

Idhammar Whitepaper – the road ahead for computerised maintenance management systems

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For tomorrow belongs to the people who prepare for it today.

African proverb

YEAR AFTER YEAR CMMS TECHNOLOGY CONTINUES TO EVOLVE, keeping pace with today's leaner, greener operational environment and supporting changes to working practices. New features and capabilities are now available from the more established CMM Systems providers, and deliver greater efficiency and more control to both enterprise and SME maintenance managers alike.

The benefits of adopting a CMMS are well documented and generally undeniable, yet despite this, industry analysts report that 70% of businesses are yet to adopt a CMMS to manage their maintenance; this is particularly prevalent in small and medium manufacturing sites. However, recent industry commentators argue that factors are now at play which look set to change this phenomenon, making the use of CMMS a business imperative.



New imperatives for adopting a CMMS



THERE ARE A NUMBER OF NEW FACTORS which have had significant impact on today's manufacturing environment. These factors create additional challenges to the efficiency and effectiveness of contemporary maintenance functions.

ECONOMIC DOWNTURN

Weakened western economies drive senior executives to examine every inch of corporate life to identify ways of meeting profitability targets. Companies need to get much more out of existing assets without spending any more money - and effective maintenance is key to this success.

'THE WALMART FACTOR'

Supporting third party audits and inspection, CMMS serve to provide evidence that compliant safety measures are in place in your organisation, providing a real incentive at tender. Furthermore, customers - supermarkets in particular - will impose large fines for any form of non compliance; competent management of permits and equipment maintenance records, made available on demand, could see such penalties avoided. Keeping stringent track of PM inspections and jobs, the CMMS can schedule PM jobs automatically based on schedules and/or meter readings. This level of control and personal ownership of data is vital to the Maintenance Manager to demonstrate high levels of professionalism to ever more demanding clients.

ENVIRONMENTAL TARGETS

Large corporations, ever more aware of environmental factors, are compelled by share-holders to account for the triple bottom-line: profitability, social responsibility and environmental impact. However, recent reports¹ indicate that 85% of SME's in the UK, driven in part by rising fuel prices, are also now focusing on strategies to reduce environmental impact. Increased energy efficiency can only help to reduce carbon footprints and deliver financial savings. There are big wins to be made through operating more resourcefully with the aid of a CMMS, and minimising planned and unplanned downtime has been shown to have an enormously positive impact on energy saving.

¹ KCOM Group PLC, 2006

AS EXPERIENCE RETIRES

Numerous studies point to the issues of an ageing workforce. As experienced maintenance engineers retire, how will their knowledge and experience be transferred? The need to ensure that this happens can be satisfied by a CMMS which can be used as a data repository and knowledge-management tool to capture best practices, procedures, standards, history and personal insights and know-how.

TOWARDS TPM

There is a further emerging requirement in many organisations to develop strategies for Total Productive Maintenance (TPM) as a step beyond Lean Maintenance and Manufacturing. TPM IT is integral to these revolutionary cases too; modern CMMS packages are excellent enablers for most initiatives with functionality including business intelligence, dashboard reporting, sophisticated notification and alarms, workflow capabilities, and highly configurable forms and report management. CMMS integrated with OEE (Overall Equipment Effectiveness) Systems² have already enabled continuous improvements across multiple sites.

To keep pace with these changing dynamics, the savvy organisation will have a sound maintenance management strategy supported by a robust and reliable CMMS.



² For more information on OEE Systems download the OEE Systems Benefits Whitepaper from www.idhammarsystems.com

Five key trends in CMMS

RESPONDING TO TODAY'S CHALLENGES, leading computerised maintenance management systems developers continue to enhance the functionality and capability of their software and services.

1. Increased functionality

Today's CMMS have a broad range of sophisticated functionality, and the more powerful systems provide:

- Work order management
- Planning indicators and capabilities
- Automatic scheduling of work
- The ability to schedule maintenance by asset type
- Control of inventory levels and materials over extended periods of time
- Equipment monitoring with alarm generating capability
- Flexible asset register creation with the ability to trace components
- Project management capabilities
- Shutdown planning functionality
- Immediate access to key documents, photographs and AV training aids
- Real-time distribution of information by email, SMS and Internet
- Calibration

2. Greater systems integration

A clear sign that maintenance management is acknowledged to be a key driver in business profitability is the rise of maintenance management functionality in a wide range of enterprise tools. The Alphabet spaghetti that is CMMS, ERP (Enterprise Resource Planning) and EAM (Enterprise Asset Management) systems, all claim to deliver maintenance management capabilities.

The key differences between these are to do with the scale of system implementation across your organisation, the extent to which the system really takes account of the needs of the maintenance operation and the time it will take to get a return on investment at the maintenance level.

We would argue that our dedicated CMMS has been developed from the ground-up specifically for maintenance management and will deliver a faster return on investment. By integrating the Idhammar CMMS with an ERP or EAM system, you gain the best of both worlds - enterprise wide information management and efficient, effective maintenance management.

