SIGMA
DIGITALISIERUNG GESTALTEN

GRAIDWARE®
autoid middleware

Product description

Storage cell detection in block storage area by means of real-time location

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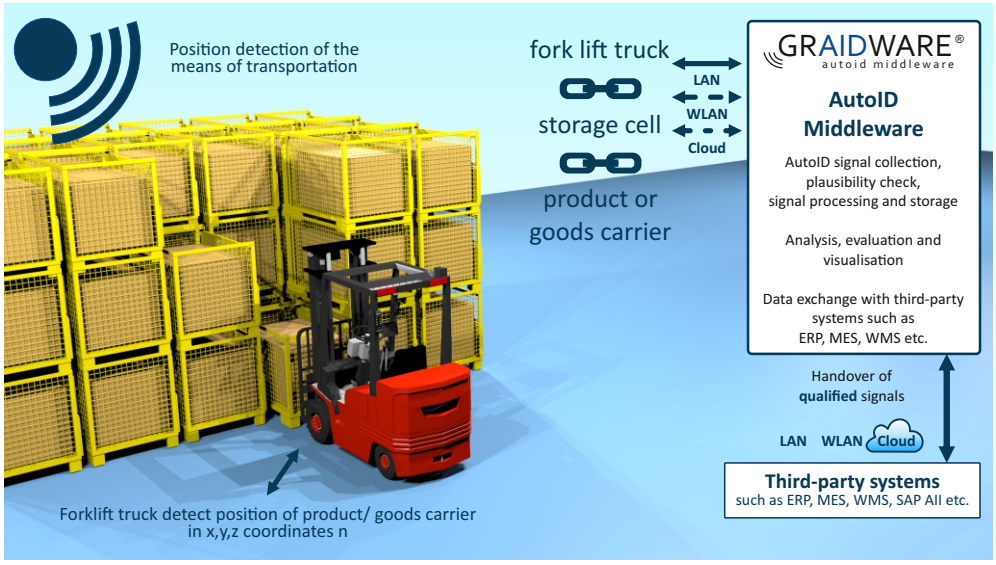
Description

In the automated detection of storage zones using a real-time position identification system ("Real-Time Locating System" or RTLS), the position is located at an accuracy of to 0,5 m. The warehouse ranges can be freely defined. The fork height of the fork lift truck used can also be detected by means of the location system.

If a storage cell is specified by an external Warehouse Management System (WMS) or an inventory management system (German abbrev.: LVS), then it is possible to automatically double-check the recognised storage cell. As a result, erroneous storing is avoided. Alternatively the storage cell can be transmitted to an external system without a plausibility check.



During storage or removal of stock, the position coordinates detected are linked with the goods or goods carriers marked by AutoID (for instance item, packing units, pallet cages, pallets, containers) during storage. Accounting data are transmitted to connected third-party systems (such as SAP WMS). The truck drivers can be given driving orders for the fork lift truck etc. for support or process control. Detected objects, identified storage cells or workshop ranges can also be visualised.

Components

Hardware

- RFID reader for loading identification
- RTLS ("Real-Time Locating System") based on ultrawide band, consisting of: sensors (fixed installation) to cover the location area, active tags on the fork lift truck to determine the position and driving direction, as well as – optionally - an active tag to detect the fork height
- FLT terminal

Software

- GRAIDWARE® middleware add-on module storage cell management
- GRAIDWARE® middleware add-on module RTLS
- Ubisense Smart Factory system

Advantages

- Increase in process reliability
  - Avoids errors that could result from manual work steps
- Increased level of automation
- Reduction of idle time, such as for manual scanning or regular getting in/getting out of the FLT to record loading goods and storage cells
- Avoids search time
- Automated and continuous stocktaking in the represented warehouse range

Examples of application

- Storage areas, inventory management
- Intra-logistic

Functions

- Management of block storage areas and/or cells
- Query of fork lift truck coordinates when lowering loading goods/loading carriers
- Connecting the storage cell with the object to be stored (item, packing unit, pallet, container, etc.)
- Optional: double-check of storage cell specification by an external system
- Optional: visualisation via analysis and overview of the current storage cell situation

System requirements

- Objects to be stocked are equipped with AutoID identifier
- Relevant storage areas have to be covered by the locating system
- Power supply fork lift truck (min. 24V)
- The GRAIDWARE® software requirements are valid.

Licensing

- Smart Factory production logistic (SFP) Ubisense
- GRAIDWARE® middleware add-on module Storage cell management – locational license

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