RAILINC | Frequently Asked Questions

What is CEPM?
Comprehensive Equipment Performance Monitoring (CEPM) is a multi-phase, multi-year program to create an industry process and related technology tools for capturing data around railcar equipment components. The ability to view railcar component health data will improve safety through the identification of failure trends and a more effective recall process; improve productivity by ensuring that the right equipment stays in service for longer periods; and reduce costs associated with maintenance planning and component recalls.

What benefits will the CEPM program provide?
The CEPM program will give repair shops and equipment owners visibility into equipment and component health status and history, enabling them to identify wear and failure trends as well as defective components. This visibility delivers three primary benefits:

1. **Safety:** The rail industry will achieve greater visibility into the current and historical health status of rail equipment at the component level, enabling users of Railinc's Umler system, Car Repair Billing (CRB) and Equipment Health Management System (EHMS) to identify failure trends, improve the recall process and improve rail safety.
2. **Productivity:** Tracking wheelsets information from manufacture to application means that recalls will be issued faster and with greater confidence that only wheelsets with identified safety issues are included. With more effective recalls, the right equipment stays in service for longer periods.
3. **Reduced Costs:** The capability provided through the CEPM program will ensure more targeted recalls and reduce administrative burdens associated with recalls. Industry participants will benefit from the reduced costs associated with this new recall process.

Who will use the systems enhanced by CEPM and what will they be able to do?
While the entire rail industry—including manufacturers and railroads—will benefit from the CEPM program, the four primary industry segments that will access and use CEPM-enhanced systems will be wheel shops, repair shops, equipment owners and third-party software providers. With the CEPM-enhanced systems:

Wheel Shops Can:

- Access higher quality data on wheelsets that they refurbish
- Improve resource planning and supply chain management by identifying application rates
- Query and review tagged wheelsets

Repair Shops Can:

- Improve maintenance planning and prioritize work
- Apply registered wheelsets
- Reconcile work with system records through daily reports
- Query applied and removed wheelset details

Equipment Owners Can:

- Improve equipment productivity and asset utilization
- Make more informed fleet management decisions
- Validate billing more effectively
- Better plan fleet maintenance

Third-Party Software Providers Can:

- Integrate component registry capabilities with their products
- Create new, value-added products and services for their customers

How will other rail industry participants benefit from CEPM?
All rail industry participants will benefit from CEPM. American Association of Railroads (AAR) subscribers will be able to receive notifications on which cars and components are affected by recalls. Manufacturers will gain greater insight into the quality and failure rate of the components they produce and will be able to issue smaller, more effective recalls. Railroads will benefit from improved safety and reliability of equipment in service, and a decrease in the number of incidents that lead to property and rail damage.

Is CEPM a new Railinc system?
No. CEPM is a multi-year, multi-phase program. It is an ongoing effort to create a way for users to view detailed railcar component health data by leveraging Umler, CRB and EHMS. CEPM functionality will be available through these existing systems.

What is CEPM-Wheelsets?
CEPM-Wheelsets is the first phase in the CEPM program. It includes centralizing the registration of wheelset component details and identifying the application of wheelset components, including AAR and non-AAR repairs. Wheel shops will be able to register wheelset components through the Umler™ system and report the application of wheelset components via the Umler system, Car Repair Billing and the Equipment Health Maintenance System (EHMS). Wheel shops can register wheelsets now through the Umler system.

How will CEPM-Wheelsets support future phases?
CEPM is a multi-year, multi-phase program that will expand to other components in the future and will provide long-term benefits to the rail industry. The development of CEPM-Wheelsets creates a framework and central repository that will support the addition of components such as castings, brake systems and appurtenances in future years.

What level of confidentiality will component data have?
Railinc products and services meet the highest standards for data security and confidentiality. Railinc will support the confidentiality of owner-related information while providing the most value to the industry through safety-related recalls, tracking and health-related inquiries. For example, a wheel shop that is refurbishing a wheelset will be able to access historical data related to that specific wheelset. However, a manufacturer will not be able to access another manufacturer's component data and view information that would create competitive concerns. Limited high-level data such as the average life of all wheelsets will be available in the future.

How will users access component data?
You must have a Railinc Single Sign-On (SSO) account to take advantage of CEPM-enhanced systems. To create one, go to www.railinc.com. The SSO login is located at the top, right of the page. Click *Register Here* and follow the prompts to establish your account. You will receive an email confirmation of your profile, which you must verify within 14 days to unlock your account. You can establish an SSO account anytime during 2011. If you already have an SSO account, you do no need to create a new one.

