



Success Story: CCI

User-friendly interfaces make complex farm machinery easier to use

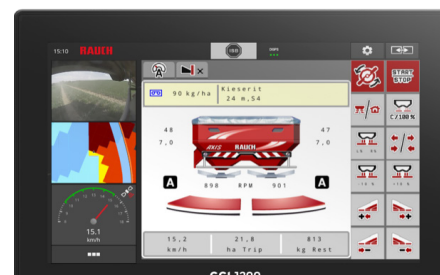
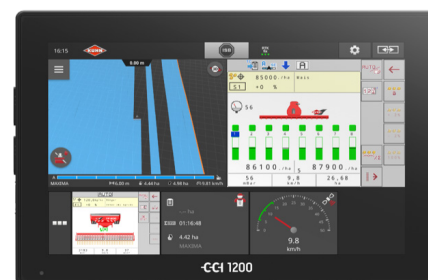
KDAB helps cooperative stand out in the field of agritech innovation

Smart farming is an important development in the agricultural industry that emphasizes the use of technology to deliver more productive and sustainable food production through a more precise and resource-efficient approach. It's not just good for our planet, it's good for business too.

Competence Center ISOBUS (CCI) had this in mind when deciding to put intelligence into high-end agricultural machinery. An association founded in 2009, CCI and its members co-operate in developing innovative agricultural electronics with a focus on establishing and advancing

standards for communication and data transfer. They recognized that in order to stay competitive, they needed to create user-friendly in-cab terminals for operators to perform a variety of complex tasks with great accuracy.

CCI had an existing product that was difficult to adapt to new requirements and difficult to use. They wanted an update that would adopt a more modern smart-phone-like user interface with multi-touch. They needed a flexible layout that could display in either portrait or landscape, and that could show at least two applications at the same time – increasingly needed by machines that perform multiple operations such as fertilizing and planting. They also wanted to simplify the user interface, make



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 KDAB

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it more efficient to operate with fewer clicks, and provide help for complex operations.

This update implied significant changes to the existing software; starting from scratch seemed to be the best approach. After researching their options, CCI decided that a Linux-based system using Qt in QML would be the way to go. "We had to take into account special requirements for the agricultural business and decided to use qualified support for the framework in particular," explains Frank Meyer, Managing Director of CCI. "We therefore turned to KDAB."

KDAB engineers started by creating a sound architectural foundation, using modern software technologies that could be easily extended and maintained. This consisted of a complete software stack, including the operating system, middleware, and frameworks. As part of this effort, KDAB built a number of custom Qt controls and internal communication components to let CCI

developers rapidly build specialized apps on top – necessary to easily extend, update, and refresh the system. With the core system in place, focus turned to optimizing performance to ensure a responsive user experience through techniques like hardware accelerated video playback and direct OpenGL rendering.

KDAB also provided expert training on the new frameworks as well as the core Qt and OpenGL technologies they were built upon, allowing CCI engineers to understand the new system and quickly build their domain-specific apps.

As a result of KDAB's contribution, the new CCI 1200 has been favourably received throughout the agritechnical community, keeping CCI at the top of the field of smart farming innovation with state-of-the-art, user-friendly technology.



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About the KDAB Group

The KDAB Group is the world's leading software consultancy for architecture, development and design of Qt, C++ and OpenGL applications across desktop, embedded and mobile platforms. KDAB is the biggest independent contributor to Qt. Our experts build run-times, mix native and web technologies, and solve hardware stack performance issues and porting problems for hundreds of customers, many among the Fortune 500. KDAB's tools and extensive experience in creating, debugging, profiling and porting complex applications help developers worldwide to deliver successful projects. KDAB's trainers, all full-time developers, provide market leading, hands-on, training for Qt, OpenGL and modern C++ in multiple languages. Founded in 1999, KDAB has offices throughout North America and Europe.