A Failure Analysis Success Story

The chief of engineering at a leading audio communications electronics company was having a hard time getting visibility into product defects within the global supply chain. With 3,000+ employees in more than 30 countries worldwide, the company was doing more and more manufacturing in other countries, and that meant more outsourcing. The problem? Personnel abroad were losing the ability to closely monitor and analyze product failures on the production line, making it difficult to identify and resolve critical failure modes until it was too late.

And no wonder. The third-party software data collection forms being used to collect failure analysis data were not easy to use. Rigid and decidedly engineer-unfriendly, even simple changes upfront led to frustratingly long delays by the software vendor, making changes expensive and cost-ineffective. The cumbersome front end could not handle the different languages spoken in the company's many projects abroad. It couldn't accommodate Intelligent Repair, needed to instantly auto-suggest fixes for any given failure mode.

Excel data collection as an alternative? Unacceptable. Incomplete and error-prone, it was unable to handle serial numbers and traceability back to test. The chief engineer needed a better, more flexible way to collect failure analysis data. He needed user-friendly software with an intuitive front end; one that would allow easy form customization within minutes and that could handle multiple languages. And he needed to be able to modify it internally – whenever necessary – without having to go back to the software provider each and every time.

A front end that plays well with others.

Our solution? A custom-built mobile app we call Formyula Mobile Application Platform (FMAP). FMAP would enable the company's engineers to easily gather consistent and accurate failure analysis data, export that data into their quality data management system for dashboard analytics, and leverage past data to generate real-time Intelligent Repair suggestions – minimizing unnecessary retest, rework and handling by sharing "first-time fix" knowledge across teams.

The chief of engineering charged his teams to work with Formyula to define technical specs and determine data collection practices and reporting requirements, reviewing project requirements and milestones biweekly. We then rolled up our sleeves and created the product our client had been looking for. FMAP would be used as the basis for Intelligent Repair. It would feature two main components: an easy-to-use database that stores real-time data "We recently did a critical product launch and I was able to gain visibility from our outsourced CMs in China and Mexico. We discovered two intermittent issues, one firmware bug and a timing-related issue, and were able to resolve them prior to first customer shipment."

and passes it to the existing quality management application, and a localized user-friendly mobile app for use on the factory floor failure analysis area. And so, with all requirements nailed down, we built the client's new front end.

Failure analysis is now a success.

The new Formyula software is a big hit! The chief of engineering confirmed that its flexible, easy-to-use front end has made failure analysis data collection a breeze. Failures are now easily discovered and quickly corrected, whether design, process or supplier related. Repairs are now tied to actual failure modes for deeper analytics, thanks to real-time Intelligent Repair recommendations based on accurate, up-to-the-minute historical data. Our client now boasts a solid ROI, thanks to significant cost savings. Our software supports forms in each country's native language, and Formyula is now being leveraged to solve new generic data acquisition projects in Mexico and soon in China. And the company's existing quality management vendor is ecstatic, since they don't need to be burdened with day-to-day customerspecific changes.

Contact us

Let's have a chat about how Formyula can help eliminate errors, speed results and help make businesses around the world more efficient.



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