Multidisciplinary teams speed up development PAGE 3

Plug & test

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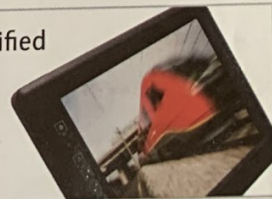
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PLUG AND TEST

"Our experience with LabVIEW and TestStand for development and testing purposes is extremely good. The tools help us deliver better projects," says Viviana Jeaneth Reimundo, a development engineer with Data Respons Norge.

Data Respons has been using LabVIEW for some time in a variety of areas, such as systems testing, applications development and data analysis. LabVIEW offers a great many benefits, the most important of which are significant efficiency improvements, a high level of precision, simple reporting and analysis functions, user friendliness and extensive usage.

LABVIEW AND TESTSTAND

Data Respons has noticed that demand for services in LabVIEW is increasing, particu-larly with regard to testing embedded so-lutions. Viviana Jeaneth Reimundo is a test development specialist, and uses the Test-Stand test management software to develop and perform tests on embedded solutions.

"TestStand is a tool for systematising, validating and performing tests. We have de-veloped LabVIEW modules to test individual features such as USB, power, video, etc. TestStand brings these modules together to build a complete test that is tailored to meet the customer's requirements," she explains.

"We have developed a wide-ranging test procedure for embedded solutions using TestStand. The graphic interface means it is intuitive to set up. When the product is te-sted and delivered in volume it will result in major time savings and high-quality product testing. We perform environment tests, function tests and production tests using TestStand. The production test includes a physical test, a function test and a stress test using a variety of different parameters. The results can be analysed and presented in a

TEST EXPERT: *Viviana Jeaneth Reimundo uses the TestStand test management software to develop and perform tests on embedded solutions.*

NI LABVIEW

NI LabVIEW is a graphical programming environment used by millions of engineers and scientists to develop sophisticated measurement, test and control systems using intuitive graphical icons and wires that resemble a flowchart.

LabVIEW offers unrivalled integration with thousands of hardware devices and provides hundreds of built-in libraries for advanced analysis and data visualisation – all for creating virtual instrumentation. The LabVIEW platform is scalable across multiple targets and OSs.

http://www.ni.com/labview

NI TESTSTAND

NI TestStand is ready-to-run test management software designed to help you develop automated test and validation systems faster. You can use NI TestStand to develop, execute, and deploy test system software. In addition, you can develop test sequences that integrate code modules written in any test programming language.

Sequences also specify execution flow, reporting, database logging, and connectivity to other enterprise systems. Finally, you can deploy test systems to production with easy-to-use operator interfaces.

http://www.ni.com/teststand

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number of standard reports and various formats.

TEST ROBOT

Viviana's project includes long-term testing over 24 hours.

"In other projects we have been dependent on a test operator monitoring the long-term test procedures and varying the external factors, such as temperature, voltage sources or video sources. TestStand acts as a test robot, monitoring the test so that manual surveillance and control is not necessary," she says.

FULL CONTROL

TestStand's reporting capability is particularly good, and all the information presented in the reports is fully traceable. Data can be analysed and reports printed in XML, HTML, ATML, and ASCII formats.

"With LabVIEW and TestStand I have much better control of all the test results, and have excellent tools for analysis and reporting," she concludes.

The experience and expertise of the engineers who work on this testing mean that we can offer experienced Lab-VIEW and test-system developers to all our customers.

Jørn E. Toppe, managing director, Data Respons Norge AS

STRATEGIC COMMITMENT

"We have made a strategic commitment to enhancing our testing expertise and introducing automated testing for products and solutions. Testing is an important part of our total value chain, and the expertise of Viviana and her colleagues at our various branch offices is key to our business concept," comments Jørn Toppe, managing director of Data Respons Norway.

"Data Respons' solution model is based on the development, production and delivery of complex embedded units to custom-

ers right across Norway. We are investing in specialised testing stations at our subcontractors and partners, as well as in testing capacity and equipment at our operations centre in Skullerud. The experience and expertise of the engineers who work on this testing mean that we can offer experienced LabVIEW and test-system developers to all our customers," remarks Toppe.

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