

**OVERVIEW**

mobileGT standard development platforms are designed for fast set-up and installation, allowing you to be productive in minutes. This comprehensive “out-of-the-box” development environment tightly integrates the Motorola mobileGT standard development platforms with CodeWarrior development tools for QNX® RTOS, the QNX Realtime Operating System, the Photon microGUI, IBM VisualAge™ MicroEdition tools, embedded class libraries and the J9 virtual machine, and integrated device-level drivers, libraries, system configurations, and sample applications.

**BENEFITS**

Speed your time to market by creating, compiling, linking, assembling and debugging within a single integrated development environment. Use our tightly integrated tools to speed up your development time or plug-in familiar third-party editors, compilers and debuggers.

Use the VisualAge IDE to create, test and profile Java™ applications on PC workstations, then use remote debug and analysis tools to evaluate your work within the connected embedded device — executing within the same uniform J9 virtual machine environment on ALL platforms!

The mobileGT SDK provides the components you need to quickly develop scalable solutions while saving valuable software integration time. Re-use of common drivers and modules at lower levels allows you to leverage the common elements while focusing on the value-added application and Human Machine Interface (HMI) developments that distinguish your end products.

**The mobileGT Standard Development Platform for MPC823e Includes:**

- mobileGT Development CD from Motorola Driver Information Systems (DIS)
- CodeWarrior Development Tools for QNX RTOS
- QNX Windows SDK
- IBM VisualAge Micro Edition Java Tools
- Embedded Planet MPC823e Single Board Computer with I/O card, LCD and touchscreen
- Documentation and start-up support
- mobileGT Standard Development Platform for MPC823e

Sturdy case for easy transport and storage

Power Supply

Complete documentation package and Quick Start guides

Metrowerks T-shirt

Embedded Planet hardware platform

All the necessary adapters & cables

Multi-function tool



## CODEWARRIOR DEVELOPMENT TOOLS

CodeWarrior development tools for QNX RTOS are powerful and easy-to-use, designed specifically to increase your software development productivity. The CodeWarrior integrated development environment (IDE) provides an unparalleled, intuitive GUI for embedded development on Windows hosted systems. The state-of-the-art project manager and build system allow you to write solid code and shorten your compile-edit-debug cycles. With the tightly integrated CodeWarrior development environment, you'll spend less time navigating between applications and more time generating code.

## MOBILEGT DEVELOPMENT TEMPLATES

Configuring the standard development platform for your development environment is simple. A fully networked image using NFS and TCP/IP is supplied allowing you to compile on your host and run on your target, all through an Ethernet connection—fast and easy! System configuration examples along with build files for all hardware-supported configurations are included. You also get demonstration applications, which were developed by our engineers in only hours.

## QNX REAL-TIME OPERATING SYSTEM AND QNX PHOTON MICROGUI

The software foundation for the mobileGT platform, the QNX RTOS combines a fault-tolerant architecture with a small memory footprint. Designed for dynamically upgradable driver information systems, the QNX RTOS allows new applications and drivers to be downloaded and started on the fly—no reboot or user intervention required. Automotive OEMs can, as a result, add new revenue-generating services to a DIS long after it's been installed in a vehicle. And QNX is POSIX compliant, enabling automotive OEMs and ISVs to leverage a large community of developers. The QNX Photon microGUI provides a customizable look-and-feel, full Unicode support, and a code-generating visual design tool—create complete interfaces without writing a line of code.

### Supported peripherals:

- Serial
- Touchscreen
- PCMCIA Flashcard
- Flash Filesystem
- Audio
- Graphics
- Ethernet
- TCP/IP

## IBM'S IMPLEMENTATION OF EMBEDDED JAVA TECHNOLOGY

The J9 Virtual Machine with real-time Java2 technology supports multiple Java class libraries, including certified Java compatible configurations. A configuration specifically optimized for DIS systems is included. J9 is configurable and is optimized to work with QNX at the thread level delivering excellent performance for embedded applications. Accurate, precise and compacting garbage collection is supported – so

memory isn't lost after deal location. Alternative user interfaces include AWT and Micro View. J9 also supports OSGi bundle management for dynamic downloads and hot code replacement!

## FONIX EMBEDDED SPEECH SDK FOR MOBILEGT

Speech is the natural interface providing users access to vehicle functions, entertainment systems, and cellular phones without taking their eyes or their hands off the wheel. The Fonix Embedded Speech SDK, a rapid prototyping and development environment, generates speech applications utilizing state-of-the-art Speech Recognition and Text-to-Speech solutions that automotive OEMs can create and directly download and run on the mobileGT target platform. The Fonix Embedded Speech SDK is the most efficient way to develop production-ready, voice-enabled telematics applications. Fonix neural network architecture provides excellent performance in high noise automobile environments. Additionally, Fonix speech applications require low MIPS and memory resources, allowing developers unprecedented ease of design.

## EMBEDDED PLANET HARDWARE AND FIRMWARE

RPX Lite™ Single Board Computer with I/O board enables the full I/O feature set of automotive qualified MPC823e PowerPCTM processor. This includes: USB, I2C, SPI, UART, RS232, Enet, IrDA, PCMCIA, etc. Pre-programmed into flash, a hardware utility program is included with provision for board configuration, BIOS, flash support and hardware testing. Some of the features include:

- 16 MB Flash, 16 MB RAM
- LCD Panel w/touchscreen
- Mic-in/Stereo-out audio support
- JTAG & BDM ports
- Power supply, cables and connectors
- Documentation

### Motorola Part Number

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