

People Tracker

System for Tracking and Counting People Indoors



ADEC people tracker & counter is a simple solution to accurately track and count people in an arbitrarily large area indoors. The system takes advantage of new technologies, such as time-of-flight sensors and structured light sensors. As a result, it easily overcomes the limitations inherent in today's people counter solutions operating with single or stereo-cameras and disconnected detection zones.

The advantage of using sensors that provide such 3D data is the absence of any and all privacy concerns: No data is acquired that would allow the identification of the individuals.

Typical Applications

The people-counter system has been developed with typical counting applications in mind:

- Visitor counting
- Emergency & evacuation services
- Entrance / exit count

In addition to common applications, the system's design supports more advanced applications

- Entry / exit count at arbitrarily large pathways
- Dwell time measurement
- Data to provide geo-location / GPS services indoors
- Tracking of people movement over arbitrarily large area

Principle of Operation

Each autonomous counting and tracking subsystem acquires 3D point-cloud /depth information from one or more sensor-devices. Each system communicates as needed with its neighbors, passing information as people move in and out of individual detection zones. Each depth sensor can be assigned a common or individual database to store the tracking data. The tracking data is the root information to extract counts, dwell time, and position/time diagrams.



Mounting

Depending on depth sensor type, different opening angles and mounting height recommendations apply. One system manages up to five sensors, requires 110 V AC / 240 AC and must be located within 5 m (16.4 ft) of each of the sensors it manages (USB extension is available for up to 25 m, Ethernet/PoE-based sensors extend up to 90 m / 300 ft.).

Features

- **Accurate Tracking of People Indoors**
Patent-pending algorithms for accurate tracking within arbitrarily large areas
- **Non-invasive**
System uses TOF or structured light depth sensors (no privacy issues)
- **Auto-configuration**
Configuration software automatically discovers all connected depth sensors
- **Time/Location Data Output**
Counts extracted from tracking information
- **Measurement of Dwell-time**
Measures time each person resides in configurable area
- **Off-the-shelf Components**
System works with standard components to process point-cloud information in any environment recommended by the respective sensor manufacturer

Sample Installation



