

# FLEXUS

Your SAP Partner for intralogistics

FLX-TLS

REAL-TIME-TRACKING

Intelligent vehicle tracking  
and navigation in SAP®

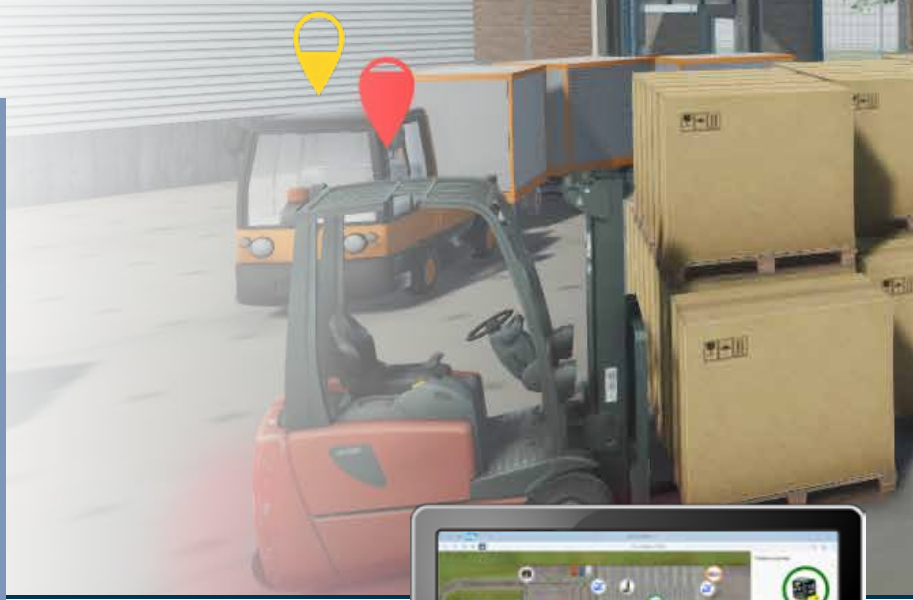
Vehicle and load  
carrier tracking  
in real time

SAP® Premium Certified  
Integration with SAP Applications



## ADVANTAGES OF VEHICLE TRACKING WITH FLX-TLS

- ✓ Automatic goods and storage location identification in SAP®
- ✓ Time savings and increased efficiency through automated scanning processes and identification of objects
- ✓ Tracking of vehicles inside and outside
- ✓ Intelligent tracking and identification solution for SAP®
- ✓ Detailed statistics on resource utilization



## Intelligent vehicle tracking and navigation for SAP®

*Vehicle and pallet tracking*

### Innovative control system for SAP® intralogistics

In combination with the FLX-TLS Material Guidance System for SAP®, vehicle tracking offers a comprehensive control instrument for all internal transports.

Material movements carried out are recorded in real time and transferred to the SAP system. This ensures scan-free warehouse processes and enables additional functions such as collision warning.

### FLX-TLS forklift tracking for more efficiency

The flexible connection of a forklift tracking system with forklift sensors allows the correct position of the forklifts to be shown. The position of load carriers is permanently updated by the tracking system during movements. Through combined use of tracking technologies with sensors (height and load sensors), it is possible to validate the picking up or setting down of transport tasks in SAP® without scanning and therefore considerably maximize the efficiency of transport processing.

### Vehicle navigation with route display

The driver is shown the shortest route to the position from on his terminal. The load carrier to be picked up is highlighted in color and the pick-up or parking is automatically registered via vehicle tracking.



*3D warehouse navigation on the vehicle*

### Innovative dashboards for tracking

Various SAP Dashboards for evaluation and transport control are available to the warehouse and logistics manager. They are displayed as 2D/3D Cockpits. This makes it possible to track the current position and capacity utilization of the vehicles (forklifts, trolley trains, automated guided vehicles).



Tracking on dashboard

## Vehicle tracking & navigation with FLX-TLS

### Easy localization of load carriers and storage locations

In addition to vehicle tracking and navigation, permanent localization of load carriers is also possible. The tracking technology tracks load carriers with 3D position (x,y,z) in real time. A direct navigation to the destination and its scan-free pick-up is made possible by this procedure.

### Technologies for vehicle tracking

Various technologies for the tracking of vehicles exist. Tracking by laser, RFID tags or camera-based systems enables a permanent tracking of vehicles. This not only ensures process reliability, but also allows the use of various driver assistance systems (e.g. warehouse navigation of drivers within intralogistics).

In ultra-wideband (UWB) positioning, the positioning of vehicles is based on the transit time of a radio signal between an object and several anchors. The vehicle to be located is equipped with a small tag. It transmits the position of the vehicle to the anchors with an accuracy of 10 - 30 cm in real time. Geo-fencing can be used to trigger an action automatically (e.g. confirmation of a transport task).

In addition, extended safety functions are made possible. For example, a collision warning appears on the driver's display when two vehicles approach, so that accidents are reduced even in confusing warehouse situations.

Furthermore, the speed can be automatically regulated for hazardous situations via the FLX-TLS Material Guidance System. The system offers a high degree of automation and optimization potential in the intralogistics sector.

### Technology partner for vehicle tracking

- identpro
- KINEXON
- Quantitec
- ZF Openmatics
- Zeno Track

## FLEXUS - Your SAP® Intralogistics Partner

Flexus AG is your competent consulting and development company for the process-oriented implementation of SAP® logistics solutions.

As certified SAP® partner, we have a long-standing expertise in the field of intralogistics. The Flexus solutions for SAP® intralogistics range from FLX-Yard Management, the FLX-Material Guidance System and the comprehensive portfolio for mobile apps with innovative technologies.

**FLEXUS**

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