SLAM NAVIGATION
FOR AGV & AMR

HOT FACTS

UNCOMPROMISINGLY PRECISE
Continuous adaptation to reality and highly accurate determination of the pose

POCKETLIGHT MODE
Reliable navigation in dynamic and unexplored card areas

SLAMCLIENT
Visualization of routes and dynamic mapping

REAL-TIME FOR AVG & AMR

SIGMATEK's SlamLoc is a real-time localization software that revolutionizes the way AVGs and AMRs handle changes in their environment with contour-based navigation.

Automated guided vehicles perform their navigation tasks on-board, mostly following defined routes. The vehicles continually check the route using various navigation methods, as hall plans often do not match reality and are constantly changing. The TCS fleet management system from SIGMATEK provides the option to import real data, so the map can be adapted to the actual conditions.
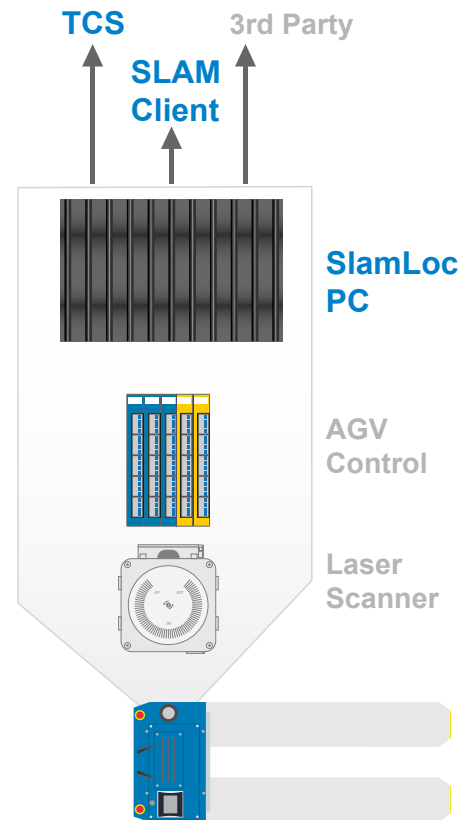
UNCOMPROMISINGLY PRECISE NAVIGATION

The real-time localization software SlamLoc revolutionizes the way AMRs handle changes in their environment using contour-based navigation. SlamLoc creates the map of the environment as a basis for route planning during the initial teaching cycle. If a "foreign object" is detected during further runs, is taken into account and is used for position determining. The pose, i.e. the X/Y coordinates, as well as the direction in which the vehicle is oriented, can thereby be determined much more accurately as this would be possible by simply extrapolating the drive data.

CONTINUOUS ADAPTATION TO REALITY

SIGMATEK SlamLoc enables uncompromisingly precise, contour-based navigation – even if the view of known contours is obstructed for example, by pallet stacks. Real-time SLAM enables the exact localization of vehicles during restart without time-consuming initialization. Above all, the software allows fully dynamic navigation in areas that are subject to significant changes. In the so-called PocketLight mode, temporary, possibly moving objects slowly come into view when approached and disappear just as slowly after passing. Normally, they are not added to the static card. By deliberately avoiding the use of familiar contours, SlamLoc allows buffer zones, goods receiving or shipping to be integrated into an AGV for the first time.

SLAMCLIENT FOR VISUALIZATION

SIGMATEK SlamLoc comes as a pure software solution or preinstalled into a robust, industrial-grade box PC suited for use in vehicles. The optional "SlamClient" enables visualization of the actual vehicle movements and dynamic mapping, as well as its editing.

TCS **SLAM Client** **3rd Party**

SlamLoc PC

AGV Control

Laser Scanner

SIGMATEK SlamLoc can be used as a pure software solution or preinstalled in robust Mini-PC. With SlamClient, the actual vehicle movement can be visualized.

SLAMLOC & SLAMCLIENT
Various packages available (starting Q1/2023)

www.sigmatek-automation.com