Indoor Tracking with Display Beacons in Logistics

AT A GLANCE

- Indoor localization of equipment in real time
- central location overview in digital map
- Analysis reports based on historical data
- Easy identification of orders through E-Ink-Display
- Overview of workstation occupancy

ments can be updated fully automatically via the central management program.

After processing, the order expires automatically. All required information is exchanged in real time with the higher-level material flow management system.

In addition, the location of all crates can be displayed visually at any time and a complete batch traceability at container level is guaranteed. This enables container management to track where a crate is, how long it will be there and identify potential for improvement.

PROBLEM DEFINITION

Modern production processes are automated as far as possible, from order entry and processing to production. However, the transmission of information in paper form is still often used. In addition, the flow of goods is still very static due to the lack of positioning of containers and supply wagons. Parts are therefore not always in the best possible place or must first be searched for by workers. This interrupts the automation chain, leads to delays in the production process and causes costs for personnel and printing.

SOLUTION

With the help of a tracking solution, containers can be located with the parts to be processed. With mobile container management, it is possible to optimally adapt the location of the containers to the production process. Using the E-Ink display, the employee knows to which machine he must go and what his next work information/task is. This information can be transmitted digitally at any time and exchanged for new tasks. This saves time and avoids delays in the process flow, which in turn means cost savings. For production processes, the individual ele-

In addition, the radio-based E-Ink displays can also display the occupancy of change workstations and meeting rooms.

TECHNICAL IMPLEMENTATION

The boxes to be tracked have Bluetooth Low Energy Beacons with E-Ink display. The information is transferred to the respective beacon with display medium via the infsoft Automation Engine and the Locator Nodes Manager. The battery status of the beacons can also be monitored via the infsoft backend.

For indoor positioning, infsoft Locator Nodes installed. The Locator Nodes receive the Bluetooth signals and send the data to infsoft LocAware platform®. Here the position is calculated and made available via Web Services. An app gives employees access to the data and allows them to view the location of the crate. of a map. Via an SAP interface, additional attributes are added to the beacons, such as type to the goods, the number of units and other characteristics according to which, within the application can be searched for. These attributes can also be set via the built-in E-ink display. can be displayed directly on the container. Changes

to the designation or article number must and
there are no costs for printing and distribution.

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