FLUKE®

Use Study

Hospital application

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"The Fluke wireless system would allow us to measure a wide voltage range, moderately high currents, and temperature in a single system."

"What would I use a wireless measurement system for?"

Creating a more complex "instant data acquisition system"

The Fluke wireless system would be very handy for large-scale projects as well as the development and troubleshooting of test systems. I work in an R&D environment, so we're often developing test setups for new things, which sometimes results in a scattered layout of stuff. Being able to attach measurement modules in various places some distance apart would really help.

Fluke's wireless system opens the possibility of creating a more complex "instant data acquisition system" on short notice. If there's a time sensitive troubleshooting situation—say a test rack in a manufacturing line goes down—gathering a lot of info quickly is important. A flexible system of different measuring capabilities that you could quickly set up on the fly for a specific situation would be valuable.

For example, our department supports Manufacturing, where they have refrigerator-sized test racks specialized for a manufacturing product stage. There may be several kinds of these on the floor. One has a large table-like test area with a fixture on top, a printed circuit board (PCB) under the fixture block, and off-the-shelf scopes, meters, power supplies, and control computer in the rest of the rack.

The PCB, which has much of the switching and control circuitry, is attached underneath the test fixture block and is not removable. It's not feasible to try to dismount the whole assembly from the rack for a variety of reasons, so you are forced to lay on your back, with the bottom cover off, reaching up into the bottom of the "tabletop" to probe, attach meters, etc. It's a position we (not very) affectionately call "changing the oil." You might need to observe some other points elsewhere in the rack, which gets challenging to put both meters in your view down on the floor where you crane your neck sideways to look at them while laying on your back. With the Fluke wireless system, we could attach the modules on the PCB and other places and look at the results while standing next to it.

Often, we want to do data logging over various amounts of time; we have a few types of data loggers we use for that. They tend to be somewhat specialized, so they aren't as flexible as a typical DVM or current meter. The Fluke wireless system would allow us to measure a wide voltage range, moderately high currents, and temperature in a single system. And, with the battery life of the modules, we could use them for long-term measuring situations where a normal meter would not work.

For reporting, we like to display data logged info in various Excel graphs. Having one consistent data format instead of two or three that we have to convert and input would simplify and speed up reporting.

The Fluke wireless system

One central meter that receives wireless voltage, amperage and temperature readings from multiple sister meters placed in a variety of locations up to 20 meters away.