metraTec
RFID Solutions

IPS and ASSET MANAGEMENT

Track your assets in real time using the metraTec Indoor Positioning System

The larger the company's premises, the easier things can get lost. This applies not only to consumable products but also to mobile assets. Depending on the kind of business, these can be common assets like containers, hand lifts or forklifts as well as more specialized equipment like movable assembly stations or medical devices, such as ventilators. Even hospital beds regularly disappear. Unless supplies, these products are usually not completely gone from the premises but are simply nowhere to be found when needed. Somebody hasn't returned the assets to their usual place after using them.

Searching reduces Productivity and Motivation

One possible consequence is that equipment is procured in larger quantities than actually necessary to make sure there is always a device in range when required. However, this decreases the average machine utilisation and binds a lot of capital. The far more common solution is therefore that employees have to spend a significant portion of their time searching for the right equipment. This not only reduces overall productivity but also has a negative long term effect on motivation - nobody likes searching for equipment that should be around.

Everything in Order with Indoor Localization

With the metraTec Indoor Positioning System (IPS) you can reduce these search times to a minimum. For this purpose each asset is equipped with an active transponder - a so called "beacon" - which emits an individual signal at a fixed time interval. Thanks to the use of the latest RF technology at 2.4 GHz (a licence-free frequency band usable worlwide according to the IEEE 802.15.4 standard) the power requirements of these beacons have been extremly reduced: The transponders work up to eight years with a single set of two standard batteries causing almost no additional maintanance effort.

The signals of these transponders are received by the metraTec IPS Receiver stations. These are installed at strategic positions in the factory or premises, e.g. at entries and exits of a building or in passages between halls. The beacons have a range of up to 50 m. This allows you to cover even large areas with a few devices and at very low infrastructure costs. If you need a precise localization, simply install additional receiver stations in the respective area to obtain a better accuracy.

The unique ID of each beacon and the strength of its signal is transferred to the metraTec IPS Engine Software via the normal company Ethernet network. This software then calculates the position of the transponders. Depending on the version only the presence in pre-defined zones is detected or exact coordinates are calculated. This information can be accessed via a standardized XML interface according to ISO 24730-1 or a browser-based web interface. If a user is looking for an object he just has to enter a request into the software and the location is displayed on a map. At the same time you can define automatic alarms that are triggered when an event is

happening, e.g. when an expensive machine leaves the premises and two objects are in the same area which could disturb each other.

IPS Receiver with Power over Ethernet

IPS-Beacon L - active transponder

About metraTec

metraTec develops, manufactures and sells hardware for the product segments „Identification", „Localization", "Communication" and „Wireless Power". It serves a variety of industries, both with standard products as well as custom solutions. Our customers are system integrators, OEM customers as well as research institutes world wide.

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