

duostech

Safety Is the #1 Concern of the Railroad Industry!

Railcars contain hundreds of parts and critical components that must be inspected frequently to ensure safe and reliable operations.

With more than 1.6 million railcars running on nearly 200,000 miles of track in North America, railroads and railcar owners are seeking advanced technologies to keep their operations safe, reliable and efficient. Improving processes in this area is key to improving operations.

Railcar Inspection Portal (RIP®)

Duos Technologies Railcar Inspection Portal (RIP®) is an advanced, AI-enabled railcar imaging system that produces high-resolution images of railcars moving at track speeds. The wide array of crisply detailed images offers a full, 360 'all-around' view of each railcar — not just the top and sides, but the undercarriage as well. An intuitive, streamlined user interface allows mechanical railcar inspectors to scan trains, review railcars and perform detailed, thorough inspections quickly and easily.

The RIP's optional artificial intelligence (AI) detections help to elevate inspections to a highly automated process. Professionally developed AI models are available to automatically target and identify a wide variety of specific railcar defects, providing inspectors with alerts and notifications. This greatly reduces the inspection time by immediately drawing attention to targeted areas of interest.

Beyond simple imaging, the RIP® is a comprehensive inspection solution with a proven record of success in streamlining railcar inspections.

Features / Benefits

- Increase safety: employees, general public and customers
- Reduce cost of risk: reduce mainline service interruptions and derailments
- Decrease dwell times and improve equipment turns
- Improve overall fleet health by proactively managing car repair process
- Accelerate customer communications and regulatory compliance

Expert AI – The Duos Difference

centraco® + AI | Data Analysis

- Duos's proprietary AI provides clients with control over the AI implementation and ensures efficient and reliable operations.
- Duos in-house experienced railcar mechanics serve as subject matter experts to ensure accurate detections.
- Duos incorporates human-in-the-loop technology, combining the rapid analysis of machines with human judgement to eliminate false positives.
- Our deployment-ready AI detection catalogue* targets and identifies critical defects.

*Request a Duos AI Detection catalogue [here](#).

Optional Railcar Inspection Portal Modules

Oblique Vehicle Undercarriage Examiner

Captures various areas of interest on the car or locomotive underside including truck inner spring nest, traction motors, axles, brake components, bolsters and in most cases wheel conditions.

Oblique Truck View

An intelligent imaging system that provides high-resolution images of truck side frames, roller bearing adapters, and other critical components.

**All modules use high-resolution technology combined with artificial intelligence to create unparalleled imagery and detection.*

Additional Railcar Imaging Perspectives

High-Resolution Panoramas

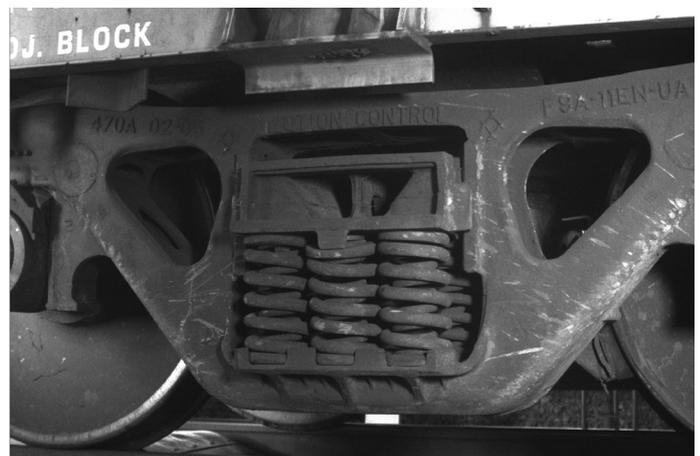
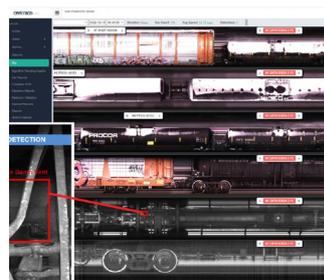
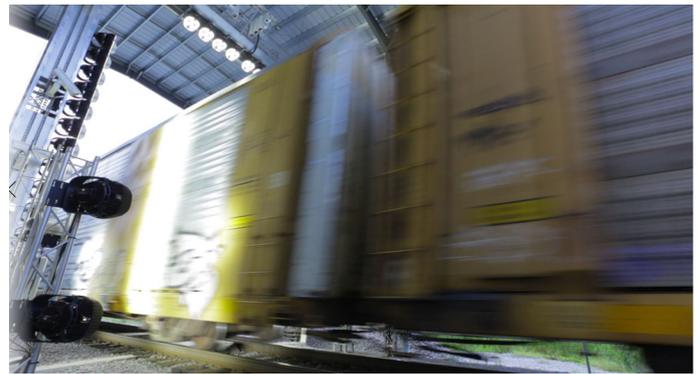
- Side panorama
- Lower side panorama
- Top coupler panorama
- Truck zoom panorama
- Top wide panorama
- Vehicle undercarriage Examiner (VUE)

