v.1.03.smap

AGC 1.1

Location

X[m]	1,208
Y[m]	5,380
Yaw [°]	89,99
Pose Quality	99%
Localization	✓

Inputs

Map	v.1.03.smap
Map Loaded	📄
LiDAR Data	⇄

State

Current State	
Localization	ON
Mapping	OFF

AGV 4.1

Location

X[m]	-0,470
Y[m]	9,122
Yaw [°]	0,00
Localization	✓

AGC 3.1

Location

X[m]	-0,788
Y[m]	4,399
Yaw [°]	-20,00
Localization	✓

AGC 2.1

Location

X[m]	
Y[m]	
Yaw [°]	
Localization	

LOCALIZATION SOLUTIONS

LIDAR LOCALIZATION FOR MOBILE ROBOTS BY SICK

**Mobile Platforms**

SICK
Sensor Intelligence.

LIDAR LOCALIZATION SOFTWARE
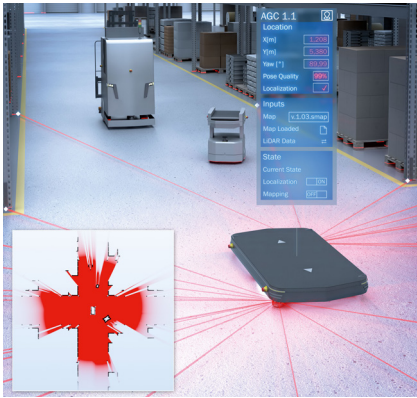
LiDAR-LOC 2

The modular LiDAR-LOC 2 localization software enables accurate localization based on natural surrounding contours. It supports several scanners at the same time and is also particularly well suited for flat vehicle types. Additional artificial landmarks (e.g., reflectors) or external odometry are supported for individual solutions of mobile platforms, automated guided vehicle systems or service robots. SICK's localization solution guarantees high resistance to changes in environments and a reliable pose output. LiDAR-LOC 2 is available as a pure software solution that runs on selected 3rd party controllers as well as SICK controllers. It is a robust basis for reliable vehicle navigation.
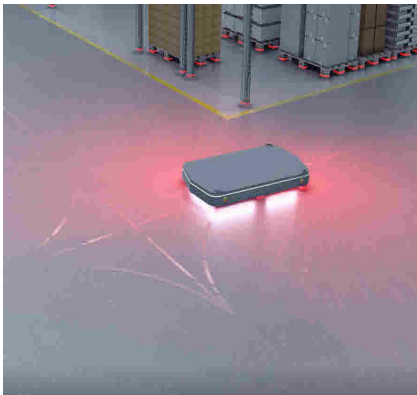
Virtual Line Navigation (VLN) – Software Extension

The Virtual Line Navigation Extension can improve line-guided systems even when physical lines in highly frequented areas (e.g. crossings) are removed or damaged. It is a synergistic combination of reliable line guidance and contour localization. The solution can emulate artificial line signals to just cover damages tapes or can be used to move completely along virtual routes. Integration and commissioning are very simple due to teach and repeat functions. It has been designed in such a way that the existing line following system architectures can still be upgraded. Increased robustness of operation as well as easy virtual adjustments will lead to less downtimes.

Compatible SICK hardware

Safety laser scanners	2D LiDAR Sensors	Line guidance	Safety encoders

nanoScan3	microScan3	TiM7xx	TiM5xx	NAV2xx	MLS	OLS	DFS60S Pro

Our features - Your benefits

- Reliable localization solution: Accurate position determination for multiple types and sizes of mobile platforms
- Versatile use: Multiple sensors (LiDAR, line, code, odometry) and controller (SICK, 3rd party) are supported
- Improves localization algorithms: Highly resistant to changes in the environment
- Easy-to-use: Web-based operator interface and easy ROS/2 integration
- High localization precision: ± 10 mm pose accuracy [1]
- Suits your existing system architecture: Easy upgrading of your existing fleet, minimal changes to the vehicle controller, no IPC programming required
- Localization based on natural contours: No infrastructure modifications required

[1] depending on sensor

SICK AG | Waldkirch | Germany | www.sick.com

SICK
Sensor Intelligence.