ARTIN

STADLER

STADLER

CASE STUDY

RAIL VEHICLE MANUFACTURING

A global manufacturer of trains and custom solutions in rail transport and signaling technology.

ARTIN rewrote Stadler's outdated diagnostic application on a modern Java/React/Electron stack – enabling the diagnostics department to configure warning systems for entire trainsets at once instead of train by train, within a fixed budget and with full knowledge transfer to the in-house team.

CHALLENGE

Stadler's original application for configuring diagnostic messages in trains suffered from serious performance problems and was practically unmaintainable – every change required a developer. The diagnostics department needed a modern replacement that would let them work independently, without relying on a vendor. The whole project had to fit a fixed budget that could not be exceeded.

SOLUTION

- Full rewrite of the legacy app on a Java (backend) + React (frontend) + Electron (desktop framework) stack
- Bulk configuration and deployment of warning systems to trainsets instead of manually handling one train at a time
- Code handovers every two weeks directly to Stadler's senior developer throughout the project
- Ongoing business coordination with the diagnostics department to fine-tune the app to their workflow
- Complete training documentation as part of the handover – technical architecture and practical operating scenarios
- Full handover with no vendor lock-in: Stadler's in-house team maintains and modifies the application on its own

TEAM SIZE

5–6 specialists: frontend developer, backend developer, business analyst, project manager, QA engineer, UX/UI designer

TECHNOLOGIES

Java · React · Electron

PROJECT DURATION

November 2022 – June 2023 (project core); April 2022 – February 2025 (entire collaboration)

WHAT THE CLIENT VALUED

ARTIN's professionalism and depth of knowledge from the very first meeting – the team impressed Stadler already during proposal preparation and conceptual discussions, and kept that level throughout the project.

> "Throughout the development process, ARTIN demonstrated a strong attention to detail and a genuine passion for creating high-quality software. Whether they were designing interfaces, implementing backend validation or refining the front-end user experience (UX), their team consistently delivered thoughtful and effective solutions."
>
> — Henri Höse, Team Leader SW Engineering, Stadler Rail AG

NEED TO MODERNIZE A LEGACY SYSTEM WITHOUT THE RISK?