AI Improves Megaproject Delivery for RailCo

How RailCo accelerated reporting by 3,000% and enhanced schedule quality by 50%.

RailCo had completed over 80% of a US$10B+ rail megaproject. The project had experienced cost and time overruns. Senior executives and project teams alike wanted better tracking to meet tight schedule targets. The project was spending $3.5M per day. Every day of delay magnified the cost overrun due to the "standing army" of workers and inflation costs.

The Challenge

The whole team wanted to achieve on-time delivery but simple questions like, "Are we actually going to achieve what we need to by our hard deadline?" were hard to answer.

Executives and project teams wanted timely data with forward- looking analysis for strategic thinking. They wanted better quality data-verified and digested before it got to them to avoid frustrating debates about the validity of the presented data.

There were so many reports that no one had time to digest them to make timely decisions. The data was static; it told the teams where they were up to a certain point, but it did not tell them where the project was going to be in the future.
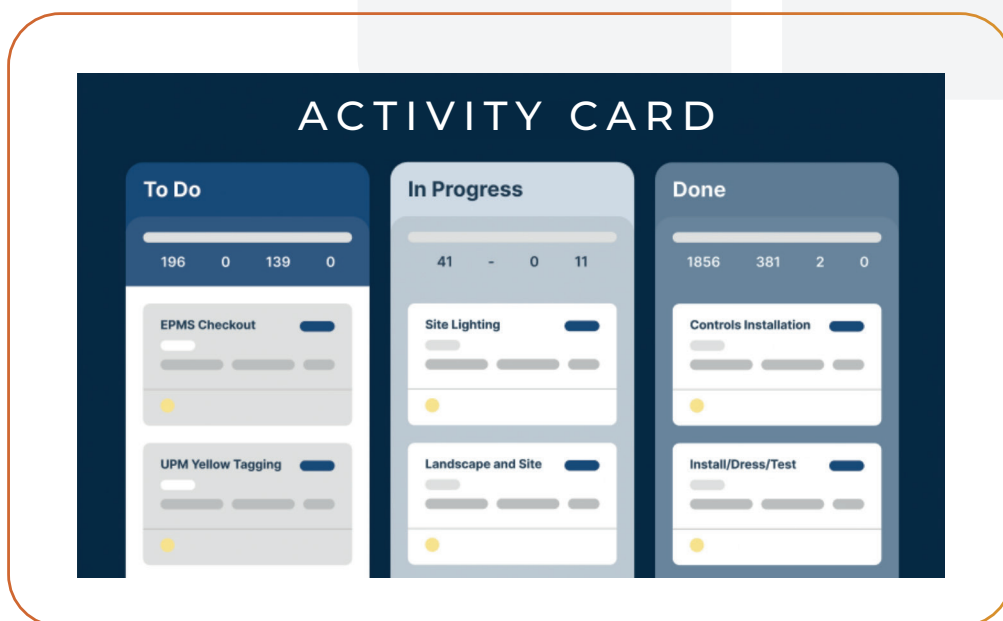
The Approach

To address these issues, RailCo implemented Foresight, an AI scheduling tool to achieve three aims: i) Create visibility and buy-in of the remaining schedule; ii) Generate a path to delay recovery and track progress against it; iii) predict and prevent risks.

Foresight also aggregated program data from historical projects from the customer. This spanned a dataset of over 20,000 Primavera P6 files from 1500 major contracts completed during 12 years of capex across US$30B+ worth of RailCo's megaprojects.

Using "directed acyclic graph" algorithms and machine learning on the big data, Foresight tracked the on-going project's progress and required run rates against deadlines. Foresight generated a delay recovery plan to achieve a realistic but ambitious date—a stretch target for the contractors that also motivated them toward excellence.

The engine also predicted potential bottlenecks and early warnings of delay risks to see around the corners as the team embarked on a re-energized new program. These predictions also created clear calls to action for relevant people—translating AI insights into an actionable workflow.

The Results

4-6 Weeks

- 30X faster reporting
- 99% reduction in time required to produce a delay recovery plan
- 99% reduction in manual reporting man hours freeing team members to do higher-value work
- 99% reduction in reporting errors and discrepancies
- 99% increase in turnaround report speed from RailCo to over 50 major contractors
- Improved tracking of schedule anomalies and feedback to contractors
- Improved schedule quality by 50%, stabilizing the delivery program
- More timely decisions and fewer unforeseen risks
- Configurable alert system for areas of risk and items requiring senior management or project team attention

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Using the Foresight Platform

RailCo's teams are able to

- Easily access vital project information in a user-friendly way
- Use reliable, quality-assured data to drive strategic discussions
- Tackle project bottlenecks
- Eliminate time wasted on data collection and verification
- Allocate capital efficiently in response to claims
- Take corrective actions early on in relationships with contractors
- Increase the level of predictability and control on their projects
- Build a platform for future AI/ML analytical capabilities

ABOUT RAILCO

RailCo is one of the world's leading urban railway operators with projects in multiple global cities and an approved capex pipeline of US$608+. RailCo has a network length of over 150km with a daily average patronage of over 5 million passengers.

ABOUT FORESIGHT

Foresight's construction project management platform helps owners and contractors deliver major projects on-time and on-budget by automatically identifying priorities, risks, and action plans in Primavera P6 or Microsoft Project schedules. We place the schedule at the heart of project execution, enabling project managers, controllers and schedulers to make data-driven decisions. Leveraging AI, machine learning and natural language processing, Foresight unleashes predictive insights about delay risks and work prioritization. Our secure, scalable and user-friendly platform revolutionizes your planning and execution by creating proactive 'look-ahead' action plans, igniting dynamic collaboration, staying head of risks, learning from past projects, and enhancing schedule visibility/reporting.

Contact us to learn more

www.foresight.works