IEEE
STANDARDS BEARER

Vol. 7 No. 4 | Complimentary Newsletter | October 1993

Disaster Recovery: What Kind of Role Do Standards Play?

by Rochelle Stern

Photo courtesy of Midwest Power

Substation under water in Des Moines

When unprecedented flooding devastated the Middle West over the summer, media coverage focused on the damage and destruction sustained by water utilities. Residents surrounding the Mississippi and Missouri rivers were portrayed in their daily search for bottled water in the absence of the running water once taken for granted. Full restoration of running water to residents often took up to three weeks in most areas.

Although electrical utility companies played an important role in restoring power to their customers, this story may have been too successful to receive prominent publicity. In Des Moines, Iowa, John McCarroll, Midwest Power Corporate Communications Manager, reported that in the aftermath of floods from record rainfalls, seven substations were partially or totally out of service by the early morning of July 11th; however, power to most regions was restored in less than 72 hours. This kind of efficiency may be attributed in part to the inherent nature of electrical utilities. Equipment is designed for interchangeability, and crews can readily be dispatched during emergency situations.

Although every utility company such as Midwest Power has an established emergency storm restoration plan, the circumstances created by the floods were extraordinary. Looking back on the plan a month later, McCarroll reflected, "We had to wing it. The storm restoration plan deals with severe conditions such as thunderstorms and ice storms. This was different." He added, "We've never had a flood like this."

Since the floods affected the mobility of technical crews as well as use of logistical strategies, Midwest Power had to improvise—emergency crews traveled

(Continued on page 10)

IEEE Gives Green Light to SPAsystem™

by Judith Gorman

On Saturday morning, August 7, 1993, at IEEE's elegant new conference facility in Piscataway, New Jersey, the IEEE Board of Directors gave a unanimous and significant endorsement to its Standards Activity. The IEEE Board of Directors approved the business plan for a Standards Process Automation System, or SPAsystem, and a funding mechanism to expedite the critical implementation phases of the program. "The loan approved by the Board for IEEE Standards represents the Institute's commitment to excellence," said IEEE President Martha Sloan. "The Board recognizes the need to support new applications like the SPAsystem which enable our members to enhance and expedite the standards-setting process."

IEEE members stand to gain a great deal from this new system. The industries that they represent will also derive significant financial benefits, as they

(Continued on back cover)

What's Inside

Photo by P. Arnold

Letter from the editor's desk

Dear Readers,

If you haven't heard of the Standards Process Automation system (SPAsystem™) yet, you can expect to start hearing about it a lot. An article on the SPAsystem appeared on the cover of *EE Time*s July 26, 1993. The IEEE Board of Directors approved a funding plan for the system at their last meeting (see front page) as an indication of their wholehearted support. And the concepts and benefits of the system are already being presented to selected groups.

Wally Read points out the differences between perception and reality in his column in this issue. The same could be done for the SPAsystem. Naturally, as with anything new, there is some resistance to change. We have already seen some misconceptions of what IEEE is trying to do with the SPAsystem. Although I can't address all of them here, it might be worthwhile to address a couple of the most common ones:

- Misconception #1. *IEEE expects standards developers to learn new word processors. I'm happy with the one I'm using.*

  Keep using your word processor if you want to. But when the SPAsystem becomes fully operational, you won't be formatting pages of standards anymore. Rather, you'll be building a document structurally by tagging elements within it

  It is important to remember that the word processor you're using is proprietary and subject to becoming obsolete. Unlike documents tagged in SGML, a document created with a word processor doesn't allow you to identify vital structural information. It also can't belong to a permanent database of information that will allow users and standards developers on-line electronic access, hypertext links, and more.
- Misconception #2. *SGML is yesterday's news. Now that sophisticated WYSIWYG page layout and conversion programs are available, what's the point of struggling with embedded codes in text?*

  The potential of SGML for document tagging, conversion, and database creation—not to mention word processing—has not yet begun to be tapped. The SPAsystem may be the first system designed to take advantage of SGML as a way to *develop* documentation, not just as way to *publish* it. The SPAsystem will include software packages that make tagging documents as painless as possible for standards developers, and will allow you to work in a WYSIWYG-like manner. Although current WYSIWYG page layout programs can create beautifully formatted documents, they actually make the electronic exchange of information even more difficult than it was with ordinary word processors. The SPAsystem concept is that electronic access to information can become a reality only when elements of a document's structure can be identified and tagged along with the text files. In reality, SGML is still *tomorrow's* news.

Interested in finding out more about the SPAsystem and SGML? We'll keep you up to date and try to answer your questions.

Kristin Dittmann
Editor-in-Chief

STANDARDS BEARER
IEEE

Vice President of Standards
Wallace S. Read

Publisher: Donald C. Fleckenstein
Staff Director: Andrew Salem
Assoc. Staff Director: Judith Gorman
Technical Director: Karen DeChino
Editor-in-Chief: Kristin Dittmann
Design/Production: Esaleta Corbin
Printing: Karen McCabe
Copy Editor: Rochelle Stern
Contributor: Leendert van Rooij

IEEE STANDARDS STAFF

Administration
Andrew Salem
Judith Gorman
Karen Rupp
Nancy Albano
Catherine Downer
Robert LaBelle

Fund Development
Nancy Blair

Marketing
Michelle Curtis
Esaleta Corbin
Michelle Phillips Greene
Karen McCabe

Research & Development
Jay Iorio

Seminars
Catherine Downer

Standards Board Technical Support
Theresa deCourcelle
Carol Buonfiglio
Linda Gargiulo
Theresa Steenweg

Standards Press
Deborah Czyz

Technical Product Development
Kristin Dittmann
Christopher Booth
Sharon Holloway
Rachel Meisel
Mary Lynne Nielsen
Adam Sicker
Rochelle Stern
Valerie Zelenty

Technical Program Development
Karen DeChino
Tina Alston
Annamarie Kaczmarek
Luigi Napoli
Anne O'Neill
Iris Ringel
Gassan Salman
Sue Vogel

The IEEE Standards Bearer is published quarterly by the IEEE Standards Department, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331, USA. Third class postage paid at Piscataway, NJ.

ISSN 08960-1425

THE CHAIR'S COLUMN

Isn't it a wonderful gift that we human beings have—to be able to judge capability and performance with or without all the information surrounding a situation? Equipped with the facts, the human mind is incredibly discerning and capable of great understanding. Devoid of knowledge and fed untruths, its creative ability does not evaporate, but works to interpret the information as best it can. It happens in the socio-political arena and it happens in our private and professional lives. One's perception of a situation and the reality of it can be quite different.

The absence of good communication or the feeding of misinformation can have a powerful impact on how we live and work. Wars have been won and lost because of it. We in the IEEE standards business are not immune to these conditions. So let us talk a bit about how we are perceived.

Perception: The IEEE standards process is dedicated solely to supporting the United States national program.

Reality: The IEEE is keenly aware of its growing global membership base and is especially concerned that all of its members and the industries from which they come are well served by IEEE activities. The standards program is no exception, as it is driven by international market forces. Meeting newly evolving global demands is an important priority for us.

Perception: The IEEE standards development activity is slow and unresponsive to change.

Reality: IEEE has, in fact, led change in the past few years—change that has seen tremendous improvement in the time required to publish standards following their Standards Board approval. Now we are on the doorstep of a bold new venture—the establishment of a completely automated system that will assist the committee work and eventually provide on-line access to all of our standards.

