



Clarion Malaysia Delivers Revolutionary In-Vehicle Infotainment System with Wind River

Wind River Automotive Solutions Helps Design and Deliver Innovative Customized Android-Based IVI Systems on Time and on Budget

Clarion

Industry

In-vehicle infotainment (IVI)

Solutions

- Wind River Automotive Solutions

Benefits

- Delivered an innovative IVI system based on customized Android platform
- Completed the project on time and on budget

Clarion Co., Ltd., headquartered in Japan, designs and manufactures car audio, navigation, and camera systems, as well as other types of vehicle communication equipment. Established in December 1970, Clarion Malaysia is the company's first offshore manufacturing facility. Today, Clarion Malaysia is a leading designer and manufacturer of high performance IVI systems.

The Challenge

Clarion Malaysia's challenge was to design and manufacture the AX1—the customized Android based IVI system.

"Our success depends upon how well we meet the needs of the Internet of Things," says T.K. Tan, managing director at Clarion, Malaysia. "Cars need to be connected; more people are using smartphones and want their cars to have the same functionality. Consumers expect devices to communicate with each other directly or through the cloud. Our vision is to revolutionize the IVI system so the user can have a richer experience in the car in a controlled, simple, and safe environment."

The Clarion Malaysia design team's biggest challenge was complexity; the project required seamless integration between the new hardware development and a new customized Android platform.

"To get to market quickly and control our costs, we needed a strong partner with knowledge and expertise in the automotive industry and with Android," Tan says. "We knew that we could not do this project ourselves."

The Solution

After doing its research, the Clarion Malaysia team selected Wind River® because it offered the best solution for the AX1 project. Wind River Automotive Solutions met all the key areas of need, including project management and expertise in the automotive industry and Android software integration.

“Wind River delivered software integration and project management services that helped us optimize our development process,” Tan says. “The Wind River Automotive Solutions team members were responsive and knowledgeable. They were able to isolate and overcome obstacles before they posed a threat to our project.”

The Result

Working with the Wind River Automotive Solutions team, Clarion Malaysia successfully delivered the AX1—on time and on budget.

The AX1 is powered by a single core 800MHz processor and runs Android 2.3.7, also known as “Gingerbread.” It’s similar to an audio, visual, and navigation (AVN) system, but it comes with a customized Android platform that offers streaming and playing HD videos and music, as well as GPS navigation and Internet surfing.

The system features a 6.5-inch touchscreen and a built-in music store that enables users to buy, download, and sync music. The music store is provided through a technology partner, Infogo.com, which already offers more than 22 million songs in Malaysia, Singapore, Thailand, Indonesia, and India. Other key features of the AX1 include MicroSD and two USB media ports, and a phone application that facilitates hands-free calls when the device is paired with a smartphone.

Summary

“Wind River Automotive Solutions helped us reduce the complexity of the project with a constant dedication to quality and innovation. Despite the challenges that we faced throughout the development process, we were able to meet our cost targets as well as our time-to-market requirements,” Tan says. “I always know I can trust Wind River. The team members have integrity and always go the extra mile to help us meet our project goals.”

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— T.K. Tan, Managing Director,
Clarion Malaysia

