

## Plug and Play Complexity

Written by Robert C. Baldwin, CMRP, Editor  
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Robert C. Baldwin, CMRP, Editor Maintenance and reliability information is very complex. But just how complex is difficult for many of us to understand. We tend to think in terms of paper (work orders, drawings, reports) or common computer files (spreadsheets, basic flat-file databases).

Although I have been following maintenance information systems for years, I felt like the student driver looking under the hood of an automobile for the first time when I took a peek at some of the documentation of MIMOSA's newly released Open System Architecture for Enterprise Application Integration (OSA-EAI) posted on the group's [web site](#). MIMOSA is the trade association developing open standards for maintenance and reliability systems.

MIMOSA's OSA-EAI specification is built upon a common information schema that allows information from many systems to be integrated. The schema, known as CRIS (Common Relational Information Schema), covers standard site, asset, and functional service identification nomenclature.

In addition, CRIS provides for a method of standard measurement location identification across various condition monitoring technologies. Trendable, scalar data such as temperatures, pressures, and loads are modeled. CRIS supports dynamic data, such as time waveforms and FFTs, which are used in vibration analysis. Binary data, known as Binary Large Objects or BLOBs, are supported for communicating drawings, reports, diagrams, thermograms, and photographs.

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CRIS also manages sampling test data results, such as used oil analysis test data and air quality monitoring data, and allows the communication of diagnostic, health, and prognostic information from smart systems.

Special maintenance and reliability tables define fields for events (actual, hypothesized, and proposed), health and estimated asset life assessment, and recommendations. CRIS models maintenance and production work request scheduling and the tracking of the completion (or noncompletion) of a maintenance or production job as related to an asset. CRIS also provides the information framework for storing reliability data for assets.

Will anyone ever build the ultimate system to manage all this information? Not likely. Smaller, focused systems typically work best. And that's the reason for MIMOSA. The OSA-EAI specification is designed to provide an open approach for hooking up these specialized systems into a collaborative information network to which new compliant systems can be added on a plug and play basis.

That sounds like a good idea. And we believe it deserves our support. **MT**

