

METRIC NEWSLETTER

For Metrology Professionals



Yo tengo OpenMETRIC

Published By Diversified Data Systems, Inc.
Tucson, Arizona
www.dds-inc.com

Volume 15, Number 1

July, 2001

Check Us Out at NCSL!



Check out our booth (#401) at the NCSLI Conference in Washington, July 29-August 2.

Mr. Don Wyatt, founder and President of Diversified Data Systems, and **Sue Wyatt**, Vice President of Production, will be available to explain our industry-

leading solutions for calibration, equipment, property, and asset management.

We will be featuring **OpenMETRIC**, "*The Next Generation Calibration Management System*" (see related articles on pages 2-3). In addition to an informative "slide show" about OpenMETRIC, Don and Sue will be demonstrating a "live" version of OpenMETRIC running on Windows NT.

Don and Sue will also be demonstrating our recently released system **OpenPROTRAK** (Property Management System) and **OpenEMBARC** (Equipment Management, Billing, Acquisition, and Redeployment Control System).

Several of our customers will be at our booth at various times to answer your questions about their experiences with DDS.

We are honored and delighted that in booth 500, adjacent to ours, **Charlie Motzko** (see related article), **Dr. Klaus Jaeger** (see related article), and **Gary Davidson** (Strand, Davidson & Associates) will be sharing expertise, products, and services of vital interest to all metrologists. Don't miss your chance to benefit from the experience of these past and incoming NCSLI presidents!

If you will be attending the NCSLI Conference, plan to visit our booth.

Looking forward to seeing you in Washington!

"Jaeger Enterprises" has been formed

to offer Consultation and Training on metrology issues. Expert advice provided by individuals or professional teams: laboratory management, proposal writing, accreditation, documentary & hardware standards, traceability and uncertainties.

Training is offered in 1 and 2 day courses. Topics include: traceability & uncertainty analysis; fundamental constants, base units & derived units; intrinsic, primary, secondary, working standards; accreditation; basic statistics and probability.

An advanced 4day course is offered on Uncertainty and SPC, designed and prepared by Dr. Howard Castrup from ISG. (West Coast Trainer: Dr. Jaeger)

Visit Booth 500 or contact Dr. Jaeger at:

13685 Calle Tacuba; Saratoga, CA 95070
408-867-1743; FAX:408-867-3705

jaegerenterprises@home.com

QuikPDR now Web and PDA enabled!

At NCSLI, **C. A. Motzko & Associates** will announce the following major improvements to QuikPDR, the electronic T&M equipment catalog:

- The full QuikPDR application is now delivered on a 120 Gb Quantum SnapSERVER for true plug & play service.
- The network version includes an on-line reference library (102 Gb of data) that goes back to 1969 with more than 36,000 PDF files indexed for quick access.
- QuikPDR is now web enabled (CSS support required) and a customer selected data subset is available for download and use on a PDA running Palm OS v3.5 with at least 2 Mb of available memory.

See these at Booth 500 or contact Mr. Motzko at:

546 Keelson Circle, Redwood City, CA 94065
(650) 595-8878; FAX 650-595-1285

solutions@motzko.com or <http://www.motzko.com>

How Normal Is Your Data?

...by Don Wyatt



During the past year, we have spent a great deal of time analyzing, planning, and implementing data normalization with our clients and prospects.

In some of our recent projects, data conversion and normalization has consumed more effort and resources than the rest of the project combined.

Normalization is the process of establishing and maintaining data that is correct, consistent, and complete. Data can be called "normal" after it has been "normalized."

The use of the term "normal" to describe data should not be confused with "normal form" used to describe the design of databases (*cf.* "third normal form", etc. *a la* Dr. E. F. Cobb *et al.*).

Normal Data

Normal data must be **correct**. This means that values are accurate. For example, if a value should be "2" and is recorded as "3," then the value of the data is obviously compromised.

Normal data must be **consistent**. For example, if two instruments are both made by the same manufacturer, then the name of the manufacturer should be **identical** for the two instruments. Nomenclatures for a given model of equipment should be consistent. Without consistency in the data, analysis of the data is virtually impossible.

