

Enabling Remote Monitoring of Durability Test Stands

The Challenge

A major US-based diesel engine manufacturer had a wide variety of requirements in upgrading their new durability test stands. They wanted the ability to have remote monitoring of all durability test stands both from within the facility and for external users. They were also looking for enhanced operator prompting using overhead monitors and audible prompts, and wanted to control four test stands from one operator interface. Engineers wanted the ability to monitor the test stand status from their desks or off site, without actually having to be at the stand. Engineers needed data from the ECM, which was not available in the old system, and also needed higher logging rates and more testing flexibility (ease of test building, data logging and screen displays).

The existing durability data acquisition hardware system was over 30 years old. There were limited resources available to maintain the antiquated system software, and there was a need to upgrade the existing DAC system in the durability lab without disrupting the existing testing being performed on the old system. variables appropriate for an ECU calibration task manually, which is time consuming and can be very difficult.

The A&D Solution

A&D's priority was to develop and execute an implementation plan that would minimize the disruption in the test lab while the upgrade was taking place. The plan included engineering services to provide on-site support to perform all the system engineering, installation and commissioning for the upgrade. The system included iTest system and application software, iCentral and iConnect hardware. CellMinder provided a stand-alone system for monitoring test cell safeties.

Added Reward

In addition to providing a state-of-the-art test system, and minimizing cell downtime, the A&D solution provided a simplified user interface for test development with updated technology that increased both system reliability and uptime. The updated technology available with the newer system also provided increased reliability and uptime, as well as high-speed data acquisition.

