



RAIL PRO™ Grind Data  
Management System



# Integrated Rail Grinding Management

The advanced data-centric  
rail grinding system

Rail grinding is a vital contributor to the extension of serviceable rail life in a track maintenance program. However, rail grinding is a complex activity requiring careful planning and management to achieve the maximum possible benefits. Recognizing the need for an effective, user-friendly rail grinding management system, Loram has developed RAIL PRO™ in order to meet, as well as exceed, individual needs for a railroad's success today, tomorrow, and in the future.

## A Comprehensive Solution

Loram's proprietary RAIL PRO™ system is an integrated suite of cutting-edge tools designed specifically for all of your rail grinding management needs. The system relies upon an extensive intelligence base of specialized grinding knowledge accumulated through decades of experience in the area of rail grinding and track maintenance. By combining this knowledge and experience with accurate rail condition and asset data, useful information is produced that supports micro and macro level planning of a grind program.

RAIL PRO™ is your one-stop-shop for rail grinding management, including modules for data collection, rail inspection, grind performance monitoring, data management, analysis

and reporting, making the cyclical processes of a grind program more manageable. The system has been designed with both large and small railroads in mind, and can be customized and packaged in different configurations to meet customers' specific needs.

## Rail Inspection and Grind Planning

A key component of the RAIL PRO™ suite is the Inspection module. This software uses intelligent, knowledge-based, predictive algorithms to analyze the rail condition and determine the grind passes, patterns, and speeds that will remove the optimal amount of metal while delivering precise profile control. The rail profile and rail surface condition information required by the grind planning algorithms is typically acquired by a Rail Inspection Vehicle (RIV). Loram's RIV is equipped with state-of-the-art hardware and software including an optical Rail Profile Measurement Systems (RPMS), Rail Surface Monitoring Systems (RSMS), and Loram's proprietary RAIL PRO™ Inspection software enabling the railroad to effectively perform timely, automatic pre-grind rail inspections. This automated inspection allows for more accuracy, consistency, and repeatability, which ultimately leads to cost savings through extending the life of your rail.



Figure 1 - Rail Inspection Vehicle

## Quality Assurance and Performance Monitoring

The RAIL PRO™ Data Collection system installed on the rail grinders provides intuitive grind quality tools to assist the supervisor. Post-grind rail condition information as well as machine performance data is automatically monitored and collected, providing an effective method of demonstrating accountability and quality of work.

## Analysis and Reporting

The data collected by the RIVs and the rail grinders is stored in an easily accessible central database via the Internet using the RAIL PRO™ DataViewer software. This user-friendly software provides various visual tools, charts, and reports pertaining to

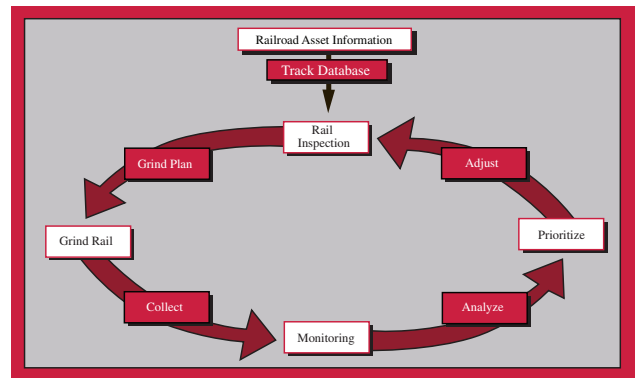


Figure 2 - The Process

rail condition, grind quality, and performance. Being of industrial strength and expandable, RAIL PRO™ enables the many stakeholders in the rail grinding and management processes to work and communicate with each other more efficiently by providing fast and easy access to all relevant information.

## Reliable Service and Support

With more than 30 years of rail grinding experience, Loram brings its “partnership” approach to working with its customers. Whether for a heavy haul, high-speed, underground or metro-rail system, Loram has the rail grinding equipment and services for you.

For more information visit [www.loram.com](http://www.loram.com) or call 763.478.6014.

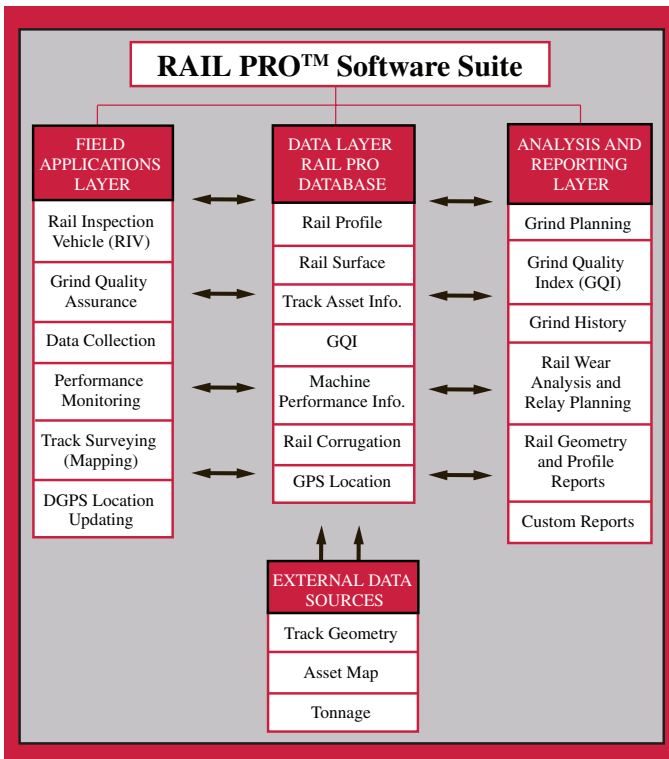


Figure 3 - RAIL PRO™ Suite

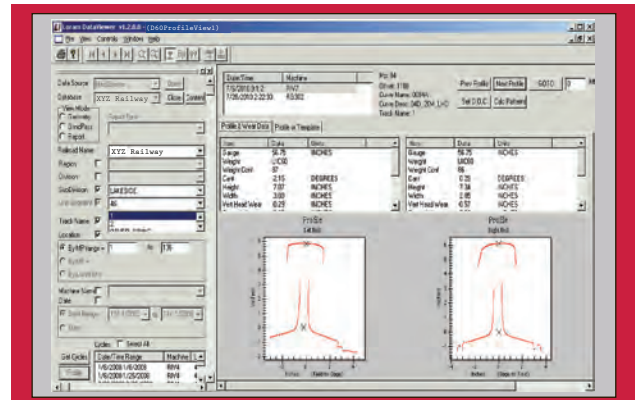


Figure 4 - DataViewer Program



Speed, Performance, and Reliability

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