Normal data must be **complete**. Missing data leaves "gaps" during analysis that seriously degrades and compromises the data that does exist.

For example, if the manufacturer is omitted for an item, then it becomes impossible to aggregate the item into the model group to which it belongs. If the acquisition value or replacement value is omitted for an item, then it becomes impossible to compute aggregate inventory values.

Establishing Normal Data

The most common opportunity for normalizing existing data is during the conversion to a new computer system.

Normalizing existing data can be a truly daunting task. Several factors tend to make data harder to normalize. Data entered by one person tends to be more normalized than data entered by several people. Data entered into one computer system tends to be more normalized than data entered into several different systems or several different versions of a single system. Data collected in a single loca-

tion or facility tends to be more normalized than data collected in two or more locations or facilities.

Sometimes the effort to normalize existing data is simply too great to justify. Usually, however, at least some cleanup or normalization is incorporated during the data conversion effort to any new computer system.

Once the decision has been made to normalize existing data, considerable effort is usually required to identify the data that is currently **incorrect, inconsistent, or incomplete** and to formulate strategies to normalize it.

During the normalization process, it is often valuable, and sometimes virtually mandatory, to utilize a master catalog of normalized data (such as **QuikPDR** from C. A. Motzko & Associates) to establish baselines for consistency and completeness. Such a master catalog accumulates aliases which can be mapped into consistent data values. For example, QuikPDR has accumulated nearly 300 different representations for Hewlett Packard in various databases.

Maintaining Normal Data

After investing the effort to normalize a database, diligence, vigilance, training, and an appropriate database software system is required to maintain normal data.

The database software system must include extensive tools and technologies to standardize data that is added to the system. Once the data has been normalized, the system should serve as its own master catalog for additions of similar data.

We believe that OpenMETRIC currently provides the best capabilities on the market for maintaining normalized data.

In some cases, however, adding the capabilities of a master catalog (such as **QuikPDR**) can significantly improve OpenMETRIC's data normalization results.

GIGO

For years the computer industry has chanted "garbage in, garbage out." Nowhere is this axiom more applicable than with metrology data. The most sophisticated systems in the world will not achieve their potential if the data is not normalized.

**OpenMETRIC...Where the Choice is Yours...
Today!**

OpenPROTRAK and OpenEMBARC!

OpenPROTRAK was released in April and OpenEMBARC will be released at NCSLI. These two applications are fully integrated with OpenMETRIC and offer powerful synergy for property control and equipment management.

OpenMETRIC: Powerful New Features and Capabilities

We continue to add powerful new features and capabilities to OpenMETRIC to ensure that it remains the most robust enterprise calibration management system in the world.

The following features have been incorporated into OpenMETRIC in recent releases.

Tag Exchange

OpenMETRIC now permits the item identification numbers (tags) to be changed. OpenMETRIC maintains all records, linkages, and searches for both the old number and the new number.

Item ID:

Current	New
111K	529878

Remarks:

Change to newly assigned ID number from SAP

OK Cancel

Batch Updating from Scanners

OpenMETRIC now supports the ability to scan a batch of items with an off-line handheld scanner. The scanner data can be uploaded and OpenMETRIC can automatically open jobs, close jobs, or update tracking status for the scanned items.

Track Status Logging

All changes to the OpenMETRIC Tracking Status are now logged to a table from which complete step-by-step item progress can be evaluated and analyzed. This feature even permits “clock on,

DATE	TIME	STATUS	CLOCK ON	CHANGED BY	REMARKS	FUNCTION
14/1/08	10:08:10	REC'D		Alan O'Neil		Final Change Positive
14/1/08	10:09:10	REC'D		Alan O'Neil		Final Change Positive
14/1/08	10:09:10	PARTS		Alan O'Neil	part 1	Final Change Positive
14/1/08	10:10:04	DOHC		Alan O'Neil	part 10	Final Change Positive
14/1/08	10:12:11	DOHC		Alan O'Neil	part 08	Final Change Positive
14/1/08	10:14:00	REND		Alan O'Neil	check 1	Final Change Positive
14/1/08	10:16:00	REC'D		Alan O'Neil	check again	Final Change Positive

File Change Open Cancel

clock off” tracking for each job.