The SPAsystem™ (Standards Process Automation system), which has now received the approval of the IEEE Board of Directors (see front page), will introduce economies, shorten schedules, lighten the load on our volunteers, and expand international participation.

Perception: The IEEE standards process is too restricted by procedures.

Reality: The procedures that are in place are only those that are necessary to protect the integrity of the system and the standard, no more, no less. Constant vigilance over our standards activity, including meaningful applications of current technology, legal oversight to protect the due process in our system, editorial support for the development process, and leadership training for IEEE volunteers, provide significant value to standards developers.

Let's all of us do our level best to dispel incorrect perceptions and to move forward based on the reality of the situation.

Wallace S. Read
Vice President, IEEE Standards Activities

IEEE Takes Leading Role in Emerging Technologies

by Deborah Czyz

"Emerging technologies" seems to be quite the "buzz" in industry today. Companies are focusing on emerging technologies to remain competitive. R&D is focusing on emerging technologies to provide data and research results to organizations for the development of products and literature in new areas of technology. Standards-developing organizations also need to keep attuned to emerging technologies and to R&D in these areas to gain adequate foresight to recognize practices that can mature into future full-fledged consensus standards.

The IEEE is taking a progressive approach to meeting new market requirements for pre-standards information, new standards, and related information. The Emerging Practices in Technology (EPT) program, as described in the January 1993 issue of the *IEEE Standards Bearer,* is one such activity and represents a cooperative effort between the IEEE Standards Board, the IEEE Technical Activities Board (TAB), and the International Electrotechnical Commission (IEC). This program provides a bridge between the industry R&D and standardization. It taps the resources of IEEE's technical societies; presents a slate of possibilities for the New Opportunities in Standards Committee (NosCom) of the Standards Board; and offers the IEC a resource for promulgating needed industry practices that foreshadow future international standards.

According to the IEC Masterplan 1993, "an important contribution will be for the IEC to publish the results of emerging practices, that is, those [practices] not yet ripe for the normal processes of consensus. This new kind of publication will serve as a basis for the rapid development of future standards, but provide users with a period of adjustment to orient themselves before the adoption to consensus standards." The IEC has acknowledged that cooperative efforts with such organizations as the IEEE will "strengthen resources" and aid in the development of better international standards. The documents will be published

(Continued on page 10)

Windows to ... Stronger IEEE Presence in IEC

"Les absents ont toujours tort"

(Those who are absent are always wrong)

by Leendert van Rooij

There's been a lot of talk about IEEE becoming "international"—and some confusion between what may be inevitable and what may be true today. Certainly the rapid growth of IEEE's non-North American membership suggests that the makeup of the organization itself will necessarily change. But how many activities, including standardization, are really of an international character? My view is that if we examine the area of standards, we can see that IEEE still has a considerable distance to go. As the French say, "Les absents ont toujours tort" (those who are absent are always wrong).

Leendert van Rooij, Retired Deputy General Secretary, IEC

My vantage point is from years of experience with the International Electrotechnical Commission (IEC) in Geneva, the world's leading publisher of international standards in electrical and electronics engineering. I'd like to propose some suggestion and correct a few misconceptions along the way.

International standards are those standards that are identified as such. While IEEE adopts standards of other countries and vice versa, this is not international standardization in the true sense, but rather, bilateral agreement. IEC is responsible for the development and publication of worldwide standards in the electrical and electronics field, and works jointly with the International Organization for Standardization (ISO) in the field of information technology. ISO is responsible for other technical fields.

When standards of other standards-developing bodies, including IEEE, become known and widely applied in a number of countries, they are not truly international, unless they go through the appropriate channels to become approved as international standards (such as the family of IEEE Standards for Local and Metropolitan Area Networks). Since 1904, when the decision was made to create the IEC during the World Electrical Congress in St. Louis, the US has participated in the work of the IEC solely through the US National Committee (USNC).

Many of those who participate in IEEE standards activities have always been well aware of the IEC. Yet in the vast majority of cases, IEEE members do not actively participate in IEC committee work. This means that they have no influence and are not familiar with the arguments that have led to decisions made at the international level.

What's needed is more visible and more effective cooperation between IEEE and the IEC. A very positive sign of cooperation took place in 1983, with the publication of part 1 of the *IEC Multilingual Dictionary* under the joint seal of IEEE and the IEC. However, for many years afterwards not much happened. Now IEEE and the IEC have joined together to support a new effort, the Emerging Practices in Technology, a program that may help influence the development of future standards (see related article, page 3).

What more can be done? If IEEE truly desires to become international, then active participation and commitment to international standards are required. Here's where to start:

- Analyze which fields have international trade of significance. This need not be limited to products, but can also apply to services and processes. Typical examples are safety and environmental conditions, such as electromagnetic compatibility (EMC).
- Scrutinize the standardization programs to determine where there is a common interest. Synchronize the work through active participation. A good example of success in this area is in the case of ISO/IEC Joint Technical Committee 1 (JTC 1) for information technology. However, there are many other fields for which international standards are of great importance.
- Where there is a common interest, IEEE standards activities should not limit their perspective to the situation within the US. Also, some members of the relevant IEEE committees should also actively participate in the corresponding IEC committees. This should be effected through the USNC.
- Give more publicity to the work of the IEC through IEEE channels.
- Cooperate as closely as possible with other organizations such as Underwriters Laboratories (UL) and the Electronic Industry Association (EIA), as there are many overlapping or interfacing areas.

Remember the saying—*les absents ont toujours tort*. The amount of effort that IEEE puts into these areas will be a critical factor in determining its success in the international standards arena. IEEE, and all the standards developers within it, should consider how well these challenges are being met—so as not to be left out in the cold. ◆

Leendert van Rooij is the Retired Deputy General Secretary of the IEC.

The IEEE Standards Board formally congratulates the Chairs, Vice Chairs, and Co-chairs listed below as well as their working groups on the publication of their standard, or collection.

Glenn A. Davidson, Chair: *738-1993* IEEE Standard for Calculating the Current-Temperature of Bare Overhead Conductors

William P. Lidinsky, Chair; **Tony Jeffree,** Task Group Chair: *802.1k-1993* Supplement to IEEE Std 802.1B-1992, LAN/MAN Management: Discovery and Dynamic Control of Event Forwarding

Patricia Thaler, Chair; **Frederick Scholl,** Task Force Chair; **Keith Amundsen,** Past Chair; **Michael E. Lee,** Technical Editor: *802.3j-1993* Supplement to ISO/IEC 8802-3 : 1993: Fiber Optic Active and Passive Star-Based Segments, Type 10BASE–F

Patricia Thaler, Chair; **Joseph S. Skorupa,** Task Force Chair; **Geoffrey O. Thompson,** Vice Chair/Editor: *802.3p & q-1993* Supplements to ISO/IEC 8802-3 : 1993: Layer Management for 10 Mb/s Baseband MAUs and Guidelines for the Development of Managed Objects (GDMO) (ISO 10164-4) Format for Layer-Managed Objects

Jack Tuzinski, Chair; **Leo Hamilton,** Past Chair: *817-1993* IEEE Standard Test Procedure for Flame-Retardant Coatings Applied to Insulated Cables in Cable Trays

Kim Clohessy, Chair: *1101.3-1993* IEEE Mechanical Standard for Conduction-Cooled and Air-Cooled 10SU Modules

Joseph Toy, Chair, **Andrew Brough,** Editor: *1101.4-1993* IEEE Standard for Military Module, Format E-Form Factor

