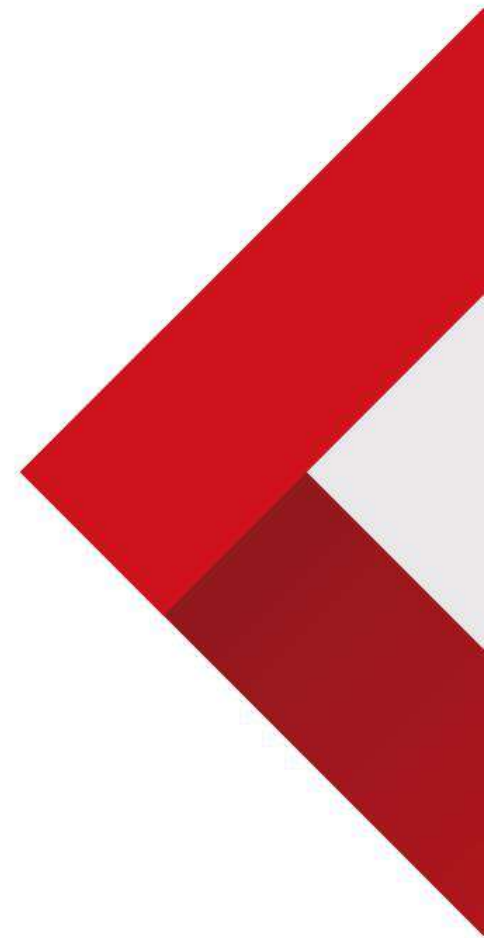


HIKVISION

Hikvision Business Intelligence Solution for Retail

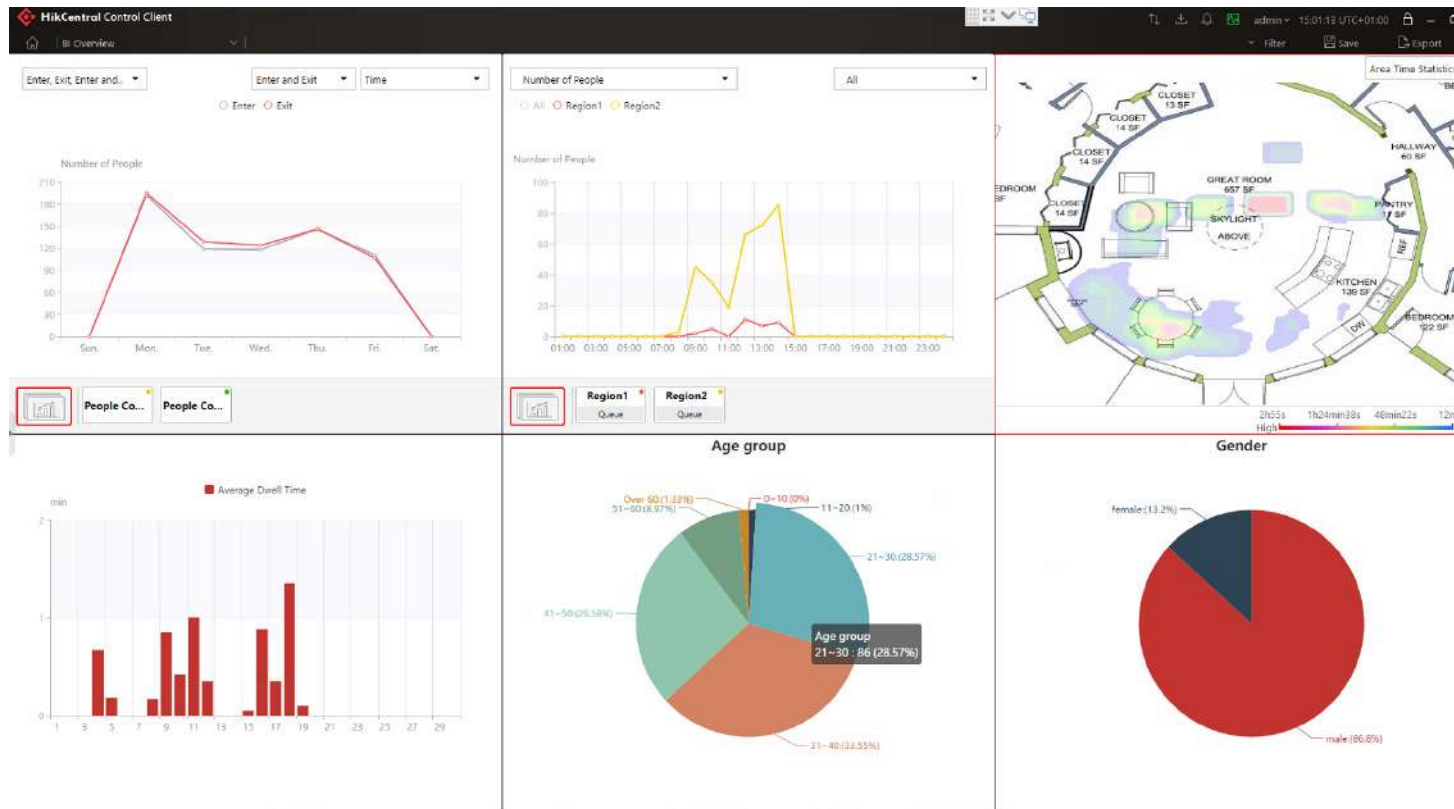


Typical Scenario

HIKVISION



BI Report Dashboard



Report No.	Report Type
Report 1	People Counting Statistic
Report 2	Queue Detection Report
Report 3	Global Heatmap
Report 4	Average Dwell Time
Report 5	Age Group
Report 6	Gender Statistic

There are 6 kinds of reports as above as default, you can custom the layout only keep those reports you needed.

First Choice for Security Professionals

Entrance/Exit – People Counting



Having staff management issue?

A precise customer flow statistic, in this case, is the key to evaluate sales performance, and moreover help you optimize management strategy such as staff working schedule and promotion activity planning.

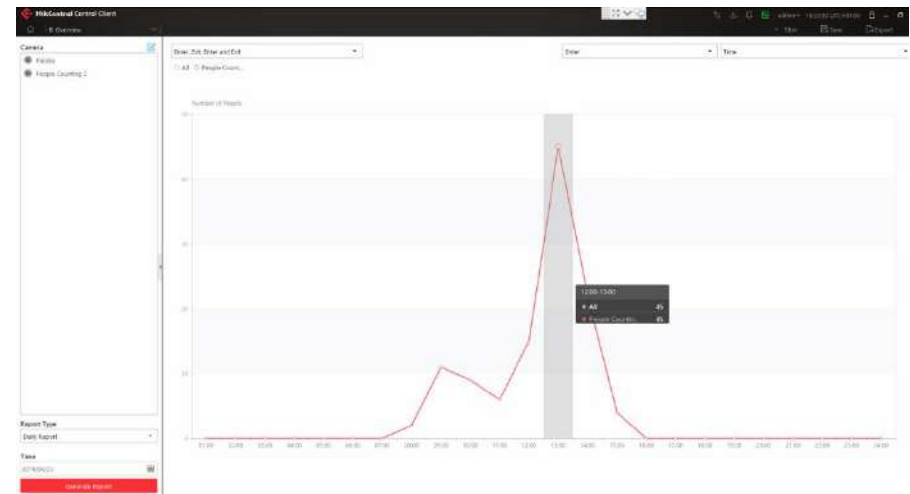
• Documenting Customer Traffic

- People entering & exiting reports, based on data collected from people-counting cameras in shopping areas during a specific time period
- Daily, weekly, and monthly customer distribution reports



iDS-2CD6810F/C

- 1/3" Progressive Scan CMOS
- Dual lens, dual CPU, support stereo views
- 2 mm/2.8 mm/4 mm lens, optional
- Flash memory storing people counting data
- Accuracy > 97%



Working Process

1. Image is a combination of images from right and left lens. Each object has coordinates on the x, y, z axes. Z-axis represent height.
2. People enter detect region pre configured
3. Analysis the height of each people in detect region
4. Whenever people cross the detection line will be counted no matter in or out
(As shown on right side video)



Entrance/Exit – Conversion Rate



How much is the retail conversion rate?

