

United Electronic Industries & Rolls-Royce

WORKING TOGETHER

Rolls-Royce makes luxury automobiles, diesel engines and jet engines. Most recently, it completed the construction of Testbed 80, a massive testbed structure designed to support a new generation of efficient and sustainable engines and propulsion systems. The data systems inside Testbed 80 are more capable and complex than any of Rolls-Royce's existing testbeds and have the capacity to collect and store more than 10,000 parameters of data from an intricate lattice of sensors.

THE IMMEDIATE CHALLENGES

- 1 Pushing the boundaries of testbed technology caused unexpected issues for Rolls-Royce's engineers, such as rapid wear-down of parts, supply challenges, and conflicts between disparate proprietary systems; this caused a decrease in reliability, availability, and serviceability.
- 2 As a result, Rolls-Royce saw an increase in warranty complaints, thus burning cash, time, and resources, affecting brand reputation, and damaging employee morale.



Photo courtesy of Cherry Salvesen

UEI'S PATHWAY TO SUCCESS FOR ROLLS-ROYCE

- UEI worked in partnership with Rolls-Royce to standardize on a common iDDS (Instrumentation Data Distribution Service) architecture across Testbed 80's complex data measurement infrastructure.
- UEI's iDDS solution included code written in a common interface definition language and compatible with standard framework shared by publishers and subscribers, greatly simplifying system management and support.
- UEI provided rugged hardware capable of withstanding 5g Vibration, 100g Shock, and temperatures between -40 and 85° C, allowing for system placement directly on or near the testbed.

END RESULT UEI'S STANDARDIZED HARDWARE HELPED ROLLS-ROYCE DEVELOP A RELIABLE AND ACCURATE TESTBED MEASUREMENT SYSTEM.

[WIN] UEI hardware mitigated the risk of adopting new tech with our 3 Year Standard Warranty, 10 Year Availability Guarantee, and a standardized hardware system solution.

[WIN] Rolls-Royce is now using the common standard across testbed measurement infrastructures all over the world, making part requisition and maintenance much easier.

[WIN] The hardware and I/O overhaul helped Rolls-Royce's aero engine division make a fresh start and win back its long-standing reputation for reliability and quality.

ASK US HOW UEI CAN DO THE SAME FOR YOUR COMPANY!