3. Enhanced mobility

Today Maintenance Engineers and Technicians are on the move more than ever, as they cover a wider area with often fewer resources. Over the last five years the incredible rise of wireless communications has made it possible for CMMS providers to support the need for mobile maintenance with easy remote electronic access to the CMMS.



To help support greater mobility and flexibility, new PDA based maintenance systems have been introduced allowing Maintenance Engineers to dispense with their clip-board and instead use a pocket maintenance system. While mobile technology in conjunction with a CMMS can help managers address challenges in a variety of areas. The following areas tend to offer the biggest benefits:

- Asset monitoring - Engineers can use handheld devices to collect performance data, such as pressure, temperature, and oil levels, performing monitoring or inspection checks. The device records the exact amount at a precise time and transmits the data back to the central CMMS.
- Work orders - Managers can implement a completely paper-less system by dispatching or updating work orders via the handheld device. The Engineers are able to perform the task with instructions from the handheld units. They can also use the units to enter details of time taken and work performed, as well as close the work orders. All the information is transferred into the CMMS either in real time or via a cradle.
- Parts inventory and stock movement - Engineers located remotely are quickly and easily able to check stock and allocate parts without journeying to and from the stores. Stock movements such as withdrawals, returns and movement can be recorded using bar codes and a suitably equipped PDA.

The full benefits of effective communication with a pocket maintenance system can also be realised with the minimisation of downtime through text/email alerts for critical breakdowns.

4. Greater flexibility, easier to use

As a vital tool in the battle for lean manufacturing processes, a CMMS should be used widely across the organisation by appropriate staff. We live in a diverse world with a multi-ethnic workforce and a wide range of computer literacy skills. Therefore the interface to even the most sophisticated CMMS needs to be simple and intuitive.

The more up to date CMMS include graphical user interfaces designed to provide a consistent setting for users familiar with Microsoft XP and other standard desk-top applications, reducing the need for training and supporting the adoption

of a CMMS across all levels of personnel. Where manual data entry is required, text editors and pop up calendar scheduling makes text entry straightforward.

Time savings can be achieved through the ability to change or complete tasks in bulk. Simply select any number of tasks to complete or change and enter or select the appropriate information into the cause, effect, signatory and date/time fields. This functionality allows the Planner to quickly and easily allocate and sign-off multiple tasks in a single action.

Ease of capturing and sharing information is a significant part of a CMMS. With an aging workforce, documenting and sharing procedures for the next generation of maintenance engineers is critical. The more capable CMMS packages allow users to find and attach multiple documents to both work orders and tasks and associate multiple standard texts with a task. Users can specify whether documents need to be associated with the work order whenever a job is created, and whether they require printing with the jobcard.

Some CMMS allow for multiple users to share the same PC, with user configurable desk-tops and reports ensuring that each user has the flexibility to work in an environment that suits their needs and objectives.

5. Visible reporting

Being able to see at a glance the status of the key assets, the progress of your maintenance team and the current hot issues is a significant step forward for Maintenance Managers. CMMS Dashboards accept data from disparate sources, make agreed-upon calculations and present the resulting information as individually customisable, easily scanned displays.

Far from being a “big brother” technology that is used to undermine and put pressure on the maintenance team, dashboards help demonstrate the value of the maintenance department and are key to nurturing a culture of accurate, real time, and highly visible data. This data supports action, allowing immediate correction of issues and ongoing process improvements. Dashboards can also enhance the wider factory culture, with everyone working from a very visible report that helps to bolster teamwork and minimise finger-pointing.



In conclusion

IN THE CURRENT BUSINESS CLIMATE, the efficiency and effectiveness of the maintenance operation is more important than ever. The maintenance team holds the key to maximising assets, minimising downtime and controlling costs. Computerised Maintenance Management Systems provide the foundation to deliver efficient, effective maintenance regardless of the size and complexity of your maintenance team.

CMMS have evolved over many years, designed specifically to meet the needs of contemporary maintenance management and they continue to do so by delivering more functionality, ease of use, greater mobility and visibility.

With the capability to predict the future of your assets, Computerised Maintenance Management Systems will remain a vital tool for increasing the efficiency of maintenance teams of all sizes, helping them to turn from reactive to proactive asset management.

About Idhammar Systems Ltd.

IDHAMMAR SYSTEMS IS A LEADING EUROPEAN PROVIDER of manufacturing efficiency solutions. Our products include Overall Equipment Effectiveness (OEE) and Maintenance Management Systems (MMS) which have proven their worth with a wide-range of clients in prominent blue-chip companies, from food to pharmaceutical, chemical, print, transport, energy and many more. Headquartered in Bristol, UK, Idhammar also has offices in Scandinavia & Benelux and partners throughout the world.

For more information on the Idhammar MMS please call us on:

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