

# USE CASE

## Utilization Analysis in an Automotive Paint Shop



### AT A GLANCE

- presence detection of employees
- automatic activation and deactivation of the ventilation
- utilization analysis of spraying rooms



paint rooms are occupied. Based on this information, operational processes can be adjusted to optimize the utilization of the rooms. In addition, it is possible to see at any time which rooms are vacant or occupied and whether the ventilation is switched on or off. The overview of the utilization of the spraying rooms is also beneficial to ensure sufficient cleanliness and timely replacement of filter mats at all times.

## TECHNICAL IMPLEMENTATION

In the spraying rooms, infsoft Locator Nodes in a robust housing are installed. The Locator Nodes receive signals from Bluetooth Low Energy beacons, which are attached to the work clothes of the painters, and send the data to the infsoft LocAware platform®. Here, the position of the employees is determined.

When an employee spends a predefined amount of time in the room, the exhaust air system and fresh air supply in the room in question is automatically switched on via the infsoft Automation Engine and a connection to the facility management system. It is also possible to switch off the ventilation automatically after the room has been left.

In infsoft Analytics, the collected data can be visualized in a comprehensive dashboard.

## PROBLEM DEFINITION

If ventilation systems in spraying rooms are in operation although they are not needed at the moment, this is an unnecessary consumption of energy and causes high costs. Under-utilization of spraying rooms also represents a cost factor. Furthermore, regular cleaning and maintenance of the rooms is necessary, otherwise the quality of the end products suffers.

## SOLUTION

Indoor positioning in an automotive paint shop can help to save energy costs, optimize space utilization and ensure a consistently high quality of work.

As soon as an employee enters a spraying room, his presence can be registered by the system. If he stays in the room for more than a few seconds, the supply and exhaust air is automatically switched on. Once the employee has left the room, the ventilation can continue for a certain amount of time and then switch off automatically.

The position data can also be visualized in an analysis software. This enables users to see when and how long

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