



2008 Survey Results

Standards play a major role in many aspects of our daily lives — from decisions individual consumers make when purchasing products for the home, to broader societal issues such as how we preserve the environment; from the competitive concerns of business in today's marketplace, to the government's role in protecting the public interest. The reality is that standards, especially those that are globally relevant, have a tremendous effect on the lives of millions of people around the world.

In commemoration of the 90th Anniversary of the American National Standards Institute, ANSI relaunched its popular 2002 survey to learn which standards are "making a difference" in today's ever-changing global marketplace.

This year, more than 200 members of the standards and conformity assessment community submitted standards that they believe are having the greatest impact on business, government, or society.

Each entry shown in this binder not only identifies the standard or family of standards selected, but also explains why the document relates to and focuses on business and consumer issues.

Entries — which include only published standards that are in use in the marketplace — run the gamut, including American National Standards, standards developed by ISO or IEC, and documents developed by other domestic, regional or international bodies — including consortia.



2008 Survey Responses

ANSI ATIS 0300075.1-2006 Usage Data Management for Packet-Based Services - Service-Neutral Protocol Specification for Billing Applications

The Need for Monitoring and Tracking Multi-Service Usage in telecommunication networks is Constantly Increasing. Telecommunication services are many times deployed before a well defined business model is in place, the service comes before an optimal business arrangement; Billing & Accounting are only secondary; so questions such as: "which service details to expose? " or "what method is appropriate for export of usage information?" arise only after the service is already in place and operating. Moreover, the markets, where these telecommunication services are being deployed, are not static, they evolve. At the same time it is very difficult if not impossible to predict future business requirements for telecommunication services. Change to a service is many times cumbersome and includes establishments of requirements, standards, versions, customizations, support, etc. Last but not least, after a telecommunication service is deployed, it takes months to deploy even a small change. Telecommunication operators are looking to shorten these processes and building systems and processes for fast deployment of services. In this context, the ATIS-0300075.1 standard is an attractive solution to 'commoditize' usage data collection in telecommunication networks. It provides architecture to unify the fragmentation of existing usage data collection mechanisms. It helps to streamline processes and lower infrastructure cost. It allows agile, adaptable, rapid deployment of usage data collection solutions for changing business needs. ATIS-0300075.1 is an American National standard and was also embedded in another American National standard - ANSI/SCTE 23-3 2005 DOCSIS 1.1 Part 3: Operations Support System Interface. In addition, ATIS-0300075.1 is in various processes of incorporation into other national and international specification and standards (in the Java Community Process, ITU-T, TM Forum, Cablelabs, and 3GPP), related to IPTV, IP Multimedia System (IMS) and Next Generation Networks (NGNs). ATIS-0300075.1 was already adopted by the North American Cable Industry as a mandatory mechanism in both Cable Modem Termination System (CMTS) and Tru2Way (version 1.1) compliant TV set-top boxes.

— Amit Kleinmann
Amdocs



2008 Survey Responses

ANSI CGATS/ISO 15930 Family of Standards for Graphic Technology

In 1988 the first standard for electronic exchange of graphic arts print-ready data was published as ANSI IT8.8. Prior to this there was NO open exchange of electronic data for printing - it was all hard-copy film separations. By 2001 this work had moved from ANSI into the ISO arena and the first of the ISO 15930 family of PDF/X data exchange standards was published. Today, worldwide, greater than 80% of all advertising material that appears in magazines and newspapers is exchanged electronically as PDF/X files. Open exchange of electronic data, largely as PDF/X files, has been the largest single driver in the electronic revolution of the printing and publishing industry.

— David Q. McDowell
Retired, Eastman Kodak and NPES



2008 Survey Responses

ANSI H35.1/H35.1M-2006

American National Standard Alloy and Temper Designation Systems for Aluminum

This long standing ANSI standard (dating back to the early 1970's) is the basis for the U.S. & North American aluminum alloy-temper system as administered by The Aluminum Association, Inc.(AAI). Further, it is the basis for The AAI's International Accords for registering wrought aluminum alloys produced internationally, Finally, this ANSI standard is the basis for ISO 2107:2007 which unifies the worldwide aluminum temper designation system. These standards make it possible to purchase and sell aluminum products worldwide with the clear and understandable alloy definitions (chemical composition limits) with clear and understandable temper designations (including mechanical property limits).

— Milton Milner
ISO TC 79/SC 9 Symbolization

ANSI INCITS 131-1994 (R1999)

Information Systems - Small Computer Systems Interface-2 (SCSI-2)

This standard and the whole SCSI standard family has been the stepping stone and the basis of the storage industry revolution leading to a proliferation of such SCSI standards as SPI (parallel), SAS (serial), and FCP (fibre channel).

— Vit Novak
Sun Microsystems, Inc.



2008 Survey Responses

ANSI INCITS 350-2003 (R2008) Information Technology - Fibre Channel Protocol for SCSI, Second Version (FCP-2)

This standard and its more recent revisions allow the SCSI command set, the universal command set for enterprise storage disk drives and storage arrays, to be transmitted across secure high-speed storage area networks. Every major business enterprise, financial or industrial, uses this technology.

— Robert Snively
Brocade

ANSI INCITS 358-2002 Information technology - BioAPI Specification (Version 1.1)

This ANSI standard is being used by the U.S Department of Defense as reflected in the DoD IT Standards Registry (DISR).

— Jerry Smith
Data Interchange Standards Association



2008 Survey Responses

ANSI INCITS 402-2005

Information Technology - SCSI Architecture Model - 3 (SAM-3)

This standard, together with SPC-3 (408-2005) describes the concepts and implementation of "SCSI-ness", which has survived for over 20 years (since well before the publication of X3 131-1986) so successfully that a basic logical driver from that era can still operate a similar class of device despite the fact that the physical implementation of the transport has changed beyond recognition.

— Neil Wanamaker
PMC-Sierra

ANSI INCITS 403-2005

Information Technology - Automation/Drive Interface - Commands (ADC)

These standards have greatly reduced the need to implement proprietary interfaces between the drive and automation device. It is easier to code to standards, easier to test and debug to standards, easier to integrate to standards, and easier to sell a product which complies with standards. Can you tell I am a big standards fan!

— Shelby Denman
Quantum Corporation

The ADC and ADT standards provided the first interoperability among removable-media drives and the media changers (libraries) in which they were installed. Prior to these standards, tape drives and libraries used proprietary communication protocols, and integrating a drive into a new library could take as long as six months, imperiling product launches.

— Paul Suhler
Quantum Corporation



2008 Survey Responses

ANSI INCITS 404-2006

Information Technology - Fibre Channel - Physical Interfaces-2 (FC-PI-2)

This standard has enabled a large increase in Storage Area Network deployment by increasing the speed of operation of the physical layer.

— Mike Dudek
JDSU

ANSI INCITS 406-2005

Information Technology - Automation/Drive Interface - Transport Protocol (ADT)

The ADC and ADT standards provided the first interoperability among removable-media drives and the media changers (libraries) in which they were installed. Prior to these standards, tape drives and libraries used proprietary communication protocols, and integrating a drive into a new library could take as long as six months, imperiling product launches.

— Paul Suhler
Quantum Corporation

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— Shelby Denman
Quantum Corporation



2008 Survey Responses

ANSI INCITS 417-2006 Serial Attached SCSI - 1.1

This and the whole family of SAS standards has been very important standards for Sun and the company storage strategy.

- Vit Novak
Sun Microsystems, Inc.

The SAS-1.1 standard enables new data storage configurations to be implemented. Support for both SAS and SATA disk drives allows configurations to be tuned for cost, performance and/or capacity requirements in a common SAN. SAS-1.1 boosts the life of SCSI and opens new markets at a time when data storage is growing rapidly.

- Tim Symons
PMC-Sierra

High performance storage wouldn't exist without SCSI and SPC is the core of the SCSI command set.

- Curtis Ballard
Hewlett Packard

This standard specifies the functional requirements for the Serial Attached SCSI (SAS) physical interconnect, which is compatible with the Serial ATA physical interconnect. It also specifies three transport protocols, one to transport SCSI commands, another to transport Serial ATA commands to multiple SATA devices, and a third to support interface management. This standard is used in conjunction with SCSI and ATA command set standards.

- Larry McMillan
Western Digital



2008 Survey Responses

ANSI INCITS 424-2007, Fibre Channel - Framing and Signaling-2 (FC-FS-2)

Anyone that develops a Fibre Channel products needs a set of guidelines to follow. The Fibre Channel Framing and Signaling standard is that set of guidelines. When products are developed according to the fc-fs standard there is better product inter-operability. I refer to this standard on a weekly basis, I find that it is clearly written and has helpful references.

