

Achieving Full Test Traceability and Customized Reporting in PTC Windchill RV&S

When a terrain vehicle manufacturing company needed a way to implement requirements and test management for new product development, they purchased PTC Windchill RV&S to do the job. These tests, primarily on electric vehicles, provide effective management of requirements, tests, and source code. Additionally, it supported the company's ISO 26262 compliance and Automotive Spice level 2 rating.

“Because of SPK’s assistance in the implementation and architecting of RV&S, we have witnessed a remarkable enhancement in our processes and outcomes. Our product data now boasts seamless traceability across the entirety of the development cycle, ensuring that our workflows remain in stringent compliance with all pertinent regulations.

***Business Leader,
Vehicle Manufacturing Company***

CHALLENGES

This manufacturing company lacked traceable product data. This was a significant challenge which hindered its efficiency and compliance. Without a clear trail of how products are developed, modified, and distributed, the company struggled to ensure quality and accountability throughout the product lifecycle. This lack of visibility led to errors and inconsistencies that went undetected until late stages of the product development process. Thus, they needed a way to fully trace their product parts and data throughout the development process.

SOLUTION

SPK conducted an onsite workshop held at this company's main US facility to review their existing and desired processes. While their current processes weren't bad, they could be improved. The development organization follows a V-model development lifecycle, with three development phases (P0, P1, and P3) and three levels of engineering prototypes.

The team at the one of their facilities identified that a different division based in Europe, had been using a Windchill RV&S-based solution since 2016 to manage the development of these product designs. This business unit desired their own solution, optimized for how they work, rather than adopting what the European division has been using. SPK needed to take both organizations' inputs into consideration when creating the architecture for the design controls solution.

Using an Agile methodology, SPK implemented a customized Windchill RV&S solution in several blocs, with the initial blocs focusing on Requirements Management & Systems Engineering. Subsequent blocs added software development processes (including agile project management), Risk Management processes, and Test Management processes.

RESULTS

Prior to our implementation of PTC Windchill RV&S, this company had no method for data visualization and was using manual data entry methods. Windchill RV&S offers reports and dashboards that provide the desired data visualization. Additionally, transitioning engineers from working in spreadsheets to working in RV&S has improved productivity by over 30%. Furthermore, the company has consolidated several separate systems into RV&S which has resulted in improved collaboration and fostered reuse between engineering teams.



GUARANTEED FULL TEST TRACEABILITY THROUGH TEST VALIDATION



ENSURED ISO 26262 AND SOC 2 COMPLIANCE



IMPROVED PRODUCTIVITY BY OVER 30%



The PTC RV&S solution also offers full traceability from requirements through test verification/validation. Out-of-the-Box PTC Windchill RV&S configurable reports are available with the option of extending with SPK's One-Click Traceability Engine™. Furthermore, SPK was able to expedite the overall implementation and go-live process. We did this by providing a private, secure, SOC-2-compliant hosting environment for the complete PTC Windchill RV&S infrastructure. Overall, this implementation guaranteed test traceability, increased productivity, and ensured compliance.



To learn more about how SPK can help you get started with Windchill RV&S, [contact us today.](#)

