

The 21st century toolbox

MAINTENANCE NEVER STOPS – IN MORE WAYS THAN ONE. IT NEVER STOPS BEING NEEDED, AND IT NEVER STOPS CHANGING AND DEVELOPING. THE 20TH CENTURY SAW ENORMOUS CHANGES IN WHAT MAINTENANCE ACTUALLY MEANT. NOW THE 21ST CENTURY IS SEEING HUGE CHANGES IN HOW IT IS CARRIED OUT.

Although “maintenance” means “to maintain”, in the past it usually meant making a repair as quickly as possible, because a problem had already caused a breakdown leading to production downtime. The engineer’s toolbox only needed to contain, in effect, a hammer and a spanner. Then, as technology developed, the function of maintenance became more about preventing problems and breakdowns, with a consequent reduction in downtime. Or to put it simplistically, a can of oil for lubrication was added to the toolbox. Now the emphasis of maintenance has moved on again, from prevention to prediction. Identifying where and when a breakdown is likely to happen, and taking the necessary steps to ensure it doesn’t, reduces downtime even further.

It demands even more sophisticated equipment in the toolbox – or even a more sophisticated toolbox altogether. In fact the 21st century toolbox isn’t a physical one but a virtual one, as the most innovative engineers, suppliers and OEMs increasingly utilise the Web to enhance the possibilities and capabilities of maintenance.

Unfortunately, such innovation is not yet widespread. Once it was industry which drove innovation, which then spread into the wider world. Most people, for example, had a PC in their workplace before they had one at home. But today it is the wider world which experiences innovation first, and which is pushing industry and

demanding it catches up. So engineers have been online shopping for music or clothes for many years, but often still can’t – or don’t – do the same for spare parts at work. They follow their favourite celebrities on Twitter, or keep in touch with friends and family via Facebook, but can’t use the same methods to get the latest news from, or communicate with, their suppliers.

However, slowly but surely – and thanks to the advances offered by innovative suppliers such as ERIKS – online technologies are moving into industry and onto the factory floor, to help make maintenance more responsive and more effective, to help minimise downtime, and to maximise productivity.

Probably the most widespread type of online technology to be adopted is simple documentation: equipment manuals and parts catalogues accessible via the internet. Some catalogues have even become interactive, enabling online ordering, and this is now standard practice amongst the more forward-thinking suppliers. But these advances are arguably accessories, not tools. True online technology for engineering maintenance doesn’t simply operate on the periphery of the task, making a job easier to do (the equivalent of a more ergonomic screwdriver). It actually gets the job done better (like a Dr Who-style diagnostic sonic screwdriver).

ERIKS has been at the forefront of this kind of technology, from its simplest realisations to its most advanced.

The award-winning ERIKS Online TCO Calculator for motors, for example, takes the guesswork out of deciding whether to repair or replace a motor, and which type of motor to replace it with. The ERIKS Simalube App quickly and accurately calculates the correct lubrication rate for any application, so the engineer can establish the right setting for any Simalube lubrication dispenser.

More advanced are ERIKS’ monitoring technologies – for drive cabinets and hydraulic fluids. Both these deliver valuable data to online portals where it can be easily accessed by any authorised personnel, at any time, from anywhere: a major advance on making a trip to the factory floor.

And ERIKS’ ultimate expression, so far, of online technology is Online Condition Monitoring – which makes all the information about any piece of equipment available and easily accessible in one place via a dedicated online portal. This not only saves time but also facilitates an easier flow of information, and can increase uptime. Going one step further, and linking together Online Condition Monitoring with Asset Management, provides a flow of information which rarely exists in most facilities, and which can massively change the awareness of, and ability to act on, equipment issues.



Undoubtedly more suppliers will be developing more applications to take advantage of more current and future technologies.

The Cloud, for example, opens up vast possibilities for data gathering, accessing and sharing.

Already, engineers with PDAs and the right proprietary software can capture information from the field, record asset conditions, or even build a complete facility or plant database simply by walking around and taking pictures. The data can be matched to the equipment and the location using GPS co-ordinates, and barcodes can be generated directly

onsite for tagging the equipment, using a portable barcode printer. All the data can then be made instantly accessible to all necessary parties via the Cloud.

New technologies, and new challenges, are certain to inspire even more new solutions, as yet hardly even dreamed of.

The key is not only to stay aware of the latest developments (search Twitter or Facebook for news from the most innovative manufacturers and suppliers) but also to be open to adopting these advances on the factory floor. After all, who wants to be the only engineer wielding a hammer while all the rest are checking their smartphones?

