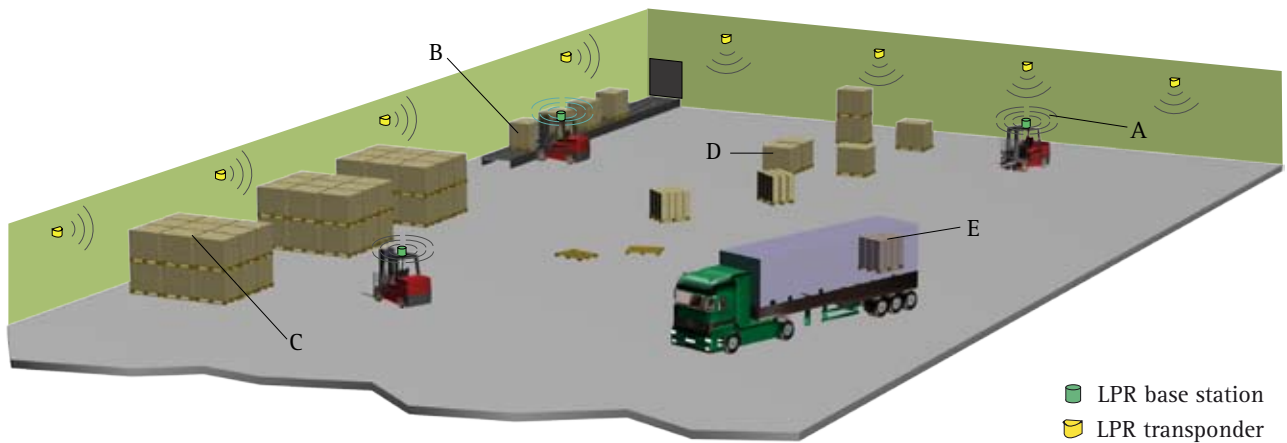


Tracking and Inventory Management



Application

LPR - Tracking of transport vehicles block storage position determination

- Automatic goods identification without scanning
- Unaffected by contamination, weather and vibration
- Usable indoors and outdoors
- Continuously updated inventory
- Standard interface to all ERP systems
- Contact-less measurement via radio waves
- No additional operating or maintenance costs

A: Position Tracking - During transport, the position and heading angle of each forklift truck is continuously updated through Symeo's Local Positioning Radar (LPR).

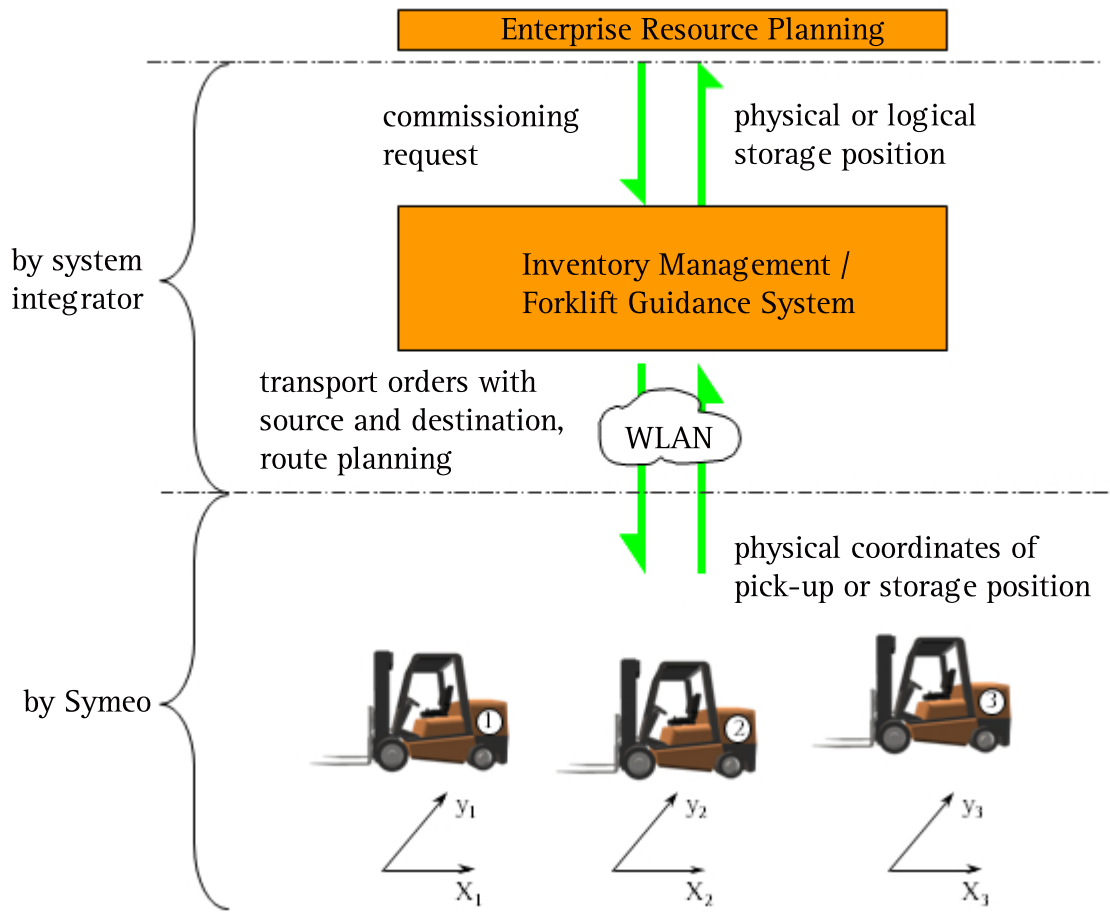
B: Identification Point - Items coming from a previous operation arrive in the warehouse area. Identification is by means of barcode, RFID or other tag. Once identified, the item (e.g. pallet) is logically linked to the transport vehicle picking it up, in this case a forklift truck.

C: Bulk Floor Storage - By the time the pallet is placed in the bulk storage area, the exact position for this pallet is transferred to the Warehouse Management System via wireless LAN. Thus, inventory data is constantly up-to-date.

D: Order Picking - Forklift truck drivers receive picking addresses and will complete order batches in the commissioning zone. Whenever a pallet is picked up, the LPR position of the fork is compared to the stored positions of pallets in order to determine the pallet ID currently handled. Pallets can be placed freely and will always be recognized without further barcode / RFID scanning.

E: Loading Dock - Completely commissioned batches are loaded on a truck or train for customer delivery. Again, through tracking the forklift position during pick-up and transport, pallet IDs are known without re-scanning and the delivery note can be issued automatically, stating precisely the items actually loaded.

Typical System Architecture



Components on the Forklift

