***Part 1 - Information system compatibility is at odds with maintenance work control needs.***

**Information Systems and Maintenance Work Control**

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Finding – Many fully-integrated industrial information systems fail to effectively support maintenance work control needs.

Discussion - These information systems provide work orders for maintenance work control requirements. Work orders link with accounting documents to create maintenance management information. Yet, many maintenance users find that these systems lack compatibility with their needs and are underutilized, often unused and in some cases abandoned. Other mining departments such as warehousing or purchasing use other parts of the same systems but report few problems.

Maintenance work control includes all activities required to ***identify*** or ***request*** maintenance work, ***classify*** it, ***plan*** and ***schedule*** work, ***assign*** it, ***control*** it during ***execution***, ***measure*** results achieved and ***assess*** overall maintenance effectiveness.

Major information system developers have recognized this need for greater compatibility and utilization. In a ***Maintenance Technology*** article (June 2014), MAPCOM’s president commented, “You better have something (simpler) to offer the guy who is running the machine shop down the road.” The CEO of CHAMPS observed that, “The people who are leaving their existing systems are often going backwards (trying for simplification) in terms of functional requirements (like work control) and it probably is because things were too complicated.” He suggests, “Put a simple front end on it” (identifying one possibility why system elements may be unused). The eMaint marketing director suggested that, “People will buy our system (implying ease of use) because it can take so long to get to the PM portion of a large system like SAP.”

Two years later, ***Maintenance Technology*** in its June 2016 issue published responses from a group of industrial–maintenance practitioners and consultants. Their responses addressed the use, benefits and cost justification of CMMS (computerized maintenance management systems) systems. (See note) A summary of their responses suggest that some benefits accrue but problems of utilization and compatibility still exist. They reported that:

“More time is spent skewing (SAP PM) metrics than would normally be spent on actual maintenance. But the metrics look awesome. Improved communications between operations and maintenance noted.”

“About 30% of my former clients use their CMMS properly but in a limited manner. About 40% tried and dropped the process as being too complex. Clients claimed benefits but the CMMS system was not used fully, it was not much better than a simple scheduler” (suggesting that few system elements were being used.)

“Most users claimed that the effort to enter initial data was too intensive. Few systems allowed easy transfer of existing data sources.”

“We are now utilizing a third party mobile software that integrates directly with Maximo” (implying a need for users to seek third party help to make the Maximo system useable.) Reporting has been the biggest hurdle, since the out of the box reports leave something to be desired” (implying that ‘generic’ system packages may not be satisfying user needs.)

“We are currently working with Synergen (an Oracle-based CMMS product). There are huge benefits from having a coordinated system but it still needs to be developed” (possibly suggesting that implementation time or complexity are problems.)

“We have two CMMS systems. Both systems are used but not to their full extent. The main problem seems to be the time required for data input. I think the newer system takes too much administrative time compared to overall benefits.”

There is further evidence that maintenance leaders have recognized these problems as well. Many have placed computer use ‘off limits’ to experienced craftsmen. Yet, these personnel are the best source of information equipment condition since they perform the actual maintenance work. They are told to only ‘turn wrenches’ and stay away from the computer. These same managers know that numerous maintenance supervisors do not always use the authorized work order system for day-to-day work control (such as the use of yellow pads to record new work) and are not satisfied with either work control performance or the reporting of field data required to create essential management information (the yellow pad is often tossed at shift end and yields no data to supply information needs.)

Conclusion – The inadequacy of today’s fully-integrated information systems for maintenance work control is a challenge for those mining managers wishing to establish better maintenance performance and satisfy essential information needs. Command action is required.

Note - The term CMMS (computerized maintenance management system) is both inaccurate and misleading. Maintenance merely shares the work order system provided by fully-integrated information systems. There are no unique information systems dedicated to or used exclusively by maintenance as the acronym suggests. Possible exceptions might be inexpensive, non-integrated systems with limited functions like providing a listing of PM services due or recording new jobs and completed jobs reports.

A more detailed discussion of information system selection, implementation and utilization can be found in ***Maintenance in Transition – the Journey to World Class Maintenance.*** Paul D. Tomlingson. pdtmtc@msn.com

**Next**:

***Part 2 - How information systems unfavorably impact maintenance work control.***

**Your Comments, questions, views and opinions are welcome.**