KinetiX | Inspection Technologies

TreadView®

WHEEL SURFACE INSPECTION

The TreadView system employs state of the art digital high speed imaging and 3D laser scanning technology to automatically inspect the wheel tread, flange, and plate surface areas across the entire circumference of the wheel.

The system utilizes image processing algorithms to assess wheel surface conditions from acquired multispectral multi-illumination images. The high resolution images and high density 3D data of the wheel surface are used to determine any external surface abnormalities of the wheel tread that can be detected.

Wabtec CORPORATION

TREADVIEW SYSTEMS

Processed data and images from the TreadView system are integrated into the CMMS™ (Condition Monitoring Management System) software to provide web-based access for data visualization, alarm management, and data analytics. The system can generate automated alarms identifying wheel surface defect facilitating condition based maintenance workflows.

TreadView consists of multiple scanner boxes, installed on custom steel frames, that are mounted on foundations on each side of the track. System installation does not require any major track modifications or extended closures.

TreadView automates wheel surface inspections, reducing out of service time, costs, and manual inspection labor. The system can improve efficiency in maintenance processes through the early detection of defects and data driven optimization of wheelset lifecycles.

MEASUREMENTS

Shelled and spalled tread

Major scrapes, dents, and gouges

Broken/missing wheel sections

Shattered rim

Broken or damaged flange

Wheel flats and slid flats

Built-up tread

Tread groove

Vertical split rim (flange or field side)

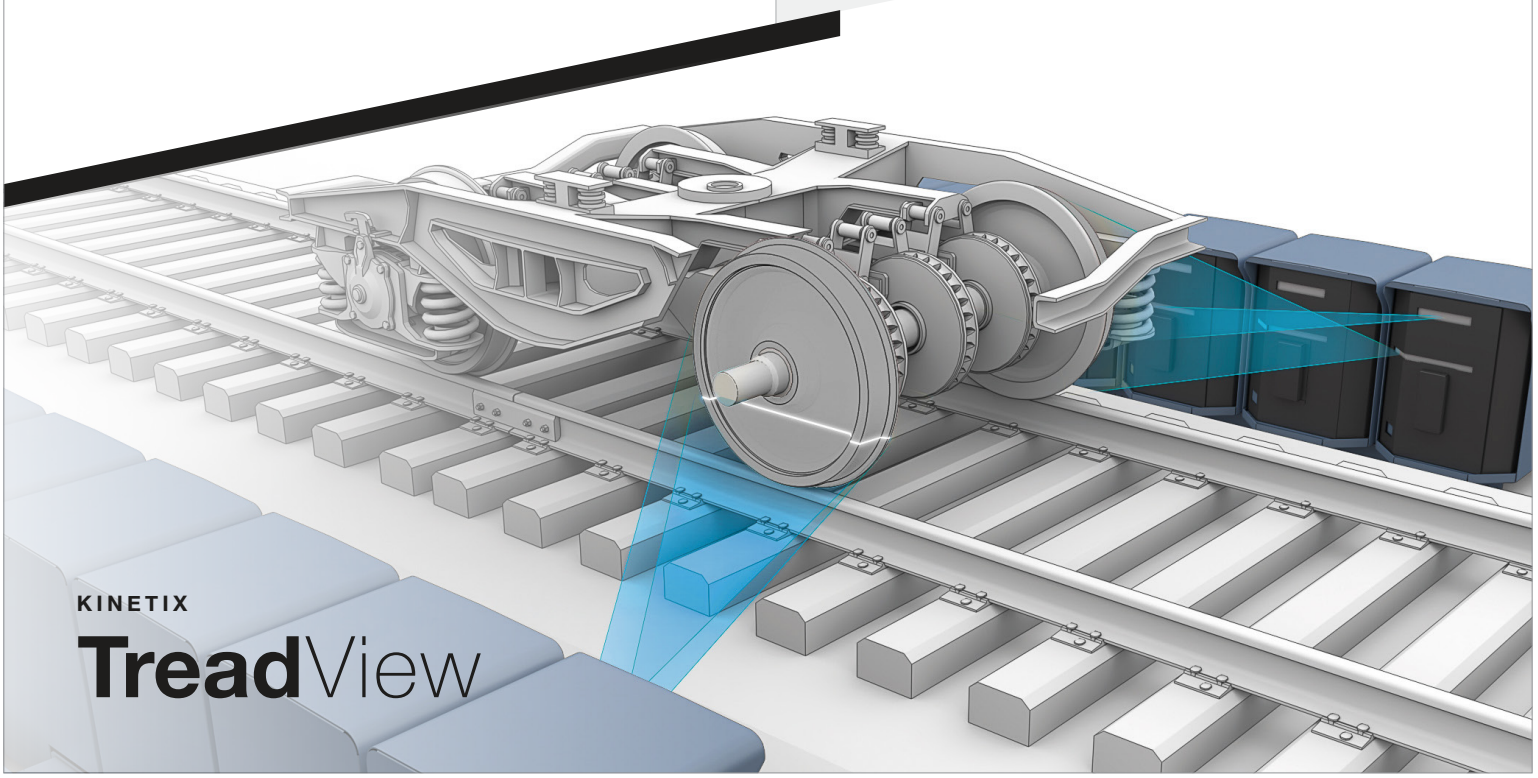
Significant spread rim

Wheel OOR* (out-of-round)

Wheel tread hollow around the wheel*

Depending on the rolling stock types and requirements, the system's measurement outputs may require optimization or customization. TreadView system provides detailed imaging of the wheel including images of the tread surface and wheel plate.

**passenger train only*



KINETIX

TreadView

SYSTEM FEATURES

Bi-directional system

Inspection and measurement at mainline operational speeds

Operates in extreme environments

Installed off track (concrete or steel base) with no track interference

Easy maintenance

Automatic defect reporting

SOFTWARE FEATURES

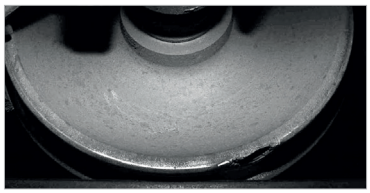
Digital image acquisition/processing

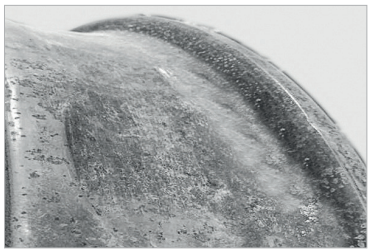
AEI (RFID) integration

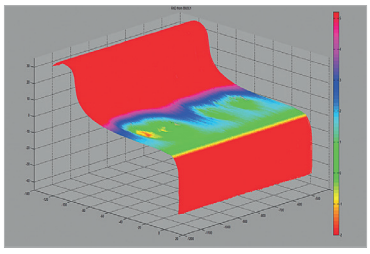
Automatic reporting

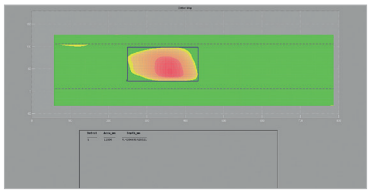
Web-based database/visualization (with CMMS™ (Condition Monitoring Management System) or TrainWatch™ software)

Remote monitoring/control









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