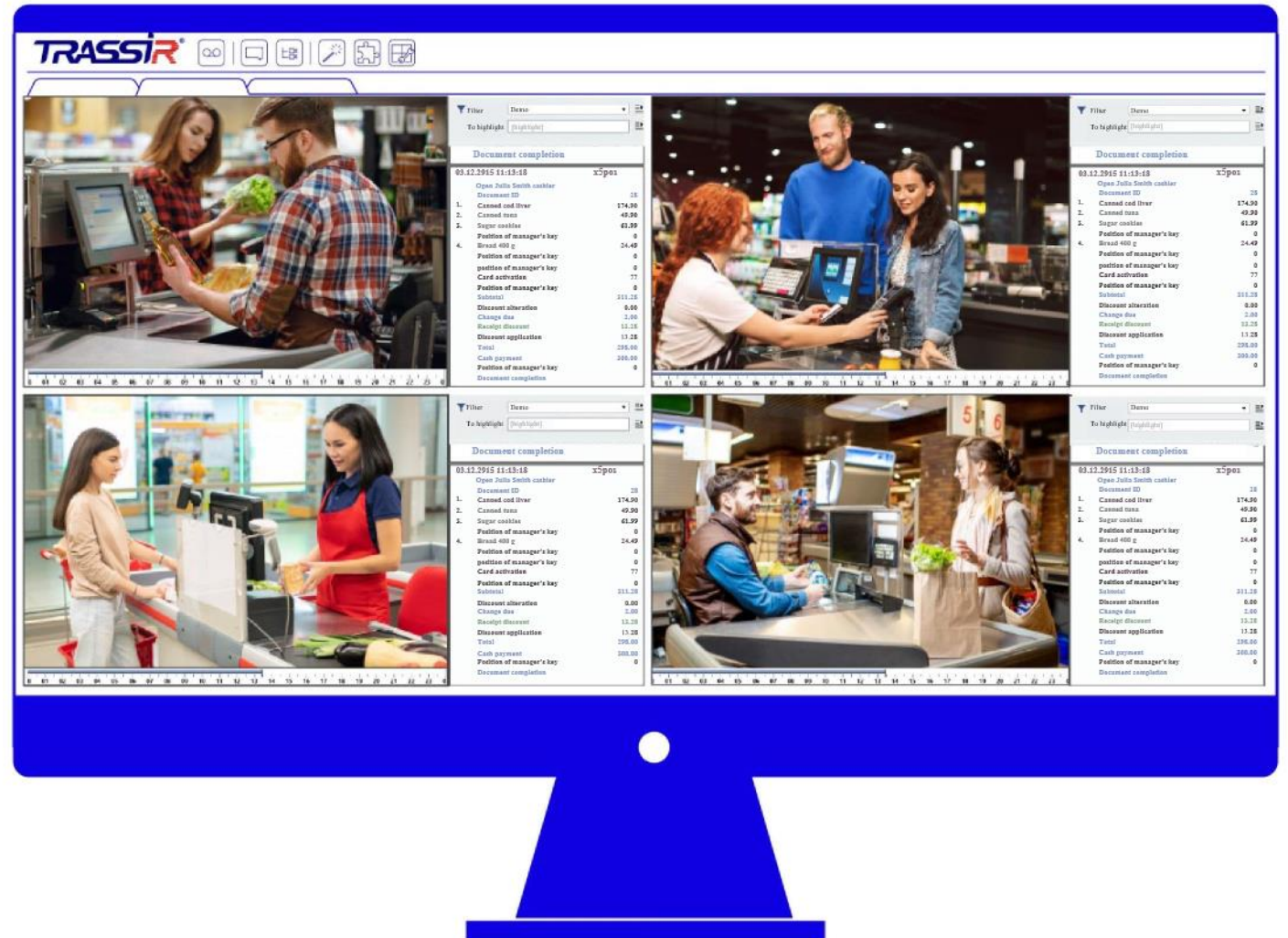
- Timely prevention of violations
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BUILT-IN ALGORITHM CONSTRUCTOR
of search for violations to create any combinations of events

TRASSIR® **Active POS**

- Timely prevention of violations
- Multiple stores at the same time
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Customer cheating