— Lou Dickens
IBM

This and its related standards are the core infrastructure for every large business, industrial or financial, providing Storage Area Networking that securely protects all stored data.

— Robert Snively
Brocade

Data Storage is accomplished through a number of physical layer interconnects that include Fibre Channel, SAS, SATA, and Ethernet. The Fibre Channel Framing and Signaling protocol provides an interface that allows communication from servers to storage. The framing and signaling protocol is used to communicate to: directly attached Fibre Channel storage, SCSI storage using FCP, and FC or FCoE storage across an Ethernet fabric using the encapsulation protocol being defined in Fibre Channel Backbone - Generation 5 (FC-BB-5). The Framing and Signaling protocol of the Fibre Channel standards family plays an important role in enabling all of the communication between servers and storage.

— William Martin
Emulex



2008 Survey Responses

ANSI INCITS 441-2008 Information technology - Automation/Drive Interface - Commands - 2 (ADC-2)

These standards have greatly reduced the need to implement proprietary interfaces between the drive and automation device. It is easier to code to standards, easier to test and debug to standards, easier to integrate to standards, and easier to sell a product which complies with standards. Can you tell I am a big standards fan!

— Shelby Denman
Quantum Corporation

ANSI N15.51-2007 Nuclear Materials Management - Measurement Control Program - Nuclear Materials Analytical Chemistry Laboratory

This standard, with several revisions, has been successfully in use in the nuclear materials measurements community since 1990. The standard describes all of the necessary features to properly establish and implement authoritative measurement control systems for analytical chemistry laboratories in this field. It is the basic procedure for designing more specific measurement control applications in the analytical chemistry laboratory.

— Charles Pietri
HITECH Consultants



2008 Survey Responses

ANSI S12.60-2002

American National Standard Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools

On March 1, 2007, a tornado struck Enterprise, Alabama resulting in the destruction of the high school and the death of eight students. The damaged buildings have been demolished and construction has begun on a new high school at another location. (My youngest son will likely graduate from Enterprise High School without ever setting foot in Enterprise High School.) The classroom noise standard allows the new classroom spaces to have the best acoustic environment for learning so that each student can maximize his or her potential. I am grateful for the generosity of the ANSI/ASA partners who have provided and continue to provide the classroom noise standard to school districts all over the country and the world to improve educational environments for all.

— William A. Ahroon
U.S. Army Aeromedical Research Laboratory

Paraphrasing a statement made by the Late Prof. Vern Knudsen Chanchelor of ULCA and Prof, Cyril Harris of Columbia University in their classic book, *Acoustical Designing in Architecture*, The sole purpose of a school is to provide learning. Since learning by young students takes place primarily by vocal communication, it clearly imperative that the acoustical environment in classrooms by correct in order for this vocal communication to be carried out without acoustical barriers so that the school can fulfill its basic purpose. The education infrastructure is slowly becoming aware of this obvious truth and this ANSI Standard provides the first national benchmark to guide the acoustical design of schools.

— Louis C. Sutherland
LCS Acoustics



2008 Survey Responses

ANSI S12.60-2002, American National Standard Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools

As an audiologist providing services to students in America's schools for over twenty years, it has been apparent that the acoustical properties of many classrooms have not been conducive to good teaching and learning. Excessive noise and reverberation have made it difficult for students to have access to both direct and indirect instruction. The typical classroom also has a much more diverse population than in years past, making the situation that much more complicated. In 1995, I chaired a committee for the American Speech-Language-Hearing Association that published guidelines for acoustics in classrooms that would afford an improved acoustical environment for all learners. It was a good start. However, with the development of ANSI S12.6-2002, based in part on our earlier work, the American National Standards Institute has at last delivered a strong, evidence-based platform from which educational facility designers and architects are able to construct schools that afford our children with a learning environment that provides them with improved access to the curriculum. Many architects, facility planners, and even educators are unaware that without good acoustics, students' access to both direct instruction from the teacher, as well as incidental learning opportunities provided by peers, are compromised. The potential impact of this standard is enormous, particularly as education is targeted as an area of improvement by our local, state, and federal government. ANSI S12.6-2002 is a key element in improving our nation's educational system. Kudos to the Institute for helping to provide America's school children with the best learning environments possible!

— Daniel Ostergren
Poudre School District



2008 Survey Responses

ANSI X12.1-2008 Transaction Set Tables

The ANSI X12.1 Transaction Sets – 2004 standard makes a huge impact on a broad range of industries which use the standard to implement and electronically conduct nearly every facet of their business-to-business operations. This standard enhances business processes, reduces costs and expands organizational reach and covers traditional applications, such as inquiries, planning, purchasing, acknowledgments, pricing, order status, scheduling, test results, shipping and receiving, invoices, payments, financial reporting, administrative data, trading partner information, specifications, contracts, production data and distribution and sales activities. The ANSI X12.1 Transaction Sets – 2004 standard has been recognized and embraced by multiple industries, including but not limited to, transportation, supply chain, health care, finance and government. Over 300 transaction sets are published in ANSI X12.1 Transaction Sets – 2004. Some of the commonly-recognized transaction sets in this standard include: Invoice Transaction Set 810; Purchase Order Transaction Set 850; Health Care Claim Transaction Set 837; Electronic Filing of Tax Return Data Transaction Set 813; Ship Notice/Manifest Transaction Set 856. The role this standard plays in the 1996 Health Insurance Portability and Accountability Act (HIPAA) transactions is vital. It serves as a national standard for electronic health care transactions and national identifiers for providers, health plans and employers. It addresses the security and privacy of health data, aids in the efficiency and effectiveness of the nation's health care system and global use of electronic data interchange. The Accredited Standards Committee (ASC) X12, developer of the ANSI X12.1 standard, was chartered by ANSI in 1979 to develop electronic data interchange (EDI) standards for the routine exchange of inter-industry business transactions in national and global markets. This standard promotes the vision of ASC X12: To be an innovative leader in the development of cross-industry e-commerce standards that improve global business process interoperability and facilitate business information exchange. It also promotes the ASC X12 mission: To develop high quality e-commerce standards in an open consensus environment, to drive the adoption and implementation of the standards, to collaborate with other standards bodies to ensure standards are interoperable and to promote and provide education about the standards.

— Patrice D. Scheyer
Data Interchange Standards Association/ASC X12



2008 Survey Responses

ANSI/AAMI HE74:2001 Human factors design process for medical devices

For many years, the FDA did not require that medical devices be usable, as well as safe and effective, or seem to recognize the impact of usability on the safety of medical devices. It was not until the late 1990s that this situation changed. With the publication of this standard, device developers and the FDA now have a document that specifies the process for integrating human factors engineering into the design of medical devices. And it is making a difference; common medical devices like glucometers and insulin pumps are becoming more usable, and more complex devices and products are also being designed with user needs and requirements in mind. The competent application of human factors engineering to the design of medical devices can decrease use errors, increase safety, and contribute to increased patient and physician satisfaction with medical devices and instrumentation.

— Anonymous



2008 Survey Responses

ANSI/AF&PA NDS-2005 National Design Specification for Wood Construction

The National Design Specification® (NDS®) for Wood Construction, ANSI/AF&PA NDS-2005, is the life safety standard for wood design. Adopted in all model building codes in the U.S., and referenced in other countries, the NDS is used by engineers to design wood structures that protect life, safety, and welfare of people world-wide. First published in 1944, the NDS has been the pre-eminent reference for designing lumber, glued laminated timber, timber poles and piles, and connections. The current scope of the NDS also includes prefabricated wood I-joists, structural composite lumber, and wood structural panels. In 1992, AF&PA was accredited as a consensus sponsor by the American National Standards Institute (ANSI). The Specification subsequently gained approval as an American National Standard with an approval date of October 16, 1992. AF&PA currently is approved under the ANSI organizational method for consensus standards development. Drawing on structural and fire research and the experience of design professionals including engineers, architects, building officials, homebuilders, academicians, and other interests, the consensus process facilitates development of state-of-the-art criteria. Designers and code enforcers trust AF&PA and the ANSI process to provide a credible source of information. Among its family of standards, AF&PA also promulgates several other American National Standards including: Wood Frame Construction Manual (WFCM) for One- and Two-Family Dwellings, ANSI/AF&PA WFCM-2001; Special Design Provisions for Wind and Seismic, ANSI/AF&PA SDPWS-2008; Permanent Wood Foundation Design Specification, ANSI/AF&PA PWF-2007. The American Forest & Paper Association (AF&PA) is the national trade association of the forest, pulp, paper, paperboard, and wood products industry. It represents member companies engaged in growing, harvesting, and processing wood and wood fiber, manufacturing pulp, paper, and paperboard products from both virgin and recycled fiber, and producing engineered and traditional wood products.