Retail conversion measures the proportion of visitors who enter the store. If 100 people pass by your store in a day, but only 25 enter the store, the conversion rate is 25 percent, with the conversion rate, you can assess the affect of marketing or operational actions, such as changing re layout, employing more staff, increasing stock levels or running promotions.

• Integrating outdoor and indoor people counting data

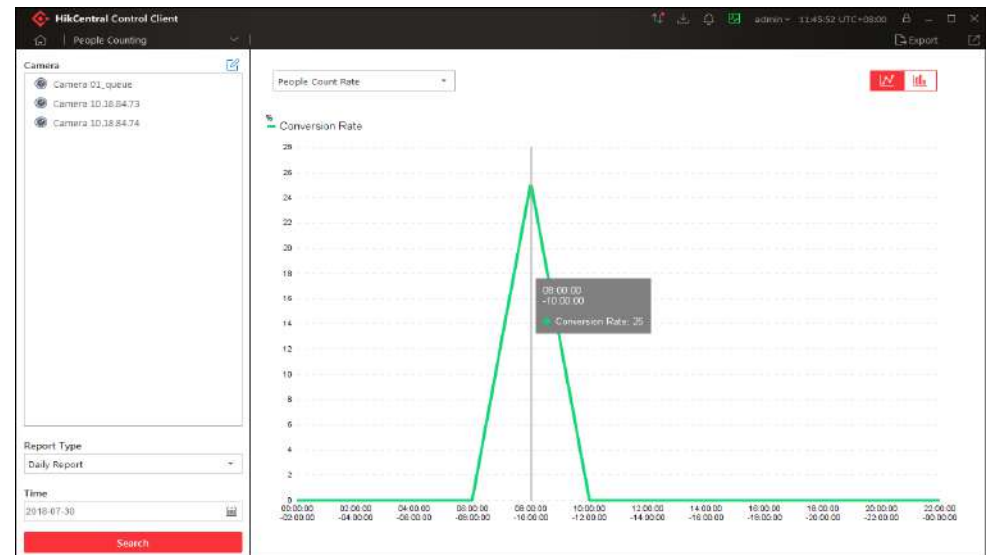
- People counting cameras to detect total people enter a shop actually "N"
- Flow analysis camera towards to corridor outside the shop to have total people pass by "M"
- Then conversion rate will be N/M (%)



iDS-2CD6810F/C



DS-2CD7126GD/L-1ZS



Shopping Area – Global Heatmap

What is Deep Learning Technology?



High customer traffic data for Heat Map

Simulating the way human brain works, the deep learning algorithm detects target features by itself and is able to distinguish humans from other targets, and count the number of target, dwell time.

- **Heat Map Technology**

This fisheye camera is able to provide statistics on a space heat map about people's movements in the camera's field of view, highlighting the places where people tend to stay and for how long.



DS-2CD63X5G0-1(V)(S)



Color Schemes: High (1434 person(s)) Low (0 person(s))

▲ By people number

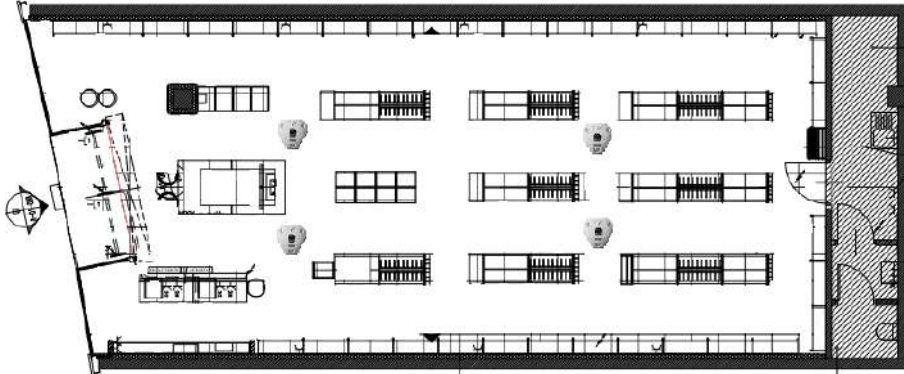


Color Schemes: High (25min 3s) Low (0 s)