Item is cancelled

Frequent using the same loyalty card

Re-grading due to incorrect code entered manually

Error when entering payment amount

Cancellation of a pending receipt

Scanning with no receipt

Working with an open cash box

Service timeout

Imitation of scanning

Error when making a cashless payment

Selling underweight items

Selling alcohol to minors

Leaving workplace when cash box is opened

Return receipt creating

Selling alcohol at night

Late opening and early closing of the shop

selling cancelled items

Missed item due to illegible barcode

Selling cigarettes to minors

Alteration of quantity or weight

Fictitious return of goods

Selling without receipt

Taking money out of cash box

No need for an IT expert —
all rules are easily created in
the interface
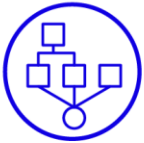
Create unique rules with a
complex sequence,
selection of products,
cashiers or other
parameters

>12 report templates

creating own flexible templates

TRASSIR® Active POS
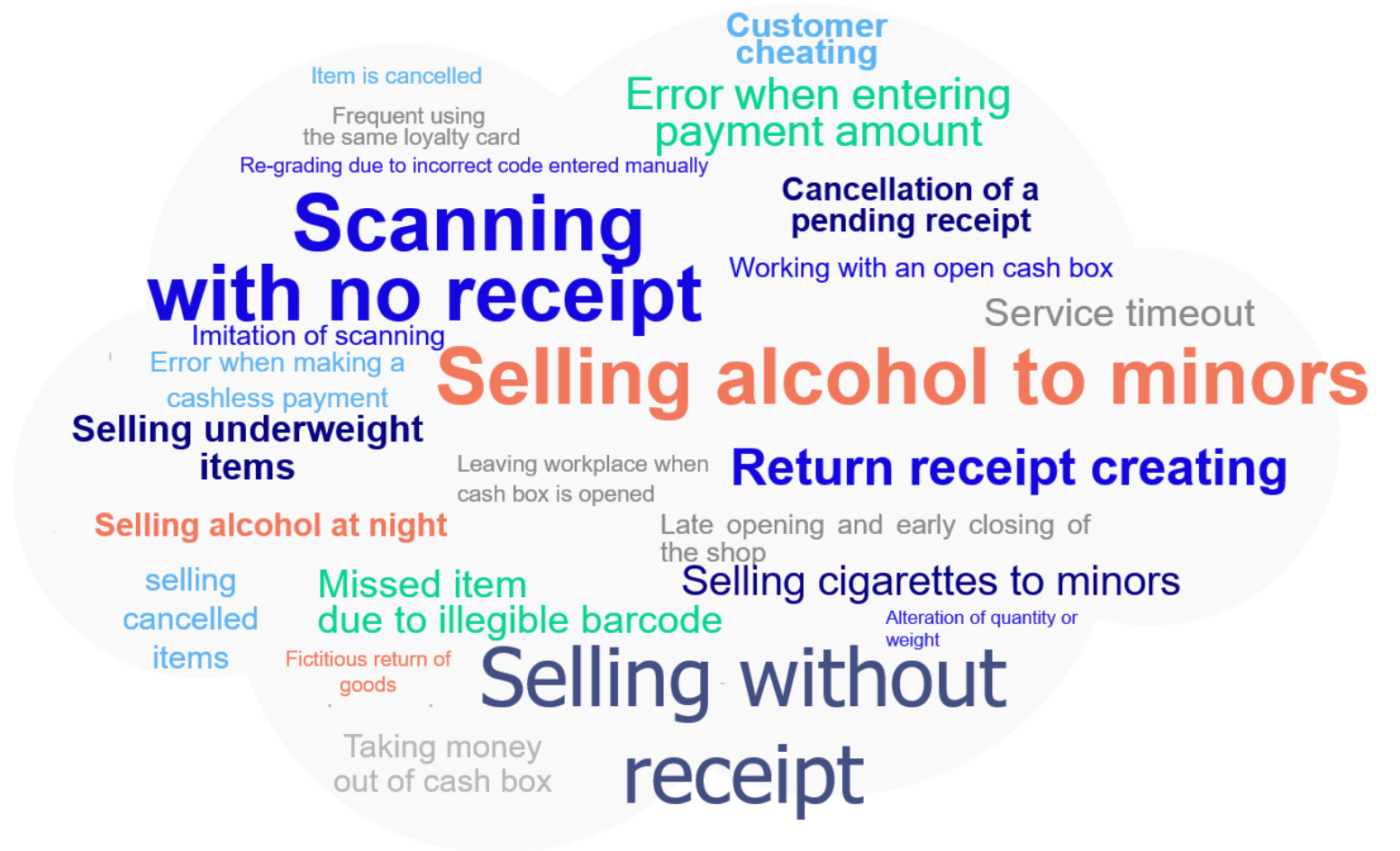
Timely prevention of violations

