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Using proven guidelines for evaluation and selection, finding a suitable EAM/CMMS need not become an overwhelming or difficult task.

The old maintenance system has gasped from sheer exhaustion. There are no more patches or upgrades available or perhaps the company has decided to take the predictive maintenance route. Whatever the reason, it is time for a new system. The question now becomes, what makes a good maintenance management system?

The first essential characteristic of a good enterprise asset management/ computerized maintenance management system (EAM/CMMS) is obvious: It should work. If it does not provide true and accurate reports regarding the cost, planning, and scheduling of maintenance, it does not work.

A good CMMS is based on currently accepted programming practices. In the past decade, users have demanded more integration among software packages. The software selected should be able to export data in a format understandable by current spreadsheet and document programs.

Another feature to look for is ease of implementation. Moving from an older system to a newer one can be a complicated process. The biggest cause of worry is the change in database structure. There should be some mechanism to import or export data from a variety of widely known formats. Keep in mind, the age of the current software will be a factor. Tables that are part of a DOS-based application in use since 1983 may require special handling.

Research is important

Research must be conducted. Even though the word causes many people to stifle yawns, it does not need to be a boring or time-consuming process. The Internet is a great tool and can make light work of the task. A good place to start would be the list provided by Maintenance Technology.

There are three important questions that must be considered before buying a maintenance program. First, what are the features the software must have? Define the needs carefully. Divide the essential features from the features that would be nice to have. Write a list of criteria and order them by importance. A typical item would be something similar to: The application must run off the network server.

Next, ask what additional features would be nice to have. For example, assume the current system has several custom availability, reliability, and utilization reports written in Access. Software that can export data directly into Access would save the time and expense of having those reports rewritten. This is a feature that serves a useful purpose. A word of caution: There may also be additional features that are of no practical value and add to the cost of the software. The main thing to avoid is paying for added features that are not necessary or beneficial.

Finally, the most important question: What is the budget for this software? Be on the lookout for hidden and unexpected costs that lurk beneath the surface. A few of those are detailed in the next sections.

Ranking the software

With the list of criteria, select those EAM/CMMS software programs that fit the requirements. List each package by name with a column for price on a separate sheet. Now, go through the list one by one and determine the answer to each of the following questions:

What are the computer system requirements? How much is the software license? Will the employees need training?

System requirements

If cost is a driving factor, the goal is to find a system that works and is compatible with the current hardware and operating system. Learn the hardware configuration and operating system of the computers where the software will reside. The company information technology department can help.

Avoid expensive hardware upgrades if possible. If a program requires 1024 MB of RAM and your installation PC has 512 MB, then the purchase of additional memory will need to be added to the price column for the software. Take a hard look at which operating systems will run the software, how much memory is required, how much hard drive space is required, and if there is a processor speed limit.

Licensing expenses

Software is rarely sold to the general public. What most people buy is a software license. Purchasers are not buying the software program itself and do not own it. They own only the license to use that piece of software. The benefit of a license is that it makes users' rights and the software supplier's rights clear to both parties. However, it also imposes certain obligations and limitations.

A license agreement will state how the software can be used. Read this carefully. It will outline what the user may or may not do with the program. For instance, some software can be used only in certain countries. Make sure to understand the terms. Licensing questions to consider include how many users or computers will need to be licensed, how often the license will need to be renewed, and what the license scheme will cost.

Remember that buying a software license grants only the legal right to use a piece of software. Often there will be maintenance programs available for annual purchase. These programs provide bug fixes, updates, and technical support. While the prices vary, typical annual fees fall between 15 and 20 percent of the cost of the software license.

Employee training

If the software is easy to use, employees will be able to learn the program on their own with minimal time and effort. If this is not the case, training may need to be outsourced. Although outsourcing costs more in the short term, employee productivity and satisfaction will far outweigh the expense over time.

If possible, download a trial version of the software and give it a test run. For larger systems, call the company and ask for a presentation. Always view the software in action before committing to it. Set realistic goals and timelines for the implementation. A complicated software package will always take longer for employees to understand and use.

The final decision

Add all additional costs that were discovered during the evaluation—for example, any expenses such as hardware or software upgrades and licensing fees. Automatically cross off any software that is more than 10 percent over budget. Now, compare the features against cost to determine which software will be best.

Using this technique will alleviate some of the difficulty involved in selecting the EAM/CMMS package to fit your specific needs. Of course, there is not always an ideal solution. If no commercial software seems to fit the requirements, consider approaching the vendor of the software closest to your needs. The company may be willing to adapt the software for a price. Hiring a firm to write a complete custom package is also an option, but this can be expensive.

It may not be easy to discover what is actually needed or to distinguish between wants and needs or to determine the priority of the requirements, but determining specific software needs is the key to successfully finding and implementing an EAM/CMMS package. **MT**

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