▲ By dwell time

Shopping Area – Gobal Heatmap

- **Global Heat Map camera installation**



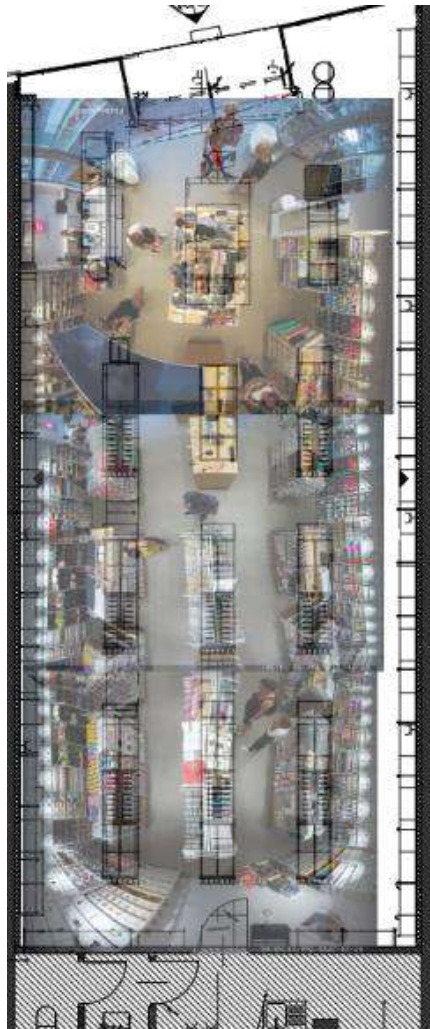
- Ideally one camera look at 5m * 14m area if installation height is around 3.5 meter high.

- **Global Heat Map Configuration**

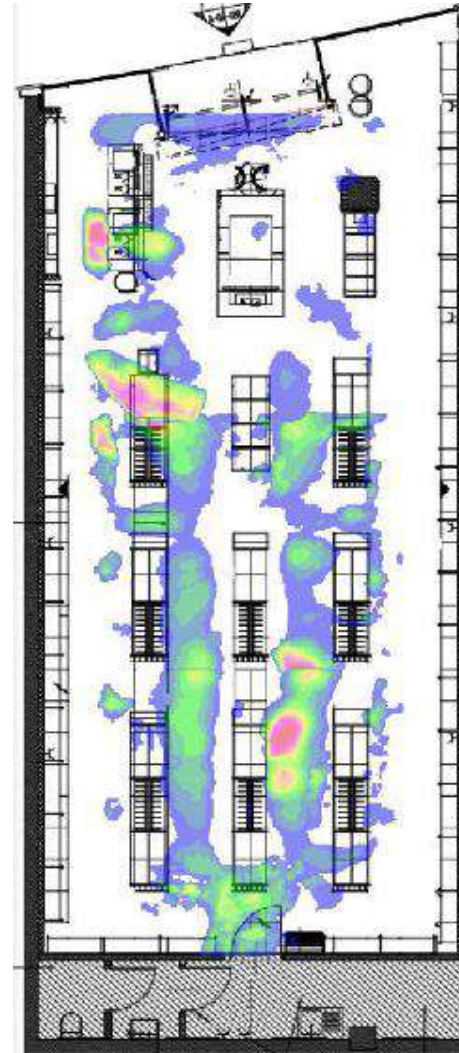
Stiches several fisheye camera image together and output global heat map, with which we can easily identify the most popular consuming area in the whole store. On the layout, shelf will calibrated with heat map data from fisheye.

Shopping Area – Global Heatmap

- Global Heat Map Demonstration



Calibration of heat map data



Checkout – Queue Analysis



Poor checkout efficiency?

Queue long time at a shop or supermarket? Hikvision flow analysis solution could help you to insight and statistic such queue number or waiting time at checkout channel to optimize.