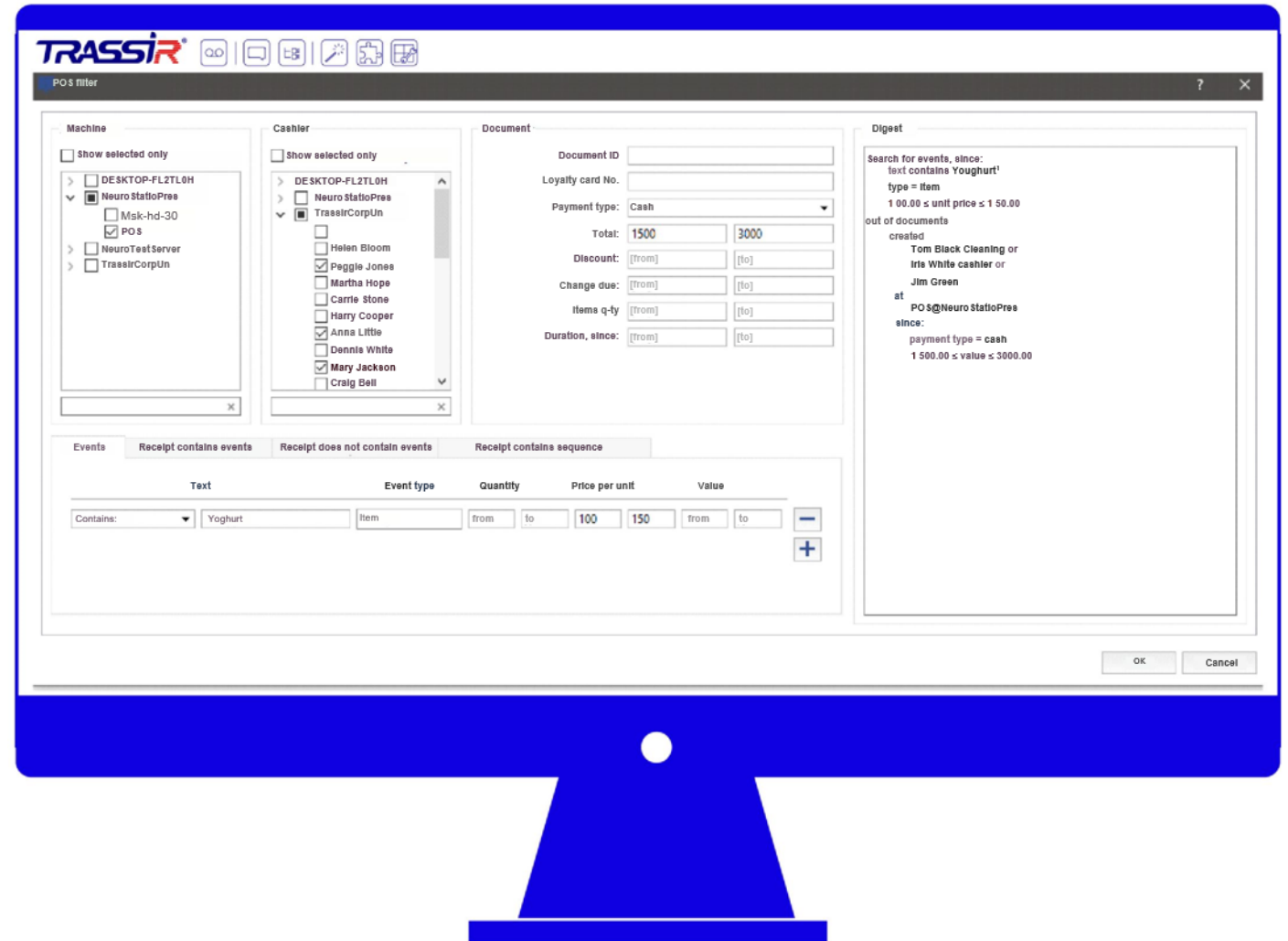Multiple stores at the same time

100+ Types of violations for analysis

Generating detailed and convenient reports with one click

Detecting multiple violations in the same incident

Detecting violations outside the receipt (moment of service)

