

Wind River Test Management 3.2

Today's intelligent devices employ increasingly complex computing architectures, running hundreds of thousands of lines of code to deliver the advanced features users demand. Development teams are increasingly squeezed on both time and costs. Software quality assurance has never been more important—or more difficult.

To realize time-to-market goals while controlling costs and mitigating risks, device manufacturers are turning to new automation tools that help them monitor, manage, and optimize the testing process. This is especially true for teams using more agile, iterative development cycles that link testing and development tighter than ever before.

Designed to meet these challenges, Wind River Test Management helps you focus your time and resources on what really needs testing, so you can deliver higher-quality products on time and on budget, with greater confidence.

Focus Testing Efforts

Wind River Test Management is a test execution optimization system for embedded devices. It enables unprecedented run-time visibility into devices while under test. The system provides the operational feedback that test teams and their management need to achieve the highest possible quality in the least amount of time.

Wind River Test Management is a scalable system that adds value to your existing test and development environments to enhance automation, control, traceability, and feedback. It leverages unique sensorpoint, dynamic instrumentation technology to measure test coverage, map test-to-code traceability, profile performance, enable white-box access, and speed diagnostics of complex devices, all at run-time.

Optimize Device Testing

Wind River Test Management lets you optimize test execution while providing run-time visibility into device operation under test. It provides the feedback you need to improve testing, reduce test times, and find bottlenecks and defects before your customers do:

- Identify the portions of device software that are not tested.
- Determine automatically what tests need to be run when code changes.
- Identify performance regressions between builds or releases.

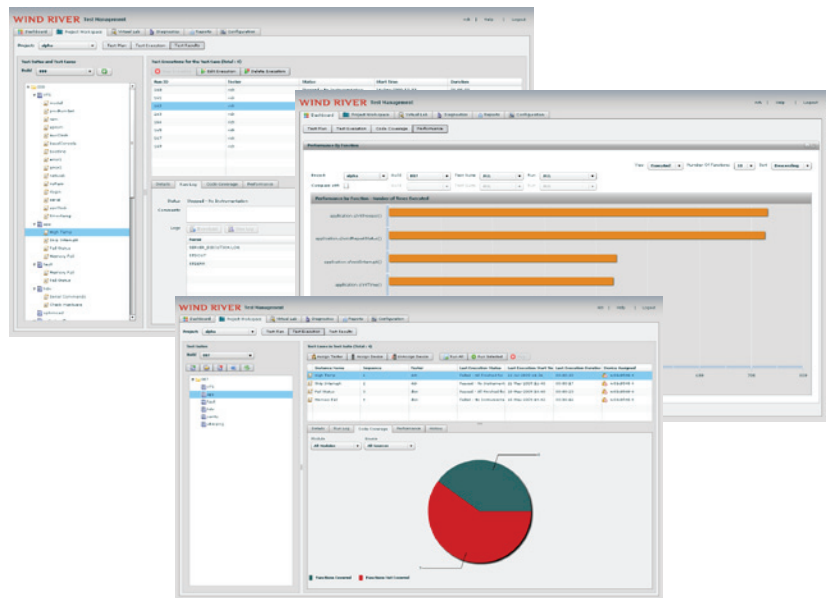


Figure 1: Wind River Test Management system provides device run-time feedback to help you focus on what needs testing

- Automate test of critical exception conditions.
- Isolate and repair run-time defects faster to avoid costly schedule delays.

Analyze Device Response at Run-Time

Most testing today is limited to a black-box view of the device under test. Testers work from the “outside” and observe results through whatever pass/fail information, static logs, or error codes are available. Instead, Wind River Test Management enables a “white box” view into actual device operations when under test. Critical information can be gathered from running equipment, providing a clearer picture of test effectiveness, performance, defects, and more. The net result is testers and developers can gather the key feedback they need from complex devices and store and manage this information in sync with test execution:

- Find untested code.
- Optimize execution with test-to-code traceability.
- Identify performance regressions and bottlenecks.
- Inject faults or force exception conditions.
- Deploy diagnostics probes to isolate defects.

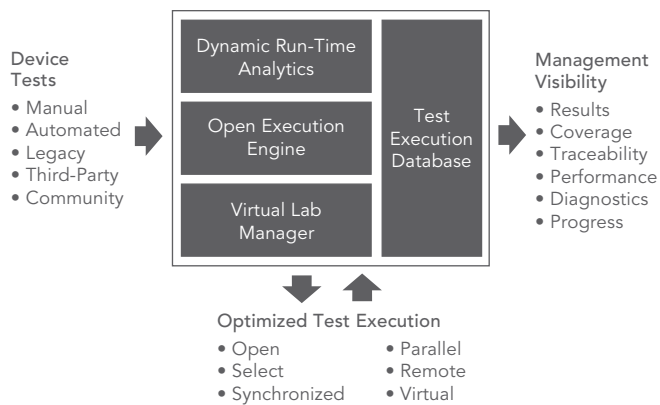


Figure 2: Wind River Test Management complements your existing test environments to test device software better and faster

Execute Any Test

To enable these powerful run-time analytics, Wind River Test Management includes an open test execution engine that can run tests from any source or synchronize the gathering of run-time analytics with external test harnesses:

- Run any test in any language.
- Assemble and manage test suites from available test cases.
- Optimize execution for changed code, automatically.
- Take advantage of parallel, distributed operation.

Manage Remote Test Targets

Wind River Test Management utilizes a Virtual Lab Manager that provides tight integration of test target management with test execution and analytics, simplifying lab setup and management and providing a full life cycle test-device audit trail:

- Organize and reserve networked devices.
- Remotely load new software builds.

Mine and Manage Test Results

Wind River Test Management is built around standard relational databases that allow storage and management of all test results and analytics for mining, analysis, and archiving:

- Unify test data management for test results, analytics, and logs.
- Visualize results through interactive dashboards.
- Create your own custom reports in standard formats.

Complement Existing Test Environment

Wind River Test Management open architecture fits within your existing test environment with multiple deployment options. Connect its run-time analytics into your existing test systems; let Wind River Test Management control your legacy test beds, or migrate your tests into the system. Select the appropriate strategy for your projects based on life cycle stage, business needs, and state of existing test assets:

- Open command-line interface (CLI), enabling automation, integration
- Scalable web-based platform

Broad Operating System and Processor Support

Wind River Test Management was designed for embedded device testing, and Wind River aims to support the widest range of device processor, operating system, host, and server platforms. The list of platforms supported is continuously expanding to cover Wind River Linux, VxWorks, and non-Wind River platforms on popular processors. Contact your Wind River representative for details.

Wind River Experience, Reputation, Expertise

With our solutions in more than 350 million deployed devices, Wind River has a 25-year track record of innovation and reliability. Wind River Professional Services, a CMMI Level 3-certified organization, can offer best practice services or configure Wind River Test Management to adapt to your processes and device platform needs. Our world-class support organization, posting better than 80% customer satisfaction, stands ready to handle your technical inquiries. Wind River is positioned to stay the course with established device manufacturers and new companies alike.