



“Get rid of that clipboard!” PDAs and the Roaming Maintenance Professional

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When the phrase “paperless office” is mentioned, I mentally group this with solar-powered cars and TV remotes that can not be lost. Sounds great in theory, but can it really be done? For the maintenance professional who carries a clipboard, a notebook and a stack-of-papers around their facility, that theory is now reality. Hand-held technology that integrates with CMMS/maintenance software can help lighten the load for the maintenance professional. This technology is readily available in numerous quality off-the-shelf products. For this paper, I will refer to our product “Bigfoot On-the-Go”.

Before you can discuss how PDAs can benefit the maintenance technician, you must first discuss the “core” or PC-based CMMS software. There are some simple rules that must be followed.

#1) The vast majority of data entry will be entered on the “core” CMMS software. So it better be user friendly and allow for quick, efficient and accurate data-entry. Bigfoot allows minimal data-entry for equipment, work orders, PM's etc. You can go back later and fill out more information when time permits, or do it all at once. Duplication of similar PMs, equipment and other information is critical for efficient and accurate data entry. If you think you can do the data entry on a PDA, think again – you are better off getting a tablet PC or walking around with a laptop if you plan to do data entry in the field.

#2) The majority of your reporting and analysis will be done in the “core” software. Make sure the system has robust but simple to create reports that will meet your operational and management reporting and analysis needs.

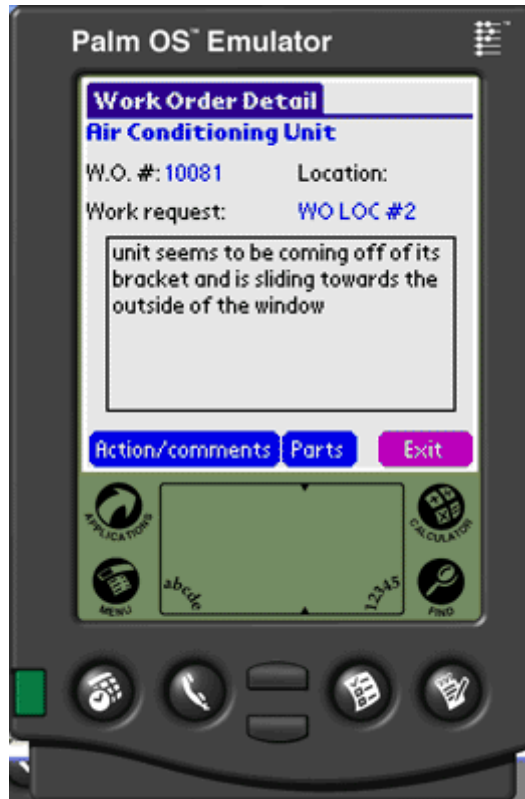
#3) If the “core” software is not effective, the PDA software cannot be either. Make equal emphasis on both types of technology during your CMMS search and selection process.

#4) On their own, no CMMS (or PDA extension) can solve maintenance problems for you. You need to address problems and then make sure the software you chose adheres to your operational, strategic and tactical improvements. As an example, if you feel like you are only fighting fires all the time, getting a good CMMS/PDA package will not solve this problem for you. What does solve this problem is management and staff making a commitment to find the time to do more PM work. More PM work will cut down on corrective maintenance issues and make sure there are fewer fires for you to have to put out in the first place. Software cannot make this philosophical switch for you, but it can make it easier for you to effectively schedule your PMs, manage your work orders, and your facility. If you can better manage and schedule your PMs, chances are good

you can make the switch from being reactive (fighting fires) to pro-active (good PM management, less corrective maintenance).

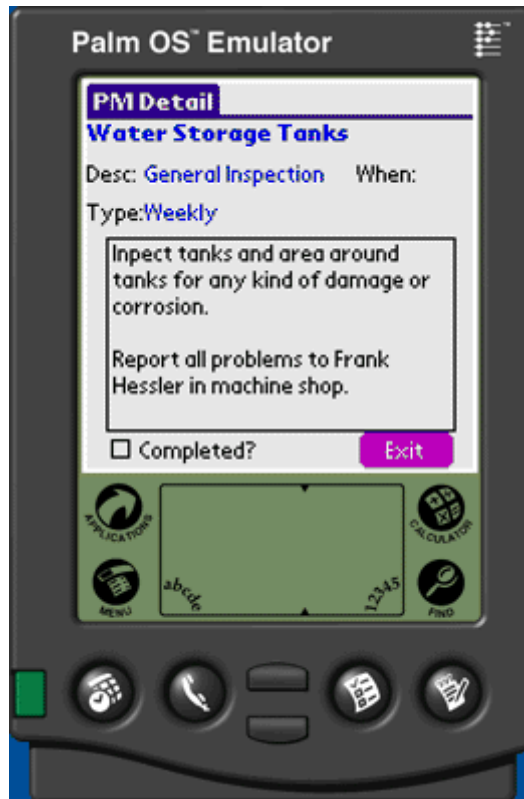
Reasons # 1 Why People use PDAs for Maintenance:

