

Problem description

Infrastructure managers stuck in the lack of reliable data, or too many unstructured data, without information over the entire network

All infrastructure managers need to focus on their budget, where at the same time they need to keep up with KPI's as like availability, punctuality, passenger comfort, noise and vibration issues.

At the same time they must meet the minimum safety issues and threshold values of their assets and verify those against official authorities on a regular base, which is normally done by measurement and visual inspection.

Usually they also have no clear overview about the impact of the taken maintenance measures, early and future diagnosis of upcoming failures or investment budget in long-term.

They stuck in several software solutions or simply not digital readable, fragmented documentation of operational and master data.

As a result, they are currently not accountable for the actual condition of their track system and in a poor negotiating position with their budget provider.

Solution description

Asset management System with all relevant data and all relevant processes in one structured database – digital twin

The software consists of four pillars:

1. Expert System

Inventory and status data, measuring inspection data and interfaces to any measurement system. Automated expert advice during inspection.

2. Data Management

Localisation and assignment, Object database framework

3. Maintenance -Management

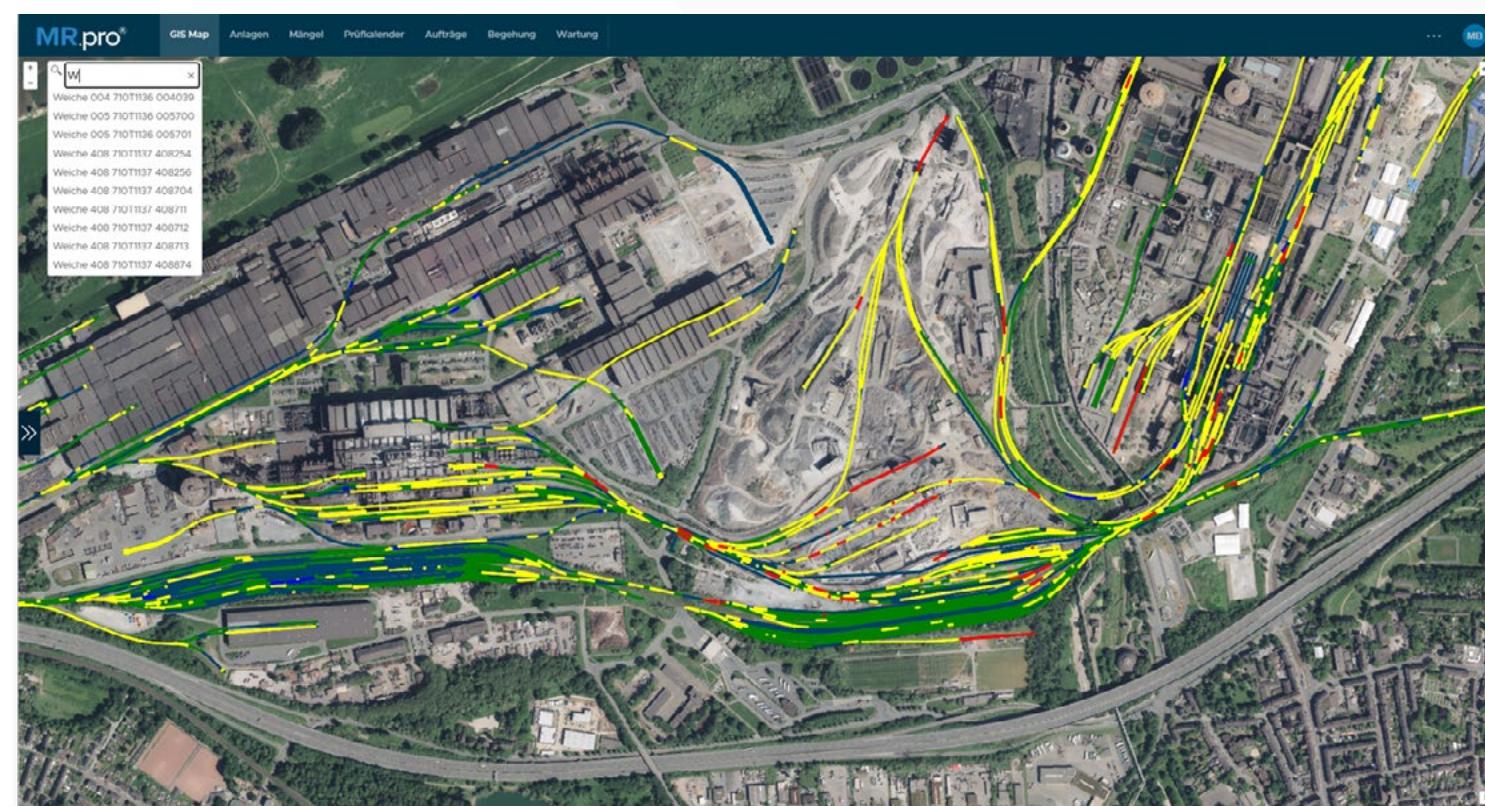
Analyse, plan, conduct and control all maintenance measures related to each object

4. Asset Management

Substance Evaluation, Lifespan, Investment / Renewal Strategy, Optimized Configuration, lessons learned, Technical Controlling and with interfaces to ERS systems like SAP commercial controlling.

Consequently gathering relevant data leads to a digital twin. It allows on site inspection and maintenance surveillance. The entire network and every single object with all relevant information appears synchronized in your pocket.

The substance evaluation of every single object leads to the wear reserve index (KAV) for the entire network. Stable quality, safety KPI's guarantee a long term planning without surprises. The right maintenance regime reduces average costs in the long term.



Additional Features make life easier

Out of the daily use by inspection experts, the features are practise driven since 25 years

- › **Georeferencing:** The GIS Map Viewer is used to quickly identify objects
- › **Life history:** Learn how your assets behave and make predictive maintenance happen
- › **standardized modules** for the structured recording of master and condition data
- › **Preconfigured Object Types**, as like Switches, Tracks, Buffer stops, Level crossings, Platforms, Bridges, Point machines, signalling, Catenary / masts
- › **Mobile App:** Defects can be recorded at any time on mobile devices and made available to all users as centrally stored information
- › **Authority proven and conform inspection reports**, stay always legally compliant

Hardware

Due to the cloud structure, any internet-enabled device can be used. Measuring data can be importet via Interface manufacturer-independent.

Additional Features

- **Maintenance Management:** the software consists of a full planning tool with interface to SAP
- **Dashboard:** Have your entire network condition / KPIs in one view
- **Failure classes:** Defined by user / regulations, normally class 1 - 4
- **Multi-user system:** Online application and graduated user & rights management
- **Multilingual:** stored tables enable quick switch between languages
- **Expert System:** developed directly by experts and with high practical value
- **Effort reduction:** planning, control and documentation efforts reduced significantly

