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Wind River Test Management Platform Validation Test Package for Linux

As the amount of software embedded within intelligent devices continues to increase, the challenge of integrating, verifying, and validating it also expands. Much of testing is to ensure that a new board passes a basic set of reliability and compatibility requirements for its underlying Linux operating system. In a typical workflow, board designers choose reference boards and customize them for their own devices. Once they port the Linux board support package (BSP), available from a board vendor or Wind River, they need to test it to ensure that the customized BSP is of the same quality as the reference board BSP.

To facilitate the testing of Linux systems, the Linux community has created a number of standard test suites such as LTP and Crackerjack that every system designer should run to validate the reliability, robustness, and stability of their systems. But building and running these open source test suites is time consuming, in large part because of the effort required to analyze the resulting log files—which consist of thousands of lines of output—for potential test failures.

That's where Wind River Test Management Platform Validation Test Package for Linux can help. It is a test suite that is ready to run within Wind River Test Management, providing access to all of Test Management's easy-to-use automated execution and virtual lab management capabilities.

Wind River Test Management Platform Validation Test Package for Linux is comprised of more than 3,000 test scripts. These include four complete open source test suites for Linux: Base LTP, LTP Lite, POSIX, and Crackerjack. It also includes a number of proprietary test scripts developed by Wind River, including Ethernet functionality tests, user-mode agent tests, build tests, Wind River System Viewer (or Linux Trace Toolkit) tests, and serial port tests. Running the Test Management Platform Validation Test Package for Linux also provides test coverage metrics, which indicate the extent of test coverage completion and allow for user enhancement to improve coverage.

The benefits of using Wind River Test Management Platform Validation Test Package for Linux are as follows:

- **Standardized testing:** The Test Management Platform Validation Test Package for Linux provides a standard community-accepted way to validate the reliability, robustness, and stability of systems. Running the package can ensure your device meets basic quality requirements.
- **Easy-to-parse results:** All of the tests that make up the Validation Test Package run within the Wind River Test Management framework. Each individual test is run as a separate test case, with a separate exit code and its own set of results and logs. Running the suite without the benefit of the framework would mean results generated in a monolithic log file, which would have to be parsed before determining which tests passed or failed. This is a time-consuming and error prone approach that makes it easy to miss a failure. The Wind River Test Management framework checks the exit code of each test script and logs the results separately for each test, making its impossible to miss a failure and easy to detect any regression between builds.
- **Validated reference design quality:** Customers can be confident that their customized BSP has the same quality as the reference BSP. Running the Platform Validation Test Package against a reference BSP provided by a vendor other than Wind River may also uncover issues that the original BSP writer may have missed.

Wind River is a leader in embedded and mobile software. We enable companies to develop, run, and manage device software faster, better, at lower cost, and more reliably. www.windriver.com