Rudolf Schubert, Chair; **Andrew Brough,** Vice Chair: *1156.1-1993* IEEE Standard for Microcomputer Environment Specifications for Computer Modules

Robert McGarvey, Richard Patrick, Dez Cass, Co-Chairs: *1226-1993* IEEE ABBET Trial-Use Standard for a Broad-Based Environment for Test (ABBET), Overview and Architecture

Steve Trus, Chair, **Tim Carter,** Vice Chair, **Graham Jack,** Technical Editor, **Ed Owens,** Technical Reviewer, and **Petr Janacek,** Technical Reviewer, for the following eight standards:

1224-1993 IEEE Standard for Information Technology—Open Systems Interconnection (OSI) Abstract Data Manipulation—Application Program Interface (API) [Language Independent]

1224.1-1993 IEEE Standard for Information Technology—X.400-Based Electronic Messaging—Application Program Interface (API) [Language Independent]

1326-1993 IEEE Standard for Information Technology—Test Methods for Measuring Conformance to Open Systems Interconnection (OSI) Abstract Data Manipulation—Application Program Interface (API) [Language Independent]

1326.1-1993 IEEE Standard for Information Technology—Test Methods for Measuring Conformance to X.400-Based Electronic Messaging Application Program Interface (API) [Language Independent]

1327-1993 IEEE Standard for Information Technology—Open Systems Interconnection (OSI) Abstract Data Manipulation C Language Interfaces—Binding for Application Program Interface (API)

1327.1-1993 IEEE Standard for Information Technology—X.400-Based Electronic Messaging C Language Interfaces—Binding for Application Program Interface (API)

1328-1993 IEEE Standard for Information Technology—Test Methods for Measuring Conformance to Open Systems Interconnection (OSI) Abstract Data Manipulation C Language Interfaces—Binding for Application Program Interface (API)

1328.1-1993 IEEE Standard for Information Technology—Test Methods for Measuring Conformance to X.400-Based Electronic Messaging C Language Interfaces—Binding for Application Program Interface (API)

Wayne Fischer, Chair; **Bob Snively,** Draft Technical Editor; **Jim Lyle,** Vice Chair; *1496-1993* IEEE Standard for a Chip and Module Interconnect Bus: SBus

David B. Gustavson, Chair; **David V. James,** Vice Chair: *1596-1992* IEEE Standard for Scalable Coherent Interface (SCI)

P. L. Kolarik, Chair, **Eric M. Ruoss,** Project Developer: *C37.013-1993* IEEE Standard for AC High-Voltage Generator Circuit Breaker Rated on a Symmetrical Current

Ward E. Laubach, Chair; **G. R. Nourse** and **R. D. Garzon,** Project Developers: *C37.14-1992* IEEE Standard for Low-Voltage DC Power Circuit Breakers Used in Enclosures

E. W. Schmunk, Chair: *C37.40-1993* IEEE Standard Service Conditions and Definitions for High-Voltage Fuses, Distribution Enclosed Single-Pole Air Switches, Fuse Disconnecting Switches, and Accessories

Wallace B. Binder, Jr., W. R. Henning, R. A. Veitch: *C57.12.00-1993* IEEE Standard General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers

Georges H. Vaillancourt, Chair: *C57.12.90-1993* IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers and IEEE Guide for Short Circuit Testing of Distribution and Power Transformers

Bipin K. Patel, Chair: *C57.109-1993* IEEE Guide for Liquid-Immersed Transformer Through-Fault-Current Duration

Collections

Ramond S. Turgel, Special Contributor: *IEEE Electricity Metering Standards Collection,* 1993 Edition

Frank D. Myers, Special Contributor: *IEEE Engineering in Safety, Maintenance, and Operation of Lines (ESMOL) Standards Collection,* 1993 Edition

Marco Migliaro, Special Contributor: *IEEE Stationary Battery Standards Collection,* 1993 Edition

Awards Spotlight

Dr. Spiros Dimolitsas was presented with the IEEE Standards Medallion on April 29, 1993 during the IEEE International Conference on Acoustics, Speech and Signal Processing in Minneapolis, Minnesota. Dr. Dimolitsas was given the award for his "outstanding contributions and leadership in standardization of source coding techniques for international communications."

At the EMC International Symposium held August in Dallas, TX, Stephen Berger was given a Standards Medallion for his accomplishments in electromagnetic compatibility standardization.

The IEEE Standards Medallion is awarded for outstanding achievement in the development and implementation of standards within the technologies of the IEEE. Recipients are selected solely on the basis of their accomplishments in standards.

Company Membership Issue Raised at Standards Board

Company membership has been an active point of discussion at recent IEEE Standards Board meetings. Currently, membership in the IEEE is as an individual only. With Board approval, certain organizations with broad-based membership interest (such as user groups, trade organizations, or other standards-developing organizations) can be given the right to vote on particular standards. However, certain standards could be enhanced by the active participation of company members during their development. For this reason, the possibility of allowing company membership for particular standards has been raised at the IEEE Standards Board.

If you are interested in this topic and would like to prepare a position white paper for ProCom, please contact Terry deCourcelle, (908) 562-3807 or t.decourcelle@ieee.org. ◆

Computer Society Organizational Changes

The IEEE Computer Society has changed its Policies and Procedures to enable standards activities subcommittees to report directly to the Standards Activities Board (SAB). The interrelationship between the former subcommittees (SCs) and the technical committees (TCs) is being reviewed on a case-by-case basis.

Sponsors that were formerly subcommittees of technical committees are now committees, and this change is reflected in their names. In conjunction with this new reporting structure, several sponsors have chosen to further change their names, as follows:

- **POSIX** (Portable Operating Systems for UNIX) is now **PASC** (Portable Applications Standards Committee)
- **P802** (Project 802 for Local and Metropolitan Area Networks) is now **LMSC** (LAN MAN Standards Committee)
- **MSSWG** (Mass Storage Standards Working Group) is now **SSSC** (Storage Systems Standards Committee)

In the case of LMSC, this change does not affect projects that were in ballot prior to the change. In the case of other sponsoring committees with projects in process, it will affect all projects.

IntCom: Standards Board Committee Coordinates International Efforts

by Mary Lynne Nielsen

This is the first in a series of articles on the committees of the IEEE Standards Board: what they are, what they do, and why they're important to standards developers.

The IEEE Standards Board International Committee (IntCom) was created in 1990 by the IEEE Standards Board. as the Transnational Committee. In 1992, the members of the committee asked that the name be changed to reflect more truly the direction and scope of this group.

And what is that scope? The IEEE Standards Board Bylaws tell us that IntCom is responsible for coordinating IEEE standards activities with non-IEEE standards organizations. This scope evolved because the IEEE Standards Board decided that, in order to be a truly transnational organization developing worldwide standards, a guiding body needed to exist to help coordinate and direct harmonization efforts in this area.

Since its inception, IntCom has been working diligently at this task. The committee, made up of Board members, past Board members, and other interested parties, has been examining several practical aspects of this much-needed goal. In particular, they have prepared and approved the Transnational Project Authorization Request form (TPAR), which allows for the adoption of standards from other international, regional, or national standards-developing bodies by the IEEE. This form was the starting point for the adoption of Australian standard 3563.1 as IEEE Std 1298-1992, and is currently the pathway for adoption of four Euronormes from CENELEC by the IEEE Switchgear Committee.