— John "Buddy" Showalter
American Forest & Paper Association



2008 Survey Responses

ANSI/API Spec 5CT/ISO 11960-2007 Specification for Casing and Tubing

This joint API - ISO standard is core to the successful operations of the exploration and production industry. It covers all casing and tubing products that are required to drilling and complete wells. Aside from the drilling rigs themselves, this aspect of the upstream E&P business is the largest commercial market associated with the energy business. It is global in scale and the standards represent the excellent collaborative result from dozens of countries and contributions from literally thousands of individual technical experts. This standard is a 'gold standard' in terms of exhibiting the principles behind successful and focused standardization.

— Mike Payne
BP America Inc.

ANSI/ARI 210/240-2003 Unitary Air-Conditioning and Air-Source Heat Pump Equipment

This standard is a globally used, federally recognized, standard that contributes to the public well-being, increased productivity, and energy conservation through improved indoor air quality. The Standard establishes, through conformity assessment testing, consumer information on energy efficiency for residential and commercial central air-conditioning equipment. The standard is recognized by the U.S. Department of Energy in the Energy Policy Act (EPACT) and in the National Appliance Energy Conservation Act (NAECA).

— Michael W. Woodford
Air-Conditioning, Heating, and Refrigeration Institute



2008 Survey Responses

ANSI/ASA S12.68-2007 Methods of Estimating Effective A-Weighted Sound Pressure Levels When Hearing Protectors are Worn

Estimating how well hearing protectors are capable of reducing the harmful effects of noise is a difficult task. The dual number method for describing the noise reduction capabilities of hearing protectors described in this first-of-its-kind ANSI standard will help individuals in the occupational health and safety professions more clearly understand the overall effectiveness of specific HPD models as well as the degree to which the performance of that model varied in laboratory testing. The novel approach contained in S12.68-2007 for describing how well hearing protectors perform in the laboratory has been adopted by the US EPA in its current rulemaking to revise federal hearing protector labeling regulations. As a result, a major improvement in the usefulness of the Noise Reduction Rating (NRR) will likely occur in the next 3 years. This revised NRR, based on S12.68 as well as the revised HPD test methods in ANSI S12.6-2008 will make it possible for a larger number of employers to make appropriate selections of hearing protectors based on the noise exposure in the workplace. The benefit is the potential for the reduction of noise-induced hearing loss among workers who wear hearing protection on the job.

— Ted Madison
3M Company



2008 Survey Responses

ANSI/ASABE S279.14 JUL2008

Lighting and Marking of Agricultural Equipment on Highways

This standard makes agricultural equipment on highways more visible to other drivers, thus increasing the safety for agricultural workers and the general public. Live in a big city and think it doesn't affect you? The ASABE lighting and marking standard is used on many pieces of construction and larger turf and landscape equipment (roadside mowers, etc), as well. Also, increased safety leads to fewer accidents, which in turn leads to lower insurance costs for agricultural producers, which trickles down and decreases your food costs!

— Travis Tsunemori
American Society of Agricultural and Biological Engineers



2008 Survey Responses

ANSI/ASHRAE 135-2004, BACnet(r): A Data Communication Protocol for Building Automation and Control Networks

Prior to the publication of BACnet, the industry used multiple workstations for building automation control because they had equipment from different manufacturers. This would be like each TV network having its own signal format, requiring customers to purchase of separate receivers to watch each one. BACnet, the only open, consensus-developed standard in the building controls industry, defines data communication services and protocols for computer equipment used for monitoring and control of building systems. It provides the possibility of competitive bidding and lower costs, more effective system integration and control, and long-term security in the face of future expansion or modification of facilities.

- Jodi Dunlop
American Society of Heating, Refrigerating and Air-Conditioning Engineers

This standard facilitates the interoperability of building automation and control equipment of all sorts and thus promotes energy conserving strategies that would otherwise not be possible; enhanced safety through better fire and smoke control systems; and increased security.

- H. Michael Newman
Cornell University



2008 Survey Responses

ANSI/ASHRAE 55-2004

Thermal Environmental Conditions for Human Occupancy

It may be cold outside, but your office is a comfortable 70°F, thanks to ASHRAE's Standard 55. The standard specifies the combinations of indoor thermal environmental factors and personal factors that will produce thermal environmental conditions acceptable to 80 percent or more of the occupants. These environmental factors include temperature, thermal radiation, humidity and air speed, while personal factors are activity and clothing. To be specific, temperatures in the winter should range from 68-74°F and 73-79°F in the summer, according to the standard.

- Jodi Dunlop
American Society of Heating, Refrigerating and Air-Conditioning Engineers

ANSI/ASHRAE 62.1-2007

Ventilation for Acceptable Indoor Air Quality

ASHRAE Standard 62.1 plays an important role around the world in providing for occupants' well-being by improving indoor air quality. The standard provides guidance for the design and operation of HVAC systems for a range of building types and functions. It includes minimum requirements for maintaining a safe, healthy and comfortable indoor environment for building occupants.

- Jodi Dunlop
American Society of Heating, Refrigerating and Air-Conditioning Engineers



2008 Survey Responses

ANSI/ASHRAE 62.2-2007 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

ASHRAE Standard 62.2 helps make sure that the air inside homes is clean and safe, without adding significant costs. It limits sources of pollutants and requires a small amount of mechanical ventilation to provide dilution for unavoidable contaminants. The standard ensures that HVAC and other systems work together to effectively ventilate homes and minimize sources of indoor pollution. "The standard is just good, basic common sense," a researcher in the field of air flow and infiltration, said. "People need fresh air. The standard tells how to provide it and how to avoid other common problems."

- Jodi Dunlop
American Society of Heating, Refrigerating and Air-Conditioning Engineers

ANSI/ASHRAE/IESNA 90.1-2007 Energy Standard for Buildings Except Low-Rise Residential Buildings

Standard 90.1 sets design requirements for the efficient use of energy in buildings. The requirements apply to the building envelope, distribution of energy, systems and equipment for auxiliaries, heating, ventilation, air conditioning, water heating, electric power and lighting. Since being developed in response to the energy crisis in the 1970s, Standard 90.1 now influences building designs worldwide. It has become the basis for building codes, and the standard for building design and construction throughout the United States. The standard is referenced in the Federal Energy Policy Act, meaning state building codes meet or exceed the standard's requirements.

- Jodi Dunlop
American Society of Heating, Refrigerating and Air-Conditioning Engineers



2008 Survey Responses

ANSI/ASME B1 Family of Standards for Screw Threads and Gaging

It is the group of standards that 98% of USA MFG products conform to.

- Alan Barrows
General Motors

ANSI/ASME B30, Family of Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings

The recent spat of fatalities and injuries from accidents in which cranes are involved emphasizes why these volumes are important and need to be followed. This is especially true considering that some of the OSHA regulations governing crane safety have not been updated for decades.

- Gordon Hetherston
DuPont

ANSI/ASME B31.1, Power Piping

It gives very detail information of power piping. It is the best standard for nuclear engineers .

- Jiun Lee
Ontario Power Generation



2008 Survey Responses

ANSI/ASME NQA-1 Quality Assurance Requirements for Nuclear Facility Applications

Almost every employee in our company read it and used it as a guideline. Our library has all the editions.

— Jiun Lee
Ontario Power Generation

ANSI/ASME PTC 46-1996 Overall Plant Performance

In this century of energy criticality as well as the need for us to take direct responsibility for the impact on the environment of our industrial facilities, it is essential to measure the performance of our fossil fuelled electrical generating stations with accuracy. Records of efficiency must be kept not only when a power plant is in the new and clean condition, but also during the life of the plant to determine any irreversible degradation. As important, accurate knowledge of power plant efficiency and output is required during the life of a facility to act as an aid in determining the most effective maintenance required to preserve or improve generating efficiency, and thus, minimize required fuel and emissions. ASME PTC-46 is the internationally applied standard which power plant owners and suppliers use to design and implement the tests to determine power plant efficiency and electrical capability. It is applicable to all fossil-fuelled power plants, including cogeneration plants. ASME PTC-46 is referenced in almost all power plant contracts around the world as the procedure to ensure that suppliers of power plants are in compliance with their efficiency and output guarantees. Higher efficiency is directly proportional to reduced emissions, and with lower costs to the public. Compliance with power guarantees at high efficiencies, and maintenance of high plant performance, is of enormous benefit to the consumer, the environment, and the industry. ASME PTC-46 is the tool by which appropriate testing is designed to ensure that new power plants are as efficient as planned, and that existing plants are appropriately maintained to optimize performance during their lifetime. It is one of the most important standards of the century.

