

Pavemetrics



LRAIL

Automated Inspection System



Vision Systems for the Automated
Inspection of Transportation Infrastructure

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Automated Inspection System

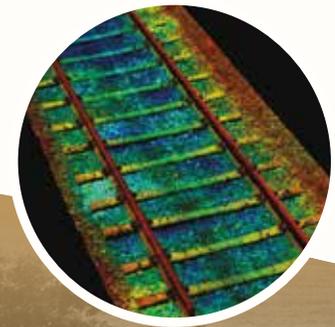
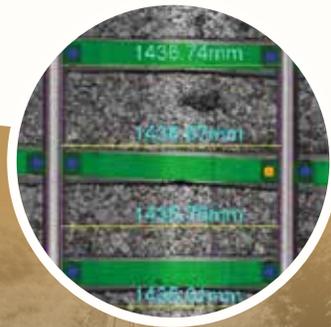
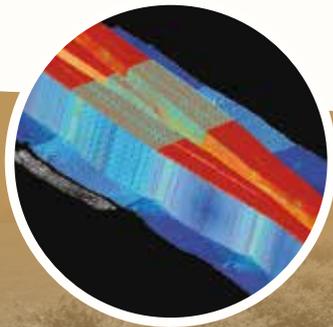
SYSTEM SPECIFICATIONS

- Number of laser profilers: 2
- Motion compensation: built-in IMUs
- Vehicle speed: 0 to 60 km/h
- Real-time geometry and alarms
- 9 hours onboard power
- 800 miles of onboard data storage
- Sub-meter GNSS
- Remote operation via Wi-Fi
- Profile spacing: 1 to 2 mm (adjustable)
- Transversal field of view: ~3.5 m
- Transversal resolution: ~0.9 mm (4,096 points/profile)
- Depth resolution: 0.1 mm



KEY FEATURES

- Can be installed on a high-rail or flatbed rail car
- High-rail trailer option also available
- Rail X, Y and Z position mapping
- 2D and 3D imaging
- Geometry measurement (gauge, cant, alignment, etc.)
- Embedded track rail wear
- Rail surface defect inspection (dimensions, location)
- Concrete tie/sleeper inspection (count, location, chips, cracks, skew angle)
- Wooden tie/sleeper inspection (count, location, cracks/splits, skew angle)
- Joint inspection (location, gap measurement)
- Joint bar inspection (count, location, bolt count)
- Fastener inspection (count, location, present/missing/covered status)
- Ballast inspection (over or under height, presence of fouling)



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