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Maximizing data value between automation systems and plant phases

By **Joe Morray**

At daratechPLANT 2008 there were many examples of how, as an industry, we continue to wrestle with the issue of interoperability between automation systems and plant phases. There is excitement at the progress being made on ISO 15926, under the sponsorship of FIATECH, so more technology vendors are looking at systems where information can migrate to other systems. XML is providing a transport vehicle and we seem to be making progress on many fronts.

For the projects and operations community, what do these developments mean to us? Should we be doing things differently? How do we prepare to take full advantage of the new *openness*? Here are some observations:

Taxonomy, taxonomy, taxonomy

One of the major realities of the integration world is that it lives off of a common taxonomy (method of how we name things) between systems, components and more. The most common plant-wide taxonomy is the tag number – instrument, valves, pipes, equipment, etc.

The truth is that very few plants have a consistent set of rules for naming items in the layout, P&ID or instrument list. Generally, they are not even "consistently inconsistent." One of the key plant automation advances will involve our legacy information being "mapped." This will enable us to create a set of tags which follow the same set of rules, regardless of the system.

As many of you know, this is a huge problem with ERP systems, maintenance systems and legacy drawings. The problem has improved for the plants that have come on line recently, but older plants still represent the majority of the fleet.

"Build bridges"

Recognize that, for most plants, information will never be in a single complete system. Information is generally under the management of a number of applications, and within this sphere, quite valuable.

Our job, therefore, is to find ways of accessing and using the information without actually "taking it out" of its current location. We have come to recognize that a "virtual data model" will reference and access information across multiple systems. We've applied this approach extensively for document management functions (accessed by the design model, maintenance systems, project scheduling, etc.), 3D visualization and schematics.

Set interoperability targets

"The journey of a thousand miles begins with the first step." Review which areas of interoperability will be of value to your company, recognizing which information is currently being maintained and how the business processes need to be supported.

Then sit down with your technology vendors and establish use cases where interoperability can provide value, so that the abstract becomes a tangible result. I find in working with both technology companies and the user community that establishing specific finish lines helps us to determine the details that are essential.

Learn what is possible

The ISO 15926 initiative has created a broad array of documentation, some requiring an advanced degree in database technologies or set theories. I encourage FIATECH to publish a *15926 for Dummies* which will give both business and technology people an opportunity to understand what the standards enable and how each of us might take advantage of it.

As the saying goes, "An educated consumer is our best customer." We, in turn, should seek to understand these opportunities.

Joe Morray is president of Trinity Technologies Corp., a process and power industries consulting firm that helps owner operators and EPC firms succeed in the use of information systems. The company specializes in driving companies to align work processes, technology, and organizational change requirements for the plant environment.

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