— Jeffrey R. Friedman
Siemens Energy, Inc.



2008 Survey Responses

ANSI/ASSE 1016-2005

Performance Requirements for Automatic Compensating Valves for Individual Showers and Showers in Tub/Shower Combinations

This standard governs the performance requirements for mixing valves installed in individual shower applications that automatically adjust for pressure and / or temperature variations in the plumbing system to provide protection from both exposure to excessive hot water temperatures while showering (limits water flow temperatures to a maximum of 120 °F at full flow) and maintains the outlet temperature to within ± 3.6 °F of the bather's set temperature to protect against thermal shock, one of the main causes of injuries in a bathroom.

— Shannon Corcoran
American Society of Sanitary Engineering

ANSI/CEA 2009-A-2005

Performance Specification for Public Alert Receivers

This voluntary standard defines minimum performance criteria for consumer electronic products designed to receive SAME alert signals broadcast by the National Oceanic and Atmospheric Administration's Weather Radio network and Environment Canada's Meteorological Services of Canada Radio network. In addition, schools throughout the United States are purchasing Public Alert Receivers to enhance their emergency preparedness.

— Megan A. Hayes
Consumer Electronics Association



2008 Survey Responses

ANSI/CEA 2013-A-2007 Digital STB Background Power Consumption

By standardizing the test procedures for measuring power consumption in set top boxes, these standards facilitate the energy efficient design of this widely deployed product.

- Megan A. Hayes
Consumer Electronics Association

ANSI/CEA 2022-2007 Digital STB Active Power Consumption Measurement

By standardizing the test procedures for measuring power consumption in set top boxes, these standards facilitate the energy efficient design of this widely deployed product.

- Megan A. Hayes
Consumer Electronics Association

ANSI/CEA 608-E-2008 Line 21 Data Services

Serves as a technical guide for those providing encoding equipment and/or decoding equipment to produce material with encoded data embedded in Line 21 of the vertical blanking interval of the NTSC video signal. It is also a usage guide for those who will produce material using such equipment. Revision incorporates analog content advisory, TSID, URL and other prior standards and bulletins.

- Megan A. Hayes
Consumer Electronics Association



2008 Survey Responses

ANSI/CEMA 102-2006 Conveyor Terms and Definitions

When the Conveyor Equipment Manufacturers Association (CEMA) was formed in 1933, one of the first things they discovered that there were no common terms and agreed-upon definitions for any equipment or products in the industry. It took them eight years to develop the first edition, just in time for World War II. The common terms and definitions were influential in helping standardize the conveying and other material handling activities in the war mobilization and in the industrial expansion after World War II. They have since been adopted for use nationally and internationally and have contributed to the common worldwide language of the global material handling and distribution system we enjoy today. This standard has indeed made a difference.

— Philip G. Hannigan
Conveyor Equipment Manufacturers Association

ANSI/ESD S20.20-2007 Development of an Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment

The S20.20 is vital to meeting the global need in the electronics industry for technically sound ESD control programs. Approved as an ANSI standard, ANSI/ESD S20.20-2007: Development of an Electrostatic Discharge Control Program provides administrative, technical requirements and guidance necessary to design, establish, implement, and maintain an ESD control program to protect electrical or electronic parts, assemblies and equipment susceptible to ESD damage from Human Body Model (HBM) discharges greater than or equal to 100 volts. There are thousands of sites worldwide that deal with ESD and reference the S20.20 Standard on a daily basis.

— Christina Earl
ESD Association



2008 Survey Responses

ANSI/HL7 CDA-R2 2005 HL7 Clinical Document Architecture, Release 2.0

The CDA is making it possible to exchange key patient information between providers in a variety of different institutions, to promote information access for providers, and care to patients.

— Keith W. Boone
GE Healthcare

Clinical Documentation is at the center of health care. This standard provides a vehicle to capture clinical documentation in a standardized form which allows for documents to be largely textual or semi-structured or fully structured. This flexibility is critical as we move towards getting better structure in clinical documentation that supports clinical decision support and patient safety goals.

— V. "Juggy" Jagannathan
MedQuist, Inc.

Foundation for sharing health records

— Charles Parisot
GE Healthcare

This is the swiss army knife of healthcare standards. It can be used for any type of clinical document that can be imagined. It has achieved work-wide recognition. It permits vendors and system integrators to process and manage every conceivable type of clinical document with a single infrastructure.

— Anonymous



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ANSI/HL7 CDA-R2 2005 HL7 Clinical Document Architecture, Release 2.0

Bridging the gap between appropriate healthcare services and efficient transfer of data between providers/hospitals.

- Yogi Deshmukh
Sage Software

ANSI/HL7 V2 Application Protocol for Electronic Data Exchange in Healthcare Environments

This standard has greatly advanced healthcare informatics interoperability and clinical data sharing. It thereby helps to improve patient care and keep costs down.

- Nick Radov
Axolotl Corp.

HL7 touches all aspects of the healthcare enterprise. It facilitates accurate patient identification, prompt and safe provision of services and timely reimbursements. Administrative and point-of-care systems in virtually all healthcare enterprises of any size depend on the data carried by HL7 to enable them to provide a wide variety of specialized services quickly and safely.

- Mike Henderson
Eastern Informatics



2008 Survey Responses

ANSI/IACET 1-2007 Standards for Continuing Education and Training

ANSI/IACET certification for continuing education provides learners with the ability to assess the quality of various training classes, optimizing both their time and training dollars. The standards also provide SOME states and accrediting agencies with an appropriate tool to measure applicability for licensure.

— Denise Bliss
Carrier Corporation

I am the director of standards compliance for a large nonprofit. After researching many standards organizations, we strongly feel 3 years now after becoming a member, that ANSI/IACET 1-2007 Standards for Continuing Education and Training are the highest compliance we could have! The process and 10 areas of compliance have made our training the best it could be for our market of students internationally. I am proud to be a member of IACET and uphold the ANSI/IACET 1-2007 Standards for Continuing Education and Training.

— Scott Preissler
Super Slow Zone

Meeting these standards brings professional training industry recognition to our technical training programs, and allows students to be awarded with Continuing Education Units (CEUs), which can be applied to continuing education requirements for certification programs. IACET is the premier, internationally-recognized organization for standards in continuing education and training. IACET Authorized Providers are an elite group of educators dedicated to quality in continuing education and training. In addition to training and development industry recognition, IACET certification can provide a point of difference with our competitors in terms of the quality of technical training that our students receive. In addition, it gives students and other stakeholders some level of guarantee that the training we provide meets stringent industry standards for quality and effectiveness.

— Stephen M. Sorenson
Trane



2008 Survey Responses

ANSI/ISA 84.00.01-2004 Part 1 (IEC 61511-1 Mod) Functional Safety: Safety Instrumented Systems for the Process Industry Sector - Part 1: Framework, Definitions, System, Hardware and Software Requirements

Because no threshold limits are involved in the application of the standard. If you have the dangerous material, then that standard applies.

- Niels Jensen
Safepark Consultancy

ANSI/ISA 88 Family of Standards for Batch Control

Using this standard really improves process business!!!

- J.G. van Wijk
Actemium

Finally a model, terminology and details that can be shared among different actors: end users, vendors, consultants, etc.

- Enzo Tieghi
Servitecno



2008 Survey Responses

ANSI/ISA 95

Family of Standards for the Integration of Enterprise and Control Systems

This standard can be used in different stages of the design of business software and helps to understand these difficult business processes

— J.G. van Wijk
Actemium

ANSI/ISO/ASQ Q9001-2000

Quality Management Systems Requirements

It encourages the satisfaction of customers, and the continual improvement of business performance.

— Alberto Molinar
F-R Tecnologías de Flujo

ANSI/NCPDP Sig V1.0-2008

Sig Standard Version 1.0

This standard was built for electronic prescribing. Eprescribing has huge impacts on connecting prescribers, pharmacists, and payers, for the exchange of prescription information. This electronic exchange is tremendously helpful in patient safety and reducing errors related to medications.

