

BIG SCHEMA THINGS

With the introduction of a new structure for fully attributed product data, the industry's e-commerce dreams are a big step closer to reality. Thank the dataheads.

Electrical distributors pushing to be on the forefront of electronic commerce — or simply wishing to help their customers make better choices when shopping through an online catalog or Web storefront — have been clamoring for years for their manufacturers to provide more detailed data about their products.

Seemed like a simple-enough request. Manufacturers know what their various products look like, how they're used, what they do, how one model number differs from another. They've got a bunch of them lying around, so surely it's not so hard to list the details, snap a picture and send it along to the distributor. But then there's the question of scale.

The average full-line electrical distributor carries products made by about 400 different vendors. The number of products with minute (but critical) variations produced by each of a distributor's major vendors can run into the thousands. Most of those vendors sell through many dozens, even hundreds of distributors.

The puzzle of how to standardize the way the data is organized so all the manufacturers and all their independent reps and distributors can handle the data efficiently, electronically, had no easy answer.

Last month at its annual E-Biz Forum in Tucson, Ariz., IDEA, Arlington, Va., introduced a key part of the solution — a new standard for organizing

NOT JUST A NUMBER

The new Electrical Attribute Schema developed by the IDEA Standards Committee is based on UNSPSC codes, which have an inherent taxonomy for identifying the product the code applies to. The first two digits of the 8-digit UNSPSC for each product identify the broad category into which it falls, and each subsequent two-digit set narrows the focus down to a particular type of product.

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The vast majority of electrical products fall into one of four primary categories:

- 39 electrical systems and lighting and components and accessories and supplies
- 26 power generation and distribution (motors, wire and cable)
- 32 electronic components and supplies (industrial control)
- 43 information technology and broadcast (datacom)

all the attributes of the millions of products made and sold through the electrical supply channel.

IDEA, the data exchange and standards association jointly owned by the largest distributor and manufacturer associations (the National Association of Electrical Distributors, St. Louis, and the National Electrical Manufacturers Association, Rosslyn, Va.) is, among other things, the authorized standards-setting body for product data in the U.S. electrical industry. Through a memorandum of understanding with global supply-chain standards body GS1, IDEA manages the UNSPSC (United Nations Standard Products and Services Code) system for electrical products made in the United States.

The new Electrical Attribute Schema is based on UNSPSC codes, which have an inherent taxonomy for identifying the product the code applies to (see sidebar, "Not Just a Number"). IDEA has mandated that every product represented in its Industry Data Warehouse (IDW) must have a valid UNSPSC code by Dec. 31, 2009. But the schema goes far beyond these codes.

The schema is a structure for organizing product descriptive data into 27 fields. Twenty six are defined for each type of product sold in the industry. The extra field is a unique identifier, which gives the manufacturer a place to include information on what makes its specific product unlike any other.

Why is all this important? The schema is a keystone to developing far more

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By Doug Chandler, Executive Editor

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flexible and robust e-commerce applications throughout the industry. With all the data in a standard format that's based on the UNSPSC, distributor Web storefronts can be built to help customers drill down into the product data to find exactly the product they need. This could allow distributors to create Web purchasing systems on par with the best commercial Websites.

The purpose for making the schema an industry standard is to move beyond legacy proprietary product codes and data formats to an open, industry-defined system that can be developed and refined through collaboration over time.

The schema is owned and copyrighted by IDEA. It includes definitions and explanations of what is supposed to go in each field, as well as an embedded table defining industry-standard abbreviations (alternating current is AC; air conditioning is A/C, for example). The abbreviation table is copyrighted separately and has already begun to be adopted by contractor and end-user software systems, said Mary Shaw, director of standards for IDEA.

The Herculean task of specifying 26 attributes for each product type in the industry was the work of the IDEA Standards Committee, which completed the project in March.

IDEA has a pilot project underway with four manufacturers and four distributors that will develop best practices for populating the data within the schema. Participants are manufacturers Hubbell, Burndy, ILSCO and Hoffman; with Graybar, Kirby Risk, Van Meter Industrial and Rexel representing the distributors.

This pilot will also help IDEA determine parameters for "scrubbing" the data, or testing to see whether a particular record conforms to the standard.

This initial release of the Electrical Attribute Schema, version 1.0, is IDEA's first stab at defining the structure of attributed data for the industry. The schema is intended to be "a living document" — revisions will be released annually.

The work of the all-volunteer standards committee in defining the 26 (plus 1) attributes for each product type was immense, but perhaps the larger task now falls to the manufacturers, who must fill in the data for each SKU they sell. This will be a major undertaking, but IDEA has new Web interfaces in place, to be introduced this month, that will provide manufacturers with more flexible access to their data and allow them to make line-item edits more easily.

The industry's efforts to streamline and standardize the flow of product data among trading partners has come a long way since the development of the original Product Descriptor Database and the IDW, which gave rise to IDEA in the 1990s, but it seems the tools for enabling more innovative uses of electronic commerce and radical reductions in the cost of handling product data are just now coming into place. Now we'll all get to see what the industry does with these tools. ■

LONG VIEW ON VMI

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have changed. It takes a strong culture to say, 'Look, we made a good decision then, and if we change, that's a good decision for us now.' Some organizations can't do that — they say, 'Why are we dumping what we invented? Let's go pillory guy who did it.'"

The results have been good for Hubbell, Riley says. The company's VMI relationships with distributors had already fostered a closer partnership and more trust between the companies. He's learned to rely on Datalliance's customer service and reporting capabilities, which are far better than what Hubbell's in-house VMI staff was able to provide.

Outsourcing the back-end work to Datalliance has freed Hubbell's VMI staff to do more demand-planning, more smoothing of order points and order quantities, studying demand trends and such. It's also allowed them to focus on further strengthening those distributor relationships. "We talk to them more, almost on a daily basis, rather than waiting for them to do order entry."

"Usually a distributor keeps four to six weeks in inventory, so there's a four-to-six week window where you see demand in how the distributor orders. We're more agile and in-tune," Riley adds. "In early fall of '08, our VMI partners' alerts saw (the recession) first from a customer-demand perspective. We found we were more in tune to local market and the depressed demand. There's no more tail-whip. We see that dog."

Outsourcing the IT side of the VMI program has also freed Riley and his team to look further down the road and try to prepare for the next wave of changes in electronic commerce. In Riley's view, that should be a phase of development where all the data and communication advances that have taken the industry by storm in wave after wave — from all the upgrades in preparation for the Y2K rollover to the emergence of the web as the preferred interface to EDI-enabled e-commerce — begin to consolidate into more powerful tools.

One such consolidation he would like to see would be to have ship-and-debit information incorporated into the EDI 852 point-of-sale document that underlies VMI. "Our distributors (on VMI) daily send an 852 of all the product that moved for that manufacturer for that day. If we add three or four key pieces to the 852, i.e., a quote number, quote date, end user identifier, and a customer purchase order or customer invoice, add that to the line-item detail on 852, no longer would our trading partner have to submit a request for credit. The supplier could, on a monthly or even weekly basis, just send a credit. There's giant inertia around exchanging this data back and forth; it's a major pain point, and it would become a non-issue." ■