

Plant asset management (PAM), the top-level view of reliability and maintenance, is comprised of many advanced maintenance technologies and systems. A PAM system is fed by several information streams, including those from the predictive maintenance technologies: vibration analysis, oil analysis, electrical and motor circuit analysis, ultrasound inspection, infrared thermography, and other nondestructive testing technologies.

Although a fully integrated PAM system is elusive, effective predictive maintenance or condition monitoring software is readily available from a broad range of suppliers. The listing in this article provides some basic information for contacting the suppliers that may prove helpful to your plant's asset management initiative. They are listed by technology.

The condition monitoring challenge is two fold: collecting and analyzing data from plant assets and packaging the data as helpful information for decision makers and managers and plant information systems.

Software capabilities

We have provided several indicators in each software listing about its capabilities: A = analyzes equipment condition; T = trends asset condition data; O = only the supplier company's instruments (or laboratories) can provide input; + = data input from multiple companies' instruments; M = manual data input is possible. This information was furnished by the software suppliers.

Obviously, reliability and maintenance organizations using multiple condition monitoring technologies will need systems to manage the data from each type. Some systems can manage information from virtually all predictive maintenance technologies. According to information from the suppliers, such systems are available from Bently Nevada, DLI Engineering, DMSI, Emerson Process Management, Ivara Corp., Logos Computer Solutions, and Rockwell Software.

Reaching management

Suppliers for this directory were asked whether it is getting easier or harder to "sell" management on purchasing equipment to establish or improve a predictive maintenance program and why. The majority of answers came down on the "easier" side, but with qualifications.

"Most managers are beginning to recognize the need to become accountable for asset availability and to be able to understand the health of operating equipment," noted Alan Bandes of UE Systems Inc. Added Courtney Goetz of Rockwell Software, "It is getting easier due to the desire from management to reduce operating costs. Because of the automated analysis features in software, the maintenance team can operate more efficiently by spending more time on complex issues, rather than focusing on issues that the system can handle."

But many qualified their "easier" replies:

- "It is still difficult to get to the right people to present this message." Lou Morando, SPM Instrument Inc.
- "It becomes easier if you can effectively demonstrate the value of total program management tools that are easy to use and can directly affect the bottom line." Jacque Powers, Polaris Laboratories, LLC
- "Slowly improving but the cost of advanced software makes some companies hesitant to buy even though it saves them money in the long term." Noelle Kuchler, Schenck Balancing & Diagnostic Systems
- "The ability to sell is improving as the economy continues to improve. That said, PdM is really a recession-proof industry, in our view, as real value is gained and costs contained no matter the economic environment." Bruce Anderson, Logos Computer Solutions

Those who cited a harder atmosphere mentioned budget restraints, more competition, and the fact that most plants are already doing vibration analysis or PdM. "I know of only one company that is actively implementing a new PdM program," said Buddy Lee, MAARS Inc.

But perhaps the difficulty of implementing a new PdM program is related to a company's industry. "Some industries are becoming aware of the huge potential savings that can be achieved by implementing a predictive maintenance program. Other industries are struggling just to stay alive and have down-sized tremendously, to the point that establishing a program with in-house personnel is no longer feasible," noted Frank Seidenthal of Ludeca Inc.