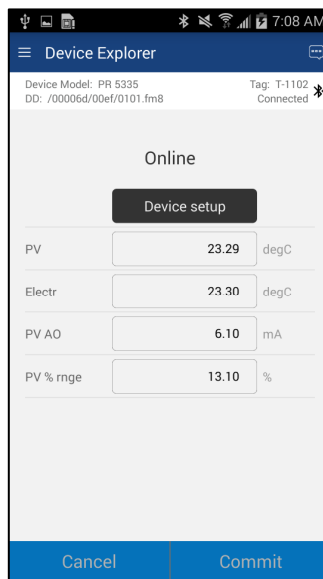

Advantages of a Mobile App Based HART Communicator

Introduction

It's now time to upgrade to a new HART Communicator. Your old hand held HART Communicator is obsolete and receives limited support. You shop around and find that it costs between \$3000 and \$7000 for a new hand held HART Communicator. A Google search reveals mobile based App alternatives. Will the mobile App perform as required? What should you look for?

The PC based HART Communicator has been around for many years, but until recently it has not been a true “hand held” HART communicator. The main reason is that Windows devices are large, power hungry, and no Windows based mobile phone exists. The mobile device App revolution has taken care of those problems and now is a good time to review the capabilities of a mobile App based HART Communicator.



Sample Root Menu in DevComDroid, Smart Device Communicator

BYOD (Bring Your Own Device)

A key advantage of a mobile App solution over traditional hand held HART Communicators is that you can use the mobile device you already own. In addition to already owning the main piece of hardware required, it is typically upgraded every couple of years for a very low cost (if not for free). You are continuously getting more features and more processing power without any effort.

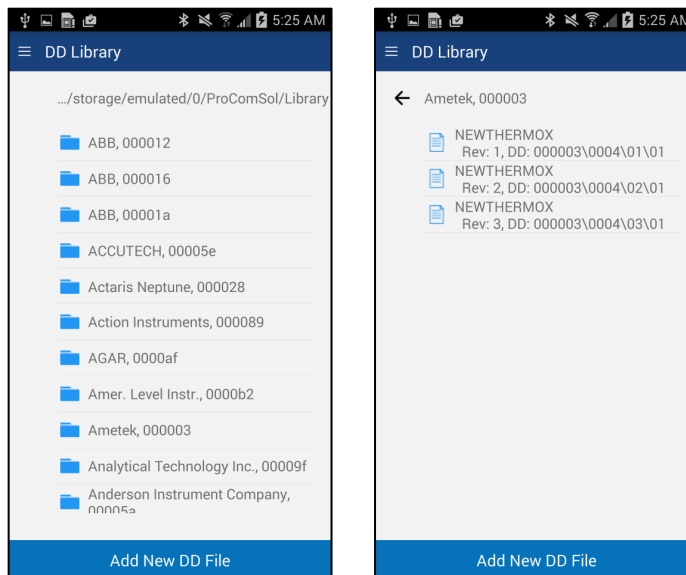
Today's mobile devices are cheap enough that spares are easily available. Even if a device replacement is required, same day turns are often possible. Damaging a special hardware device like a traditional HART communicator could take days, or even weeks to replace.

Hardened mobile devices are available for extra protection. There are even mobile devices rated for hazardous areas.

Device Descriptions (DD's)

The key criterion is that the mobile App must be “DD based”. This means the mobile App uses the HART Device’s DD binary file to present menus, variables, and methods. The HART device manufacture spent a considerable amount of time developing the DD so that the full functionality of the device is available to the user. The DD was tested extensively before release to the FieldComm Group DD Library. This DD is the only approved way to interface to a HART device.

Unless you have full DD access to the HART device, you may be stuck in the field without the ability to change a necessary parameter or perform a calibration on the HART device.



DD Library Details in DevComDroid

Ease of Updating

Once you have established that the candidate mobile App based HART Communicator is DD based, you can look deeper into other criteria. One is the DD Library itself. The registered DD Library is updated four times per year by the FieldComm Group (FCG). Does the mobile App contain all devices released by the FCG? Is it easy (and inexpensive) to update the library? Some hand held HART communicators are extremely difficult and expensive to update. Mobile App based HART Communicators can take advantage of push notifications and automatic updates to maintain the library.

Single Function vs. Multi-function

Traditional hand held HART Communicators can only perform one function - HART Communications. A mobile App based solution offers the advantage of having all your needs met with one tool: Email, user manuals, operating procedures, reports, contact database, etc. are all available on your mobile device. In fact HART Communications on

your mobile device allows integrating the HART information easily into your report database, contact management, and email. This results in higher productivity for the user, and also eliminates extra pieces of equipment.

Device Configurations

Documenting and managing device configurations are other important criteria. Some hand held HART communicators have memory limitations that limit the number of configurations you can save. Also, it may be difficult or impossible to transfer the configurations to the PC for archiving or viewing. Mobile App based communicators using the cloud have no practical memory limits. Configurations can be saved and viewed using standard Apps. In a mobile App based communicator, make sure the saved configurations can be viewed in a user friendly way and can be easily shared. PDF files make great looking reports possible. Customizable reports are also a nice touch.

[illegible]

PDF Configuration Report from DevComDroid

Size and Mobility, Bluetooth as a Solution

In the past it was difficult to use a hand held or even a PC based HART communicator in hard to reach places. Carrying a laptop up a ladder is dangerous. However, now there are Bluetooth based HART modems that provide great convenience. Connect the Bluetooth HART modem in the hard to reach location, and then climb back down to safety and use your mobile App based HART communicator - safely from the ground.

Conclusion

With the advent of the mobile App revolution, truly “hand held” HART Communicators are now a reality. Make sure the mobile App is DD based, easy to update, and can save and write device configurations.

All Apps in the DevCom family of Smart Device Communicator Apps from ProComSol, Ltd are DD based. DevCom mobile Apps are available for both Android and iOS. They are feature rich, stable, and reliable. They offer full configuration saves and downloads. Configuration reports are easy to read and distribute via PDF files that are customizable. They use HART Bluetooth modems, and the DD Library is easy to update. Contact ProComSol for more information.

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