

# Smart measurement Via Fluke Connect

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Over the last 20 or 30 years the move to automate the manufacturing process has taken hold in just about every industry. The results speak for themselves in lowered costs, increased production, greater consistency and safety.

The next step in that trend is “Smart” automation, which promises even greater rewards for both manufacturers and customers. Smart automation refers to an environment where machines and processes are not just automated, but the information collected from those automated systems is integrated across the enterprise. That information can be used to adjust downstream processes to compensate for problems at one end of the manufacturing process to minimize waste and damage and maximize safety. An integrated picture of process statistics can also help managers optimize performance and enhance predictive maintenance strategies.

## Wasting data

A similar evolution is occurring in test and measurement tools used to troubleshoot and maintain that automated equipment, from the control loops to the sensors and down to the power supply. Test and measurement tools have become increasingly sophisticated in collecting more and more data used on the spot for commissioning, system calibration, problem-solving, and general maintenance. However, until recently the data collected by these tools was either discarded after the specific task was completed or stuffed away in printed reports in file cabinets or digital files on PC's. There was no easy way to connect the dots of measurement data in these silos into an integrated picture of equipment health and performance.

## Turning measurements data into an asset

Over the years Fluke has talked with thousands of customers about what they need in troubleshooting tools to help them work faster, smarter, and safer. That has led to dozens of innovations in existing tools and the development of many new tools and products. Now, Fluke is focusing on extending the usefulness of the data those tools produce. New generation tools are part of a larger connected measurement platform that allows technicians to:

- **Salvage wasted data.** The vast majority of handheld test tool measurements are taken in the moment and never recorded. By automatically collecting and storing this data in a secure but field-accessible database, the organization can build an accurate historical maintenance record that helps expedite troubleshooting.
- **Analyze and share measurements in real time with team members in different locations.** The ability to share data between junior and senior technicians, between the field and the shop, and between onsite and offsite approvers can help resolve issues faster and provide added training for less experienced technicians.
- **Compare real time measurements to historical or baseline data.** Rather than having to go back to the office and look up historical measurements, technicians can compare current and historical data in real time to identify trends and critical changes, right in the field.

To gain acceptance, this connected measurement platform had to be accurate, secure and quick and easy for busy maintenance technicians to learn and use. The new Fluke Connect™ app meets those requirements. It leverages advances in mainstream technologies including Bluetooth® Low Energy (BLE), wireless, industrial networking, and cloud computing, along with Fluke wireless test and measurement technologies.

### **Smart phone convenience meets test tool precision**

Fluke Connect™ is a system of wireless test tools, which—when connected to a smart phone app—allows maintenance technicians, electricians, and reliability engineers to capture, tag, store, and share data across their entire team without leaving the field. It provides instant access to data and measurements from iOS or Android™ smart phones to review images, check reports, and spot trends.

More than 20 Fluke tools (up to 10 at a time) connect wirelessly—via Bluetooth or Wi-Fi — with the Fluke Connect app on a smart phone, presenting multiple opportunities for I/O testing. Using the AutoRecord™ feature, technicians can save voltage, current and temperature measurements and infrared images directly to Fluke Cloud™ storage. This eliminates the need for technicians to write down measurements for later data entry and ensures more complete and accurate records. The Fluke Connect app also includes EquipmentLog™ history that allows technicians to tag and organize measurements by asset, as they save them to the cloud, so that the data can be meaningfully accessed by authorized team members.

### **Information leveraging**

With direct access to Fluke Cloud storage, technicians can see their entire team's historical data for a particular piece of equipment, from particular measurements to notes, photos, graphs and more, right on their smart phones. And when they need an assist, technicians can share real-time measurements and infrared images with supervisors or other team members in other locations via a ShareLive™ video call. Supervisors can review the measurements, respond to questions, mentor their staff, and approve repairs without visiting the inspection site.

Technicians can create work orders at the test point, associate it with a particular measurement and get approval to move forward without leaving the field. Best of all, because technicians can use the Fluke Connect app to better leverage the tools they already know how to use, it doesn't require much of a learning curve.

The Fluke Connect app is available for Android (4.3 and up) or iOS (4s and later) smart phones. [Download](#) it free or [find out more](#).

### **Relating it back to automation**

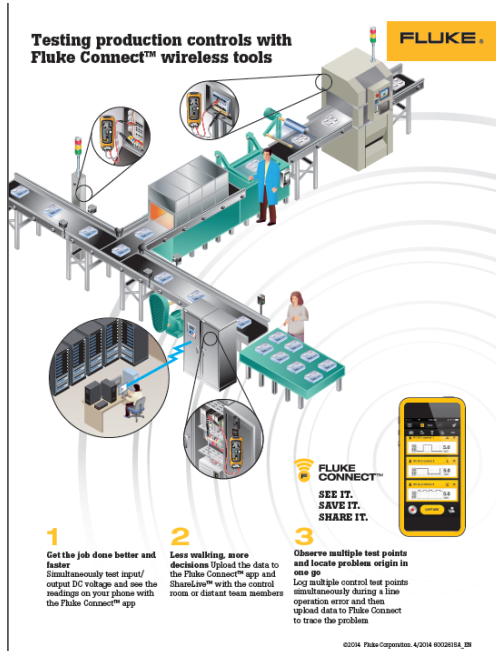
Industrial facilities are already challenged to fully utilize the data they collect from their existing automation systems. The good news about a Fluke Connect type solution is that it's not just a new raw data source, it's a highly intuitive, feasible, organized data source. However, using that information just to improve the speed and accuracy of maintenance decisions doesn't come close to tapping the full potential.

The success in all of this comes back to data integration. There are some pieces of data that can only be collected by hand, others that can be automated. Once the organization has access to all

of that data in a meaningful way, it needs to be integrated, dashboarded, and put back out to the team. That's true productivity.

Illustration options:

1. Here's an example of control testing a production line with multiple wirelessly connected test tools
2. Having the measurement history available in the cloud make it much easier to analyze new measurement data in the field.



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