— Anonymous



2008 Survey Responses

ANSI/NIRMA CM 1.0-2007 Guidelines for Configuration Management of Nuclear Facilities

This standard has been invaluable to U.S. Nuclear Power plants to uniformly apply good configuration management principles. The nuclear energy industry is very stringent on standards and good practices, and this particular ANSI standard has made a difference in the industry. It brought common definition and practices for all to reference and apply at their sites. It will be even more valuable going into the future with the next generation of nuclear power on our doorstep.

— Janice Hoerber
AmerenUE



2008 Survey Responses

ANSI/NIST-ITL 1

Family of Standards for Data Format for the Interchange of Fingerprint, Facial, & Other Biometric Information

These standards define (in two different formats) the content and units of measurement for the exchange of information that may be used in the identification process of a subject. The interchange of fingerprint; palmprint; facial/mugshot; scar, mark, & tattoo (SMT); iris; and other biometric sample information are addressed by this standard. Exchanged information consists of a variety of mandatory and optional items, including related record data, digitized characteristic information, and compressed or uncompressed image data. This XML version was also developed to be conformant with the National Information Exchange Model (NIEM). About 100 canvasees from federal, state, local, and international law enforcement agencies, criminal justice administrations, vendors, and other organizations participated in the development of this standard. The original motivation for the development of the ANSI/NIST-ITL standards was to establish interoperability between Federal, state, local, and international users of Automated Fingerprint Identification Systems (AFIS) for the interchange of fingerprint search transactions. All agencies transmitting fingerprint, palmprint, facial/mugshot, SMT, iris, and other biometric image and related data to the FBI must adhere to the format described by an ANSI/NIST standard. Many law enforcement agencies around the world and international agencies, such as Interpol and Eurodac, also use this ANSI standard, which has become a de facto international standard.

— Anonymous



2008 Survey Responses

ANSI/PMI 99/001/2004 A Guide to the Project Management Body of Knowledge (PMBOK Guide) - Third Edition

The Project Management Institute (PMI) Global Standards Program strives to improve the understanding and competency of organizations and their project management practitioners and customers worldwide by identifying, defining, documenting and championing project management practices and a common project management lexicon. Through the program, PMI strives to achieve worldwide excellence in the practice of project management through global standards that are widely recognized and consistently applied. In 1981, PMI published a report, which included a standards section titled The Project Management Body of Knowledge (PMBOK). This section is the forerunner of the PMBOK® Guide, PMI's premier practice standard. In 1996, PMI published A Guide to the Project Management Body of Knowledge (PMBOK® Guide) in recognition that no one document could contain the entire body of knowledge. The PMBOK® Guide introduced a process orientation and the five Project Management Process Groups. In 2000, with publications of the PMBOK® Guide – 2000 Edition came the first official translations into Chinese, Japanese, Korean, German, Italian, French, Spanish and Brazilian Portuguese. For the PMBOK® Guide, the criteria for included information evolved from "generally applicable to most projects, most of the time" to "generally recognized as good practice on most projects, most of the time" when the PMBOK® Guide – Third Edition was published in 2004. Once a standard is drafted, it is distributed as broadly as possible to individuals in the field for public review and comment. This is called the Exposure Draft process. The standards development team reviews each comment submitted related to the draft standard and decides through its consensus process whether to accept or reject the comment. If rejected, the team provides its reasons for not accepting the comment. If accepted, the team will incorporate the comment into the final version. Today, there are more than two million copies of the PMBOK® Guide in circulation.

— Nan Wolfslayer
Project Management Institute



2008 Survey Responses

ANSI/SCTE 30 2006

Digital Program Insertion Splicing Application Program Interface(API)

Until the creation of ANSI/SCTE 30, there was no practical way for local cable operators to insert commercials in digital programs coming from major broadcast or cable networks. This standard has directly made possible a significant new revenue stream for cable operators, and is thus one of the few examples of immediate tangible benefit from standards. ANSI/SCTE 30 is also the basis for a series of newer standards that provide the ability for program-specific and demographic-specific advertising. With television going "all digital" in 2009, this standard and its successors will be the primary methodology for delivering both general and targeted advertising to the home.

- Steve Oksala
Society of Cable Telecommunications Engineers



2008 Survey Responses

ANSI/TIA 102

Family of Standards for Project 25 Land Mobile Radio Transceiver Recommendations, Project 25 - Digital Radio Technology, C4FM/CQPSK Modulation

Historically, public safety agencies have acquired radio and network communications systems independently and limited funding results in their replacement only at the end of their useful life. A suite of standards defining eight interfaces and related equipment for interoperable digital two-way wireless communications products, known as the TIA P25 Standards, were begun prior to SAFECOM involvement. The 9/11 tragedy and large scale natural disasters made it evident that interoperability of communications systems among Federal and other government agencies, as well as the broader first responder community, was a high priority. In response, the comprehensive Statement of Requirements for Public Safety Wireless Communications and Interoperability was developed with input from the emergency response community. A Public Safety Architecture Framework was also published to identify future communications requirements for crucial voice and data communications and relate those requirements to technology and standards in the form of the framework. Placing operational needs, technology, and standards into a framework helped to identify technology and standards necessary to achieve interoperability and locate where there are gaps in the technology and standards. It also provided public safety organizations with goals for future technology investments. There are more than 50,000 separate emergency response agencies and organizations in the United States from multiple disciplines such as law enforcement, firefighting, public health, and disaster recovery. Standardization had received little consideration from each of autonomous emergency response organization prior to SAFECOM.

— Dan Bart
Valley View Corporation



2008 Survey Responses

ANSI/TIA 102

Family of Standards for Project 25 Land Mobile Radio Transceiver Recommendations, Project 25 - Digital Radio Technology, C4FM/CQPSK Modulation

This is a suite of standards that enable the offering, procurement, and operation of interoperable digital two-way wireless communications products and systems that meet mission-critical needs of public safety practitioners. These standards enable communication among firemen, police, EMT's and other emergency first responders. As this technology is implemented through the country and the world when national or international emergencies arise the communications devices use by the first responders will be interoperable. This means that if firefighters from Minneapolis go to New Orleans to assist in crises abatement and both regions are using the same P25 radio technology they will be able to communicate with their existing hardware. Project 25 is unique in that it is a user-driven process to develop a family of public safety communications standards for which the requirements have been defined by state, local and federal government users.

— Stephanie Montgomery
Telecommunication Industry Association



2008 Survey Responses

ANSI/TIA 1083-2007

Telecommunications Telephone Terminal Equipment Handset Magnetic Measurement Procedures and Performance Requirements

In 2004, telephone manufacturers began to receive customer complaints regarding hearing aid interference problems with digital cordless telephones. At its August 2004 meeting, TIA TR31.3 sub-committee discussed a Gallaudet University presentation on the subject and possible causes for that reported interference. The consensus belief was that, due to the low RF power levels used by cordless phones, the source of the reported interference was possibly magnetic. Further work towards confirming the belief and developing a testing method to characterize the magnetic interference was conducted during the remainder of 2004 and first half of 2005. This effort culminated with round robin tests being made on a number of cordless telephones by three different laboratories and then correlated with the subjective test results from a study conducted by Gallaudet University during the 2005 Convention of Self Help for Hand of Hearing People (SHHH) as documented in Annex C. TIA-1083 was then developed to document the test methods and provide performance requirements for magnetic noise based on the correlation obtained. This resulted in an improved cordless telephone that can be used by people who have hearing aids.

— Stephanie Montgomery
Telecommunication Industry Association



2008 Survey Responses

ANSI/TIA 942-2005

Telecommunications Infrastructure Standard for Data Centers

As more and more information is transmitted through Data Centers it becomes more imperative that there is a standard which defines energy and space efficient data center design and that the data center is considered in the early architectural phases of building. The purpose of this standard is to enable the data center design to be considered early in the building development process, contributing to the architectural considerations, by providing information that cuts across the multidisciplinary design efforts; promoting cooperation in the design and construction phases. It also provides requirements and guidelines for the design and installation of a data center or computer room. It is intended for use by designers who need a comprehensive understanding of the data center design including facility planning, the cabling system and the network design. This document presents an infrastructure topology for accessing and connecting the respective elements in the various cabling system configurations currently found in the data center environment. In order to determine the performance requirements of a generic cabling system, various telecommunications services and applications were considered. In addition, this standard addresses the floor layout topology related to achieving the proper balance between security, rack density and manageability. TIA-942 specifies a generic telecommunications cabling system for the data center and related facilities whose primary function is information technology. Such application spaces may be dedicated to a private company or institution, or occupied by one or more service provider to host Internet connections and data storage services. Failsafe power, environmental controls and fire suppression, and system redundancy and security are also common requirements to facilities that serve both the private and public domain.

