Effortless Code Migration

University of Waterloo

"We were happy to partner with MapuSoft in our Green-Intelligent Transportation Systems project.."

THE PROJECT:

OS Changer Porting Kit to migrate VxWorks software to QNX and Linux target
Cross-OS development platform including Linux/POSIX Interface for QNX, Linux and Windows target platform
Application Common Operation Environment (AppCOE) IDE with Application/Platform profiling tools

Problem

MapuSoft offered its products and services to the University of Waterloo's R&D team for its Green-ITS Program on an ongoing basis since 2010. MapuSoft's tools were to allow the University of Waterloo to develop reusable software components which can be deployed under various computing environments. There was a requirement that programs developed under the university's academic environment must be deployable within the automotive industry. The university wanted the development to be done using VxWorks and POSIX interfaces as they are prominently used in the industry. However, they wanted to run the application on Linux, QNX and Windows to collect various performance data

MapuSoft Solution:

MapuSoft's Cross-OS development framework allowed the researchers to re-use code across various target OS environments, even though the code may have been developed for use on one specific OS. MapuSoft tools support a simulated environment where the real-time applications could run on host machines for modular testing and system integration without the real target OS and hardware. This gave the development team flexibility where the students were able to use standard low cost PC's for development without having to purchase the high cost development tools and target operating systems. In addition, MapuSoft's Profiling tools allows the researchers to collect performance and timing date on various embedded targets for analysis.

Testimonial:

"We were happy to partner with MapuSoft in our Green-Intelligent Transportation Systems project. The OS Changer, OS Simulator and Profiling Tools were essential tools in our infrastructure to successfully conduct the research project."

ABOUT University of Waterloo

In just half a century, the University of Waterloo, located at the heart of Canada's technology hub, has become a leading comprehensive university with more than 36,000 full- and part-time students in undergraduate and graduate programs

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