In addition, IntCom has been working on a series of guides to help standards developers coordinate their work with that of other standards-developing organizations. If you are working on a standard that you believe may have the potential to become an international standard, these guides will be an aid in making that determination. The guides also explain what needs to go into the standard as it is under development. One guide in this series, for JTC1, has already been published, and a revision to include necessary updates and corrections is under way. A second guide, for IEC, is in development within the IntCom, with anticipated publication in 1994.

This draft IEC guide will be greatly enriched by another project in IntCom that is examining the relationship between IEEE and IEC committees in terms of their scopes, documents, and common members. Set up as a series of charts, this project illustrates the relationships that currently exist and indicates the potential for future development in this area.

Like all IEEE meetings, IntCom meetings are open to anyone who would like to attend. If you are interested in any of the above projects or if you have ideas for future work that you would like to see done, IntCom would be interested in hearing from you. IntCom can also serve as a forum and a facilitator for problems you may be encountering in this area. For further information, contact Terry deCourcelle, (908) 562-3807 (t.decourcelle@ieee.org), or Ben Johnson, the chair of IntCom, at (512) 396-5880 (p00646@psilink.com.) ◆

RECENT IEEE STANDARDS PUBLICATIONS

Abbreviated Test Language For All Systems (ATLAS)

1226-1993 IEEE ABBET Trial-Use Standard for a Broad-Based Environment for Test (ABBET), Overview and Architecture (ISBN 1-55937-359-8) [SH16691-NVE] $47.50

Computer

802.1k-1993 Supplement to IEEE Std 802.1B-1992, LAN/MAN Management: Discovery and Dynamic Control of Event Forwarding (ISBN 1-55937-335-0) [SH16444-NVE] $30.00

802.3j-1993 Supplement to ISO/IEC 8802-3 : 1993, Fiber Optic Active and Passive Star-Based Segments, Type 10BASE–F (ISBN 1-55937-334-2) [SH16436-NVE] $53.00

802.3p & q-1993 Supplements to ISO/IEC 8802-3 : 1993: Layer Management for 10 Mb/s Baseband MAUs and Guidelines for the Development of Managed Objects (GDMO) (ISO 10164-4) Format for Layer-Managed Objects (ISBN 1-55937-342-3) [SH16543-NVE] $33.00

1101.3-1993 IEEE Mechanical Standard for Conduction-Cooled and Air-Cooled 10SU Modules (ISBN 1-55937-348-2) [SH16600-NVE] $44.00

1101.4-1993 IEEE Standard for Military Module, Format E-Form Factor (ISBN 1-55937-349-0) [SH16618-NVE] $44.00

1156.1-1993 IEEE Standard for Microcomputer Environment Specifications for Computer Modules (ISBN 1-55937-351-2) [SH16634-NVE] $45.50

1224-1993 IEEE Standard for Information Technology—Open Systems Interconnection (OSI) Abstract Data Manipulation—Application Program Interface (API) [Language Independent] (ISBN 1-55937-301-6) [SH16113-NVE] $44.50

1224.1-1993 IEEE Standard for Information Technology—X.400-Based Electronic Messaging—Application Program Interface (API) [Language Independent] (ISBN 1-55937-302-4) [SH16121-NVE] $55.00

1301.2-1993 IEEE Recommended Practices for the Implementation of a Metric Equipment Practice (IEEE Std 1301-1991) (ISBN 1-55937-307-5) [SH16170-NVE] $44.50

1326-1993 IEEE Standard for Information Technology—Test Methods for Measuring Conformance to Open Systems Interconnection (OSI) Abstract Data Manipulation—Application Program Interface (API) [Language Independent] (ISBN 1-55937-308-3) [SH16188-NVE] $46.50

1326.1-1993 IEEE Standard for Information Technology—Test Methods for Measuring Conformance to X.400-Based Electronic Messaging Application Program Interface (API) [Language Independent] (ISBN 1-55937-309-1) [SH16196-NVE] $74.00

1327-1993 IEEE Standard for Information Technology—Open Systems Interconnection (OSI) Abstract Data Manipulation C Language Interfaces—Binding for Application Program Interface (API) (ISBN 1-55937-311-3) [SH16212-NVE] $43.00

1327.1-1993 IEEE Standard for Information Technology—X.400-Based Electronic Messaging C Language Interfaces—Binding for Application Program Interface (API) (ISBN 1-55937-312-1) [SH16220-NVE] $43.00

1328-1993 IEEE Standard for Information Technology—Test Methods for Measuring Conformance to Open Systems Interconnection (OSI) Abstract Data Manipulation C Language Interfaces—Binding for Application Program Interface (API) (ISBN 1-55937-314-8) [SH16246-NVE] $45.50

1328.1-1993 IEEE Standard for Information Technology—Test Methods for Measuring Conformance to X.400-Based Electronic Messaging C Language Interfaces—Binding for Application Program Interface (API) (ISBN 1-55937-315-6) [SH16253-NVE] $43.00

1496-1993 IEEE Standard for a Chip and Module Interconnect Bus: SBus (ISBN 1-55937-353-9) [SH16659-NVE] $50.00

1596-1992 IEEE Standard for Scalable Coherent Interface (SCI) (ISBN 1-55937-222-2) [SH15255-NVE] $68.00

Power Engineering

738-1993 IEEE Standard for Calculating the Current-Temperature of Bare Overhead Conductors (ISBN 1-55937-338-5) [SH16501-NVE] $42.50

817-1993 IEEE Standard Test Procedure for Flame-Retardant Coatings Applied to Insulated Cables in Cable Trays (ISBN 1-55937-326-1) [SH16352-NVE] $35.00

C37.013-1993 IEEE Standard for AC High-Voltage Generator Circuit Breaker Rated on a Symmetrical Current (ISBN 1-55937-320-2) [SH16303-NVE] $48.50

C37.14-1992 IEEE Standard for Low-Voltage DC Power Circuit Breakers Used in Enclosures (ISBN 1-55937-284-2) [SH15917-NVE] $43.00

C37.40-1993 IEEE Standard Service Conditions and Definitions for High-Voltage Fuses, Distribution Enclosed Single-Pole Air Switches, Fuse Disconnecting Switches, and Accessories (ISBN 1-55937-321-0) [SH16311-NVE] $43.00

C57.12.00-1993 IEEE Standard General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers (ISBN 1-55937-355-5) [SH16675-NVE] $45.00

C57.12.90-1993 IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers and IEEE Guide for Short-Circuit Testing of Distribution and Power Transformers (ISBN 1-55937-295-8) [SH16055-NVE] $50.00

C57.109-1993 IEEE Guide for Liquid-Immersed Transformer Through-Fault-Current Duration (ISBN 1-55937-323-7) [SH16329-NVE] $43.00

Collections

Supplement to IEEE Circuit Breakers, Switchgear, Substations, and Fuses Standards Collection, 1993 Edition (ISBN 1-55937-328-8) [SH16428-NVE] $25.00

IEEE Electricity Metering Standards Collection, 1993 Edition (ISBN 1-55937-364-4) [SH16733-NVE] $90.00

IEEE Engineering in Safety, Maintenance, and Operation of Lines (ESMOL) Standards Collection, 1993 Edition (ISBN 1-55937-362-8) [SH16717-NVE] $89.00

IEEE Stationary Battery Standards Collection, 1993 Edition (ISBN 1-55937-363-6) [SH16725-NVE] $81.00

IEEE Special Publications

Circuit Breakers, Switchgear, Substations, and Fuses Standards Collection, 1993 Edition and **Supplement Set** (ISBN 1-55937-357-1) [SH16469-NVE] $168.50

IEEE Standards Press

Supplement to Nuclear EQ Sourcebook: A Compilation of Documents for Nuclear Equipment Qualification (ISBN 1-55937-358-X) [SP00059-NVE] $89.00

Nuclear EQ Sourcebook and **Supplement to Nuclear Sourcebook Set** (ISBN 1-55937-361-X) [SP00067-NVE] $299.00

To order IEEE Standards Publications, please call (800) 678-IEEE. Outside the US and Canada, call (908) 981-1393.

