SiRail Suite
Software package for the railway industry

The SiRail Suite software package ensures highly accurate and qualitatively data processing, analysis and management, and comprises of the software modules SiRailScan and ATrack Suite.
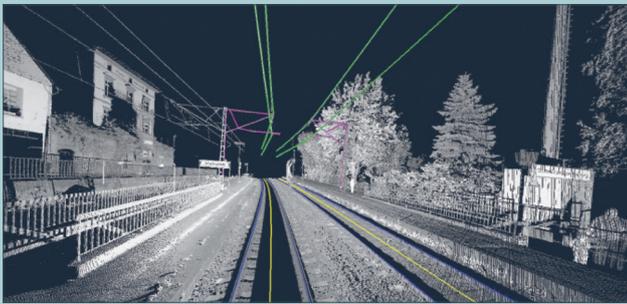
FULLY AUTOMATED PROCESS

- Automated transformation of the measured data from geocentric coordinate system into user defined projection
- A-posteriori automated adjustment of the as-built track geometry (left/right rail and axis)
- Automated calculation of the track geometry alignment and height elements and parameters
- Batch collision test/simulation for train passage and documentation of the detected infrastructure objects in user defined format
- Deformation analysis of the measured infrastructure objects in the [mm] area
- Automated comparison between designed and as-built

PART OF HEXAGON

- when it has to be **right**

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SiRail Suite

Track distance neighboring track
3.4833 m

SiRailScan

The innovative software solutions contribute for the improvement in monitoring and control of the railway network conditions, for deformation analysis as well as for volume calculations.

Automated batch process

- Rail geometry adjustment with accuracy and reliability values
- Collision detection with any structure gauge profile
- Detection and documentation of infrastructure objects in chainage based system, in user-defined format
- Tunnel deformation analysis followed by volume calculation and export of the differences between designed and as-built
- Ballast assessment and volume calculation
- Axis based section profiles
- Combination between point cloud and georeferenced images

ATrack Suite
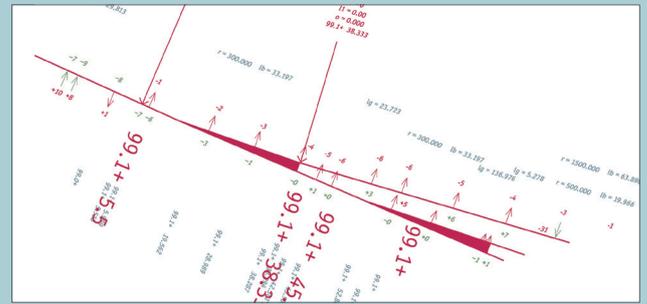
The Software solution created for track reverse engineering and optimization of algorithms, for railway design and planning, for as-built track geometry recovery and comparison between the designed and as-built track alignment.

This module gives the possibility for automated calculation of the track geometry alignment and height (gradient) parameters. The integrated AXTRAN module allows the optimization of the track geometry parameters.

- Automated track recognition and calculation including of track elements (e.g. circle, clothoid, straight-line)
- Track element parameters (radii, lengths, tangent direction)
- Main track points (coordinates, kilometres, stations).

- when it has to be **right**

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