Manufacturing factory Distribution warehouse Construction site Plant Facility Medical site °¶ЙI

Realtime indoor positioning and visualization with interactive 2D / 3D maps and data analysis

Visualization of movement of the indoor work

Indoor locating information & Mapping solution of facilities and equipment

Field[®]INDOOR



"iField indoor" strongly supports the visualization of indoor work.

"iField indoor" visualizes movement of humans, vehicles, things(products, tools), machines in facilities such as factories, warehouses, plants, constructions, hospitals, and so on. By the work situation of the indoor facility is grasped by points, lines, surfaces, and body, the situation of the work is surfaced.

Indoor positioning by **BLE Beacon and smartphone**

Indoor positioning by BLE Beacon and smartphone **iField indoor Application**



It is hard to receive of the GPS in the facilities such as factories, warehouses, hospitals, and so on, so BLE Beacon and smartphones are used at that time. They are cheap, corresponds to the background activation, and estimate a position while using other application. Therefore there are few

troubles to original business. The acquired position information is reflected on the map which equipment information has been accurately represented in the facilities. Movement of indoor work that could not be seen until now can confirm intuitively and superficially.

Action grasp, work analysis, and action comparison on the map

Current position grasp and line of flow grasp on the map iField indoor Manager

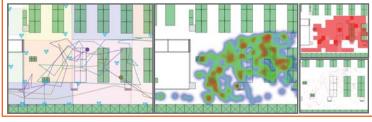
Therefore it visualizes work field.

It is possible to grasp behavior measurement in the building in real time.

It is possible to understand where workers go and stay during duties.

It is possible to aggregate moving time and stopping time.

It visualizes the contents above-mentioned on the map using a mesh figure.



2D 3D mapping of facilities and equipment

It makes indoor map from CAD drawing of the target facilities which estimate position indoors. "iField indoor" makes a map which matches the actual reduced scale, not the deformed interface which was a text only.

It maps to match such as machinery, equipments, furnitures and passage to the site environment, so "Visualization" in the space information with the reality is enabled.



Work analysis and action comparison of locating information which is already acquired iField indoor Report

By information which is already acquired, it works analysis and makes data for action comparison.

It quantifies and graphs the behavior of workers and the entire using the information such as locating infromation, time, speed, and so on.

Because it makes clear features and area residence time of the movement of each work classification, it can be utilized for KAIZEN of the field work as business



Visualization, work analysis, behavior measurement, machine and product data cooperation by the other systems cooperation



Suggestions of positioning method which is suitable for business content and buildings situation

It is possible to introduce the system with positioning method which is suitable for business content and buildings situation. Beacon positioning is not required. It displays real-time information on a large monitor or tablet for specific issues such as the yield of the work.We propose that we build an environment which enables the suitable dispatch processing after understanding the position and the operating status of the current worker.

Introduction example

Major manufacturing plant: A management system of employee behavior in the factory Commercial facilities under the ground: A indoor navigate application Major logistics company :Logistics warehouse worker behavior measurement verification

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