IEEE STANDARDS BOARD ACTIONS

APPROVED PARs FOR NEW STANDARDS

P802.30 (C/LM) Standard for High-Speed Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method, Physical Layer and Repeater Specifications for 100 Mb/s Operation

P802.3r (C/LM) Supplement to Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications: Type 10BASE5 Medium Attachment Unit (MAU) Protocol Implementation Conformance Statement (PICS) Proforma (Section 8.8)

P802.3t (C/LM) Supplement to Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications: Informative Annex for Support of 120 Ohm Cables in 10BASE-T Simplex Link Segment

P802.9a (C/LM) Supplement to Integrated Services (IS) LAN Interface at the Media Access Control (MAC) and Physical Layers: IEEE 802.9 Isochronous Service with Carrier Sense Multiple Access with Collision Detection (CSMA/CD) MAC Service

P802.9b (C/LM) Standard for Functional Specification for Access Unit (AU) to AU Interworking

P802.10g (C/LM & C/SP) Supplement to Interoperable LAN/MAN Security: Security Labeling Within Secure Data Exchange (SDE)

P802.12 (C/LM) Standard for Demand Priority Access Method, Physical Layer and Repeater Specifications for 100 Mb/s Operation

P1003.7.3 (C/PA) Standard for Information Technology—Portable Operating System Interface (POSIX)—Part 3: System Administration Amendment: User Administration

P1044.1 (C/SE) Guide to IEEE Standard for Classification for Software Anomalies

P1076a (C/DA) Supplement to the VHDL Standard Language Reference Manual for Shared Variables

P1149.1b (C/TT) Supplement to Standard Test Access Port and Boundary-Scan Architecture (1149.1)

P1275.5 (C/BA) Standard for Boot (Initialization Configuration) Firmware—Supplement for 680x0 ISA

P1366 (PE/T&D) Guide for Terms and Definitions Associated with Distribution Reliability and Their Application

P1367 (PE/SWG) Standard for AC High-Voltage Circuit Switchers

P1368 (PE/T&D) Guide for Vibration Field Measurements of Overhead Conductors

P1369 (SCC31) Standard for a Utility Industry Cryptographic Protocol

P1371 (C/BA) Standard for Information Technology—Distributed Coherent Memory Architecture

PC57.132 (PE/TR) Standard for the Electronic Reporting of Transformer Test Data

REVISED PARs

P664 (PE/T&D) Guide for Laboratory Measurement of the Power Dissipation Characteristics of Aeolian Vibration Dampers for Single Conductors

P1003.1.6 (*redesignated 1003.1e*) (C/PA) Standard for Information Technology—Portable Operating System Interface (POSIX)—Part 1: System Application Program Interface (API)—Amendment n: Protection, Audit, and Control Interfaces [C Language]

P1003.2.6 (*redesignated 1003.2c*) (C/PA) Standard for Information Technology—Portable Operating System Interface (POSIX)—Part 2: Shell and Utilities—Amendment n: Protection and Control Utilities

P1044 (C/SE) Standard for Classification of Software Anomalies

P1149.4 (C/TT) Standard for a Mixed-Signal Test Bus

P1372 (C/PA) Standard for Information Technology—Portable Operating System Interface (POSIX)—Part 1: System Application Program Interface (API) [Language Independent]

PC62.23 (PE/SPD) Application Guide for Surge Protection of Electric Generating Plants

PC95.3 (SCC28) Recommended Practice for the Measurement and Computation of Potentially Hazardous Electromagnetic Fields—RF and Microwave: 3 kHz to 300 GHz

APPROVED PARs FOR STANDARDS REVISIONS

P379 (PE/NPE) Standard Application of the Single Failure Criterion to Nuclear Power Generating Safety Systems

P576 (IA/P&CI) Recommended Practice for Installation, Termination and Testing of Insulated Power Cable as Used in the Petroleum and Chemical Industry

P802.3s (C/LM) Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications: Maintenance Revision #4

P1003.5 (C/PA) Standard for Information Technology—POSIX Ada Language Interfaces—Part 1: Binding for System Application Program Interface (API)

P1058 (C/SE) Standard for Software Project Management Plans

P1125 (PE/IC) Guide for Moisture Measurements and Control in SF6 Gas-Insulated Equipment

P1175 (C/SCC) Standard Reference Model for Computing System Tool Interconnections

PC57.110 (PE/TR) Recommended Practice for Establishing Transformer Capability When Supplying Nonsinusoidal Load Currents

PC62.36 (PE/SPD) Standard Test Methods for Surge Protectors Used in Low-Voltage Data Communications and Signaling Circuits

WITHDRAWN PARs

P368 (COM/TRANSACC) Guide for the Measurement of Electrical Noise and Harmonic Filter Performance of High-Voltage Direct-Current Systems

P1003.16 (C/PA) Standard for Information Technology—POSIX C Language Interfaces—Part 1: Binding for System Application Program Interface (API)

P1003.16a (C/PA) Standard for Information Technology—POSIX C Language Interfaces—Part 1: Binding for System Application Program Interface (API)—Amendment 1: System API Extensions

P1003.19 (C/PA) Standard for Information Technology—POSIX Fortran 90 Language Interfaces—Part 1: Binding for System Application Program Interface (API)

P1149.3 (C/TT) Standard Testability Bus

P1802.3a (C/CC) Supplement to Conformance Test Methodology for IEEE Standards for Local and Metropolitan Area Networks: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications: Methodology and Implementation for MAC Conformance Testing

P1802.3b (C/CC) Supplement to Conformance Test Methodology for IEEE Standards for Local and Metropolitan Area Networks: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications: Methodology and Implementation for PLS, Type 10, Conformance Testing

P1802.3c (C/CC) Supplement to Conformance Test Methodology for IEEE Standards for Local and Metropolitan Area Networks: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications: Methodology and Implementation for MAU, Type 10BASE5, Conformance Testing

CHANGES TO PAR NUMBERS

Please note that the following standards designations in the 1003.1 and 1003.2 families have been changed to bring the 1003.X series of standards into conformance with approved IEEE numbering taxonomy: 1003.4 is now 1003.1b; 1003.4a is now 1003.1c; 1003.4b is now 1003.1d; 1003.1.6 is now 1003.1e; 1003.8 is now 1003.1f; 1003.12 is now 1003.1g; and 1003.2.6 is now 1003.2c.