— Stephanie Montgomery
Telecommunication Industry Association



2008 Survey Responses

API 579-1/ASME FFS-1-2007 Fitness-For-Service

A FFS assessment is a quantitative engineering evaluation that is performed to demonstrate the structural integrity of an in-service component containing a flaw or damage; it can also be used to evaluate equipment that does not meet current design standards or operates under more severe conditions than originally expected. The results from a fitness-for-service assessment may be used to make decisions to run, rerate, repair, or replace pressurized equipment that contains flaws identified during an inspection. An assessment can establish that the equipment can continue to be operated safely. Construction codes and standards for pressurized equipment provide rules for the design, fabrication, inspection, and testing of new pressure vessels, piping systems, and storage tanks. These codes typically do not provide assessment procedures to evaluate degradation due to in-service environmentally induced damage, or flaws from original fabrication that may be found during subsequent inspections. ASME and API agreed to form a joint committee to develop a single fitness-for-service standard for equipment operated in a wide range of process, manufacturing, and power generation industries. The goal was to produce a globally accepted, technical methodology for evaluating and repairing flaws in boilers and pressurized equipment, and to promote the widespread adoption of these practices by regulatory bodies. FFS assessments provide significant economic and safety benefits to owner-operators. They ensure the safety of plant personnel and the public while older equipment continues to operate, provide major savings in unnecessary repairs, reduce shutdown time for repairs, and help extend equipment life of aging infrastructure to increase long-term viability. The agreement to produce a joint standard on fitness-for-service technology is a landmark decision that has focused resources in the United States to develop a single document that can be used in all industries. This agreement has helped avoid jurisdictional conflicts and promote uniform acceptance of FFS technology. It also provides an opportunity for the pooling of resources of API, ASME, and two other interested organizations, the Pressure Vessel Research Council and the Materials Properties Council, to develop new FFS technology and methodology.

— Umberto Durso
American Society of Mechanical Engineers



2008 Survey Responses

API Bulletin 2INT-DG Interim Guidance for Design of Offshore Structures for Hurricane Conditions

Hurricane Ivan in 2004 and Hurricanes Katrina and Rita in 2005 resulted in considerable damage and destruction to fixed and floating facilities in the Gulf of Mexico (GOM). The main objective of this Bulletin is to provide updated guidance for the use of hurricane metocean conditions in the GOM, particularly in the Central Region and its adjoining transitions. This document provides information on how to utilize the updated hurricane winds, waves, surge, and current conditions in the design of offshore structures.

— Roland Goodman
American Petroleum Institute



2008 Survey Responses

API Bulletin 2INT-MET Interim Guidance on Hurricane Conditions in the Gulf of Mexico

This document presents hurricane-driven metocean conditions (wind, wave, current and surge) for use with and reference by other API standards used to design new and assess existing offshore structures in the Gulf of Mexico. The hurricane metocean conditions have not been updated since 1993. Since that time, several major severe storms, most notably Opal (1995), Ivan (2004) and Katrina (2005), have affected the Gulf, resulting in increases to local extremes in the areas affected by these storms. Most importantly, however, industry's understanding of hurricane risk has continued to evolve. Strong evidence now exists for there being a regional dependence for large, intense wave-making storms. Also, investigations into the underlying hurricane record, HURDAT, used as the foundation for the industry's storm hindcast database, have revealed that storms from the early period of the database are probably biased low in terms of intensity. A new set of hurricane conditions has been derived for reference by other API standards using the latest hindcast storm record and incorporating the industry's best understanding to date of the regional dependence of storm intensity. The database used to establish conditions has been restricted to the years from approximately 1950 through 2005, the period for which better characterization of storms offshore exists by virtue of aerial reconnaissance and later satellite observations.

— Roland Goodman
American Petroleum Institute



2008 Survey Responses

API Bulletin 2INT-EX, Interim Guidance for Assessment of Existing Offshore Structures for Hurricane Conditions

API Bull 2INT-EX gives guidance on how to utilize the updated hurricane winds, waves, surge and current conditions in API Bull 2INT-MET for the assessment of existing offshore structures. Hurricane Ivan in 2004 and hurricanes Katrina and Rita in 2005 resulted in considerable damage and destruction to fixed and floating facilities in the Gulf of Mexico (GOM). Several API committees are in the process of revising and updating standards to incorporate learnings from these and other recent large intense storms like Opal (1995) as well as other improvements to the industry's understanding of hurricane risk which have occurred over the past 15 years. One major change is a complete revision to the hurricane conditions presently contained in API RP 2A-WSD, 21st Edition, recognizing the higher level of hazard in certain parts of the GOM. Another is the revised understanding of the potential for local wave-in-deck damage. While work on standards development continues, in the interim, documents are being issued to provide immediate guidance for the design and assessment of offshore Gulf of Mexico fixed and floating facilities in hurricane conditions.

— Roland Goodman
American Petroleum Institute



2008 Survey Responses

ASTM D396-08b Specification for Fuel Oils

The latest revision to this time-honored ASTM fuel oil standard, developed by Committee D02 on Petroleum Products and Lubricants, adds biodiesel blend specifications up to 5 percent by volume (B5). With publication of this standard, the marketplace now has a specification to use in engine design, to include in bid and purchasing contracts or to check fuel quality at the pump. Based on extensive testing and research, the specification details requirements for the fuel characteristics as well as the relevant standard test methods to use for each. NOTE: The standard is approved but will not be available in published form until approximately Oct. 13.

— Maryann Gorman
ASTM Standardization News

ASTM D6751-07be1 Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuel

ASTM D6751 has regulatory use as a federal biodiesel requirement in the United States and as a reference in regulations of certain countries in Asia, Central and South America, and Europe. With its latest revision, this standard now includes a requirement for cold soak filterability. With publication of this standard, the marketplace now has a specification to use in engine design, to include in bid and purchasing contracts or to check fuel quality at the pump. Based on extensive testing and research, the specification details requirements for the fuel characteristics as well as the relevant standard test methods to use for each. NOTE: The standard is approved but will not be available in published form until approximately Oct. 13.

— Maryann Gorman
ASTM Standardization News



2008 Survey Responses

ASTM D7467-08 Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to 20)

A new standard developed by ASTM Committee D02 on Petroleum Products and Lubricants, D7467 is part of a suite of four standards recently approved by the committee that address biodiesel. This standard covers blends between 6 (B6) and 20 (B20) percent biodiesel for on- and off-road diesel. With publication of this standard, the marketplace now has a specification to use in engine design, to include in bid and purchasing contracts or to check fuel quality at the pump. Based on extensive testing and research, the specification details requirements for the fuel characteristics as well as the relevant standard test methods to use for each. NOTE: The standard is approved but will not be available in published form until approximately Oct. 13.

— Maryann Gorman
ASTM Standardization News

ASTM D975-08a Specification for Diesel Fuel Oils

The long-awaited revision to this essential standard for diesel fuel oil now includes requirements for up to 5 percent biodiesel. With publication of this standard, under the jurisdiction of ASTM Committee D02 on Petroleum Products and Lubricants, the marketplace now has a specification to use in engine design, to include in bid and purchasing contracts or to check fuel quality at the pump. Based on extensive testing and research, the specification details requirements for the fuel characteristics as well as the relevant standard test methods to use for each. NOTE: The standard is approved but will not be available in published form until approximately Oct. 13.

— Maryann Gorman
ASTM Standardization News



2008 Survey Responses

ASTM E2187-04 Standard Test Method for Measuring the Ignition Strength of Cigarettes

Developed by ASTM Committee E05 on Fire Standards, E2187 is used to test the ignition performance of cigarettes and has been cited in legislation that has been passed in 37 U.S. States, as well as Canada and Finland. While all lit cigarettes, especially those left unattended, have the potential to start a fire, cigarettes that conform to E2187 have a reduced ignition propensity that makes them less fire-prone. With the availability of this standard, the National Fire Protection Association coordinated the creation of the Coalition for Fire-Safe Cigarettes in 2006. The coalition, comprised of many national and local organizations, including ASTM International, calls on manufacturers to produce and market cigarettes that comply with ASTM E2187 and encourages states to pass legislation similar to the 2003 New York state law that was the first of the 37 now on the books.

— Maryann Gorman
ASTM Standardization News

ASTM E2369-05 Standard Specification for Continuity of Care Record (CCR)

It is the basis of significant health information exchanges in HL7 standards (particularly CDA's CCD), vendor products, NHIN information exchanges, and HITSP interoperability standards. It is a foundation for PHR information exchange.