Tools for working with record archives

Automatic generation of reports according to specified filters, generation rating reports (best/worst)

Uploading the evidence base to the report (date, type of incident, receipt number, cost of damage, cashier's name, comments, imagery, etc.)
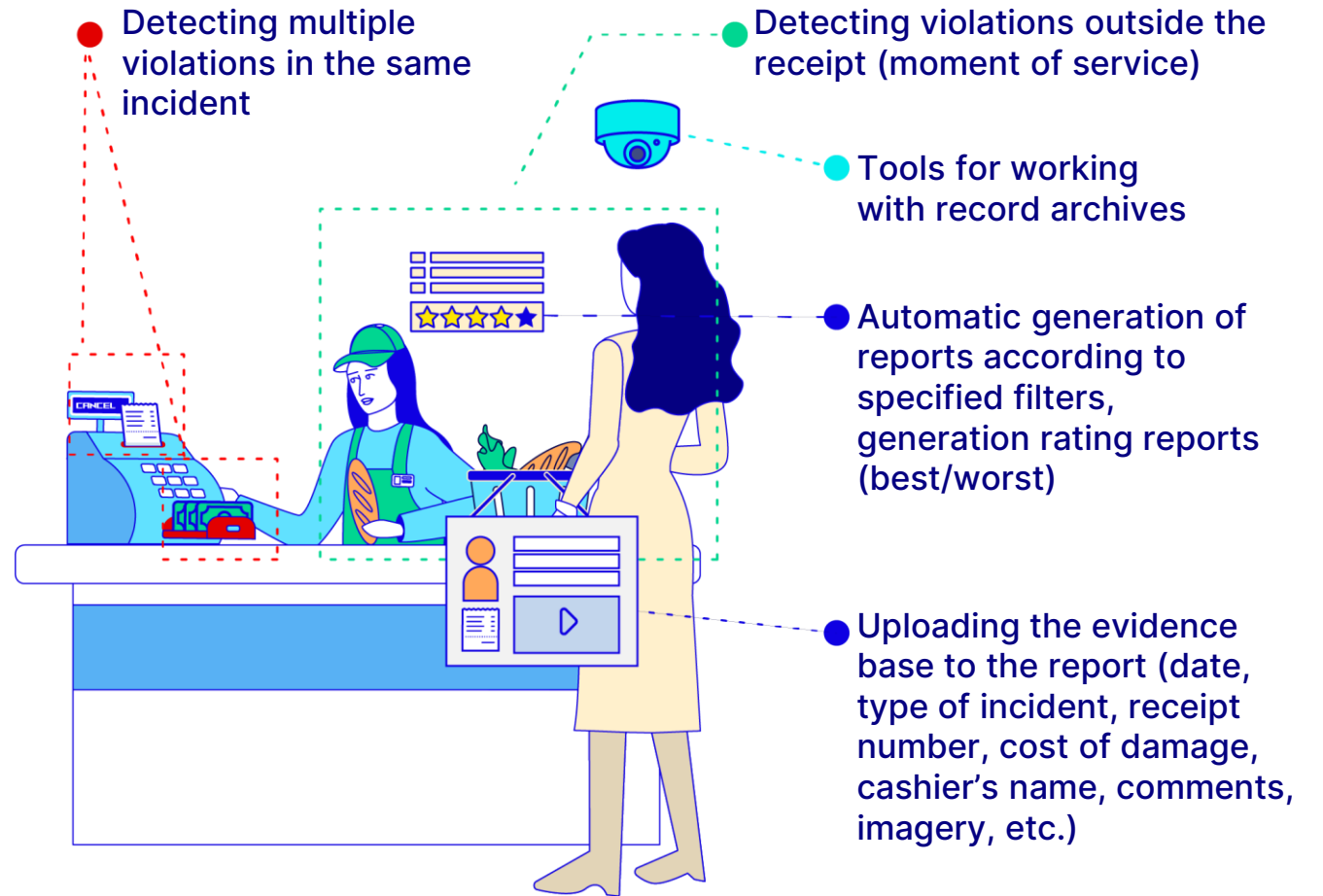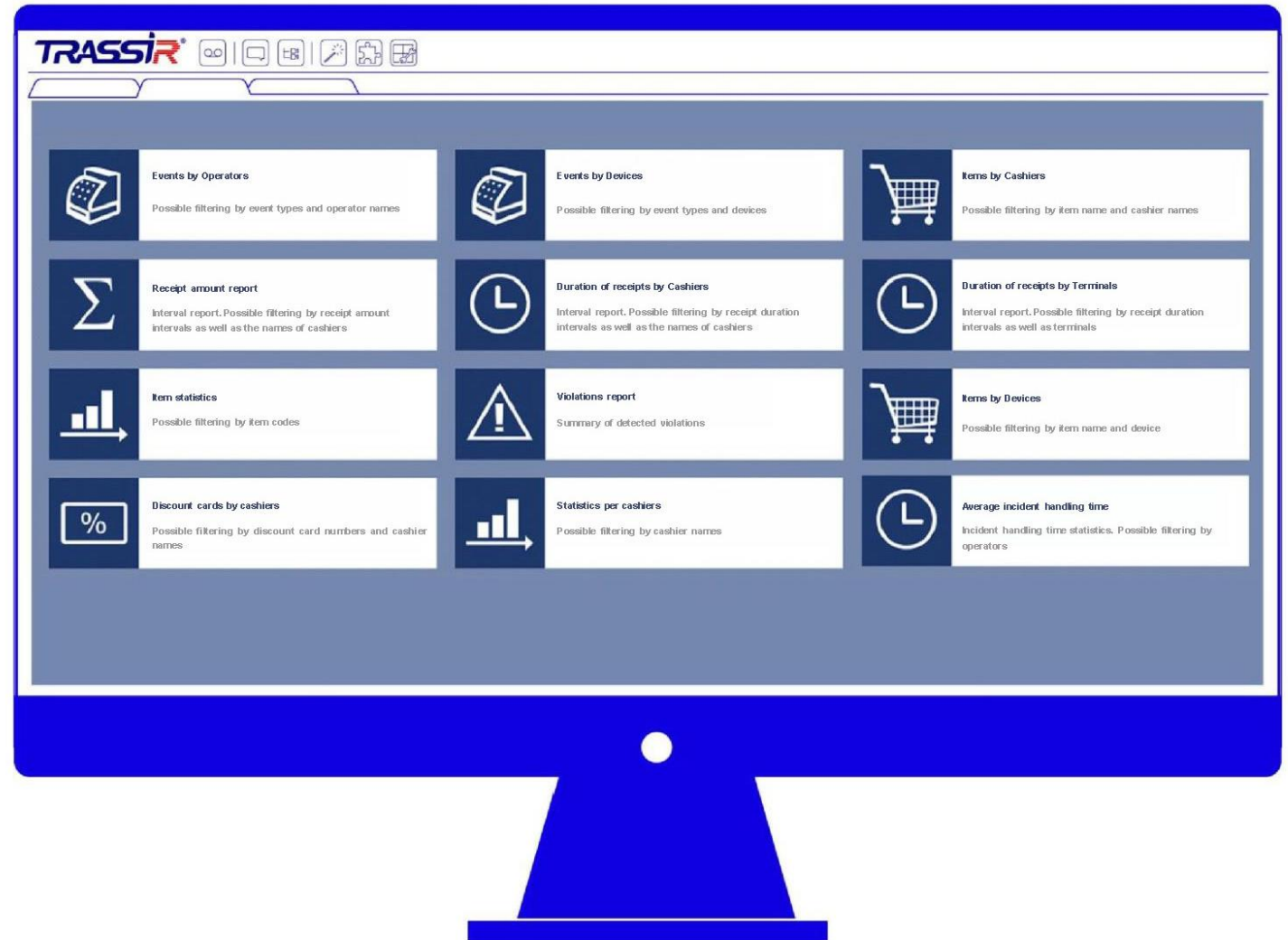
Timely prevention of violations

