

What's New in QNX Momentics v6.3

The QNX[®] Momentics[®] development suite Professional Edition (PE) v6.3 offers a powerful and flexible environment for embedded systems development. Featuring the field-proven QNX Neutrino[®] realtime operating system (RTOS) and an IDE based on the open Eclipse standard, the latest version of the suite supports a number of new features and enhancements — all designed to accelerate the development of high-quality, future-ready products.

OS Performance and Reliability Optimizations

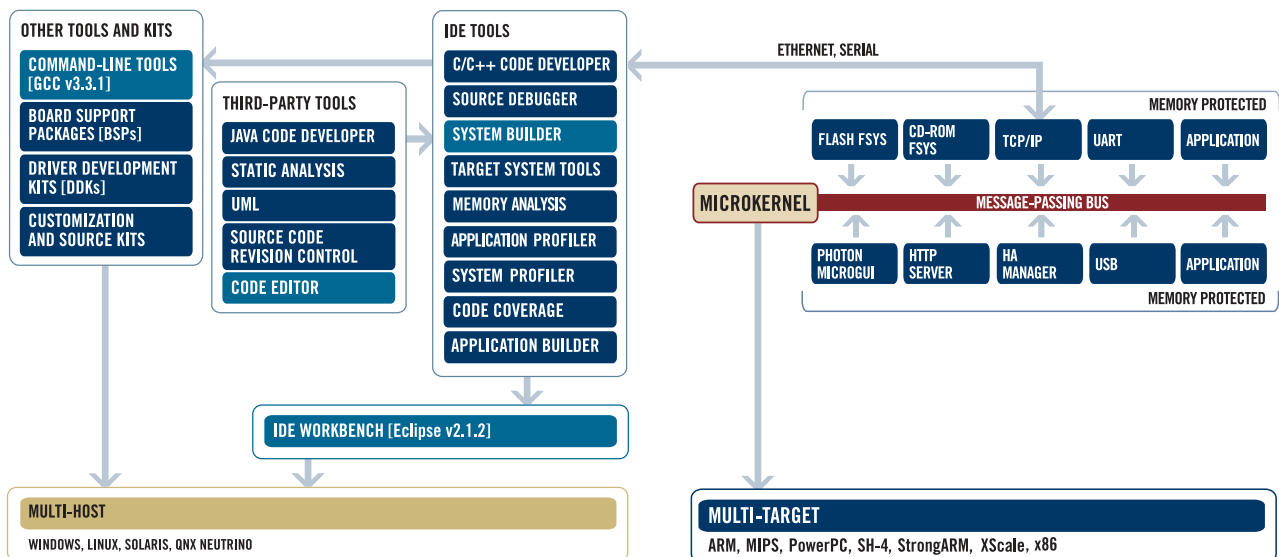
- > Extended memory support goes beyond 4G for x86, MIPS, and PowerPC
- > Resilient flash file system architecture enables systems to maintain integrity during power failures, allowing the use of flash for file storage, system firmware upgrades, configuration table storage, and downloadable software modules
- > Kernel support for in-processor performance counters helps developers gain fine-grained insight into processor performance metrics for PowerPC 7450, BCM1250, Pentium II/III/IV and Xeon

- > New implementation of POSIX message queues uses asynchronous messaging for enhanced performance
- > Hardware support expands to include PowerPC Book E (IBM 440, Motorola PowerQUICC III)

Expanded Tools Support

- > New GCC 3.3.1 compiler provides greater compliance with the C99 C standard, a forward migration path for binary C++ applications, and optimized code generation
- > New code coverage tool highlights which source code paths are being exercised, enabling performance analysis and debugging for quality assurance

Figure 1



QNX Momentics PE v6.3 provides advanced features for embedded systems development, including new compiler and code coverage tools, added security and networking protocols, support for 3D graphics, and ongoing optimizations in reliability and performance.

- > Enhanced system builder tool automates the creation of new BSP projects within the IDE
- > System profiler delivers improved data visualization and interpretation in areas such as CPU activity and events statistics
- > New Linux host joins Windows, Solaris, and QNX Neutrino as supported host environments
- > Updated IDE integrates with Eclipse v2.1.2 and C/C++ Development Tools (CDT) v1.2

Network Security and Interoperability

- > New security support, provided by IP Filter and Network Address Translation (NAT) protocols, offers rules-based filtering of IP packets to optimize packet inspection performance and minimize bottlenecks
- > New support for the Stream Control Transmission Protocol (SCTP) provides an end-to-end, connection-oriented protocol that transports data in independent sequenced streams, for realtime multistreaming applications
- > Enhanced IPv4 protocol support now includes multilink PPP, on-demand connections, compression, Network Time Protocol (NTP), and a new poll function for interoperability with other UNIX implementations
- > Optimized transparent distributed processing framework provides unified access to hardware and software resources using standard messages, eliminating the need for custom code and incremental hardware

USB 2.0 Host Support

- > New Mass Storage Class USB driver can be customized with the USB Driver Development Kit (DDK), or extended to include other USB 2 devices from the following classes: HID, Printer, and Mass Storage

Advanced Graphics Enhancements

- > New embedded HTML 4 browser, QNX Voyager 2™ with ACCESS' NetFront technology, supports the latest Internet standards, small-screen rendering technology, enterprise-grade security, and flexible configuration
- > 3D graphics support delivers improved visualization and differentiation for graphic displays. Expanded multilayering functionality, based on the Mesa implementation of the Open GL specification (v.1.4), also enables 3D rendering on layers
- > Multiheaded displays provide improved visualization and usability by allowing a single visual to be shown across multiple monitors simultaneously, and multiple views to be rendered to multiple monitors simultaneously from a single head unit
- > Improved multilanguage functionality includes support for Chinese, based on the GB18030 encoding standard, which is mandatory for meeting Chinese import requirements, and a table-driven Korean input method

About QNX Software Systems

Founded in 1980, QNX Software Systems is the industry leader in realtime, microkernel OS technology. The inherent reliability, scalable architecture, and proven performance of the QNX Neutrino RTOS make it the most trusted foundation for future-ready applications in the networking, automotive, medical, and industrial automation markets. Companies worldwide like Cisco, Ford, Johnson Controls, Siemens, and Texaco depend on QNX technology for their mission- and life-critical applications. Headquartered in Ottawa, Canada, QNX Software Systems maintains offices in North America, Europe, and Asia, and distributes its products in more than 100 countries worldwide.



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