



Coop: Merchandise management 2.0 – flexibility with Android

ERGO, the mobile merchandise management solution developed by Ergon, has been successfully deployed at more than 1,200 Coop retail outlets since 2013. ERGO ensures that every branch's stock-control data is up to date at all times, making routine duties easier for staff. Ergon has now reconfigured the software for the Android operating system, thus making it compatible with smartphones.

Stock control, materials planning and inventory monitoring are just a fraction of the 40 or so goods management processes used by Coop – one of Switzerland's largest retail and wholesale firms. With up to five million goods movements every week and a range of more than 100,000 items on the shelves, merchandise management is anything but child's play and reliable software is essential.

Fit for the future

Coop's vision was to enable the full range of merchandise management functions to be carried out, both via mobile data capture devices and smartphones. This would entail porting the ERGO merchandise management solution developed especially for Coop by Ergon in 2013 from Windows CE to Android. Coop's plan was also driven by the fact that the mobile data capture devices currently in use are approaching the end of their life cycle and will soon have to be replaced with newer models.

Rolling replacement

As Ergon had built the original solution, it was possible to carry out the software replacement on a rolling basis. This was a distinct advantage as it meant the merchandise management processes could each be ported across to Android, tested and rolled out for the pre-existing data capture devices individually. In other words, the old and the new software can be used in parallel, which translates into lower risk and greater flexibility for the client. The existing data capture terminals can be reconfigured for Android in stages without interfering with users' work. As soon as all the processes have been completely rolled out, the old software can be quickly and efficiently uninstalled from the devices.

State-of-the-art merchandise management

Porting the mobile client from Windows to Android presented several challenges. The mobile merchandise management client had been designed from first principles to be 100 per cent capable of working offline – i.e. the user can carry on working, irrespective of the online status of the app, and the data are simply synced in the background the next time the device connects to the network. This requires the mobile client to be running both a great deal of business logic and asynchronous synchronisation logic. In migrating the system across, they had to overcome the challenge of installing a complex application on an operating system that stipulated asynchronous code while only providing extremely rudimentary mechanisms for software development.

To square this circle, Ergon deployed RxJava, enabling the use of cutting-edge software development patterns from the field of reactive programming. Combining this

“Thanks to Ergon's great teamwork, innovative ideas and excellent knowledge of software, we have managed to provide our customers, the retail outlets, with a successful and effective tool. It makes a visible and palpable difference to our business and epitomises Coop's high quality standards.”

Hans-Michael Ruckstuhl

Head of Merchandise Management IT, Coop

with Kotlin, a programming language that interoperates with Java Runtime Environment, provided an elegant solution to a complex remit. Using RxJava across the board is a challenge but it makes it possible to maintain focus on the business logic and keep quality levels extremely high.

A fresh look and feel

As an intuitive design for the mobile device's controls is especially important for day-to-day use, the user screen drew heavily on the look and feel of a smartphone right from the initialisation of the merchandise management solution. In addition, both the software and the merchandise management processes have been continually optimised and expanded over the years. Replacing the system was a good opportunity to spruce up the design of the merchandise management solution as well, although only minimal alterations were applied to the user prompts themselves as Coop staff are already extremely familiar with the existing set-up.

Almost unlimited applicability

The next big step is to replace the mobile data capture devices – a costly business that will require careful consideration. As a result of the operating system switch from Windows CE to Android, and the associated responsive behaviour, Coop is now free to weigh up which of the many data capture terminals on the market best suits its needs. From a technological perspective, there are no more constraints as the software can be installed on practically any Android device – from mobile data capture terminals to smartphones.

About Ergon

Ergon is a Swiss leader in leveraging digitalisation to create unique and effective client benefits, from conception to market. We combine our extensive technological, security and business experience to design “smart” solutions from complex requirements. The company, which now employs more than 300 members of staff, was founded in 1984.

Ergon Informatik AG
Merkurstrasse 43
CH-8032 Zürich

+41 44 268 89 00
www.ergon.ch
info@ergon.ch