



Typical issues in casinos:

Ensuring safety and security inside casinos:

- Anti-terrorist protection;
- Preventing intrusion of robbers and fraudsters to the territory;
- Control over the entrances to the parking lots.

Ensuring compliance with measures for prevention of spread of COVID19:

- Detection of visitors that are not using face masks inside the casino;
- Control of compliance with social distancing.

<u>Improvement of economic performance:</u>

- Count and analyze profile of visitors;
- Detect queues and find out zones of attraction.

Control over the performance of the staff:

- Control working time;
- Evaluate work performance.



Ensuring safety and security inside casinos



LEFT OBJECT DETECTOR

- Detects abandoned and forgotten things in the areas monitored by the cameras;
- Recognizes the class of the abandoned object (suitcase, backpack, box, bag, duffle bag, etc);
- Detects the owner of the abandoned object in the area.



FACE RECOGNITION

- Detects people wanted by the authorities (e.g., criminals, terrorists);
- Detects VIP customers in order to provide best service;
- Detects fraudsters from the blacklist and other undesirable persons;
- Sends automatic alarms to security when such people are detected.



NEURO DETECTOR

- Allows to detect intrusion into a protected area by a stranger, a car or a bicycle with advanced filters for no false positives;
- Can be used for perimetral protection of the casino.



LICENSE PLATE RECOGNITION

- Allows to control the number and time of stay of vehicles in the casino's parking area;
- Detects violation of traffic rules or parking in the prohibited zones;
- Integrates with car park barriers to grant automatic access to the parking lot;
- Creates a list of cars with the exact time and date of entry/exit;
- The module can be used to issue parking bills to car owners.



Ensuring compliance with measures for prevention of spread of COVID19

Face mask detector

TRASSIR Face Mask Detector is an intellectual video analyzer designed to control the compliance with the World Health Organization requirements to wear personal protective equipment during the viral disease pandemic.

- Neural video analyzer detects faces in a frame and then determines presence or absence of a mask on the face.
- Once a person not wearing a face mask is detected, a notification is generated in TRASSIR client.
- There is an option to set up notifications via loudspeakers and to define the logic of behavior of the doors or turnstile.
- No false alarms in regard to people whose faces could not be viewed in the frame.
- An operator can set detection areas in the frame.
- A notification may be sent to e-mail, as a text message, or via Telegram-bot.
- It is possible to extend standard functionality using scripts.



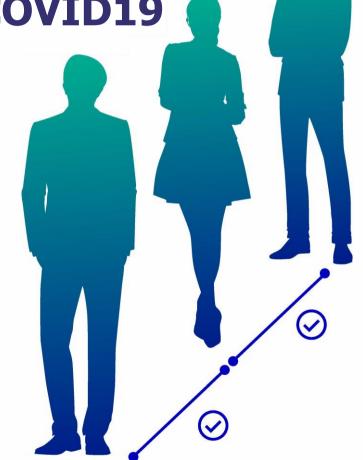


Ensuring compliance with measures for prevention of spread of COVID19

Social Distance Detector

Social Distance Detector is an intellectual video analyzer, designed to monitor the distance between people in waiting lines and in public areas.

- It detects the cases when people fail to comply with social distancing requirements.
- The alarms may be displayed on the operator monitor.
- A notification may be sent to e-mail, as a text message, or via Telegram-bot.
- Sound notifications may be activated.





Count visitors

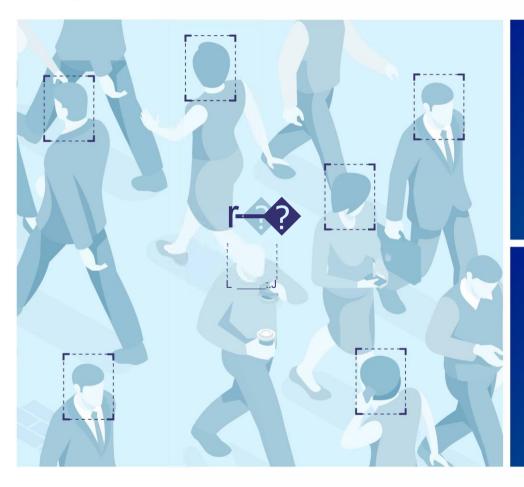
Detect the number of people in the queue in a timely manner

