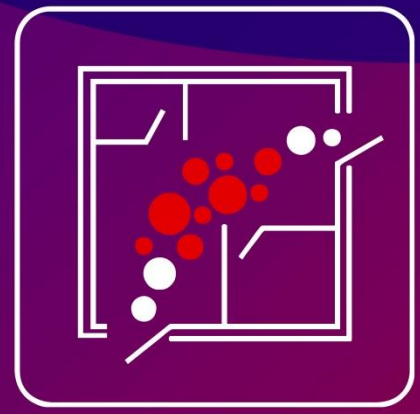
TRASSIR
Heat Map on Map

Optional TRASSIR module for mapping human movement in a selected area
Business analytics for retail



A module for visualising the flow of visitors and the most frequented points

Designed for business analytics in retail.

Creates Heat Map on Map

A multi-camera heat map of human movement in retail spaces based on a neural network detector. It is matched with a map of the facility and enables measuring indicators that directly affect traffic and conversion.

Heat Map on Map is used:

To optimise retail space

- A multi-camera heat map shows the intensity and direction of traffic imposed over the facility's layout
- It collects information about customer behaviour for marketing and statistics
- Optimising ad placement

To check conversion of promotions

HOW DOES IT WORK?

The Heat Map on Map module renders the flow of people in retail space using heat and kinetic maps.

IMPORTANT:
Integration with the Wear Detector module enables employees to be identified by clothing color and excludes them from statistics.

Operates in three modes:

- **KINETIC** – shows areas most frequented by people
- **STATIONARY** – shows areas where people stop for a period of time
- **TRAJECTORY** – displays the approximate direction of visitor movement on the map

The module creates reports on the movement of customer flow organized by hour, day of the week, and for set time intervals.

Once the map is uploaded as an image, it becomes the basis for analytics that allow you to:

- Significantly improve customer satisfaction by eliminating spaces that are inconvenient for customers to move around in the retail space
- Boost shop revenue by increasing the average check

SCENARIOS FOR USING TRASSIR HEAT MAP ON MAP

Assessing the effectiveness of alterations to the premises

Analytics enable you to optimize the movement of customer flow, eliminate ‘dead zones’ and turn them into ‘hot zones’, and improve performance in each meter of retail space.

Optimising ad placement

Finding the best locations for new tenants

Tracking the actual appeal of anchor tenants for visitors

Optimized retail space

Counting conversion

SCENARIOS FOR USING TRASSIR HEAT MAP ON MAP

Assessing the effectiveness of alterations to the premises

Optimising ad placement

Studying the trajectory of maximum customer traffic so that advertising media can be placed in ‘hot spots’.

Finding the best locations for new tenants

Tracking the actual appeal of anchor tenants for visitors

Optimized retail space

Counting conversion

SCENARIOS FOR USING TRASSIR HEAT MAP ON MAP

- Assessing the effectiveness of alterations to the premises
- Optimising ad placement
- **Finding the best locations for new tenants**
- Tracking the actual appeal of anchor tenants for visitors
- Optimized retail space
- Counting conversion

Studying the movement of people in retail spaces helps avoid ‘cannibalism’ between retail outlets and gives insight into which opportunities are being missed.

SCENARIOS FOR USING TRASSIR HEAT MAP ON MAP

- Assessing the effectiveness of alterations to the premises
- Optimising ad placement
- Finding the best locations for new tenants
- **Tracking the actual appeal of anchor tenants for visitors**
  - Measuring the number of people visiting restrooms, food courts, game rooms, and cinemas is necessary to justify and distribute rent in nearby retail outlets.
- Optimized retail space
- Counting conversion

SCENARIOS FOR USING TRASSIR HEAT MAP ON MAP

- Assessing the effectiveness of alterations to the premises
- Optimising ad placement
- Finding the best locations for new tenants
- Tracking the actual appeal of anchor tenants for visitors
- **Optimized retail space**
- Counting conversion

→ Improves customer satisfaction by eliminating points in the retail space where it is inconvenient for customers to move around.

SCENARIOS FOR USING TRASSIR HEAT MAP ON MAP

- Assessing the effectiveness of alterations to the premises
- Optimising ad placement
- Finding the best locations for new tenants
- Tracking the actual appeal of anchor tenants for visitors
- Optimized retail space
- **Counting conversion**

Enables the conversion of promotions held at the point of sale to be checked, provides insight into causes of missed sales opportunities so that appropriate measures may be taken.

SOLUTION ARCHITECTURE: HOW IT WORKS

Incorrect merchandise displays and misplaced store shelves lead to profit losses.

A lack of data on the movement of customers in the retail space hinders development of a careful merchandising strategy.

The TRASSIR Heat Map on Map module was developed to obtain this information – a multi-camera, human movement map using the neural network-based human detector TRASSIR Neuro Detector is matched with a map of the facility.

SOLUTION ARCHITECTURE: HOW IT WORKS

The module processes three types of maps:

- **STATIC**
  highlights places where visitors spend the most time
- **TRAFFIC MAP**
  shows the most frequented places
- **DIRECTION MAP**
  approximate direction of movement of objects on the map

- The module allows for excluding employees from statistics by clothing color. If used in couple with Wear Detector or Staff Tracker modules.
- Operates on the TRASSIR NeuroStation server line.
- Option for offload analytics (multiple TRASSIR servers transfer images to one main server for processing).
- The data obtained on customer routes through shopping areas provides valuable information for the marketing department and consulting companies.
  The marketing department analyses the information and recommends measures to boost profits.

SOLUTION FEATURES: HOW DOES HEAT MAP ON MAP WORK?

- Superimposes a color scale of activity onto a video of the shop floor. Moving objects leave a ‘trail’ with shades that ‘melt’ and go ‘cold’ over time.
- ‘Hot’ zones inform the operator of recent activity.
- Static mode accumulates ‘thermal’ indicators in the image to show where activity was detected.
- Data analysis and zoning optimization are conducted, merchandising efficiency improves.

SOLUTION FEATURES: HOW DOES HEAT MAP ON MAP WORK?

The direction of traffic and areas where customers stop are determined, the product is studied

Inspection time and engagement rate are analyzed

Quantitative results are translated into reports for merchandisers and operations managers

The map of ‘hot’ and ‘cold’ zones is used to optimize merchandise displays, exhibition layouts, etc.

HOW IT'S USED

The location of the product that created an active thermal zone is moved: in the process of searching for the product, the customer moves throughout the shop floor and makes spontaneous purchases.

Placement of branded goods in combination with a visitor counter will show the **brand's degree of popularity and identify the most successful marketing campaigns.**

Merchandisers see the performance of every display in the store and gain insights to improve customer engagement. **In the end, both sales and revenue increase.**

Application of TRASSIR Heat Map on Map – business analytics in retail

Consulting companies and marketing departments use information obtained from TRASSIR Heat Map on Map to boost profits.

Technical features:

- Operates on the TRASSIR NeuroStation server line
- Various filter settings allow to achieve the most accurate result
- Option for offloading analytics

ADVANTAGES OF THIS SOLUTION

Optimized retail space

More efficient ad placement

Evaluating actual conversion of promotions

Higher customer engagement

Higher sales and revenue

TRASSIR®

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