APPROVAL OF NEW STANDARDS

896.4 (C/BA) IEEE Standard for Conformance Test Requirements for Futurebus+

1003.4 (*redesignated 1003.1b*) (C/PA) IEEE Standard for Information Technology—Portable Operating System Interface (POSIX)—Part 1: System Application Program Interface (API)—Amendment 1: Realtime Extension [C Language]

1025 (PE/T&D) IEEE Guide to the Assembly and Erection of Concrete Pole Structures

1221 (DEI/S32-12) IEEE Guide for Fire Hazard Assessment of Electrical Insulating Materials in Electrical Power Systems

REVISED STANDARDS

7.4.3.2 (PE/NPE) IEEE Standard Criteria for Digital Computers in Safety Systems of Nuclear Power Generating Stations

664 (PE/T&D) IEEE Guide for Laboratory Measurement of the Power Dissipation Characteristics of Aeolian Vibration Dampers for Single Conductors

802.3j (C/LM) IEEE Standards for Local and Metropolitan Area Networks: Supplement to Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications: Fiber Optic Active and Passive Star-Based Segments, Type 10BASE-F (Sections 15–18)

802.5p (C/LM) IEEE Standards for Local and Metropolitan Area Networks: Supplement to Logical Link Control: End Systems Route Determination (revision to ISO 8802-2:1989 [ANSI/IEEE Std 802.2-1989])

802.6h (C/LM) IEEE Standards for Local and Metropolitan Area Networks: Supplement to Distributed Queue Dual Bus (DQDB) Subnetwork of a Metropolitan Area Network (MAN): Isochronous Services Over the 802.6 MAN

896.1a (C/BA) Supplement to IEEE Std 896.1-1991, Futurebus+ Logical Layer: Errata, Correction, and Clarification

1076 (C/DA) IEEE Standard VHDL Language Reference Manual

1802.3d (C/LM) Supplement to Conformance Test Methodology for IEEE Standards for Local and Metropolitan Area Networks: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications—Type 10BASE-T: MAU Conformance Testing (Section 6)

C37.20.1 (PE/SWG) IEEE Standard for Metal-Enclosed Low-Voltage Power Circuit-Breaker Switchgear

C37.20.2 (PE/SWG) IEEE Standard for Metal-Clad and Station-Type Cubicle Switchgear

C62.11 (PE/SPD) IEEE Standard for Metal-Oxide Surge Arresters for Alternating Current Power Circuits

REAFFIRMED STANDARDS

338 (PE/NPE) IEEE Standard Criteria for the Periodic Surveillance Testing of Nuclear Power Generating Station Safety Systems

859 (PE/PSE) IEEE Standard Terms for Reporting and Analyzing Outage Occurrences and Outage States of Electrical Transmission Facilities

937 (SCC21) IEEE Recommended Practice for Installation and Maintenance of Lead-Acid Batteries for Photovoltaic (PV) Systems

C62.31 (PE/SPD) IEEE Standard Test Specifications for Gas-Tube Surge-Protective Devices

WITHDRAWN STANDARDS

181 (IM/WM&A) IEEE Standard on Pulse Measurement and Analysis by Objective Techniques

194 (IM/WM&A) IEEE Standard Pulse Terms and Definitions

1057 (IM/WM&A) IEEE Trial-Use Standard for Digitizing Waveform Recorders

1131 (NPS) IEEE Standard Cryostat End-Cap Dimensions for Germanium Semiconductor Gamma-Ray Spectrometers

ACRONYMS

C/BA	Computer/Bus Architecture
C/CC	Computer/Computer Communications (now C/LM)
C/DA	Computer/Design Automation
C/LM	Computer/LAN MAN
C/PA	Computer/Portable Applications
C/SCC	Computer/Standards Coordinating Committee
C/SE	Computer/Software Engineering
C/SP	Computer/Security & Privacy
C/TT	Computer/Test Technology
COM/TRAN SACC	Communications/Transmission Access Committee
DEI/S32-12	Dielectrics and Electrical Insulation/Fire Hazard Assessment Technical Committee
IA/P&CI	Industry Applications/Petroleum & Chemical Industry
IM/WM&A	Instrumentation & Measurment/TC10—Waveform Measurement & Analysis
NPS	Nuclear & Plasma Sciences
PAR	Project Authorization Request
PE/EM	Power Engineering/Electric Machinery
PE/NPE	Power Engineering/Nuclear Power Engineering
PE/SPD	Power Engineering/Surge-Protective Devices
PE/PSE	Power Engineering/Power System Engineering
PE/SWG	Power Engineering/Switchgear
PE/T&D	Power Engineering/Transmission & Distribution
PE/TR	Power Engineering/Transformers
SCC21	Standards Coordinating Committee 21 (Photovoltaics)
SCC28	Standards Coordinating Committee 28 (Non-ionizing Radiation)
SCC31	Standards Coordinating Committee 31 (Automatic Meter Reading & Energy Management)

Soon Available...

Supplement to Test Access Port and Boundary-Scan Architecture Standard

IEEE Std 1149.1a-1993, approved by the IEEE Standards Board in June, will soon be available from the IEEE. This supplement to the popular IEEE Std 1149.1-1990, *IEEE Standard for Test Access Port and Boundary-Scan Architecture*, contains corrections to the original standard, clarifications that will assist future users in implementing the standard, and new enhancements to the standard. The latter includes two new optional instructions, CLAMP and HIGHZ, which were often implemented as design-specific features on a significant number of early commercial integrated circuits that claimed conformance to IEEE Std 1149.1-1990.

The provision of standard instruction names and corresponding specifications will assist in the development of design and test tools that can automatically exploit the existence of the relevant functionality. In addition, an option has been provided to switch a component from a mode in which it complies to IEEE Std 1149.1 into one in which it supports another design-for-test approach, such as sensitive scan design for stand-alone component testing.

This supplement will be merged with IEEE Std 1149.1-1990 and marked with change bars.

For information on ordering this publication, call 1-800-678-IEEE.

Disaster Recovery *(Continued from front cover)*

to underwater sites by boat, and professional scuba divers threw switches at certain underwater stations. Rick Van Hatton, an IEEE member and Midwest Power's Manager of Substation Engineering, said that strategies for recovery were based heavily on the ingenuity of the crew teams rather than on written emergency guidelines or technical standards.

Yet standardization is a factor that makes it possible for utilities to help each other in times of crisis. For instance, when Louisiana Power & Light needed assistance after Hurricane Andrew, seven neighboring utility companies answered the call for help. Ken Hall, Manager of Power Delivery Programs for Edison Electric Institute (EEI), pointed out that standards encourage similar designs and ratings that enable utilities to interchange equipment. David Soffrin, IEEE Standards Board Liaison and EEI Director of Engineering and Standards, noted that ASC C2-1993, *The National Electrical Safety Code*, also aids in the application of common safety practices and procedures during times when additional assistance is needed. Following a common set of rules can enable crews to work efficiently and safely together, even under emergency circumstances.

Standards may play their most subtle, yet vital, role in contributing to public safety following a disaster. When Hurricane Andrew passed over south Florida on August 24, 1992, it had a wind speed of at least 145 mph (233 km/h) and gusts of at least 175 mph (282 km/h). Turkey Point Nuclear Power Plant, operated by Florida Power & Light (FPL), was directly hit. The day before the hurricane arrived, the unit was partially shut down as a precaution. Immediately after the storm passed, Marco Migliaro, former Vice President of Standards and FPL Staff Electrical Engineer, drove to one of the nuclear generating units at Turkey Point to assess damage. "The ride to Turkey Point was a sobering experience," Migliaro said. He found the last 20 miles into Turkey Point disorienting as he passed unroofed houses and downed lines, demolished landmarks, and unrecognizable signs.