Once you have established an SSO account, you must request permission to access Umler, CRB or EHMS—the Railinc systems affected by the CEPM program—after you have logged on with your SSO account at www.railinc.com. Current users of these systems will not need to request access again. Umler users will notice a new menu tab—"Component Registry"—and EMHS and CRB users will see a new component ID field when they enter data.

Why is Railinc developing CEPM?
Safety is a top priority for the rail industry, which historically has issued expansive recalls to ensure the removal of faulty equipment from service. The result: time-consuming, complicated and costly recalls. The CEPM program will leverage existing systems to capture all data for wheel repairs, validate component existence, incorporate mileage information and provide visibility into the current health status of equipment and an initial level of visibility into the health-related history of equipment. This information will help industry participants expedite more effective recall management, improve maintenance planning and make more informed repair decisions, lowering costs and improving safety.

How will this component data facilitate more effective recalls?
The data will ensure targeted recalls and reduce administrative burdens that industry participants face with recalls. Railinc will maintain component details through existing systems that support criteria related to recall requests. If a recall is requested, Railinc will identify all equipment with components that match the recall criteria and provide this information to the AAR, which will file an Early Warning Alert for inspection of the equipment identified for recall.

How will this improve alerts?
Currently, alerts on components do not distinguish between normal wear of parts such as when bearings are being broken in and critical events such as when bearings are nearing failure. The data collected through these enhanced Railinc systems will enable data summaries and alerts to be configured based on mileage. This type of enhanced detail will provide a more complete view of equipment health and prevent unnecessary alerts on components that are experiencing normal wear, saving equipment owners time and money. It also will help equipment owners improve maintenance planning by providing detail that will enable a better prediction of a component's time to failure.

How will CEPM-Wheelsets affect existing Railinc systems?
Wheel shops, repair shops, manufacturers and others will register wheelset components through Umler and will report the application of wheelset components through Umler, CRB and EHMS. Here is how these existing systems will function with CEPM:

- **Umler:** Confidential component details and information about component association to equipment will be stored in the new Umler component registry. Component IDs will appear in Umler equipment records when associated with an owner's equipment.
- **CRB:** Information about wheelset applications or repairs can be submitted through CRB.
- **EHMS:** Information about wheelset applications or repairs can be submitted through EHMS.

Users of these systems will be able to register wheelset components through Umler and report the application of wheelset components via CRB and EHMS beginning in August 2011. Umler, CRB and EHMS users will access CEPM functionality through those existing systems, not through a new system.

How will CEPM-Wheelsets affect the movement of freight?
The ability to view railcar-component health data will improve productivity by ensuring that the right equipment stays in service for longer periods. Rail carriers will receive better-qualified alerts on components, which will help keep in service cars with components that are not in need of repair or that are not subject to recall.

Will companies be required to use CEPM-Wheelsets functionality?
Rail industry rules will require manufacturers, wheel shops and repair shops to use CEPM-Wheelsets functionality. Manufacturers will be required to provide required data to their wheel shop customers; wheel shops will be required to report mandatory component details to Railinc when assembling a wheelset; and repair shops will be required to report in a timely and accurate way AAR Component ID, equipment ID and equipment location for every wheelset change.

Who is developing the industry rules and standards around CEPM-Wheelsets and when will they be effective?
Representatives from across the industry, including railroads, shops, equipment owners, manufacturers, industry committees and the AAR, are guiding the development of requirements for CEPM-Wheelsets. Rule changes are being developed in 2011 and are scheduled to go into effect beginning in 2012.

Will Railinc provide CEPM-Wheelsets training?
Yes. Visit www.railinc.com/cepm for a current schedule of training events, including webinars, presentations and town hall meetings. At this site, you also can view web demos that teach critical activities related to CEPM-Wheelsets and access technical documentation. The website will be updated regularly during the CEPM-Wheelsets development period.

What is the timeline for CEPM-Wheelsets?
The development of CEPM-Wheelsets will occur in 2011, and training opportunities and technical documentation will be available throughout the year. Planned milestone dates for CEPM are:

- **August 2011:** Railinc will provide wheel shops the capability to register wheelsets in Umler, helping to build an inventory of registered wheelsets.
- **January 2012:** Wheel, axle and bearing manufacturers will be required to provide wheel shops with the data required for wheelset registration. Best practices for delivering wheel, axle and bearing information will be provided through standardized barcodes or electronic means.J
- **July 2012:** All new wheelsets must be physically tagged with an AAR Component ID and registered in Umler.
- **January 2013:** All wheelset changes must be reported to Railinc including the AAR Component ID, equipment ID and equipment location.