



Transportation

\$10 million in cost savings
in the first four months



A U.S. railway company saves millions of dollars when it is able to prevent almost 100 line-of-road locomotive failures.

CHALLENGE

A major transportation company responsible for delivering customer goods on time, safely and reliably, was plagued by catastrophic failures of locomotives that had gone undetected by its current reliability techniques. Line-of-road (LoR) engine failures typically cost over a million dollars each in repairs, additional operational costs and fines.

SOLUTION

Aspen Mtell launched a pilot examining laboratory analysis data from engine lube oil samples.

Through multi-variate machine-learning analysis of archived samples from the 30 “bad” actors, Aspen Mtell insight discovered normal behavioral patterns and exact failure patterns, successfully transferring them to Agents executing on as many as 600 locomotives.

BENEFITS

- Within four months, Aspen Mtell Agent foresight alerted to 10 “saves,” including prescribed action, amounting to over \$10 million in saved costs.
- Even when one engine successfully passed a low-pressure test, the Aspen Mtell application engineer noticed a failure signature and alerted management. A subsequent high-pressure test showed leaks in eight places, preventing an expensive, looming LoR failure.
- After the company scaled the Aspen Mtell solution to more than 4,000 locomotives, failures were detected on 96 engines, resulting in additional major savings.

AspenTech is a leading software supplier for optimizing asset performance. Our products thrive in complex, industrial environments where it is critical to optimize the asset design, operation and maintenance lifecycle. AspenTech uniquely combines decades of process modeling expertise with big data machine-learning. Our purpose-built software platform automates knowledge work and builds sustainable competitive advantage by delivering high returns over the entire asset lifecycle. As a result, companies in capital-intensive industries can maximize uptime and push the limits of performance, running their assets faster, safer, longer and greener.

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