Bigfoot On-the-Go (OTG) can be used to manage day-to-day tasks such as PMs, WOs, spare parts inventory counts, etc. It is a very useful tool for people on the go who don't want to carry around a lot of paper, clipboards or notebooks, but still want access to information and be able to input information such as meter readings, actions taken on a WO, if a WO has been completed, submit a request for a WO, take inventory, etc.



Example above shows a typical work order that a tech could pull up on their PDA. Obviously the same information could be located in the core Bigfoot software.

Similarly, preventive maintenance should be available:



Any of the day-to-day tasks should be easily located, easy to read and easy to acknowledge (and put in notes) from the PDA.

In the case of Bigfoot On-the-Go, we automate the following tasks:

- Preventive maintenance
- Corrective maintenance (work orders)
- Meter readings data entry
- Spare parts inventory physical count
- Equipment/asset physical count and inspection

Reason #2 Why People use PDAs for Maintenance:

Bigfoot On-the-Go is an excellent research tool available to you while you are roaming your facility. At any time you can pull up a piece of equipment and know the accurate make and model number. You can examine emergency shutdown procedures or lock-out/tag-out procedures. If you see something that needs to be addressed, but do not have time at the moment to address it, you can make a “maintenance request” that can later become a work order. You can also pull up a history of work orders on particular equipment for research purposes.



The hand-held technology should allow you to perform most of the research you might make if sitting at your desk using the “core” software. For this reason, supervisors, managers, and even technicians find OTG a very valuable tool beyond “replacing the clipboard”.

Some important features that any PDA-based maintenance system should have:

- Make the data entry as simple as possible. In Bigfoot On-the-Go you use employee checkboxes, drop down lists, and other tools to minimize data entry. Most people are not comfortable using the little keyboards or “graphiti” writing style, so this is imperative.
- Barcode scanning is nice, but not critical. With OTG, if you do use barcode capabilities, it is great to barcode both equipment and spare parts. Example, if you scan a barcode for equipment, you can very quickly get to lock-out/tag-out procedures, history of work orders, make/model info, etc. This can be much quicker than locating that equipment manually. For spare-part physical count, it can be a great time saver. If you do not use bar-coding, it is critical that the PDA software make it easy to scroll and locate equipment and parts.
- Wireless access can be very useful. Most PDA systems need to “synchronize” with the master database. This is a bi-directional process. If you do not have wireless, you need to go back to your desk (or wherever your cradle is) and sync. A lot can change in a day – sync whenever you like. If your PDA and company network is compatible, this is a very nice feature. This is not a feature of the CMMS software, but rather the technology you chose.
- PDA Hardware does not have to be expensive. There are many manufacturers of hardware out there. Some are made for harsher environments. They tend to

be expensive. In some cases much more expensive. In my experience they are also slower and their screens are not as nice. Most PDAs made today are fairly tough. For a small amount of money you can add a rubber bumper or case to the device. I think that the speed of the device and the screen quality are more important than the durability. In most cases, you can buy 2-3 units for the price of an "industrial strength" unit. So if it breaks, you can replace. The important point here is that the unit should be comfortable on the user's eyes, hands, etc. Some big, heavy unit with a dark screen will not be viewed as favorably by the people actually using it (not to mention a lot more expensive).

- Your PDA version of the CMMS system must be seamlessly integrated and feel like the same product as your "core" system. Your maintenance technicians will probably spend time in both systems, so it is very important that they both "feel" the same.
- It must be easy to use. Like "core" CMMS software, PDAs should be very user friendly. Maintenance guys need more wrench time, not more time sitting in front of a computer (or PDA) trying to get the information they need.

Conclusion:

For maintenance professionals who are on the go, hand-held technology that integrates with CMMS/maintenance software can help lighten their load and increase their efficiency. Whether entering actions taken on a specific work order, entering meter readings, taking inventory, entering a request for a work order on the fly, or doing research right in the field, hand-held technology will give them the information they need in an easy to use and familiar context.

Bigfoot On-the-Go is an excellent extension to our core CMMS software. As an integrated, easy to use hand-held solution it can eliminate that stack of papers and provide other valuable research information to help you increase the efficiency of your staff and the over all functions of your operation.

For more information, please visit http://bigfootcmms.com/product/trad_otg.html