

Application service API for CAN

Automotive Grade Linux (AGL) has released the Unified Code Base (UCB) 4.0 platform. It supports CAN.



The UCB 4.0 software platform supports Bluetooth, audio, tuner, and CAN signaling (Photo: AGL)

The AGL infotainment platform includes an Application Programming Interface (API) for CAN. The UCB 4.0 release follows recent news that Toyota has adopted the AGL platform for its next-generation infotainment system, debuting in the 2018 Toyota Camry. "We are quickly gaining momentum across the industry, and Toyota's AGL-based infotainment system puts the AGL platform a step closer towards becoming the de facto industry standard," said Dan Cauchy, Executive Director of Automotive Grade Linux at The Linux Foundation. "The industry is starting to understand the advantages of open source and the impact that AGL can have on product development."

Developed through a joint effort by dozens of member companies, the AGL Unified Code Base (UCB) 4.0 is an open source infotainment platform that can serve as the de facto industry standard. The goal of the UCB platform is to provide 70 percent to 80 percent of the starting point for a production infotainment system. Carmakers and suppliers customize the other 20 percent to 30 percent by adding features and modifying the user interface to meet their unique product needs. Sharing a single software platform across the industry reduces fragmentation and accelerates time-to-market by encouraging the growth of a global ecosystem of developers that can build a product once and have it work for multiple automakers.

The additional features in the AGL UCB 4.0 include CAN signaling, secure signaling and notifications. Virtualization can also add another layer of security by isolating safety critical functions from the rest of the operating system, so that the software cannot access critical controls like the CAN-based in-vehicle networks. The default board support tunings across Intel, ARM 32 and ARM 64 architectures. Board support for the Renesas R-Car 3 and Qualcomm Snapdragon 820 is available, too.

AGL is a collaborative open source project that is bringing together automakers, suppliers, and technology companies to accelerate the development and adoption of a fully open software stack for the connected car. "We are very excited to see interest in AGL growing at such a rapid pace, passing 100 members is a significant milestone for us," said Cauchy. "We look forward to working with our new members as we continue to strengthen the AGL platform and expand our work to encompass all software in the vehicle." The AGL community will come together for their bi-annual All Member Meeting on October 18 and 19 in Dresden (Germany). The All Member Meeting allows the AGL community to learn about the latest developments, share best practices and collaborate to drive rapid innovation across the industry.

Toyota has adopted the AGL platform for its next-generation infotainment system. The 2018 Toyota Camry will be the first vehicle on the market with the AGL-based system. "Toyota is an early adopter of Linux and open source and has been an active member and contributor to AGL for several years," said Cauchy. "They have been a driving force behind the development of the AGL infotainment platform, and we are excited to see the traction that it's gaining across the industry."

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