Range of application of infra3DRail

The service spectrum of **infra3DRail** covers a large part of the requirements of the infrastructure operators. **infra3DRail** is used for various needs and applications within the railway infrastructure sector.

Virtual field surveys
The **infra3DRail** image service provides insight into infrastructure at any time and from everywhere.

Spatial data visualization
Various geodata can be accurately gathered, displayed and overlaid in the images.

Working in different reference systems
A linear reference system as well as planar coordinates can be used within **infra3DRail**.

Mapping and exporting
Objects can be intuitively and accurately mapped and exported (GIS or CAD format) .
The data can also be used in third party systems for further processing.

Analysis of the overhead wire
Systematic network-wide analysis of the lateral deviation and the overhead wire height relating to the track axis.

Clearance analysis
Clearance analysis can be done over a wide area with a definable vehicle profile.

Track diagnostics
Track diagnostics parameters can be captured precisely and quickly and can be used for maintenance purposes.

Our infra3D Services:

- infra3D Local
- infra3D City
- infra3D Road
- infra3D Rail
- infra3D Engineering

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iNovitas
Be on site
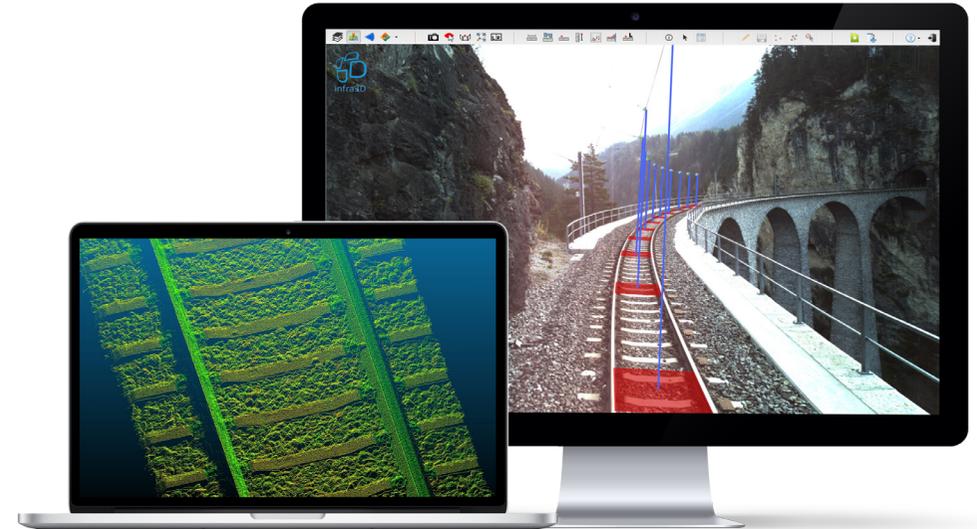
infra3DRail

Be on site without actually being there!

In order to supervise your rail infrastructure more flexibly and efficiently, **infra3DRail** delivers a high-resolution, georeferenced 3D image environment as well as accurate track diagnostics of rail corridors directly to your workplace or tablet for mobile use. As a result, significant increase in efficiency and therefore cost savings are generated.

Labels on image: contact wire, wire pole, wire hanger, signal, clearance height, slope, neighbour objects, reference point, corridor furniture, ETCS, switch, profile, interspace
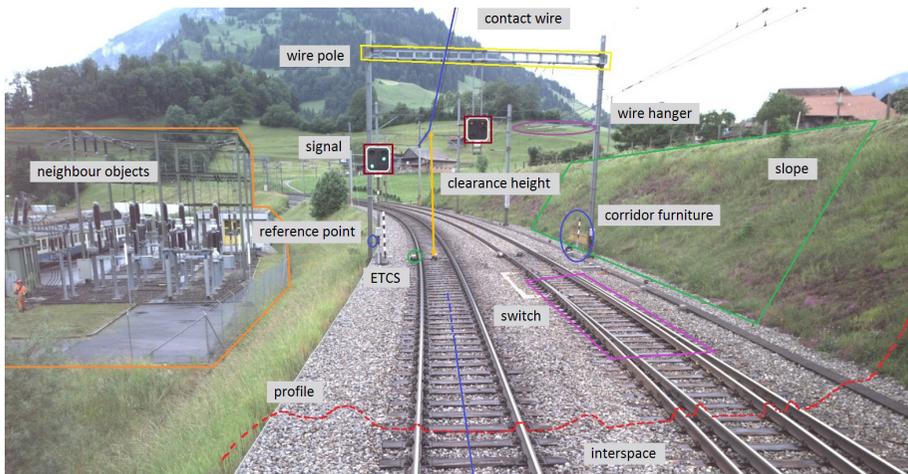
As being on site: Thanks to the diversity of accurate information, the digital representation of rail corridor within infra3DRail offers a wide range of applications conveniently from your workplace or via mobile use.

Analysis of infrastructure, as if you were on site
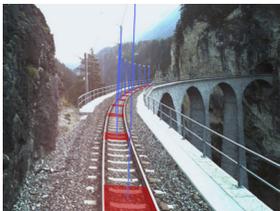
infra3DRail supports you as an infrastructure manager in your daily business and provides you georeferenced, high-resolution 3D images as well as accurate track diagnostics directly to your workplace. The permanently available rail corridor data, offers you an optimal basis to evaluate, plan and realize infrastructure projects efficiently and accurately.

Efficient acquisition and analysis of geodata

Thanks to the georeferenced image data basis of **infra3D-Rail**, you are permanently updated and well informed about the infrastructure condition. The accurate digital imagery of infrastructure facilities provides you with comprehensive information regarding rail corridors and enables efficient analyzes and wide range of applications directly from your workplace. Various analysis and evaluations can be performed, such as, clearance analysis, signaling, contact wire analysis, track condition analysis (track diagnostics) etc. Any distances, areas and coordinates can be directly measured through the web client. Additionally, geodata can be measured, checked, updated and tracked situationally. These exact georeferenced online-surveys as well as assessments of infrastructure conditions can reduce the amount of on-site inspections by 50 %.

Combinable with existing GIS & CAD's

infra3DRail can also be combined effortlessly with existing GIS or CAD solutions. Particular geo data can be displayed in its actual context through in infra3DRail. The open system architecture offers a variety of options and possibilities, to accurately and efficiently overlay, present and use all relevant data and information between different systems.

Simple communication and planning tool
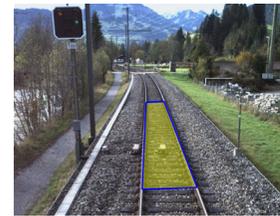
infra3DRail is a cloud-based web application and permits individually defined and password-protected access rights. The digital 3D image data can at any time be made available to a specific user group. Through the virtual field survey from your workstation, specific evaluations, analysis and planning work can be performed within the project group and with all involved authorities.

Accurate basis data for simple project planning

By adapting the 3D image database to the reference system of a given railway, ınfra3DRail can easily be used for precise construction project work and planning, while on-site (field) surveying is no longer necessary. This enables enormous cost savings for every project. The relevant information can be quickly and precisely gathered directly through infra3DRail.

Flexible sensor platform and high speed data logging

The configuration of the system can be assembled according to customer requirements and can be flexibly mounted on a carrier vehicle. The data is recorded with speeds up to 80km / h. Thus, regular traffic is not disturbed and there is no need for a line closure. We guarantee a maximum benefit with a minimum disturbance of the traffic.