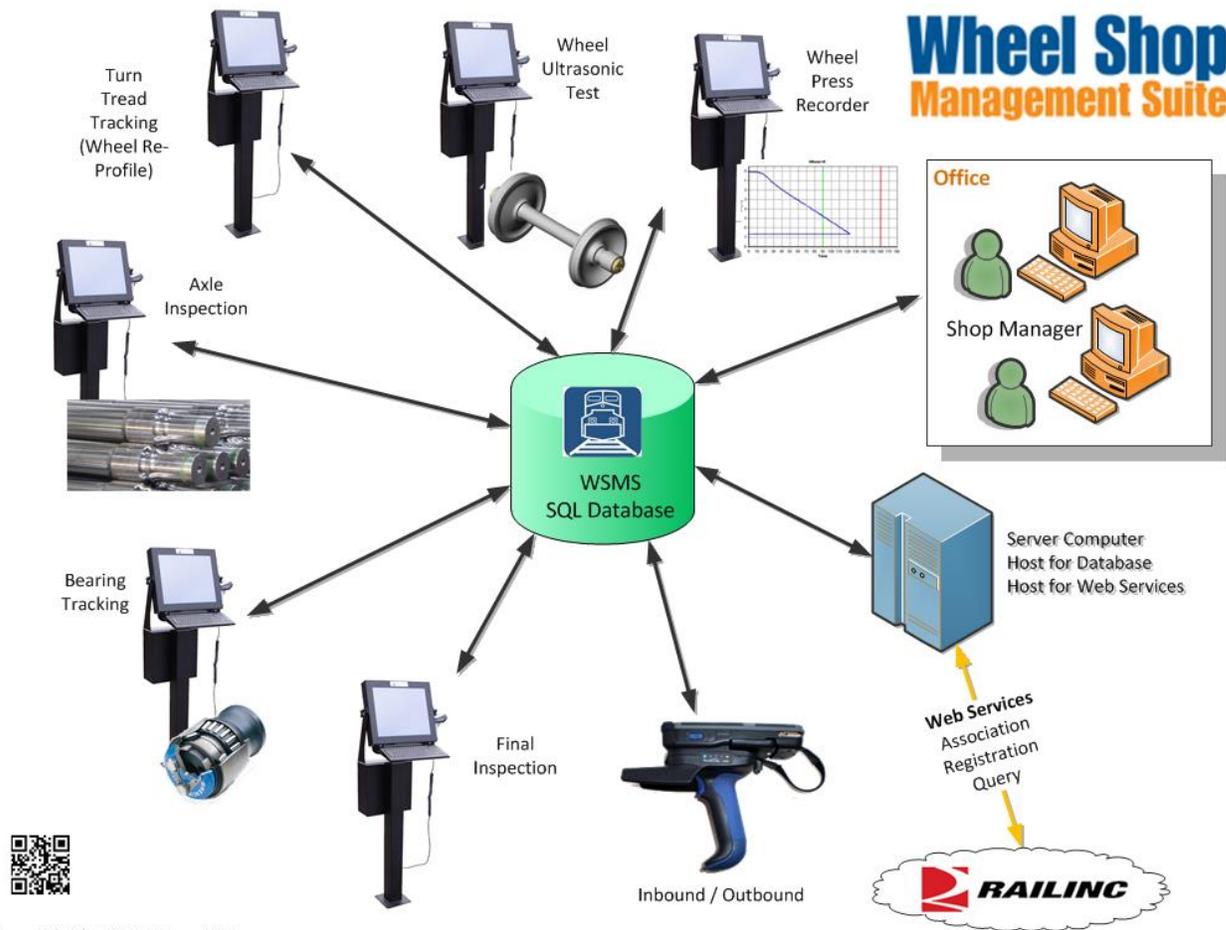


## Wheel Shop Management Suite (WSMS)

The Wheel Shop Management Suite (WSMS) is an end-to-end solution for managing your wheel shop. With the WSMS, you have a view of all operations and materials throughout your shop. The WSMS tracks inbound components, work in progress for all stations and shipping of finished goods.

Each component of the WSMS adds to the central database. Using Shop Manager, you can view all operations for a wheelset or assembly as the information is collected.

In addition, the WSMS helps you register wheelsets to comply with the Comprehensive Equipment Performance Monitoring (CEPM) initiative required by the Association of American Railroads (AAR).



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[Shop Manager](#) is the productivity powerhouse of the Wheel Shop Management Suite. It provides access to up to the minute mounting charts and component information for QA inspections, reporting, and supervisors. Shop Manager can be run from the comfort of your desk, keeping you informed of production totals, misfits, machine down time, and more without interrupting your production.

Shop Manager displays information collected at all of the WSMS stations in an easy to read format and all data is completely searchable.

