Test Automation System Features Dynamic Analytics

The Wind River Test Management system for monitoring, executing and managing embedded device software testing from Wind River features dynamic analytics technology that enables run-time visibility into devices during testing to provide operational and actionable feedback.

Wind River Test Management delivers insights at run-time, enabling teams to make informed decisions that improve software quality and help them avoid potential delays during the testing process. Wind River Test Management lets teams execute complex tests while dynamically gathering information from the production software under test as it is running, without requiring special pre-instrumented software builds. This approach allows teams to adopt new white-box test techniques that give testers visibility into the operation of the device and help them determine the thoroughness of the tests, quickly identify defects and performance bottlenecks, and focus efforts on sections of software that are most in need of testing.

Wind River Test Management also includes special support for new iterative or agile testing methods where, unlike traditional processes where testing is relegated to the end of the development cycle when software is complete, these new approaches include repeated testing of intermediate releases. Wind River Test Management's change-driven testing features automatically inform test teams exactly what software is new and what tests need to be run to verify them.

"With device complexity continuing to skyrocket, traditional black box testing methods are inadequate to assure high quality. Development teams are increasingly delayed by late-cycle surprises and they are realizing they don't have sufficient visibility during the development cycle into whether they are meeting quality goals," said Amit Ronen, vice president and general manager for device test at Wind River. "Specifically designed for embedded device testing, Wind River Test Management allows product development teams to take action on information gathered at runtime to measure, focus and optimize their test processes."

"We've selected Wind River Test Management to help us get a clearer picture of how thoroughly we are testing our storage system software, and to reduce the number of tests required to validate each release," said Tim Staggs, senior manager of product test automation at LSI. "As we begin to incorporate it into our production software flow, we hope to increase the overall quality of our software while reducing the costs of product testing and internal tool development."

The following are key enhancements of the latest Wind River Test Management release:
• Scalability of run-time test coverage for monitoring very large applications is

improved by 10 times.
• New features track code churn and enable change-based test automation to streamline iterative and agile testing.
• A new hybrid test type combines manual and scripted steps to allow sophisticated, hybrid device test sequences and facilitate migration to fully automated testing.
• A new component-based test model with file attachments allows development of more self-contained, data-driven, modular and maintainable tests.
• Improved support for multi-core devices and multi-device test beds lets teams perform complex parallel testing and runtime data collection while simplifying lab device management.

Wind River Test Management is an open system that combines a scalable test execution engine, an embedded device virtual lab manager and dynamic software instrumentation technology. It takes advantage of existing test assets and can be deployed as a stand-alone system or integrated via open interfaces to add value to leading commercial tools or internally developed test environments.

Wind River Test Management complements IBM Rational Quality Manager, IBM's quality management life cycle solution based on the IBM Rational Jazz platform. Wind River is teaming with IBM Rational to provide an embedded software lifecycle quality management solution based on the integration of Wind River Test Management and Rational Quality Manager. More information can be found at www.ibm.com/software/rational/offerings/windriver/qualitymanagement/ [1].

"We are excited to have Wind River demonstrate this integrated solution at the IBM Rational INNOVATE 2010 conference this year," said Michael Loria, vice president for IBM Rational Business Development. "Together we can help our customers deliver the highest levels of quality, while addressing project time and budget constraints."

Additionally, today Wind River released survey findings examining the current state of software quality testing in the embedded industry. After polling nearly 900 industry professionals, including executives, development managers, and quality assurance and test team leaders, the results highlighted market trends that are making the task of developing and testing software quality increasingly difficult. The combination of factors such as the growth of software and device complexity, lack of strong visibility into software quality and ever tightening product deadlines are creating new challenges that leave development teams struggling with outdated, traditional tools that are no longer optimal for the job at hand. Key findings and an executive summary for the survey are available at www.windriver.com/products/test_management/survey-0610.pdf [2].

Wind River Test Management 3.3 will be available to customers worldwide on June 11 2010. Additional detail about Wind River Test Management is available at www.windriver.com/products/test_management [3].

To learn more, visit Wind River at www.windriver.com [4].

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