Introduction to QNX Momentics Integrated Development Environment (IDE)

BlackBerry QNX Professional Services

The QNX® Momentics® Integrated Development Environment (IDE) is a comprehensive, Eclipse-based integrated development environment with innovative profiling tools for maximum insight into system behavior. The QNX Momentics tool suite includes the integrated development environment and powerful command-line tools, providing everything developers need to build and optimize applications on the QNX® Neutrino® Real-time Operating System.

From board bring-up to remote diagnostics, the QNX Momentics IDE provides time-saving tools for the entire development cycle, all in a single, easy-to-use environment.

This training course gives an introduction to the QNX Momentics tool suite, part of the QNX Software Development Platform (SDP). This course also provides an overview of the more advanced features of the full QNX Momentics tool suite and of the developer resources available.

Introduction to QNX Momentics IDE

This training course covers the basics of the integrated development environment within the QNX Momentics Tool Suite.

You will be introduced to QNX development environment and shown how to use it effectively to build on the QNX real-time operating system. The course will cover developing, debugging and analysing performance using the QNX Momentics IDE.

The course will cover:

- **QNX® Neutrino® RTOS architecture**
  An overview of the QNX Neutrino RTOS architecture, covering what the microkernel and the process manager do, standards, protected address spaces, process/thread model, timing, and scheduling. We also introduce various types of interprocess communications, synchronization, what a resource manager is, and where shared objects fit in.

- **Development environment basics**
  The central concepts of the QNX Momentics IDE and configuring it to suit your personal needs. We then talk about projects, workspaces, and the host-target model, introducing the various ways to interface with your target.

- **Managing C/C++ projects**
  The basic container for code in QNX Momentics is a project. We cover the three types of projects for C/C++ code: a project where the entire contents and build structure are up to you, a project with a predefined structure that supports multiple platforms, and library projects.

- **Editing and Compiling**
  We look at the code editor, including the many time-saving features. We will also look at how to build code, and how the IDE identifies problems with the build.

- **Running and Debugging**
  An overview of the fundamental debugging features such as stepping through code, setting breakpoints, performing post-mortem debugging, attaching to a running process, debugging shared libraries, and examining data is provided.

- **Debugging Memory Problems**
  An overview of the tools available for finding memory corruption, leaks, and excessive memory consumption.

Package Details

Led by a BlackBerry QNX senior technical trainer and delivered in live virtual sessions, this course includes:

- Four 90-minute sessions held over 2 consecutive days
- We recommend a maximum of 20 people to enable effective sessions

About BlackBerry® QNX®

BlackBerry QNX is a leading supplier of safe, secure, and trusted operating systems, middleware, development tools, and engineering services for mission-critical embedded systems. BlackBerry QNX helps customers develop and deliver complex and connected next generation systems on time. Their technology is trusted in over 150 million vehicles and more than 300 million embedded systems in medical, industrial automation, energy, and defense and aerospace markets. Founded in 1980, BlackBerry QNX is headquartered in Ottawa, Canada and was acquired by BlackBerry in 2010

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