



# Mobile Mapping System for Rails











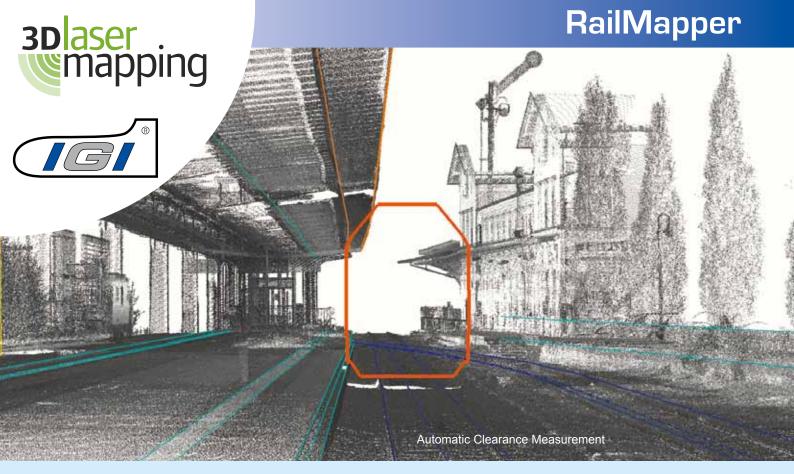
Based on the world's most accurate mobile mapping system, *StreetMapper*, the new *RailMapper* system is applicable for clearance measurement, sign detection, new construction, refurbishment and monitoring of rails and tunnels.

Using the very latest laser scanning technology, precision navigation and advanced data processing coupled with innovative system design, *RailMapper* delivers proven accuracies in the most challenging environments.









### **Precision Navigation**

The onboard navigation system includes a high end GPS / GLONASS receiver, a fibre optic gyro based Inertial Measurement Unit (IMU) and the latest Direct Inertial Aiding (DIA) system to assist in areas of poor GPS reception. *RailMapper* is the only system on the market to offer this level of precision navigation.



# **Multi Sensor Mapping**

RailMapper offers a 360-degree field of view, a range of 300 m and an effective measuring rate of 300 kHz per sensor, delivering high precision performance and coverage. The scanners combine new, high performance sensors with inertial waveform processing to record unlimited returns per laser pulse and complete

digital processing. An integrated high resolution digital camera can be used to capture either still or video images. For thermal images the *DigiTHERM* sensor system can be integrated.

# **Innovative Design**

Based on IGI's Modular System Concept the system is interchangeable to different vehicles. High accuracy levels and dense point cloud data make the *RailMapper* practical for many mapping applications such as clearance measurement or rail surveying with overhead wires.

Clearance measurements are used for the safe usage of railroads by normal trains and especially for oversize trains of enormous importance. Even small objects that protrude into narrowings or minimal displacement of railroads can cause great damage and costs. Possible slight rail movements or relocation of structures both require regular inspections and surveying. Interference with daily train travel may not result from surveying activities. A prerequisite is a surveying train with a minimum speed of 90 km/h or more, so that it can be used on high-speed tracks. *RailMapper* can be operated on speeds above 100 km/h and is a complete system solution with established workflow.

RailMapper is the result of a joint venture between guidance and navigation specialist IGI mbH and 3D Laser Mapping Ltd.

More info in the web



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