— J. Michael Fitzmaurice
Agency for Healthcare Research and Quality



2008 Survey Responses

ASTM E2369-05 Standard Specification for Continuity of Care Record (CCR)

It's practical and usable and doesn't over-reach to encompass the entirety of medicine. It's not burdened by pre XML legacies.

- Adrian Gropper
MedCommons

(1) driven the health-IT standards community to focus on data instead of documents; (2) brought forth the concept of an interoperable aggregate patient summary record; (3) Has improved the continuity of health care in the ambulatory market; (4) Provided a basis for the exchange of clinical data between the personal health record and the electronic medical record and is a core standard in Google Health and Microsoft HealthVault along with many PHR and EMR applications.

- Anonymous

Simple for a wide range of vendors to implement.

- Darryl Vine
IntelMS PTY Ltd.

This is the best standard for primary care, the care delivered to the most patients and most frequently in this country.

- Zsolt Nagykaldi
University of Oklahoma



2008 Survey Responses

ASTM E2369-05, Standard Specification for Continuity of Care Record (CCR)

CINA has a data standardization tool that is able to extract and code data from most systems installed in a physician or hospital practice, including EHRs, Practice Management and Lab Information systems. This data is stored in a Clinical Data Repository (CDR) which has been designed to closely follow the CCR structure. CINA has a process for creating CCRs from the CDR with selected information. These CCRs are currently being used for referrals between provider, data aggregation for IPAs, RHIOs and other collaboratives. In addition, CINA will be uploading these CCRs to Microsoft's HealthVault, Google Health, Dossia, and other health record banks. The CCRs are also being passed to PHRs such as CapMed. An additional function CINA anticipates implementing shortly is to use comprehensive CCRs generated from the CINA CDR to populate new EHR installations. By matching, combining and standardizing billing, lab, prescription, and other information into the CINA CDR, which allows standardized coding of each data element, CINA can produce a standardized CCR, regardless of the source of the various data elements. Most of the major EHRs currently on the market can import CCRs. By being able to present a standardized CCR, EHRs need to be able to import only one predictable CCR in order to load them with historical data from other data sources available to the clinic. A final use we anticipate is to use the CCR as a conversion medium to help practices convert from one EHR to another. We will be testing this function over the latter half of the year. In addition to the data abstraction and standardization, CINA provides a sophisticated Clinical Decision Support System (CDSS), the CINA Protocol Engine. It applies nationally-recognized, evidence-based guidelines against patient data to generate alerts and reminders. CINA has found no data element that is clinically relevant, including guidelines, reminders, alerts, patient, family and social history, that does not have a location specifically designed for it in the CCR.

— Jim May, President
Clinical Integration Networks of America, Inc.



2008 Survey Responses

ASTM E2369-05, Standard Specification for Continuity of Care Record (CCR)

The CCR is the first very strict standard which, due to its composition and strict field requirements, as well as modern structure, allows true interoperability (on a limited level) between e-Health applications.

— Peter N. Kaufman
DrFirst

It is a practical, simple means by which a patient's most relevant current and past healthcare status and treatment information can be easily shared and updated in order to assure that a healthcare provider knows what they need to know about a patient before making decisions regarding their care. It helps to reduce costs and duplication of services, improve care, reduce errors, improve the patient/provider relationship. Because it was developed primarily by physicians, it reflects their knowledge and needs. It has stimulated vendors to work together so that their systems can "talk to one another", i.e., readily exchange the information. It is useful in all aspects of patient care, from referrals, to discharges, to transfers, to school health, in disasters, etc. Thus, it contributes not only to patient health but public health. It also serves as a means by which patients can directly or through healthcare providers, payers, web services, etc. develop and maintain their own personal health records.

— Claudia Tessier
Medical Records Institute

CCR will provide a common means, not currently available, to share clinical data between systems from different vendors. This will improve patient care by allowing a comprehensive patient record to be assembled from disparate sources.

— John Smith
DrFirst



2008 Survey Responses

ASTM E2369-05, Standard Specification for Continuity of Care Record

We need to standardize the continuity of care record in medicine to facilitate exchanging our patients pertinent information.

- Cliff Colglazier
Colglazier Clinic

I believe it is the easiest way to share data as it allows for interoperability between systems. I believe CCR is the best choice to increase patient safety.

- Jason Aquilante
DrFirst

This standard of an essential dataset is making a big difference in healthcare. It is used by Microsoft, Google, and other major industries. It also enables the cell phone industry to create interoperability in health care.

- C. Peter Waegemann
Medical Records Institute

ASTM E2369.05 is a core healthcare dataset standard that fosters the continuity of patient care to reduce medical errors. E2369.05 identifies the minimum standard of health information transportability whether the care setting is outpatient, inpatient, or community-based. E2369.05 defines the relevant administrative, demographic, and clinical information facts about patient healthcare, covering one or more healthcare encounters and provides a means for one healthcare practitioner, system, or setting to aggregate all of the pertinent data about a patient and forward the data to another practitioner, system, or setting to support the continuity of care. ASTM E2369.05 enables the next provider to access the core data set of information from a first encounter and update information to support patient safety, quality, and continuity of patient care in an XML standard document with machine and human readable formats.

- David Kibbe
American Academy of Family Physicians



2008 Survey Responses

ASTM E2369-05, Standard Specification for Continuity of Care Record (CCR)

Usable clinical interoperoperability. Other standards too flexible to be broadly useful or very complex and have limited installed base.

- Sean Doyle
MedCommons

We have used this standard as a way for having our PHR interoperable with EMRs and EHRs by allowing us to export or import a CCR XML file. With the stylesheet it gives a human readable file for the patients to carry around with them. It is being used for an emergency data set as well. This is also used in conjunction with the ANSI AIIM PDF Healthcare implementation guide.

- Lory Wood
Good Health Network

ASTM E2369.05 is a core healthcare dataset standard that fosters the continuity of patient care to reduce medical errors. E2369.05 identifies the minimum standard of health information transportability whether the care setting is outpatient, inpatient, or community-based. E2369.05 defines the relevant administrative, demographic, and clinical information facts about patient healthcare, covering one or more healthcare encounters and provides a means for one healthcare practitioner, system, or setting to aggregate all of the pertinent data about a patient and forward the data to another practitioner, system, or setting to support the continuity of care. ASTM E2369.05 enables the next provider to access the core data set of information from a first encounter and update information to support patient safety, quality, and continuity of patient care in an XML standard document with machine and human readable formats.

- LuAnn Whittenburg
Computer Sciences Corporation



2008 Survey Responses

ASTM F2725-08

Standard Guide for European Union's Registration, Evaluation, and Authorization of Chemicals (REACH) Supply Chain Information Exchange

Authorization of Chemicals (REACH) Supply Chain Information Exchange. REACH is a regulation that restricts certain substances in manufactured products. Supply chain information guidance is crucial to ensure companies are not fined or banned from future European markets. This new standard, promulgated by ASTM Committee F40 on Declarable Substances in Materials, will assist companies that manufacture, buy or sell, or both, substances, preparations and articles to ensure that supply chains comply with the REACH regulation by identifying the elements of information that must be specified, requested and exchanged in communication between actors in the supply chain.

- Maryann Gorman
ASTM Standardization News

ASTM ISO 9004-00

Quality management systems -- Guidelines for performance improvements

because it focuses on consumer satisfactions. tsfacton

- James Oriarebun
Tops Safety Control Limited



2008 Survey Responses

ATIS 0300084 Telecommunications Relay Service (TRS)

It is especially gratifying to be able to produce a standard that has such an immediate and direct impact on the day-to-day lives of a segment of our population. All of the Standards can be argued to be of importance to a well regulated and smoothly operating telecommunication network, but this particular Standard addresses and effectively resolves a problem in the completion of Telephone Relay Service (TRS) calls for people who have hearing and or speaking disorders. The service provides an interpreter to bridge between TTY communication and spoken words thus allowing this segment of our population to effectively and naturally place calls to and receive calls from the rest of our society. This great service was hampered by a call parameter type that was causing some inter-exchange carriers to block the call attempt, thus negating the availability of the service. The ATIS NIIF identified the root cause of the problem, worked with other Standards bodies, consulted with users of the TRS service, and involved TRS providers in the development of an acceptable solution. ATIS-0300084 Network Interconnection Interoperability Forum Telecommunications Relay Service (TRS) Published July 2006 successfully resolved the blockage. I truly believe that resolving the call blockage for users of this service has made a meaningful tangible difference in the lives of the people who depend on the service to stay connected with the rest of our society.

