



Rail Yard Management and Automation

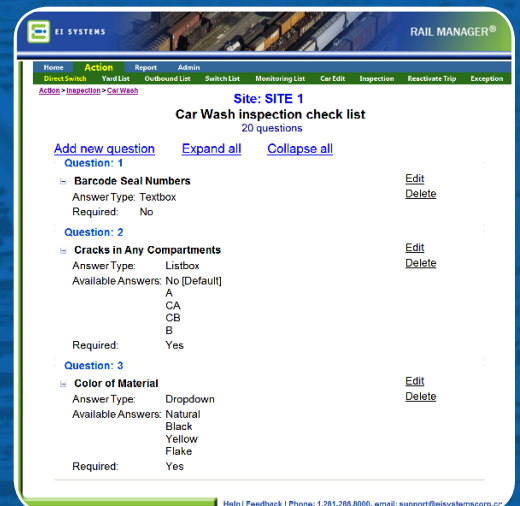
Overview:

Rail Inspect™ operates on a handheld mobile computer equipped with an AEI railcar scanner. It effectively automates the capture, reporting, and analysis of railcar inspection data. The Rail Inspect system consists of two linked modules. The first is a web-based application that allows users to create, customize and maintain one or more inspection questionnaires. This online application also allows viewing and analysis of inspection data. The second module resides on a portable AEI reader. It uses questionnaires from the web application to direct the inspection process and records data collected during the inspection process. Data from the portable AEI reader is transmitted to the server via USB, WIFI, CDMA, or GSM for inspection reporting.

Inspection questionnaires on the portable AEI reader are refreshed on demand as needed from the server. Inspectors use the portable AEI reader to scan each railcar's AEI tag, document each item of the inspection checklist, change car status if required, record barcode seal numbers, and upload data to host server.

Benefits:

- Portable electronic checklists are made available at user's work location, helping ensure that all required inspection is completed.
- Inspection records are collected electronically, eliminating cumbersome paper files and labor-intensive transfer from paper to electronic format.



## Benefits (Cont'd):

- Electronic capture of railcar number and seal numbers ensures data integrity by eliminating risk of keystroke entry error.
- Electronic format and powerful reporting functions provide advanced search and analysis of inspection records.
- Allows user to maintain customized checklist(s) for a variety of purposes, including inspections, carwash and loading/unloading.
- Flexible design allows a variety of questionnaire responses including yes/no, multiple choice and free text entry.
- Simple user interface allows administrator to easily modify the checklist as inspection requirements change.
- Can be configured to integrate with railroad and third-party car tracking systems to provide alerts or special instructions upon scanning of car number prior to inspection process.
- Easily accessible inspection reports via web-based user-friendly reporting system.
- In conjunction with Rail Manager®, Rail Inspect™ automatically alerts inspectors of special instructions.

## Key Features:

- Update inspection questionnaires in portable AEI reader: Inspection checklists/questionnaire on portable AEI reader is synchronized with the server on demand via web services. Administrator makes changes to inspection checklists from web-based application on the server. Changes are updated to all available portable AEI readers as needed.
- Secure login for Portable AEI reader: Portable AEI reader requires valid username/password for access. User profile/security on the portable AEI reader is synchronized with the server on demand via web services. This feature allows only authorized personnel to perform inspections and send data to server for processing, and also allows administrator to centrally control and modify access to the portable AEI readers as appropriate.
- Update Car's status: car's status (empty, loaded, clean, repair, etc.) may be updated by the portable AEI reader during the inspection process. Car status options are defined by the user and may be synchronized from the server on demand.
- Unlimited questionnaire setup: There is no limit on the number of inspection checklists that may be setup for the site.
- Capture RFID car number and barcode seal number: Car number and barcode seal number may be captured electronically using scanners built into the handheld.
- Support multiple forms of answers: Several types of available answers are designed to minimize the number of keystrokes on the portable AEI reader during inspection. These include setting up default answers, indication of whether answers are required or optional for each question, Yes/No answer, drop-down selection (select one answer from available drop down answers), list-box selections (select one or more answers from available drop down answers), and text-box (for information gathering), and date/time.
- Keyword search: Keyword searches on questions, answers, or comment fields are provided to allow easy searches of historical inspection information.

