

KinetiX

Inspection
Technologies



WheelView[®]

WHEEL PROFILE MEASUREMENT

The WheelView system utilizes high-speed, high-quality digital imaging and laser illumination to automatically reconstruct the wheel profile in three dimensions and to report wheel wear measurements and defects from wheel profile data.

Image processing algorithms are used to extract wheel profile data from acquired images. The WheelView imaging system and processing algorithms are designed to operate in all ambient light and weather conditions.



WHEELVIEW SYSTEMS

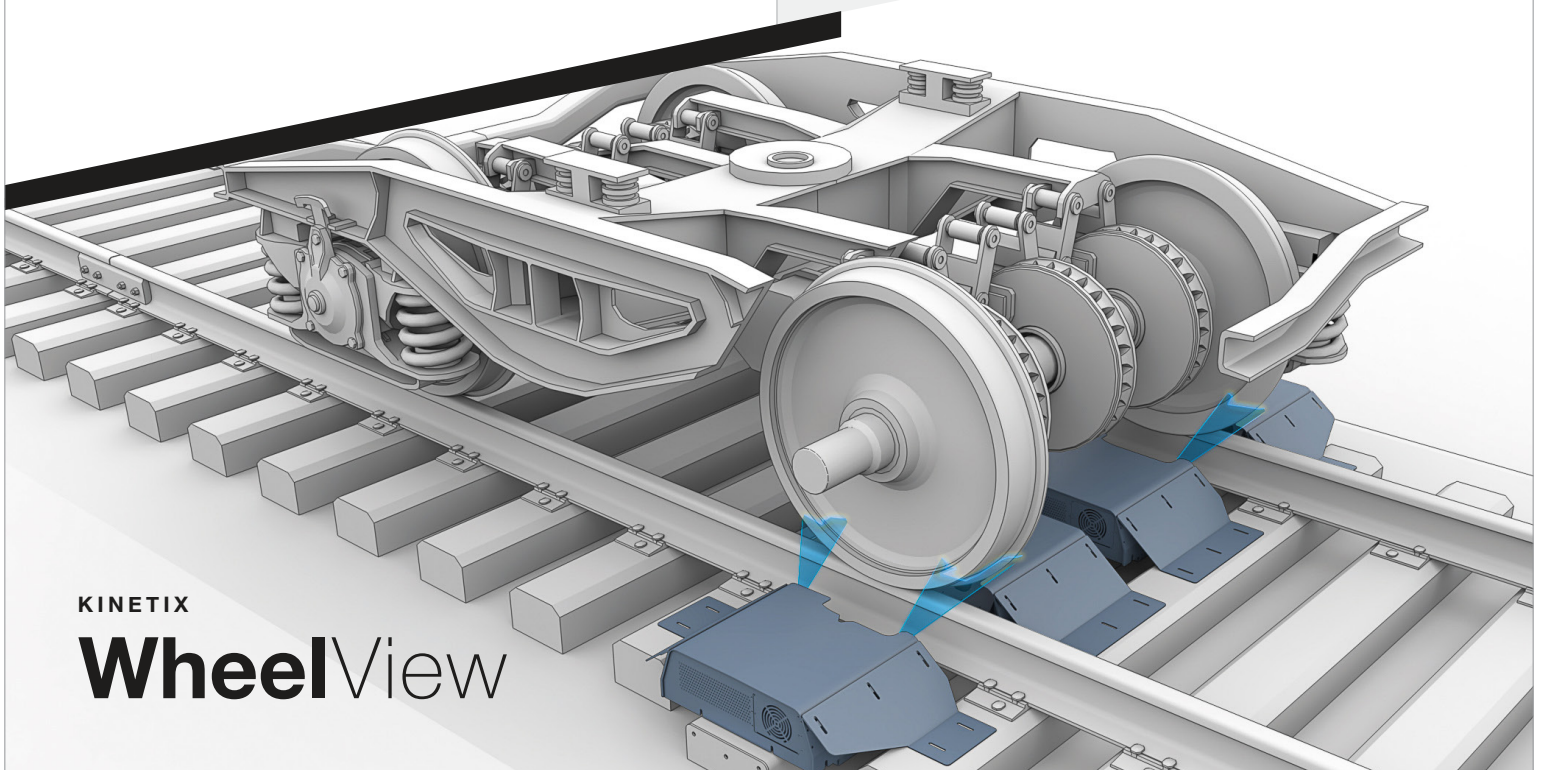
Processed data and profiles from the WheelView system are integrated into the CMMS™ (Condition Monitoring Management System) software to provide web-based access for data visualization, alarm management, and data analytics. Automated alarms on the measurements and the information generated by the system can facilitate condition based and predictive maintenance workflows.

The data that WheelView generates enables rolling stock operators to improve and optimize their maintenance processes. Worn wheels can be identified and maintained earlier, reducing costly incidents. Data driven predictive maintenance practices can be used to maximize wheel lifecycles. Historical wheel profile and measurement data can also be utilized for wheel and rail interface analysis.

MEASUREMENTS

- Full wheel profile
- Flange height
- Flange width (thickness)
- Flange slope
- Tread hollow
- Rim thickness
- Back-to-back (B2B)
- Tracking position (wheel lateral position)
- Wheel diameter
- Wheel width
- Tread rollover
- Flange rollover (arris)
- Equivalent conicity (additional module)
- Depth to witness groove position (if any)

Depending on the rolling stock types and requirements, the system's measurement outputs may require optimization or customization.

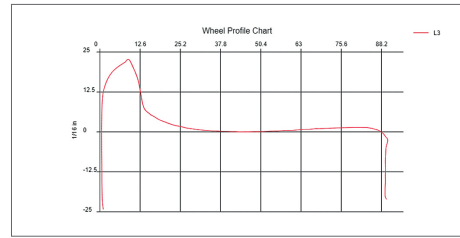


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WheelView

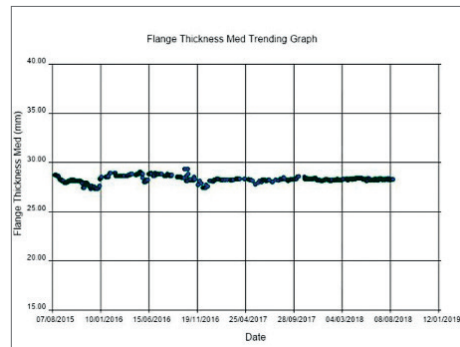
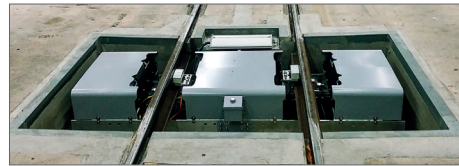
SYSTEM FEATURES

- Bi-directional system
- Measurement at mainline operational speeds
- Operates in extreme environments
- Installed in track using a steel sleeper (tie)
- Easy maintenance
- Air purge unit for system cleaning
- 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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