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What's in the 25.09 Wind River
Studio Developer Release

Wind River is excited to announce Wind River® Studio Developer 25.09, a feature-rich release that empowers embedded software teams to bring high-quality, scalable, and secure solutions to market faster. Building on the momentum of recent innovations, this release delivers significant advancements across three strategic priorities:

- Enhanced development and testing with remote targets

- Secure over-the-air (OTA) updates at global scale

- Support for Microsoft Azure

DEVELOPMENT AND TESTING WITH REMOTE TARGETS

Wind River Studio Virtual Lab and Test Automation have gained new features. With scalable infrastructure for simulations, teams can now test their applications on up to 500 virtual devices at once. The virtual devices can represent anything from in-car infotainment systems to industrial controllers to IoT edge devices. Large-scale testing is faster and more cost effective.

When it's time to move the testing process from simulation to real hardware, target display mirroring and interaction features make screens accessible for manual and programmatic interaction, whether for a virtual emulator or a physical device. Instead of standing in front of a device, engineers can watch its screen live on their computer, interact with it remotely, and monitor the device's behavior in real time. This makes debugging, exploratory testing, and demos possible from anywhere, without engineers needing to be physically present in the lab.

For deeper troubleshooting, remote debugging with physical targets brings shell access, live log monitoring, file transfers, and native code debugging into one unified interface. No more switching between tools! And with smarter automation, teams can centrally manage target action scripts with real-time visibility, transfer files faster and more reliably between devices, and save time and compute with halt-on-failure policies that automatically stop pipelines when critical tests fail. These enhancements make testing more scalable, debugging more seamless, and automation more efficient.

SECURE OTA UPDATES, GLOBALLY

Managing software across millions of connected vehicles is no small task. With the 25.09 release, Wind River Studio Developer Over-the-Air Updates makes remote updates easier than ever. It delivers what automakers and other device manufacturers need most: stronger security, fleetwide control, and confidence when rolling out large, high-value updates.

Traditional certificate systems are like driver's licenses: long lived, difficult to renew, and risky if stolen. Token-based authentication replaces them with short-lived tokens, which are more like concert wristbands: quick to issue, easy to revoke, and useless once they expire. It is a safer, more manageable way to secure updates.

With security in place, the next hurdle is coordinating rollouts across massive fleets. The new OTA campaign management interface acts as a central command center, letting teams visually design and track every rollout. Real-time insights, powered by Kafka Streaming, progress at an individual device level and allow swift integration with enterprise applications.

Software payloads are growing larger, especially with Android Automotive OS (AAOS). Over-the-Air Updates introduces advanced streaming update capabilities for Android designed for demanding content such as high-definition maps and AI modules. These differential updates reduce bandwidth use by up to 90%. Pause-and-resume support keeps updates reliable even in changing driving conditions.

All of this is powered by a production-scale OTA delivery infrastructure that can update more than 500,000 devices at once. With multi-region content delivery networks (CDNs) and 99.9% uptime, it ensures fast, reliable performance worldwide. On top of that, new device management tools make operations easier by giving teams real-time software tracking, tighter configuration control, and automated provisioning to cut down on manual work.

Together, these enhancements give automakers the ability to scale OTA operations worldwide, deliver smarter and faster updates, and meet the high expectations for security, reliability, and user experience in connected vehicles.

SUPPORT FOR MICROSOFT AZURE

Coming soon, Studio Developer will offer full deployment support on Microsoft Azure, so enterprise teams can harness their existing cloud infrastructure while preserving Studio Developer's hallmark flexibility and vendor independence. This enhancement delivers secure, scalable environments for developing and testing embedded software, ideal for mission-critical industries where compliance, reliability, and performance are nonnegotiable.

NEXT STEPS

For more information about Wind River Studio Developer and DevSecOps for embedded development and intelligent edge applications, visit the Wind River Studio Developer page.

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