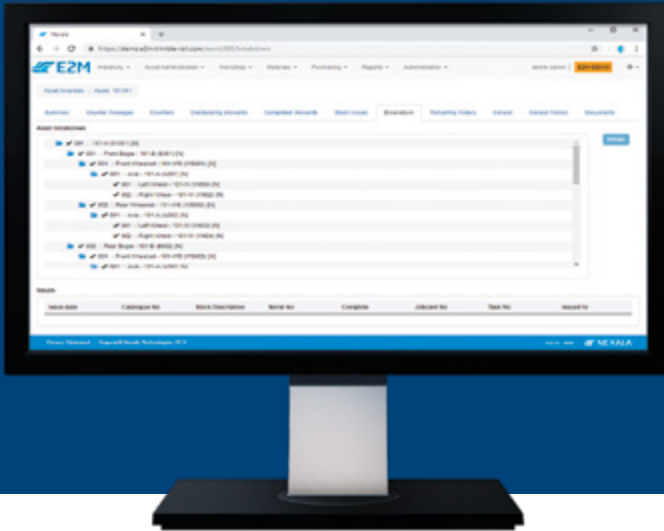




# E2M System

## CRITICAL COMPONENT MAINTENANCE MANAGEMENT



Maintain, manage, and track critical components to optimize lifespan

Trimble® E2M rail engineering critical component and maintenance management system manages and tracks critical components, streamlines parts and materials usage, optimizes resources, and procurement.

### DESIGNED BY RAIL EXPERTS TO TRACK MAINTENANCE OF CRITICAL COMPONENTS

Designed specifically for the rail sector Trimble E2M manages and tracks critical components to streamline rolling stock maintenance management. It allows rail organizations to maintain and manage the cost effectiveness of rolling stock by improving component reliability, resource and capacity planning, and work utilization while reducing operating costs. Managing critical components, such as expensive and safety critical wheelsets and brakes, with Trimble E2M enables the effective planning of maintenance across engineering depots, resources, and material requirements.

### MANAGEMENT & TRACIBILITY OF CRITICAL COMPONENTS

The E2M system allows rail operators to control the preventative and corrective maintenance of critical components to maximize and extend component life. E2M gives a single view to aid the management of components, stock, rolling stock assets, and suppliers, and efficiently handles warranty management. It interfaces to existing systems for end-to-end streamlined maintenance workflows and for efficient future maintenance planning. Unifying maintenance management in Trimble E2M minimizes errors as all stakeholders work with the same baseline system, rules, and related actions.

### STREAMLINED TRACKING OF CRITICAL COMPONENT MAINTENANCE DATA & WORK STATUS

With detailed component data consolidated in E2M, maintenance work can be carried out efficiently and with a complete trail of what work has been done and when. As well as being a repository for vast quantities of measurement data the Trimble E2M rules engine automatically processes large datasets to trigger actions when component maintenance is required. Using the Trimble E2M system improves operational efficiency, reduces costs, and gives better visibility into operations to maximize productivity.

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## CRITICAL COMPONENT MAINTENANCE MANAGEMENT

### BENEFITS

#### ▶ Traceable status of critical components maintenance

Clear overview of maintenance work status for critical components such as wheelsets and brakes. Interfaces with existing systems for streamlined end-to-end workflows.

#### ▶ Reduce and streamline labor costs

Identify and reduce repeat defects by identifying the true cause of the defect minimizing costly rework. Monitor defect history over time against each component to prevent repeat defects making rolling stock unavailable for service.

#### ▶ Optimize maintenance planning

Plan maintenance to identify opportunities and not exceed engineering depot resource capacities. Ensure all components maintained on time in accordance with the maintenance schedule.

#### ▶ Increase component and rolling stock asset availability

Ensure component and rolling stock availability by monitoring usage over time with Trimble E2M. Automatically define re-order levels against each part to ensure stock levels meet demand. Control centralized procurement by defining central stores to manage stock for satellite stores.

#### ▶ More successful warranty claims

Every warranty claim raised in E2M shows the fitment and receipt date, serial number, and complete history ensuring fewer contested warranty claims.

#### ▶ Improve safety

Effective control of safety critical work minimizes safety issues by driving reliability and mitigating failures.

#### ▶ Flexible mobile workflows

Trimble E2M Workshop app puts E2M functionality in the hands of depot workforce wherever they need to be. The Trimble E2M Defect Reporting app means staff can send reports direct to the Trimble E2M system from a phone or tablet.

### FEATURES

- ▶ Plan and manage component maintenance across engineering depots, resources, and material requirements
- ▶ Report and track component defects over time automatically updating the component history
- ▶ Set up component-based campaigns and special checks
- ▶ Plan and define maintenance exams consolidating requirements for multiple components into single jobcards
- ▶ Estimate and schedule labor hours and manage competencies
- ▶ Record work completed using Start and Stop functionality on tasks
- ▶ Rules engine triggers automated generation of work reports or tasks or sends emails to specified users
- ▶ Consolidate manual and measurement device (handheld or wayside) measurements
- ▶ Customize reports
- ▶ Automatically generate live jobcards for high volume critical components
- ▶ Swap and track components across assets
- ▶ Manage and procure stock with full stock check and component history support
- ▶ Manage suppliers and warranties
- ▶ Manage tools
- ▶ Interface to finance systems to track costs of materials used

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