



## Wind River Redefines Embedded Software Development with New VxWorks Release

### NEWS HIGHLIGHTS

- VxWorks is the first and only RTOS with support for C++17, Boost, Python, and Rust collection of technologies.
- New LLVM-based infrastructure enables support for broad set of modern and productive tools and frameworks.
- Latest release brings the ease of desktop, enterprise, and cloud-native development to embedded.

**ALAMEDA, CA – October 8, 2019** – [Wind River®](#), a global leader in delivering software to the intelligent edge, today announced the latest release of its industry-leading real-time operating system (RTOS) [VxWorks®](#), which has been enabling the security, safety, and deterministic performance of embedded applications for more than 30 years. Over these three-plus decades, VxWorks has continually evolved to meet the changing needs of software developers. The latest release redefines embedded software development with new capabilities and industry firsts to drive greater business value, innovation, and productivity.

As the industry rapidly adapts to address the automated to autonomous transformation, and to attract a new generation of developers trained with cloud-native skills, there's demand for a more modern development approach that enables engineers to use today's mainstream tools and programming languages for innovating. VxWorks now empowers developers of all backgrounds with popular programming languages and libraries, along with cloud-based development tools and infrastructures to create a new era of mission-critical applications that require the highest levels of security and safety.

Bringing the ease of desktop, enterprise, and cloud-native development to embedded, the latest release of VxWorks includes the following:

- First and only real-time operating system to support C++17, Boost, Python, and Rust collection of technologies, along with continued support for languages like Ada and SPARK
- New LLVM-based infrastructure that enables support for a broad set of modern and productive tools and frameworks
- New open source board support packages (BSPs) such as Raspberry Pi and TI Sitara AM65x for quick prototyping and flexibility of choice
- OpenSSL 1.1.1 for the most up-to-date cryptography libraries

“Next generation design goals for autonomous and intelligent systems require new technologies for optimized development,” said Chris Rommel, executive vice president, VDC Research. “Just as important, however, is the need to align development platforms with the evolving skillsets of today's engineers. Building on its long-established foundation serving mission-critical systems, Wind River's new release of VxWorks addresses both of these issues for next generation system development.”



“Demonstrating our commitment to RTOS innovation, Wind River is disrupting and redefining the embedded development paradigm with VxWorks, making development simpler, thereby driving more productivity,” said Michel Genard, vice president of product, Wind River. “Today’s RTOS must embrace modern development practices; this means being compatible with popular frameworks, languages, and methodologies being used today by developers, without compromises on security, safety, performance, and reliability.”

Complementing VxWorks is [Wind River Labs](#), which offers access to VxWorks-compatible new technologies and collaborative software projects, proof-of-concepts, open source integrations, and prerelease and experimental software—including ROS 2, OpenCV, and IoT SDKs for public cloud providers, among others.

More information on the latest release of VxWorks is available at [www.windriver.com/announces/vxworks](http://www.windriver.com/announces/vxworks).

Wind River is uniquely positioned with its comprehensive software portfolio that supports a diverse range of developer journeys from design to development to deployment, whether teams want to start with open source and need Linux, or an RTOS, or both. This flexibility allows companies to deliver innovative products that leverage the latest community-driven innovations while meeting the safety, security, and reliability requirements for mission-critical applications.

### **About Wind River**

Wind River is a global leader in delivering software for the intelligent edge. The company’s technology has been powering the safest, most secure devices in the world since 1981 and is found in more than 2 billion products. Wind River offers a comprehensive portfolio, supported by world-class global professional services and support and a broad partner ecosystem. Wind River software and expertise are accelerating digital transformation of critical infrastructure systems that demand the highest levels of safety, security, performance, and reliability. To learn more, visit Wind River at [www.windriver.com](http://www.windriver.com).

### **QUOTE SHEET**

“We’ve been developing embedded systems for years and Wind River has been right there by our side with VxWorks,” said Rick Kephart, vice president of software development for **Emerson’s power and water solutions business**. “As we focus on embedded analytics, the support of Python and other popular programming languages for VxWorks will help us attract new talent and maximize our productivity so that we can continue to provide data-driven intelligence and decision-making support to enhance our customers’ operations.”

“We are pleased with our close technical and business collaboration with Wind River and their continued commitment to deliver safe, secure, and reliable real-time operating systems,” said Greg Tiedemann, director of product management, **Mercury Systems**. “This latest release of VxWorks complements our strategy to deliver the best commercially developed secure, certifiable multi-core systems for our mutual aerospace and urban air mobility customers.”



“Curtiss-Wright has a long history of partnering with Wind River and supporting the VxWorks RTOS on our field-proven COTS hardware trusted by customers worldwide,” said Lynn Bamford, senior vice president and general manager, defense and power at **Curtiss-Wright**. “Providing our customers with reliably deployable solutions for their safety- and security-critical embedded computing systems is at the core of what we do. Wind River’s dedication to enhancing safety and security, as evidenced in the latest VxWorks release, is in strong alignment with our priorities and values. What’s more, Wind River’s support for the latest cryptographic libraries and C++ standards allows customers to accelerate secure systems development with best-of-breed practices and libraries, which mirrors our commitment to reducing our customers’ time to market with secure and trusted solutions.”

“This release of VxWorks allows customers to satisfy their safety and security concerns while also allowing them to benefit from innovations in languages and advanced frameworks,” said Mark Hermeling, senior director of product marketing, **GrammaTech**. “CodeSonar aligns well with VxWorks, with its support for Python, C++17, and Boost, as well as strong security validation and safety certifiability.”

“We are happy about our close collaboration with Wind River. The continued excellent quality of their real-time operating system makes it an ideal foundation for many industrial controllers,” said Roland Wagner, head of product marketing, **CODESYS Group**. “The latest release of VxWorks offers us and our customers new development possibilities and better overall performance on CODESYS-compatible devices.”

“The latest release of VxWorks will complement the joint OTA (over-the-air) software update and data management solution we’re integrating with Wind River, providing a safe, secure, and reliable operating system foundation for the end-to-end software development life cycle,” said Keefe Leung, vice president of product management, **Airbiquity**.

“The embedded market has never before looked so intensely at cost-effective alternatives to traditional C-based development methodologies.” said Quentin Ochem, lead of business development, **AdaCore**, “With its latest VxWorks release, Wind River is demonstrating its deep understanding and ability to support this unique evolution of the state of the art. We are proud to be associated with this effort, and to be providing support for Ada and SPARK technologies as part of the mix of options available to one of our oldest and most trusted partners.”

“The latest VxWorks release addresses the same market demands that RTI encounters, such as support for modern languages and frameworks,” said David Barnett, vice president of products and markets, **RTI**. “We are pleased to be working with Wind River to provide our mutual customers with an advanced, high-performance development environment for building secure mission-critical distributed systems with Connex DDS.”

“This release of VxWorks will enable developers of next generation ADAS systems to integrate the most advanced vision and machine learning solutions using OpenCL and SYCL, the Khronos open standards programming frameworks.” said Charles Macfarlane, vice president of marketing, **Codeplay Software**. “Wind River has already achieved great results using our



ComputeAorta and ComputeCpp products and together we continue to build an excellent ecosystem for automotive application development.”

“Our work with Wind River is driven by the need to develop advanced driver monitoring systems and better in-cabin experiences as the future of mobility takes shape,” said Dr. Rana el Kaliouby, CEO and co-founder, **Affectiva**. “This release of VxWorks complements our strategy to ensure safer and more enjoyable transportation through in-cabin sensing AI that measures what’s happening with people in a vehicle.”

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