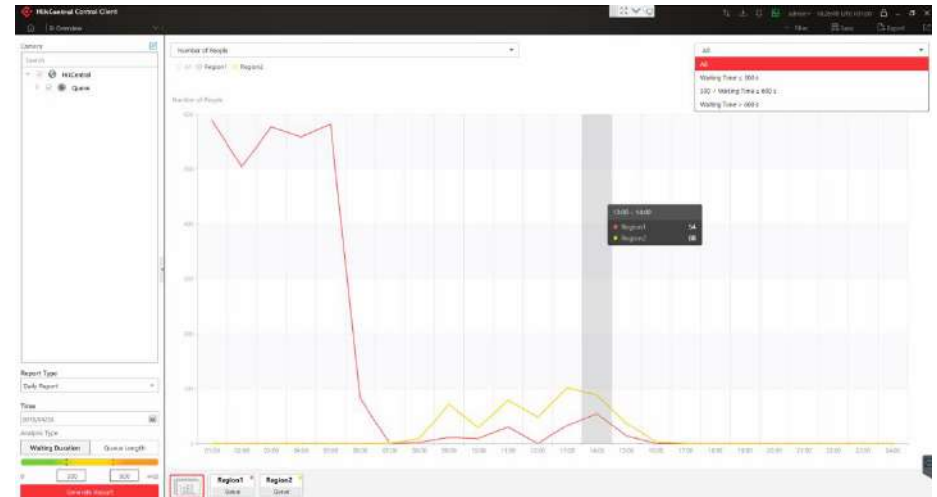
• Documenting Customer Traffic

- Instant Alarm: Dwell time of each person/ People number totally
- Multiple Statistics: Queuing-Up Time Analysis/ Queue Status Analysis



DS-2CD7126GD/L-1ZS

- 2MP
- 2.8-12mm VF lens
- Up to 3 detection areas, detecting up to 64 people per camera
- IK10



Working Process

1. According to live video, camera will extract human by head and shoulder recognition
2. Allocate a ID for each person in detect regions
3. Track all persons by ID for people number and waiting time
4. Upload metadata to software
(As shown on right side video)



Entrance & Exit – Attributes of Age & Gender



Lack of client information when manage store

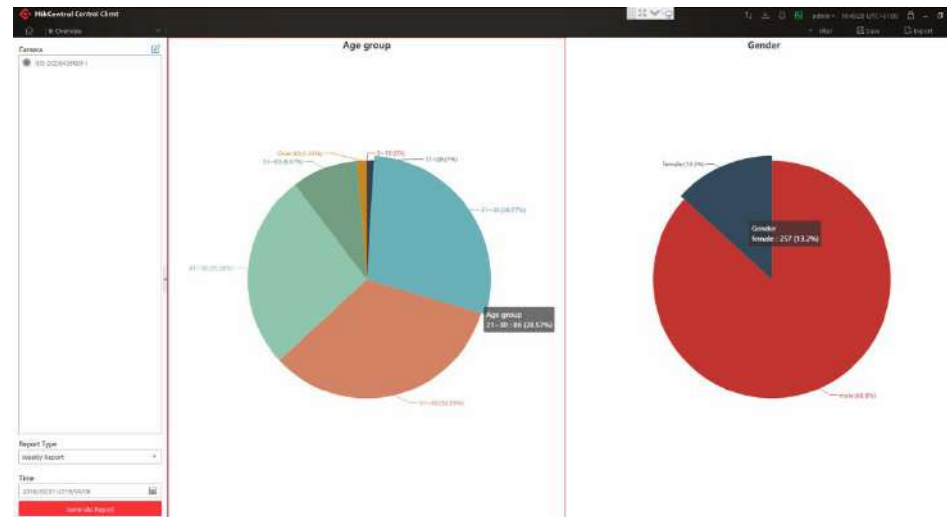
With Hikvision Face Attributes detection solution, the store management system will be notified with information regarding client information, and help with management of putting advertisement and guiding shopping.

• Face Attribute Detection Solution

- Age detection
- Gender detection



The camera captures the face and analyze face data





The Netherlands people counting



Poland Miniso Project



The Netherlands Keessmit



The Netherlands Dirk supermarket

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见远行更远

See Far, Go Further

