

Mobility Rises Above, Jim Montague, Control Magazine

Simplicity = usability

Just like a hiker with a lighter backpack, mobility in process facilities is greatly aided by newer tools that are simpler and lighter, which allows them to be used more frequently. For instance, Kice Industries (www.kice.com) in Wichita, Kan., designs and builds industrial air systems for the flour milling, biofuels, food and energy industries, and staff in its system integration division always welcome better ways to migrate large distributed control systems (DCS), building panels, and implementing numerous valves, instruments and other components.

"We just installed a good-sized biofuel project with 600-700 instruments and valves, and expanded another biofuel plant with 1,200-1,400 instruments and valves, and we thought there had to be a better way than the outdated, 15-pound, \$6,000-\$7,000 handheld we'd been using to program, test and commission HART valves, check instruments and do loop checks," says Peter Love, senior systems engineer for automation at Kice. "Eventually, we came across DevComDroid smart device communicator from **ProComSol** (<https://procomsol.com>), which costs \$1,000-\$2,000, and includes a Bluetooth HART modem and app for doing complete HART device configurations with an Android smart phone."

DevComDroid uses registered device description (DD) files from the FieldComm Group (<https://fieldcommgroup.org>) for complete access to all features of a HART device. All members of Kice's onsite teams can use it, including electricians, field commissioning staff and plant DCS operators.

"The main advantage for everyone is that DevComDroid is a lot less weight because all we're carrying is an Android smart phone and the 2 x 3 x 3 in. modem in our pockets. This portability means we can have it with us at all times, and use it more often," explains Love. "Also, the battery on the old communicator only lasted two or three hours, so we had to haul a spare around. DevComDroid lasts as long as our smart phone battery, which is usually all day. The modem also has wire leads that allow it to be clipped to a scissor lift, or otherwise brought close to an instrument, while we make changes from a safe distance. With the old communicator, we'd have to be right at the device."

Beyond the benefit that HART data appears the same on a smart phone as it does on the older communicator, Love adds it's easier to apply software updates to DevComDroid and store information by just plugging in the smart phone. "A multivariable flow transmitter has a commissioning process, so you have to backup data from the communicator to a PC. However, most communicators have been limited in how much configuration data they could store—maybe 100 procedures—so active-stop and storage operations were needed to free space," says Love. "With smart phones and tablet PCs, we have far more data storage available, and transfers are easier to file servers, other PCs and the cloud. Plus, we can backup configurations, store them a PDF documents, and email them. With the old communicator, we also had to deal with complex file formats and proprietary software to handle configurations.

"In all, I think we've saved 25-30% on our commissioning time based on what we do all day, added portability and battery life, and the fact that we can do more by having our smart phones with us all the time. Plus, an old communicator can't email you at 1 a.m., but a smart phone can do it. Also, a lot of system integration work is done remotely these days, so we're also saving on travel and achieving a better quality of life."

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