Multiple Calibration Procedures

OpenMETRIC now permits more than one procedure to be specified for a given item and for a given calibration.

Untagged Accessories

OpenMETRIC now permits untagged accessories to be specified for an item.

NOMENCLATURE	MODEL/PART	SERIAL#	QTY
ACC1	MODEL1	SER1	1
ACC2	MODEL2	SER2	1
ACC3	MODEL3	SER3	1
ACC4	MODEL4	SER4	1
ACC5	MODEL5	SER5	1
ACC6	MODEL6	SER6	1
ACC7	MODEL7	SER7	1

New Open Change Open Cancel

Email

OpenMETRIC now facilitates communication with customers by automatically launching an email with the customer’s address selectable from the OpenMETRIC Customer/Contact table and with the item number filled in on the subject line.

OpenMETRIC also supports the automatic emailing of User Notifications of out-of-tolerance (OOT) conditions.

Template Traveler

OpenMETRIC’s Traveler (Work Order or Shop Order) now permits the user to select and format up to 53 different data elements on the template which controls the appearance of the Traveler.

Subcategory

OpenMETRIC now supports a new level in the organizational hierarchy for equipment. In addition to Class and Category (combination of Manufacturer and Model), users may now specify an optional Subcategory for an item. This permits the organizational segregation of items that are materially different as a result of different optional components, different intervals, different procedures, or other differences.

Global Changes

OpenMETRIC now provides powerful and convenient global change capabilities for Cal Labs, Manufacturers/Models/Subcategories, Contracts, Customers, Locations, Status, Scheduled Dates, and Procedures. If a global change is made in error, OpenMETRIC allows the global change to be “rolled back.”

DIVERSIFIED DATA SYSTEMS -- "THIRTY-ONE YEARS OF TRAILBLAZING"



We at Diversified Data Systems, Inc. (DDS) are proud of our dramatic achievements and enduring contributions to the development and evolution of the computer industry.

For over thirty years, DDS has developed major software products and pioneered new technologies to harness the power and potential of computers for business, industry, manufacturing, health care, education, government, distribution, finance, and public safety.

In the early 70's, DDS gained worldwide recognition by producing the very first COBOL compiler for a 16-bit minicomputer.

This permitted those new, powerful, and economical systems to perform tasks that previously required complex and expensive mainframe computers. DDS's COBOL compiler was the first language compiler to be certified by the Federal Compiler Testing Service, originally under the Department of the Navy, and now under the National Institute of Standards and Technology.

During the 70's and early 80's, DDS made major contributions to the development and refinement of Computer-Aided Software Engineering (CASE) concepts and methodologies.

Today, DDS is the preeminent Software Manufacturing Boutique. DDS has developed a Computer-Aided Software Production (CASP) system named WonderWare. WonderWare uses the power of computer technology to create an "assembly line" to manufacture software. With WonderWare, DDS produces DEFECT-FREE customized software solutions, virtually OVERNIGHT. Yet, WonderWare systems are so ECONOMICAL that our clients tell us that their investments with us are less than the license fees for comparable "packaged" or "canned" products.

Most of DDS's clients are large corporations or organizations who have traditionally developed most of their own software systems. However, today's backlogged MIS departments may take two or three years to develop a new application. DDS is producing such systems in 30-60 days.

Our systems are more economical than internally-developed systems. Our systems generate benefits, economies, and paybacks for our clients immediately. Most importantly, our clients get software that EXACTLY FITS their specific and unique requirements. Most DDS clients, recognizing the value we offer, return to DDS for additional systems and extensions to existing systems. In this way, DDS makes solutions that KEEP FITTING as conditions and requirements change.

Diversified Data Systems, Inc.

**Diversified Data Systems, Inc.
2601 N. Fairview Ave.
Tucson, AZ 85705**

We've got lots to talk about at NCSLI in Washington, D.C.!