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# XML Masters Series: Document Publishing

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## Abstract

American Society of Health-System Pharmacists

For more than 60 years, ASHP has helped pharmacists who practice in hospitals and health systems improve medication use and enhance patient safety. In support of this mission, the Society has an extensive publishing operation, of which, AHFS Drug Information is at the forefront. Published since 1959, AHFS (American Hospital Formulary Service) has undergone several face-lifts (from loose-leaf to bound in 1984) and has changed considerably behind-the-scenes, from a strictly typesetting format to a proprietary database format (1984) to an industry-standard, vendor-neutral format (2001). Previously published in one annual edition plus quarterly supplements, the new AHFS Drug Information is published annually in print and offers monthly updates. Turn-around time for the annual edition from time of print publication to database publication was reduced from 3 months to 2 weeks. This case study will review the steps taken leading up to conversion of the database to SGML; selecting new vendors for editing, content management, and composition; a return on investment analysis; and additional ASHP publishing efforts in SGML and XML.

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# 1. Late-breaking Talk

The author did not prepare a paper for the proceedings.

# Biography

## James **Mason**

Senior Applications Software Engineer

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James D. Mason, originally trained as a mediaevalist and linguist, has been a writer, systems developer, and manufacturing engineer at U.S. Department of Energy facilities in Oak Ridge since the late 1970s. In 1981, he joined the ISO's work on standards for document management and interchange. He has chaired ISO/IEC JTC1/SC34, which is responsible for SGML, DSSSL, Topic Maps, and related standards, since 1985. Dr. Mason has been a frequent writer and speaker on standards and their applications. For his work on SGML, Dr. Mason has received the Gutenberg Award from Printing Industries of America and the Tekkie Award from GCA. Dr. Mason was Chairman of the Knowledge Technologies 2002 conference sponsored by IDEAlliance. He is currently working on information systems to support the classification community at DOE's Y-12 National Security Complex (Y-12) in Oak Ridge, Tennessee.

## Jeffery **Shick**

Director of eHealth Solutions

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Jeff Shick graduated from Ohio Northern University College of Pharmacy (Ada, Ohio), and went through a post-graduate residency program in pharmacy informatics sponsored by Ohio Northern University and Blanchard Valley Regional Medical Center (Findlay, Ohio). Following several years of hospital and retail practice, Mr. Shick moved to the Washington, DC area to work for the American Society of Health-System Pharmacists (ASHP) as clinical informaticist in the Publications and Drug Information Systems Office. In the past six years with ASHP, Shick has overseen the conversion of ASHP's primary publication, AHFS Drug Information, from a proprietary typesetting database to vendor-neutral, industry standard SGML. He also oversaw the implementation of the SGML/XML editorial tool, XMetaL (Blast Radius), and the Vasont content management system (Progressive Information Technologies). As director of the eHealth Solutions division of the Publications Office, Shick monitors all new publication proposals to determine which products would benefit the most from content re-use. Currently, content from AHFS Drug Information, AHFS Essentials, AHFS Drug Handbook, AHFS Dosing Companion, ASHP Best Practices, Trissel's Handbook on Injectable Drugs, Pocket Guide to Injectable Drugs, and MedMaster Patient Drug Information is stored in SGML or XML and is repurposed for print, desktop software, web, and PDAs.

## Edward **Millikan**

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Dr. Millikan received his Doctor of Pharmacy in 1999 from Campbell University in Buies Creek, North Carolina. He completed a post-graduate residency in drug information and pharmaceutical informatics at the University of California, San Francisco, and First DataBank, Inc., San Bruno, California. Dr. Millikan came to ASHP in August, 2000 as a clinical informaticist and has worked closely with ASHP's drug information content, performing document analysis and developing appropriate structured markup.

**B. Tommie Usdin**

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B. Tommie Usdin is President of Mulberry Technologies, Inc., a consultancy specializing in XML and SGML. Ms. Usdin has been working with SGML since 1985 and has been a supporter of XML since 1996. She chairs IDEAlliance's Extreme Markup Language conferences and was co-editor of "Markup Languages: Theory & Practice" published by the MIT Press. Ms. Usdin has developed DTDs, Schemas, and XML/SGML application frameworks for applications in government and industry. Projects include reference materials in medicine, science, engineering, and law; semiconductor documentation; historical and archival materials. Distribution formats have included print books, magazines, and journals, and both web- and media-based electronic publications.

**Ann Wrightson**

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Ann is well known in the XML field, presenting at conferences and participating in the continued development of international standards for XML/SGML-family technology. Following a varied and successful early career in electronic publishing, Ann then spent ten years lecturing, researching, and consulting in an academic context. More recently, she has worked as a consultant in e-Government and in healthcare, helping to shape national and international interoperability standards within ISO, OMG, HL7 and OASIS. Ann is currently employed by CSW Group Ltd.