

Assembly Process Test Platform with WATS for Leica Geosystems Technology A/S

Background

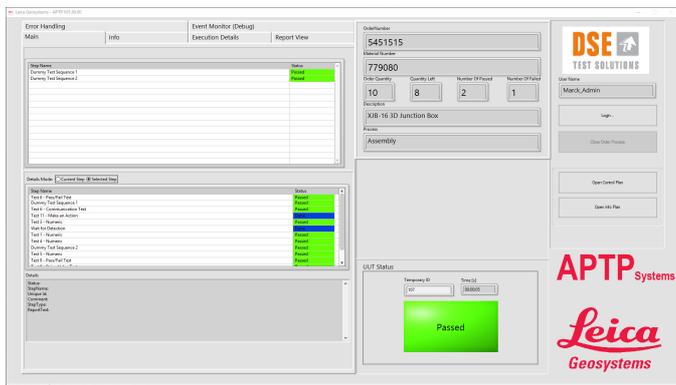
Leica Geosystems Technology A/S had a need for a test system that could provide full process control (enforced routing) and traceability for all manufacturing processes. At the same time it should be easy to add new product variants and new processes to the platform.

The Solution

DSE chose to offer a solution based on a generic test station with modular system modules and instrumentation. This makes it easy to adapt for future products to a low cost. The system was also designed for a minimum maintenance and excellent repeatability.

Software

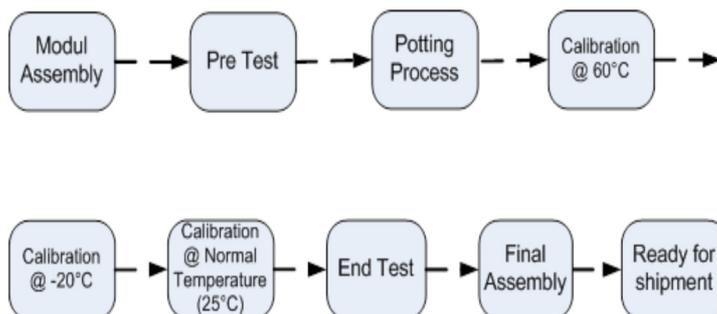
The software platform consist of a NI Teststand sequencer platform with application and instrument specific drivers programmed in NI LabView. The GUI (Graphical User Interface) application can easily be customized based on the customer's needs. DSE names the customization EasyStand. EasyStand is also used for the operators, who have working instructions and manuals available at the test station, giving paperless checklists and reporting.



Traceability

WATS was chosen as the Test Data Logging system which provides real-time test data for

monitoring and improving product quality and manufacturing processes. In order to log data to the WATS server, WATS was integrated into the NI Teststand. After a manual process has been completed, the operator needs to approve and this is logged in the WATS system, giving even better quality assurance. Reports are generated for all DUTs (Devices under test), giving Leica Geosystems Technology A/S access to detailed tests results for each test step such as voltage measurements and limits. The access can be obtained through a web based application.



Hardware

The chosen hardware consists of key features such as a generic platform built of standardized modular systems and instrumentations — again reusable for other products. Easy and fast maintenance of system, fast exchange and integration of Device-Under-Test and specific cable or fixture.

Benefits

Besides the fulfillment of 100% traceability Leica Geosystems also achieved significantly reduced test time, better quality assurance, more operator user-friendly system, excellent repeatability, low maintenance and easy platform adaptation to new products. All logged data is stored so any user can log in and view reports, giving excellent tools for continuously quality improvements.