Multiple stores at the same time

100+ Types of violations for analysis

Generating detailed and convenient reports with one click

AUTOMATIC GENERATION OF A REPORT
on the identified violations

TRASSIR **Active POS**

Timely prevention of violations

Multiple stores at the same time

100+ Types of violations for analysis

Generating detailed and convenient reports with one click

Event type	Total	Total	Tatyana Gorelkina	Микаева Анна...	Anna Plekhankova
Receipt cancellation	5	5	0	4	0
Adding cash money into cash box	7	7	0	3	2
Login to cashier mode	9	9	1	1	2
Log out of cashier mode	8	8	1	1	2
Adding an item to receipt	5712	5712	666	1913	0
Item alteration	268	268	42	89	0
Taking money out of the cash box	6	6	1	2	0
Total	1015	1015	119	410	0
Receipt end	898	898	91	368	2
Start of "Sale" receipt	888	888	89	368	0
Receipt ID	893	893	90	368	0
Item is cancelled	51	51	7	30	0
Printing X-report	15	15	2	6	2
Receipt printing	879	879	90	361	0
Cash payment	1015	1015	119	410	0
Increasing goods quantity	614	614	81	201	0

Timely prevention of violations

Multiple stores at the same time

100+ Types of violations for analysis

Generating detailed and convenient reports with one click

Incident report	Detected	Not viewed	Confirmed	Declined	TrassirCorpUp Total	Neur
Violation of POS servicing rules	28	5	1	22	1	
Cancellation of a pending receipt	8	4	2	2	2	
Receipt cancellation in the absence of the manager	2	2	0	2	0	
Receipt cancellation with delay	2	2	2	0	2	
Item input by calculation	0	0	0	0	0	
Selecting an item from the list manually by price	6	0	3	3	3	
Issuance of a sales voucher without signing	2	1	1	0	1	
Reloading the cash register in the absence of the manager	2	1	0	1	0	
Cancellation of items in the receipt in the absence of the manager	8	0	4	4	4	
Selling without receipt	2	0	1	1	1	
Printing return receipt in the absence of the manager	2	0	2	0	2	
Counting cash in a cash box	0	0	0	0	0	
Printing X-report	2	0	1	1	0	
Printing X-report and withdrawing money in the absence of manager	3	0	0	3	0	
Acceptance of a high-value note without detecting	14	14	0	0	0	
Selling alcohol to minors	2	1	1	0	1	
Selling cigarettes to minors	2	0	2	0	2	
Working with an open cash box	0	0	0	0	0	
Selling alcohol at night	4	0	1	3	1	
Unintentional damage to the seller or customer	25	20	0	5	0	
Alteration of quantity or weight when accepting	2	0	1	1	1	
Unintentionally cheating a customer by scanning the same item twice	3	0	2	1	2	
Cutting off small amounts	5	1	3	1	3	

SORTING INCIDENTS
by type of violations, cost of damage, number of incidents

Timely prevention of violations

Multiple stores at the same time

100+ Types of violations for analysis

Generating detailed and convenient reports with one click

Statistics per cashiers	Suspicious...	Working time	Receipts	Receipts total	Cancelled amount
⌄ DESKTOP-CCGMIDR	6	51 m 17 s	888	131432.411	67406.25
Peggie Adams	7	6 m 9 s	89	7793.98	67.99
Alex Levine	3	15 m 13 s	224	19984.87	94.94
Ann Gordon	9	17 m 26 s	368	86445.35	67189.34
Fred Blossom	0	0 s	0	0.00	0.00
Andy Novak	3	12 m 29 s	207	17208.21	53.98
James Murray	0	0 s	0	0.00	0.00

Sorting incidents by the cost of damage. Special attention is paid to 'costly' incidents

Marking of viewed incidents

REDUCED SERVICE TIME
in case some receipt positions are cancelled

Manager! Cancellation is needed!

The traditional method of fraud prevention, when each incident of cancelling goods in the final receipt requires confirmation from the senior staff

Queuing
People with small purchases are leaving as they are unwilling to waste time in queues, the visitors' loyalty decreases

The shift supervisor is distracted from his duties during peak hour, he is forced to dash from one POS to another

By reducing customer service time you get:

Increase of conversion to payment

Customer loyalty improvement

Increasing the quantity of receipts per one POS

Manager is not distracted.