Migliaro, one of many involved in the recovery, then assessed the damage and prioritized the recovery needs of the generating station. The results of the assessment determined that despite the direct hit, the nuclear plant was in a safe condition and relatively undamaged. FPL incorporates and follows many IEEE standards in its nuclear generating stations, Migliaro said, most of which are included in the *IEEE Nuclear Power Standards Collection.*

Clearly, standards can play a role in disaster recovery and prevention for electrical utilities. By setting up procedures established by consensus, by encouraging interchangeability of equipment, and by establishing safe methods for working with electrical equipment, standards have contributed to recovery in the case of flooding in the Middle West and to prevention of further disaster in the case of Hurricane Andrew in the South. While their role may not be obvious, this is perhaps as it should be—standards, at their best, providing part of the foundation upon which the courage and creativity of others can build. ◆

Rochelle Stern is an IEEE Standards Project Editor who works on The National Electrical Safety Code and other standards.

Emerging Technologies *(Continued from page 3)*

under the auspices of the IEEE Standards Press.

The comments and input generated by the publication of EPTs will be critical to the future development and harmonization of internationally acceptable work. Therefore, readers will be encouraged to submit their comments on these papers which will be part of the foundation for the development of future standards.

The IEEE Standards Press is pleased to announce the publication of its first group of EPTs:

- *The Role in Emerging Technologies Played by Standards for Exposure to Electromagnetic Energy,* J. Osepchuk, R. Petersen, authors
- *Design and Realization of Broadband Transmission Line Transformers,* J. Sevick, author
- *Dynamic Compensation of AC Transmission Lines by Solid-State Synchronous Voltage Sources,* L. Gyugyi, author

These papers may be obtained by contacting the IEEE at the number listed below. Those accepted for distribution by the IEC may also be announced in the *IEC Bulletin*, the newsletter of the IEC, as well as in the IEEE Standards catalog and the SPAsystem™ Bulletin Board.

To obtain Emerging Practice in Technology papers, call: IEEE Publication Sales at (908) 562-5420, or (800) 678-IEEE.

For additional information on the Emerging Practices in Technology program or for information on paper submissions, contact: IEEE Standards Press, (908) 562-3829, Fax: (908) 562-1571, e-mail: d.czyz@ieee.org ◆

Deborah Czyz is Managing Editor, IEEE Standards Press.

Call for Participation in PASC Fault-Management Study Group

The IEEE Portable Applications Standards Committee (PASC) has formed a new study group to address fault management within an operating system. The goal of this study group will be to identify the scope of work, develop a Project Authorization Request (PAR), identify potential interfaces for standardization, and develop an operating system model for fault management. The study group will address standardization potential of Application Programming Interfaces (APIs) capable of providing fault-management mechanisms. The study group will meet on the following PASC meeting dates and locations: Oct 18–22, Bethesda MD; Jan 10–14, Irvine, CA; and April 18–22, Lake Tahoe, CA (tentative). Contact Helmut Roth, (301) 394-1480 (hroth@nswc-wo.nswc.navy.mil). ◆

CALENDAR OF EVENTS

October

31–Nov. 3 **Transformers Committee meeting** (Power Engineering Society)
St. Petersburg Beach, FL
Contact—J. D. Borst
(314) 634-2111

November

1–5 & 15–19 **National Electrical Safety Code (NESC) Subcommittees 1–8 meeting** to review change proposals to the 1996 NESC
Washington, D.C.
contact—Sue Vogel
(908) 562-3817

1–13 **IEC General Meeting**
Sydney, Australia
contact—C. Zegers, USNC
(212) 642-4964

2–3 **Nuclear Power Engineering meeting** (Power Engineering Society)
San Francisco, CA
contact—J. E. Thomas
(803) 831-4011

4–5 **SCC28 (Non-ionizing Radiation) biannual meeting**
Savannah, GA
contact—John Osepchuck
(617) 860-3195

7–10 **Insulated Conductors Committee meeting** (Power Engineering Society)
St. Petersburg Beach, FL
contact—C. A. White
(803) 748-3518

8 **Microprocessor and Microcomputer Standards Committee (MMSC) meeting** (Computer Society)
San Francisco, CA
contact—Fritz Whittington
(214) 995-0397
fax (214) 995-6194

8–12 **LAN MAN Standards Committee (LMSC) (P802) meeting** (Computer Society)
West Palm Beach, FL
contact—Classic Consulting
(604) 931-7600

10 **Computer Society Standards Activity Board meeting**
Santa Clara, CA
contact—Deirdre Bagley
(202) 371-0101

11 **SCC30 (Analog Hardware Descriptive Language [AHDL]) meeting**
Santa Clara, CA
contact—R. A. Salek
(217) 244-6038

18–19 **Lasers and Electro-optics (LEOS) Leadership Training**
San Jose, CA
contact—Charles Morrison
(914) 463-1917

30–Dec. 1 **Standards Board Committee meetings**
New York, NY
contact—Terry deCourcelle
(908) 562-3807

December

2 **IEEE Standards Board meeting**
New York, NY
contact—Terry deCourcelle
(908) 562-3807

8–10 **Engineering in Medicine and Biology (EMB) working group meeting**
Piscataway, NJ
contact—Karen DeChino
(908) 562-3802

13–15 **US TAG for ISO/IEC JTC 1/SC7**
Piscataway, NJ
contact—Leonard Tripp, Chair, US TAG for SC7, Boeing Commercial Airplane, MS 6Y-07, P.O. Box 3707, Seattle, WA 98124 tel. (206) 477-3326

January

9, 13, 14 **US TAG for ISO/IEC JTC 1/SC22/WG15**
Irvine, CA
contact—Lorraine Kevra, Chair, US TAG for SCC22/WG15, AT&T, 5A-210, Routes 202/206N, Bedminster, NJ 07921 tel. (908) 234-6423

10 **Microprocessor Standards Committee video conference**
Mountain View, CA and Dallas, TX
contact—Fritz Whittington
(214) 995-0397

10–13 **Bus Architecture Standards Committee (BASC) meeting** (Computer Society)
Salt Lake City, UT
contact—Harrison Beasley
(214) 997-3431

10–15 **Portable Applications Standards Committee (PASC) (POSIX) meeting** (Computer Society)
Irvine, CA
contact—Judy Williams
(415) 591-8995

11 **US TAG for ISO/IEC JTC 1/SC26**
Salt Lake City, UT
contact—Clyde Camp, Chair, US TAG for JTC 1/SC26, Texas Instruments, Inc., 2313 Merimac Drive, Plano, TX 75075 tel. (214) 995-0407

17–20 **Power System Relaying Committee meeting** (Power Engineering Society)
Orlando, FL
contact—A. T. Giuliante
(914) 347-5166

20–22 **SCC31 (Automatic Meter Reading & Energy Management) Leadership Training**
Orlando, FL
contact—Bill Rush
(312) 567-5749

30–Feb. 3 **Power Engineering Society Winter Meeting**
New York, NY
contact—F. Schink
(908) 276-8847

February

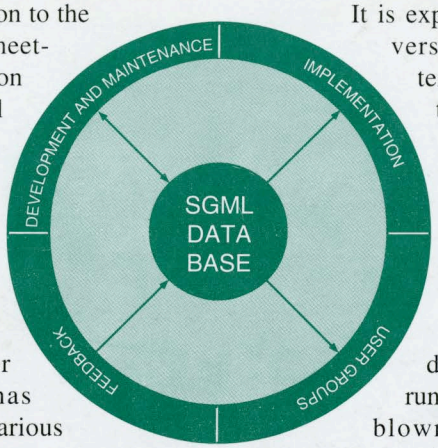
4 *Deadline for draft and PAR submission for March Standards Board meeting*

SPAsystem *(Continued from front cover)*

bear the real burden for funding standards development work. By supporting "behind the scenes" work—on the SPAsystem—in addition to the traditional physical meetings, standards work on the SPAsystem will accelerate the development cycle without adding to the costliness of already overburdened travel budgets.

