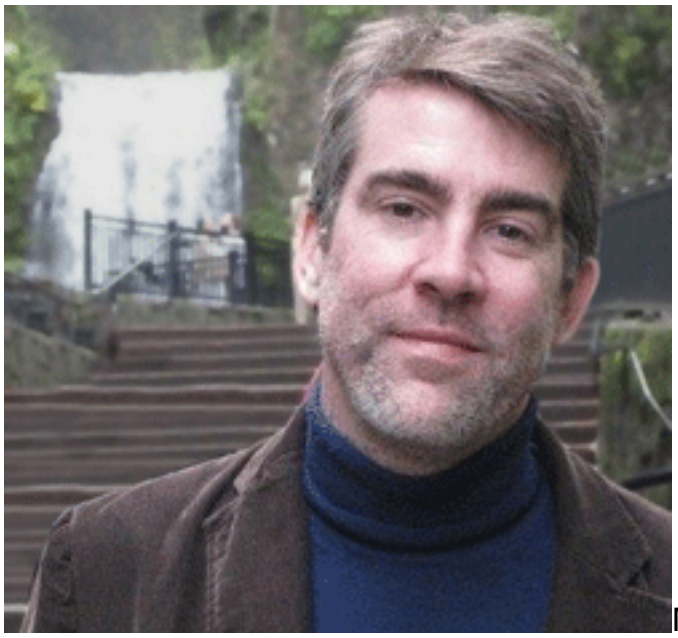
Improving On-the-Floor Maintenance with Mobile Devices

Jeffrey Dalto



Mobile technology is great. You probably have a smart phone in your pocket or purse right now, and you use it to get a lot of things done. Check your bank account — done. Call your kids — done. Open an email and download a spreadsheet — done. And those are just a few examples of things you can do with your phone — the list gets even longer if you consider mobile tablets as well.

In the same way that mobile is convenient and handy at home, it can be equally helpful at work. I use it to check my calendar while traveling to work with customers, for example. You may use mobile devices at work as well.

One way mobile can help at work is as an aid to maintenance workers — by getting information where it’s needed and to the person who needs it, by allowing or improving communications over distances, and by helping to ensure and track compliance. And that’s just for starters.

MAINTENANCE CHALLENGES WITHOUT MOBILE

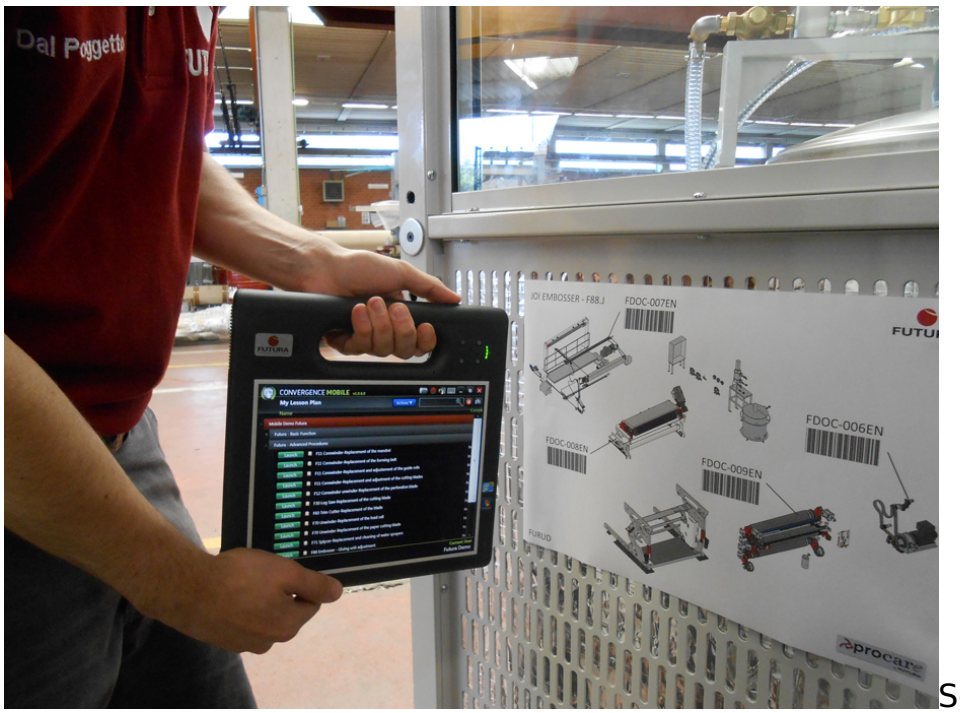
So how can a mobile device help a maintenance worker in the field? Let’s start by considering some challenges that maintenance worker faces without mobile technology.

- **Necessary information not available in the field** — When talking with maintenance workers or maintenance department managers, one of the most common things I hear is that necessary

information, in the form of manuals, SOPs, maintenance guides, troubleshooting documents, and such, is not available when it's needed in the field. That information is either stored in a room at the other side of the facility (sometimes a 30-minute walk away, and often stored in a chaotic manner that makes it hard to find quickly), or it's saved on a computer that's also inconveniently located. Or maybe nobody's quite sure where it is.

- **Inability to communicate with others not on site** — Another common problem that maintenance workers face is that they can't communicate with other people who are not with them in the field (but who could help resolve a problem). Or, maybe they CAN communicate, but it's difficult or inconvenient—the maintenance worker has to walk from the work area to a distant land line phone, for example. These communication problems involve difficulties in talking with others, of course, but also in showing things to one another (such as showing a broken part in order to get repair guidance)
- **Challenges in recording and auditing** — A final challenge involves recordkeeping for auditing purposes, such as when oil is changed in a machine or a fire extinguisher is inspected. People often rely on paper-based systems for recording these, but these are often problematic: paper-based copies get lost, filing systems get out of control, it's difficult to quickly access the information, etc.

HOW MOBILE CAN SOLVE THOSE CHALLENGES



So how can mobile technology ease those challenges for maintenance? Let's take a quick look.

- **Provide access to all maintenance, user, and training materials** — A mobile device can put information into the hands of

maintenance workers where and when they need it—in the field, while doing maintenance. No more running back to find a manual that turns out to be lost.

- **Facilitate communication via phone, text, email, photos, and video** — "No man is an island," says the famous poem. But in many ways, maintenance workers have been isolated islands, with limited or no ability to communicate effectively with others. And that's where mobile devices come into play. By giving the maintenance worker the ability to communicate via voice, text, email, photos, and video, they create a lifeline between the maintenance worker in the field and a support team.
- **Create audit checklists that can be completed and stored electronically** — Want to make sure maintenance is done when it's supposed to be done? Assign a list of tasks electronically and have the maintenance worker take the list on a mobile device into the field. The worker can check off each task, write notes, record readings, values, and other data, take photos and videos, and more. The list can then be stored electronically and accessed by others at a later time.

WHAT FEATURES SHOULD MY MOBILE DEVICE INCLUDE?

If you're now convinced about how mobile technology can help your maintenance program, here are some things to look for in a mobile device and the software on it:

- Full computing functionality
- Photo and video capability
- Voice and text capabilities
- Barcode and/or QR scanner
- Access to machine operation trend data
- Access to all manuals, guides, procedures, and training materials
- Ability to work without internet connection and then later synch information to larger systems

CONCLUSION

The benefits of mobile devices are obvious in many aspects of our daily lives. These include making things easier, more convenient, and more immediate — things we all enjoy. Those same general benefits can easily be applied to the maintenance world to improve routine maintenance and decrease machine down-time. What's not to like?

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