Analyze visitors flow within the casino

Identify the activity of visitors and define the places where people stay longer







Face Analytics

- Counting unique visitors and demographic analysis of the audience;
- Visitor return analysis;
- Tracks (motion trajectory) of individual customers. It is also possible to monitor motion trajectory of a certain group of visitors in the casino providing demographic statistics;

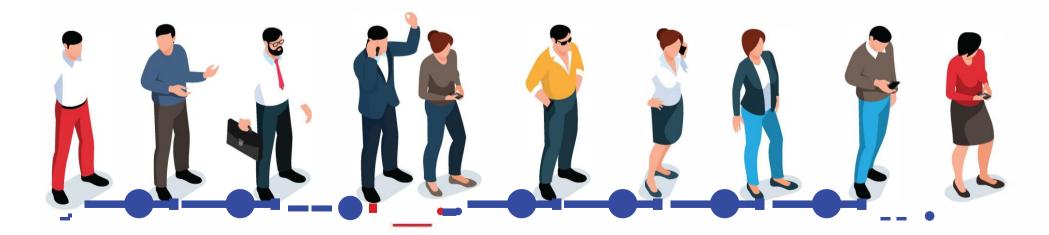
Neuro Counter

- Neuro Counter provides for video analytics based on neural networks. It is designed for counting objects (people, cars, bicycles) entering a specific area.
- This intellectual video analyzer allows the casinos to exclude their employees from the statistics based on the color of clothes of the staff members.



Oueue Detector

- Queue Detector video analyzer allows you to monitor the situation with the queue length inside the casino. This solution automatically counts the number of people in the queue. If the number of people exceeds the number that is pre defined in the settings, the system will automatically send a notification. It allows the manager to quickly respond to the situation and attend the customers by sending additional staff.
- Queue Detector improves standards of service and increases the customers' loyalty by showing people the ongoing efforts to control queues;
- The module allows to receive reports about peak hours and approximate time spent in queues by customers.







Staff Tracker

- Staff Tracker video analyzer is designed for offline evaluation of work performance of the staff members (salespersons, managers, promoters). Staff Tracker enables monitoring of the desired number of the staff in different service zones. It allows you to detect the staff members by the color of their uniform (t-shirts or jackets).
- You receive the information about the service time of the customers. Staff Tracker creates a report about the time when the customer enters the casino and the time when the employee comes to this customer. For quickly response you can use real-time notifications by e-mail or Telegram.





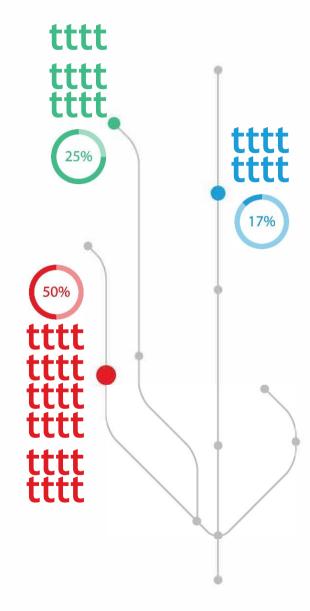
Workplace detector

- Allows to set the work area and work schedule of the employees, as well as the allowable time for the employee to be away from the workplace;
- Generates a notification if the employees
 absence from the workplace has exceeded the
 allowed time;



Heat Map on Map

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- Heat Map on Map: allows to define the places where people stay longer. This analysis can be used to detect the prime location for placing "eye stoppers" in order to attract more attention to particular goods, promotions etc.
- Movement map: allows you to create a vector map of the customers' movement in the casino.
- Heat Map on Map allows you to understand and analyze the activity of visitors in the casino. And most importantly, the data provided by TRASSIR Heat Map On Map allows you to find the best ways to place goods on the way of the main flow of visitors directing them to the most profitable trajectories of movement.







Hardware catalog



VMS Catalogue



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