The R&D for this effort has been under way for years and has been reported on at various times in this newsletter and elsewhere. The concept was developed by the staff in collaboration with the IEEE volunteer community. It has been presented for endorsement to standards-developing organizations of the US and abroad, publishing professionals, the information technology industry, government experts, and commercial vendors.

The SPAsystem will use the latest information and communications technologies to accomplish the goal of providing a mechanism for the efficient electronic exchange of information. It is expected that the infant version of the SPAsystem, including intense technical implementation activity, active pilot working groups, and a growing database that can be searched by standards users and developers, will be running in 1994; a full-blown program will be built over three to five years.



Continuous/Instantaneous Information Exchange

A database of standards information is at the heart of the SPAsystem. Data can be accessed by users and developers alike for different purposes.

The "heart" of this system is the information database itself, which will be structured in a universally acceptable language: SGML (Standard Generalized Markup Language). Adoption of this language, which describes the structure rather than the physical appearance of a document, will be a staff responsibility rather than a burden on the member or user of the system. The user will interface with the database through a variety of software "filters" that will mask out the SGML application, allowing the user to access information through more familiar interface technologies.

The SPAsystem is intended to facilitate contributions from international participants. Other standards-developing organizations will be encouraged to use the SPAsystem or duplicate it for their activities, so that the developers and users of standards will have a universal way of interfacing with an automated standardization activity.

The SPAsystem will not only benefit standards users and developers but will also eventually tie into the rest of the Institute's massive collection of data, making it possible for anyone to have access to the latest information on technological developments in electrical and electronics engineering. "The SPAsystem is the first step the Institute is making toward enabling authors and contributors to create materials and allow them to access those materials electronically," said Dr. Troy Nagle, 1994 President-Elect of IEEE. "This will move the rest of the Institute forward." ◆

Judith Gorman is Associate Staff Director of the IEEE Standards Department.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
Standards Department
445 Hoes Lane, PO Box 1331
Piscataway, NJ 08855-1331, USA

Non Profit Org.
US Postage
PAID
IEEE
Permit #52

11/27/91
Ron Reimer
Frank Kitzantides
Ed Kelly
Ralph Showers
Does the USNC agree with this interpretation?
Charlie Zegers

Moving an IEEE Standard Through the IEC

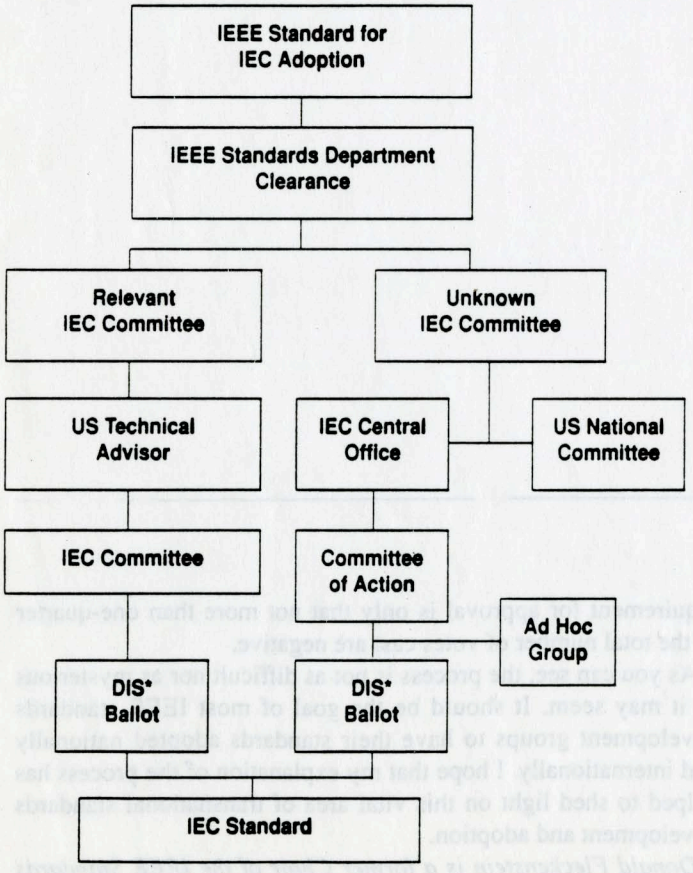
BY DONALD FLECKENSTEIN

As the IEEE representative to the US National Committee/International Electrotechnical Commission (USNC/IEC), I am often asked, "How would IEEE or other standards developing organizations based in the US get their standards approved by the IEC?" Because this edition of the *IEEE Standards Bearer* is dedicated to examining transnational standards development issues, I decided to write this article to explain the IEC process in more detail.

The International Electrotechnical Commission/International Organization of Standardization (IEC/ISO) Directives include procedures for the review and consideration of standards prepared by other standardizing bodies. Specifically, Annex G of the Directives details the steps and criteria for moving a non-IEC standard through the IEC process.

Such standards may be viewed as contributing to the program of an existing technical committee or subcommittee or, without an established committee, as expanding IEC coverage of standards in the electrotechnical field.

IEEE standards developing committees should become familiar with the scopes and work programs of the IEC committees. While the primary purpose for acquiring this knowledge is to identify opportunities for the recognition of IEEE Standards at the international level, IEC publications and information about committee activities may be useful to IEEE committee programs.



*DIS–Draft International Standard

The IEC Yearbook includes committee publications listings, document in circulation for IEC approval, and project subjects under consideration by each committee. The IEC Directory contains committee scopes and includes the names and addresses of US members of the USNC. Information about these publications is available from Anna Kaczmarek at the IEEE Standards Department.

When the decision is made that an IEEE Standard should be submitted for adoption to the IEC, the proposal for adoption should be reviewed by the IEEE Standards Department for any necessary clearances regarding copyright and publication arrangements. After the IEEE Standards Department has cleared the proposal, the submittal may follow one of two routes through the IEC:

(1) When there is an existing IEC committee, the US technical adviser for that committee should be asked to introduce the IEEE Standard into the committee's program. In some cases, IEEE members serve as the US technical adviser to the committee or as members of the US Technical Advisory Group (TAG). The IEEE also supports the Secretariats of some IEC technical committees or subcommittees.

(2) When no appropriate IEC committee exists, the proposal for adoption can be forwarded directly to the IEC Central Office. Inform the USNC that the proposal has been directly submitted to the IEC. The IEC Central Office will then forward the proposal to the committee of action. At the time of submittal for approval, an ad hoc group will be established to handle the subsequent steps in the process.

Using either of the above routes, submittal to the approval stage requires that the following be readily available:

- Copies of the standard
- A statement that explains the background and scope of the standard

The criteria used by the IEC in deciding whether to process a standard of another standardizing body are:

- The standard has been developed with international participation, or already has a significant level of international acceptance.
- The standard presents no significant conflict with an existing international standard.
- There is no evidence that the standard contains unfair provisions.
- There is no evidence of technical inadequacy in the standard.
- There is evidence that unacceptable references to national documents or terms can be avoided.
- The standardizing body is in agreement with the proposal to issue its standard as an international standard.
- Matters relating to copyright are agreed upon in writing.

Following a positive decision on the proposal, the standard will be submitted as a draft international standard for approval by the IEC. In the approval stage, both the English and French texts of the standard are circulated.

A draft international standard is adopted if:

(Continued on page 5)