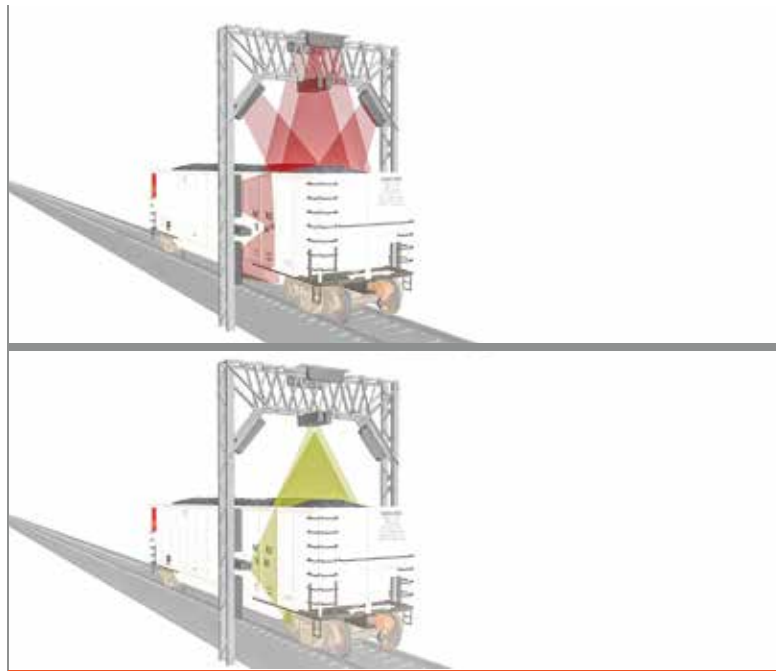




Beena Vision offers TrainView as a full scale train imaging and inspection system as part of its comprehensive train monitoring systems. This system consists of multiple line and area scan cameras that provide images of the train at track speeds with high resolution. The system is designed to provide images of all externally visible components of a car. The images are then assigned to individual cars based on the AEI data. Car components are then ready for viewing and analysis.

The system uses several sensors and algorithms to pinpoint axle position, car beginning and car end positions, car components such as safety appliances, hand brake wheels, car identifiers, load limit identification, reflectors, car body condition, structural gauge and high-wide load detection, car load profile, load securement conditions, load carry back detection, etc.





➔ Inspections and Measurements

- Side Walls Condition
- Car ID and OCR
- Car Load Limit Identification
- Reflector Conditions
- Car Structural Gauge and Profile
- High-Wide Detection
- Car Load Profile
- Load Securement
- Load Profile
- Load Carry Back
- Safety Appliances such as:
 - ➔ Hand Brake Wheel
 - ➔ Top Chords
 - ➔ Running Boards (longitudinal and latitudinal)
 - ➔ Rooftop Handholds
 - ➔ Roof Hatches
 - ➔ Handholds
 - ➔ Ladder Treads
 - ➔ Hand Brake Wheel
 - ➔ Uncoupling Lever
 - ➔ End Platforms
 - ➔ Sill Steps
- Foreign Object Detection

➔ Features

- Sophisticated GUI Software or Train Viewing and Car Inspection
- Automated Condition Monitoring of Many Train Components
- Operating Train Speeds of Up to 60mph (100 km/h)
- Operation in All Track and Environmental Conditions
- Automated Train Analysis Tools
- Tower Based Installation
- Operating Temperature: -40°C To 55°C
- Low Maintenance

➔ Software Features

- TrainWatch™ Software
- Remote Monitoring/Control Software
- System Management Software
- Digital Image Acquisition/Processing
- Calibration Software
- Web-based Database/Data Search Software
- Database Interface Software
- Automated Reporting Software
- AEI (AVI) Integration

Benefits to rail operators includes assisting Carmen's visual inspection process and providing timely maintenance alerts for defective car components. Although most of the inspection process is automated, sophisticated train viewing software (TrainWatch) can be used to perform a complete virtual train visual inspection.

TrainView has found applications in the security industry where detecting foreign objects on trains are becoming a critical issue in train transportation industry.

