Intelligent Insights
Making data visible and usable

Intelligent Insights is an AIoT software solution that gives customers the power to predict based on live and historical data. It taps data from Bosch video cameras and pulls it into a single dashboard to support informed decision making before a potential situation occurs.

Intelligent Insights makes use of Bosch cameras' built-in Artificial Intelligence (AI) to interpret video images and collect metadata from cameras. The solution enables users to easily evaluate a complete scene covered by multiple cameras. Situations involving data of moving objects, counting data, and crowds captured by multiple cameras can be visualized in real-time. This facilitates the fast evaluation of generated data and provides a complete understanding of the situation. Based on this, users can react faster and more efficiently, taking better informed decisions and improving overall security and safety.

Widgets

Intelligent Insights comes with a series of widgets, all of which contribute to specific safety and security needs. Depending on the application, users can select the needed widgets to provide the required information to help predict unwanted situations or uncover new opportunities. The collected data can also be exported via an API interface to create customized visualizations or to use them in third party software systems.
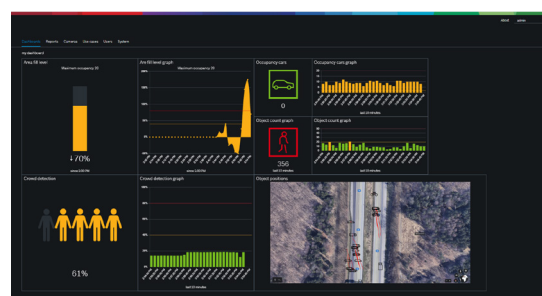

People counting   Crowd detection

▶ All widgets work with one or multiple cameras

▶ User defines in configuration if the use case is displayed as:

  ▶ widget (live view and / or historical view)

  ▶ and / or used for the report functionality

▶ All widgets are arranged in a user-friendly dashboard

▶ One dashboard can include up to 16 widgets

▶ The dashboard allows for a connection of up to 64 cameras

▶ Report functionality allows to analyze and compare data for up to 365 days

Dashboard with several widgets

Overview of the widgets

Crowd detection

▶   Displays current crowd level of an area at a certain time
▶   User specifies serious and critical crowd level in percentage of the given area
▶   Does not perform exact people counting, but shows current crowd level in percentage
▶   **Requirement**: whole area of interest must be covered by cameras

Occupancy counting

▶   Displays exact number of people / objects within an area at a certain time
▶   User specifies the capacity limits within the area by setting the maximum number of objects or people that are allowed within a given time
▶   Can be used in combination with Camera Trainer technology
▶   Possibility to activate a camera relay and trigger an external device, e.g. an alert or a public announcement, when a threshold is reached
▶   **Requirement**: whole area of interest must be covered by cameras

Area fill level

▶   Displays relative fill level of large areas at a certain time by counting all people that enter and leave the area at all entrances and exits
▶   User specifies serious and critical occupancy rate of area by determining maximum number of people that are allowed to be in the area within a given time
▶   Possibility to activate a camera relay and trigger an external device, e.g. an alert or a public announcement, when a threshold is reached
▶   **Requirement**: cameras must be installed at all entrances / exits to the area

Area fill level traffic light

▶   Enhancement of the Area fill level widget
▶   Displays current number and maximum number of persons that are allowed to be in a certain area at a certain time
▶   Visualizes the three different statuses for quick understanding with green, yellow or red background and shows corresponding messages such as "Please enter" or "Please wait"
▶   Can be shown in full screen mode on a monitor to advise customers
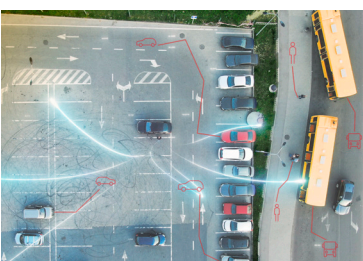▶   Possibility to activate a camera relay and trigger an external device

People counting

▶   Counts people that cross a preset line within a time period
▶   User defines serious and critical number of people crossing the line related to a specific time unit
▶   Visualizes two counters in one widget to reflect the number of counted people from both directions simultaneously
▶   Helps to identify peak and low times on specific days or over a longer period of time – either with historical view or report functionality
▶   **Requirement**: cameras must be installed at selective points of interest

Object counting

▶   Counts objects that cross a preset line within a time period
▶   User defines serious and critical number of objects crossing the line related to a specific time unit
▶   Can be used in combination with Camera Trainer technology
▶   Helps to identify peak and low times on specific days or over a longer period of time – either with historical view or report functionality
▶   **Requirement**: cameras must be installed at selective points of interest

Object positions

▶   Provides overview of all objects that are moving in a certain area
▶   Classifies objects in form of icons as persons, cars, trucks or bikes
▶   Helps operators to understand the full situation in case an object has triggered an alarm without the need to check video streams
▶   **Requirement**: cameras and the provided maps must be calibrated correctly for precise results