- Review mounting charts
- Track production totals per shift, customer, operator and/or machine
- View data collected at each station including Mounting Press, Wheel Lathe, Bearing Press, Shipping/Receiving, Wheel Demount, and more
- View, email and print reports
- Manage users, customers and shop parameters from any computer on the network—including remotely
- Four levels of security
- Advanced search allows you to get a complete history of each component, including mounting charts of misfits, remounts, and more
- Register wheelsets for CEPM



The [Wheel Press Recorder](#) (WPR) is a computerized system for recording force and distance while mounting freight railcar wheels per AAR Rule 1.4 of MSRP G-II. This system is designed to keep up with your busy shop, recording serial numbers, mounting charts and additional data for wheels mounted onto the car axle. If you need to be able to record mounting charts for additional components such as bearings, gears, gearboxes, or discs you should consider our [Universal Press Recorder](#) below.

- Stores wheelset and mounting chart data for a minimum of 10 years per the AAR requirements
- Records Mounting Charts per the AAR MSRP G-II rule 1.4
- Collects all CEPM required fields
- Serial Numbers are recorded checked for duplicates
- All components can be scanned when barcodes are available and manually entered when not available
- Automatic Misfit Detection
  - High and Low force (tonnage)
  - Short and Long mounts
  - Pressure dip through 75%
  - Pressure drop after 75%
  - Entry spikes
  - Out-of-AAR Template
  - Distance variation too great between wheels
- Rules enforcement
  - Wheel types must match
  - Tape sizes must match
  - Optionally displays mounting template



The [Universal Press Recorder](#) (UPR) was developed to meet the needs of *locomotive and passenger* wheel shops. Like the freight Wheel Press Recorder, the UPR is a computerized system for recording force and distance while mounting components on railroad axles. Where the WPR only records charts for wheels, the UPR can also record mounting charts for gears, bearings, discs and gear boxes.

The UPR has the same features as the Wheel Press Recorder (WPR) as well as the ability to build a database of specific assembly types and recall them at the wheel press. The UPR can associate the components that you mount on the axle with each other even when the components are assembled days later or on separate presses. For example, you can mount gears in one press and wheels in another and disc on yet another.

A Bearing Spike Control function is also available. Spike Control allows the operator to enter a maximum spike height when mounting wheels. The associated Programmable Logic Controller (PLC) then controls the press to produce the desired spike after mounting.



The [Bearing Tracking System](#) provides a fast and efficient method for collecting information about each bearing that goes on your wheelsets. The information collected with our Bearing Tracking system can also be useful for tracking materials, downtime and labor as well as for consignment and billing.

- Collect all information required by CEPM
- Scans both factory and CEPM barcodes
- End user configuration of required fields accommodates changes to specifications and QA requirements
- Verifies that the wheelset is good before allow the data to be saved
- Marks the wheelset as ready to register for CEPM



The [Turned Tread Tracking System](#) allows you to track your wheelsets that are re-profiled at the wheel lathe.

- Collect all information required by CEPM
- Collect machining information
  - Number of cuts
  - Starting and ending diameter, rim thickness and flange thickness
  - Reason for machining
- Tracks down time of the lathe
- Production reports by size, shift and operator
- Capable of retrieving or sending data to the wheel lathe
- Tracks scrap for production

## Wheel Shop Management Suite Overview

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The [Outbound Tracking System](#) (OTS) is a mobile application that tracks the wheelset as it leaves your facility. The OTS gives you traceability, accountability, and reliability when it comes to shipping your finished goods. It is the final step in your data collection process, providing you with operator, customer, and shipper information so you know exactly where each wheelset gets shipped.



With the Outbound Tracking System you can verify that only finished wheelsets get shipped, and that all CEPM required information has been collected. And should you ever have a recall you can quickly notify your customers because you will know exactly where and when your wheelset shipped.

- Scan the wheelsets in the yard or as you load them onto the truck or railcar
- Prevent shipping out of specification or scrap material
- Create a shipping document for your manifest
- Automatically send CEPM registration when the wheelset is shipped



With the [Final Inspection Station](#), you can enter and validate all CEPM required fields in one place.

- Scan all available CEPM barcodes for wheels, axles and bearings
- Manually enter any data that is not on the barcode
- Records laterals, radial and plane readings
- Uses the standard Wheel Shop Management Suite software
- View data entered in Shop Manager
- Validates all data entered or scanned
- Allows automatic wheelset registration through the Railinc web service when the data is saved

## The Hardware

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All hardware provided is ruggedized with the wheel and repair shop in mind.



### **Ruggedized Tablet**

- 10.1 inch touch screen
- Windows 7 or 8
- IP 65 Sealing
- Multiple 1.8 meter drops to concrete
- Integrated Wifi, GPS, GSM and bluetooth
- Integrated 2D barcode scanner
- Operating temp: -20 to +60 °C
- Multiple expansion slots: USB, SD, SIM



***Industrial Monitor with Computer***

- 19 inch touch screen
- 3 year warranty on monitor
- IP 65/66 rating
- Barcode scanner is rated IP41
- Computer is enclosed in IP 54 enclosure



***Industrial Hand Held Computer***

- 3.5 Inch Display, 480 x 640 pixels
- Multiple drops to concrete from 2.4 m
- Operating temp: -20 to +60 °C
- Optional AEI Tag (RFID) reader
- Windows Mobile 6.5 OS

Please visit [www.aicRail.com](http://www.aicRail.com) for our latest list of products and features.

# Wheel Shop Management Suite