Oblique Frames

- Oblique high
- Oblique coupler
- Oblique trucks
- Oblique vehicle undercarriage examiner
- Thermal vehicle undercarriage examiner
- Wheel tread 360

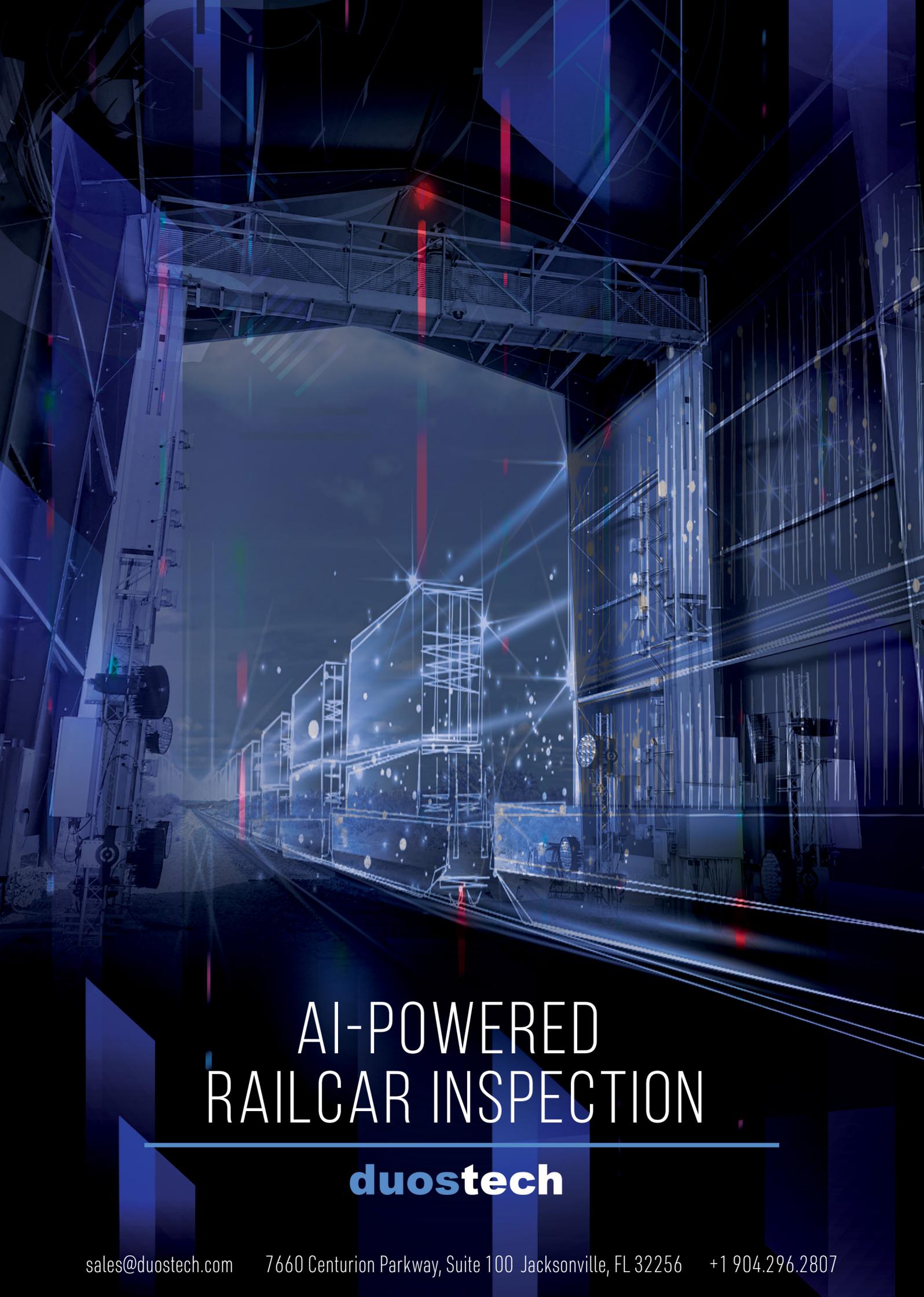
Laser Systems

- Open hatch
- Open door



Click or scan the QR code of more information

sales@duostech.com
+1 904.296.2807

A futuristic, dark blue-toned scene showing a long train of railcars on tracks. The railcars are overlaid with a glowing white wireframe mesh, representing AI-powered inspection. The scene is illuminated with various colored lights (red, blue, green) and features a complex network of overhead metal structures and cables. The overall aesthetic is high-tech and industrial.

AI-POWERED RAILCAR INSPECTION

duostech

sales@duostech.com

7660 Centurion Parkway, Suite 100 Jacksonville, FL 32256

+1 904.296.2807