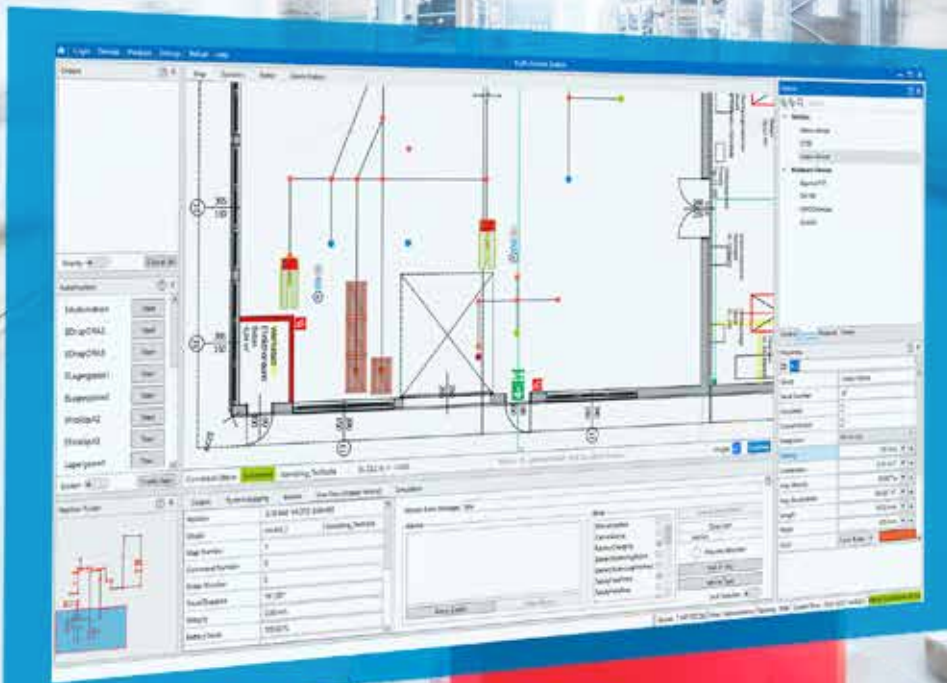


TRAFFIC CONTROL SYSTEM FOR AGV



HOT FACTS

GRAPHICAL SYSTEM EDITOR

Simple route creation
efficient and route planning

SLAM INTEGRATION

Direct integration of SLAM cards

ORDER SIMULATOR

Optimize travel orders with integrated
fleet simulation – in real time and
time-lapse

FLEXIBLE DATA INTERFACE

System integration with standard
protocols VDA 5050, MQTT, JSON, UDP,
TCP/IP, etc. – remote access from
anywhere



TRAFFIC CONTROL SYSTEM

REAL-TIME SOFTWARE FOR AVG & AMR

The TCS (Traffic Control System) from SIGMATEK is an open AVG fleet management system that operates independently of the vehicle manufacturer and uses standardized interfaces for communication between the vehicle and master control. This allows the integration of AMRs from different manufacturers. The TCS performs the route planning and considers all possible routes, one-ways, permanent or temporary obstacles or user-definable restrictions. Much like a taxi dispatcher, the guidance system sends an available vehicle to the pick-up point and then to the delivery address. SIGMATEK's TCS is easily integrated into merchandise- and warehouse management systems, as well as automation solutions, but can also be used completely independently of them.

SAFETY SIMULATION & ANALYSIS

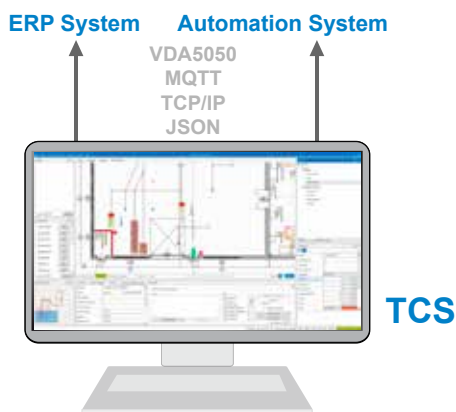
The SIGMATEK TCS provides the ability to test processes in the computer simulation. This simulation is run up to 720 times faster than the real process. An entire day can therefore be completely mapped in two minutes. The web-based visualization can also be used with mobile end devices. During active operation, all vehicle movements are shown in real time, with location, the direction of travel and speed, as well as the battery charge of the individual vehicles. Heat maps allow conclusions to be drawn regarding traffic jams and other traffic conditions. An efficient analysis module immediately enables troubleshooting.

CONTINUOUS ADAPTATION TO REALITY

Hall plans don't always match reality and only represent empty spaces without installations, furniture or movable objects. SIGMATEK therefore provides TCS the option of importing real data, so that the map can be adapted to the actual conditions. These can be recorded by AMRs during navigation using the contour-guided SLAM method (Simultaneous Localization and Mapping). For this purpose, SIGMATEK has developed the real-time locating software SlamLoc.



▲ Informative analysis tools. Fleet efficiency at a glance – graphical heat maps and comprehensive statistical data analysis



TCS SOFTWARE

Various packages available (starting Q1/2023)