



apis Automated Pantograph Inspection System

Real-time, intelligent video scanning

duostech Automated Pantograph Inspection System (apis[®]) is a robust, fully scalable IP-based architecture with real-time, intelligent video capability. The system provides archived video images of inspected pantographs for any electronically-driven transit company. apis[®] eliminates the need for routine manual pantograph inspection, greatly enhancing maintenance operations and minimizing unplanned down time.

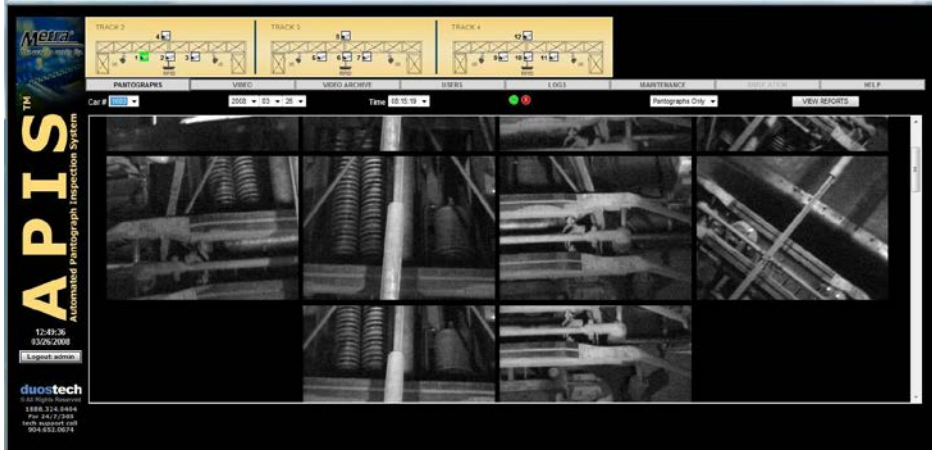
How it works:

- Trains pass through apis[®] inspection points.
- Two fixed cameras and two infrared illuminators, mounted on opposite sides of the track, capture high resolution digital video images of each pantograph.
- Simultaneously, an American Association of Railroads (AAR) standard Automatic Equipment Identification (AEI) reader captures the unique number from the passing car.
- Each high resolution digital pantograph image and corresponding car number is bundled, transmitted to the digital server, and stored in the provided SQL database as a single record.
- The rule-based praesidium[®] intelligent vision suite is taught to recognize known “good” pantograph images and compares them to the captured images on the server. apis[®] automatically detects the pantograph defects such as bends, chips, and cracks and flags those records for manual inspection.
- Records are stored for a minimum of 30 days and accessed using a duostech-based interface through a customized, intuitive Graphical User Interface (GUI).



centraco[®] Transit User Interface

Apis Automated Pantograph Inspection System



Duos Technologies Inc. provides a broad range of sophisticated intelligent technology solutions with an emphasis on mission critical applications. We combine an innovative business philosophy with a focus on customer service. Our specialty is the development and delivery of customized turnkey solutions for rail centric critical infrastructure systems.

All products, systems and solutions are backed by a 24 x 7 x 365 global training, maintenance and service program.

The apis[®] system:

- eliminates the need for routine manual pantograph inspection
- provides robust, fully scalable IP-based architecture with real-time, intelligent video capability
- deploys high resolution cameras and infrared illuminators to capture digital video images of each pantograph
- deploys AEI readers to capture the unique number from each passing Rail car
- recognizes and passes “good” pantographs
- detects pantograph defects such as bends, chips, and cracks
- bundles the rail car number and pantograph image into a single record
- flags pantograph defect records for manual inspection
- stores records for a minimum of 30 days
- permits flagged pantographs to be inspected from a dedicated Duostech provided workstation or remotely from any authorized workstation

With centraco[®] Command and Control

Like all **duostech** intelligent solutions, **apis[®]** is command and control ready. **duostech** state-of-the-art intelligent command and control platform, **centraco[®]** provides a scalable information delivery and response solution that is designed to address operational and management challenges. Designed with years of “real life” situational input, the **centraco[®]** platform is designed to perform in the most challenging and dynamic environments.

duostech

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