Opportunities to:

Monitor the presence of staff in the workplace
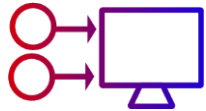
Simultaneously process information from the weighing equipment and the POS

Investigate incidents from their beginning without having to scroll through the entire till roll

Conduct marketing conversion analysis when used in conjunction with the **Neuro Counter module**
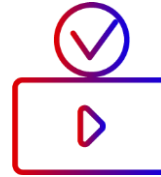
Determine the presence or absence of violations from the video frame

Integrate with most retail and cash register systems based on protocols

Significantly speed up the process of removing a product from the receipt if the customer so wishes

Conduct 'health monitoring' of the entire system using **Trassir CMS**

Trassir CMS Solution for managing an extensive CCTV system in retail

For whom: → More than 20 recorders → Many locations with video surveillance → Uninterrupted 24/7 monitoring is critical

Basic features | Advanta

|	
24/7 monitoring of surveillance system	You will not miss equipment failure and will not lose important data. Set up notifications or view the status online
System status reports	To analyse situations, you can create reports on the state of the system for any period. We can customise the CMS and collect reports on any system data
Convenient user management, LDAP	Easy creation of users and flexible management of their rights based on your corporate user system
Situation Center	Security guards will not miss suspicious situations and they do not have to monitor all cameras. You handle only alarms from the right detectors and flexibly set their trigger scenarios
Traffic reduction	With slow Internet speed or narrow channels, the desired channel can still be viewed by multiple users
Centralised server update and management via scripts	You can update all or individual servers at once using the CMS and also manage them via scripts

CONVERSION MARKETING ANALYSIS

TRASSIR®
Neuro Counter module
intelligent object detector

- Counts visitors based on neural networks
- Excludes employee counting
- Gives an estimate of passability

+

TRASSIR® Active POS
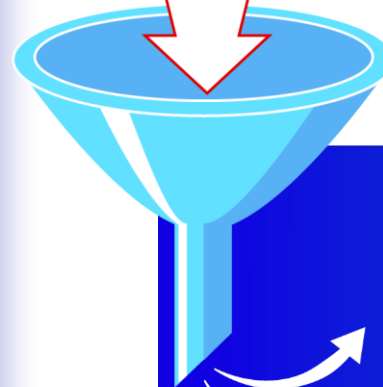
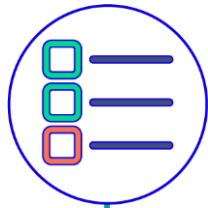- Gathers marketing analysis of conversion to purchase
- Unites groups of people at POS for accurate conversion estimation

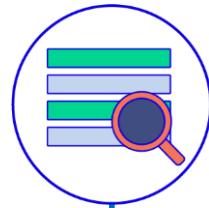# REDUCTION OF LOSSES IN CASH TURNOVER IN THE BANKING SYSTEM
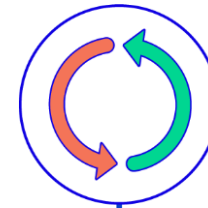
For POS cash registers and counting rooms

The module is integrated with money counting machine and bank software

Creating a list of all events

Creating and storing evidence base
to investigate incidents. The archive of video recordings of all transactions passing through the ATM allows promptly investigating customer claims and the precedents of fraud

Synchronisation of event video monitoring of cash and payment centres **using Active POS**. Synchronisation of video recording of all of the cashier's actions with the data received from bill counters enables the merging of this information for easy monitoring of all operations
with banknotes at any time

CASES

SPAR supermarkets

A wide network of retail shops that have service areas and their own cooking facilities. The network is actively expanding.

Project objectives:

→ To reduce losses from shoplifting

→ To provide a solution to prevent fraud at POS

→ To control the process of independent weighing of goods by customers in self-service areas

Implementation result:

30%
decrease of shortage quantity

40%
decrease of losses resulting from shoplifting

60%
decrease of shoplifting theft

CASES

TRASSIR ®
Active POS

Largest fast food restaurant chain opens more than 500 outlets

Project objectives:

➡ Minimising delays in receiving and delivering orders

➡ Preventing POST fraud

➡ Preventing theft

Implementation result:

➡ Video surveillance as a regulatory control tool

➡ Collecting statistical data for marketing research without the involvement of third-party services

2 months
for payback

70%
reduction of financial losses resulting from theft

ADDITIONAL IMPLEMENTED SOLUTIONS AND DEVELOPMENT VECTORS

TRASSIR Active POS

Zone for self-checkout

Generating incidents at self-service checkout points

Zone for delivery

Distribution centre, warehouse and logistics hubs

TRASSIR Active Stock

Helps to reduce unidentified losses

Significantly speeds up the investigation errors and fraud cases

Optimises the monitoring of shipping and palleting areas

Helps monitor the movement of goods

Improves monitoring the work of employees and compliance with safety regulations