WNDRVR Studio

DEVELOP: CI/CD

MANAGING UPDATES FOR MISSION-CRITICAL APPLICATIONS

THE CHALLENGE

A cardiac monitoring equipment manufacturer needs to innovate more quickly. Its devices need new features that seamlessly transmit critical data to healthcare providers to help revise patient protocols for best treatment. It must also update its devices more frequently to address security vulnerabilities that could put patients at risk.

To do this, the manufacturer needs an environment that allows development in quick iterations while maintaining high levels of quality, security, and automation. A CI/CD environment enables better agility, but most are built for IT or enterprise software development. Embedded software requires configuration and building of the operating system platform and middleware, as well as complex debugging and testing techniques.

THE SOLUTION

Wind River® Studio addresses these embedded software development challenges with Studio Pipeline Manager (which includes pipelines built on popular tools such as GitLab and Jenkins), test automation, code scanning, and integration with embedded software tools.

Studio allows developers to configure, build, and update the OS to the latest embedded hardware. It provides virtual hardware for testing embedded software on simulated embedded devices to avoid abstraction layers and late-stage software migration. It also provides a test automation framework that can connect to virtual or physical embedded hardware and tools to extract data from running devices to feed back into the development process.

THE RESULTS

With Studio, the cardiac monitoring development team can use all these capabilities, leveraging cloud resources for high-performance operation without the configuration and licensing complexities encountered when teams build these environments themselves. The manufacturer can deliver new product features and updates at a faster pace to meet the demand of key customers.

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