— Stuart Goldman
Alcatel-Lucent

AWS D1.1/D1.1M, Structural Welding Code Steel

This Standard makes a difference because it is the bible for erecting welded steel structures covering everything from design to final acceptance.

— Brian McGrath
American Welding Society



2008 Survey Responses

CDISC V3.1.1 Study Data Tabulation Model (SDTM) Implementation Guide

The CDISC SDTM standard has provided the pharmaceutical industry with one common format for sending submissions data to regulatory agencies such as the US Food and Drug Agency (FDA). In the past, the FDA has received numerous submissions in many different proprietary formats requiring them to learn a new format with each submission. The new standard provides has facilitated the review process and given the FDA an opportunity to optimized their new review process. It has also given the pharmaceutical industry a tool to optimize their business processes from data collection through submission.

— Joyce Hernandez
Merck & Company, Inc.

CEA-708-D Digital Television (DTV) Closed Captioning

This standard allows the deaf and hard of hearing community to enjoy the same entertainment, information and public safety benefits enjoyed by others watching television.

— Megan A. Hayes
Consumer Electronics Association

CEA-861-E, DTV Profile for Uncompressed High Speed Digital Interfaces

This standard, the basis for the popular HDMI specification, simplifies the often complex process of interconnecting consumer electronics.

— Megan A. Hayes
Consumer Electronics Association



2008 Survey Responses

FIPS PUB 161-2 Electronic Data Interchange

This ANSI standard is being used by the U.S. Department of Defense as reflected in the DoD IT Standards Registry (DISR).

- Jerry Smith
Data Interchange Standards Association

HS-34 SAE Ground Vehicle Lighting Standards Manual

140 Lighting Standards are organized into the following sections: General; Signaling and Marking Lighting Devices; Switches and Flashers; Test Procedures and Materials; Warning Lamps and Devices; Agricultural Machinery; Construction and Industrial Machinery; Motorcycles; Snowmobiles; Electrical Systems. In addition, this self-contained manual includes technical reports from other SAE technical committees referenced in SAE light reports, cancelled SAE technical reports; a keyword index, and bibliographies of related international documents, papers, books, manuals and aerospace lighting documents.

- Cindy Reese
SAE International



2008 Survey Responses

ICC/ANSI A117.1-2003 Accessible and Useable Buildings and Facilities

This standard is one of ANSI's most widely distributed and used standards and is used by building owners, and others to achieve compliance with the Americans with Disabilities Act (ADA). It is recognized by the Access Board and by the Department of Justice as providing a safe harbor for meeting ADA requirements.

— David L. Karmol
International Code Council

IEC 61010 Family of Standards for Safety requirements for electrical equipment for measurement, control, and laboratory use

Product safety standard for our lines of product.

— Anonymous



2008 Survey Responses

IEC 61508-SER Ed. 1.0 b:2005

Functional safety of electrical/electronic/programmable electronic safety-related systems - ALL PARTS

Title above is the latest edition, but: 1. Since introduction in 1998 - absolute revolution in the way of thinking, I do not know any other standard which did make even similar jump. 2. Changes completely an approach to safety – from exclusively deterministic to include probabilistic aspects. 3. Provides for time scale – something is safe TODAY; will it be safe TOMORROW, a week, month or year from now. 4. Establishes the process for the whole life cycle of the product, system or plant. 5. Creates the solid foundation for consecutive standards like 61511, 62061, ISO13849 and more industry specific like SEMI S2.

– Krzysztof Majczak
Brooks Automation

IEEE 1012-2004

Standard for Software Verification and Validation

This is the seminal standard on this topic. Originally confined to software verification and validation, it has now been enlarged to address hardware V&V as well. I have seen this standard referenced in many Government and commercial contracts.

– David Schultz
CSC



2008 Survey Responses

IEEE 1074-2006

Standard for Developing a Software Project Life Cycle Process

This is the seminal standard on this topic. It is not a tutorial on life cycle processes, but rather a methodology for selecting or defining a life cycle process for a given project. I have seen this standard referenced in several Government and commercial contracts.

— David Schultz
CSC

IEEE 1471-2000

Recommended Practice for Architectural Description of Software-Intensive Systems

The term 'architecture' has many meanings. This standard not only defines the term (as an abstract property), but also introduces a way to think about the concrete representation of architectures. I have personally applied this on small team projects all the way up to a major DoD component as an 'enterprise'. The standard has also supported research in architecture by providing an ontology that allows researchers to compare and contrast their approaches to other industry and research approaches.

— David Emery
D&S Consultants, Inc.



2008 Survey Responses

IEEE 1680-2006

Standard for Environmental Assessment of Personal Computer Products, Including Laptop Personal Computers, Desktop Personal Computers, and Personal Computer Monitors

IEEE 1680 is the first U.S. standard to supply environmental guidelines for institutional purchasing decisions involving desktop and laptop computers and monitors. IEEE 1680 is a comprehensive standard that responds to a strong call for consistent environmental criteria to compare and select computers and monitors. IEEE 1680 will foster green product design by setting challenging, yet realistic criteria for environmental performance. IEEE 1680 offers criteria in eight categories - materials selection, environmentally sensitive materials, design for end of life, end-of-life management, energy conservation, product longevity and life-cycle extension, packaging, and corporate performance. IEEE 1680 is part of the Electronic Products Environmental Assessment Tool (EPEAT) which is managed by the Green Electronics Council under a grant from the U.S. EPA

— LuAnn Whittenburg
Computer Sciences Corporation

IEEE 603-1998

Criteria for Safety Systems for Nuclear Power Generating Stations

This standard provides requirements for the nuclear power industry to ensure proper design of safety systems. Endorsement by the Nuclear Regulatory Commission shows the positive impact that the voluntary standards effort has on the regulatory process in the United States. Other countries have also endorsed this standard.

— Wesley Bowers
Retired, Exelon Corporation



2008 Survey Responses

IEEE 62-1995

Guide for Diagnostic Field Testing of Electric Power Apparatus

The main focus of this document is routine testing of transformers and other apparatus in the field by the owner, and what results to expect. It has become the bible of testing for small utilities and industrials.

- William H. Bartley
Hartford Steam Boiler Inspection & Insurance

IEEE 730-2002

Software Quality Assurance Plans

This is the definitive standard on the topic of SQA Plans. It provides a very complete description of what should go into such a plan. It has been referenced in many Government and commercial contracts.

- David Schultz
CSC

IEEE 802.15.4-2006

Standard for Information technology- Telecommunications and information exchange between systems- Local and metropolitan area networks- Specific requirements- Part 15.4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) Spe

Low power, low data rate wireless will become ubiquitous in applications such as meter reading and energy saving strategies. This standard has already been adopted by Zigbee and ISA sp100.11a for such purpose

- Phil Beecher
Integration UK Ltd.



2008 Survey Responses

IEEE 802.15.4-2006

Standard for Information technology- Telecommunications and information exchange between systems- Local and metropolitan area networks- Specific requirements- Part 15.4: Wireless Medium Access Control (MAC) and Physical Layer (PHY) Spe

The 802.15.4 standard provides the foundation for standardized wireless control, monitoring and sensor networks. It supports point-to-point, star and mesh network capabilities. As a result it is being adopted by multiple entities developing Network Stacks (such as ZigBee, ISA-SP100, Wireless Hart and Synkro[™]), that ensure interoperability between devices and multiple manufacturers.

— Clinton Powell
Freescale

IEEE 802.17-2004

Standard for Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 17: Resilient packet ring (RPR) access method and physical layer spec

802.17 defines the preeminent packet ring architecture and implementation. It remains the standard by which other packet rings are judged.

— John Lemon
Adtran



2008 Survey Responses

IEEE 802.3-2005/Cor 1-2006

Standard for Information technology- Telecommunications and information exchange between systems- Local and metropolitan area networks-- Specific requirements Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA)

Because Ethernet was and continues to be the underlying standard driving the broadband, application independent revolution based on packet communication.

— Geoffrey O. Thompson
Nortel Networks

IEEE C57.147

Guide for Acceptance and Maintenance of Natural Ester Fluids in Transformers

The use of natural esters as an insulating dielectric fluid is of prime importance in protecting the environmental and conserving mineral oil currently and previously used in transformers worldwide. Establishing a guide with which this fluid can be purchased and used greatly enables the use of these type of fluids.

— C. Clair Claiborne
ABB Inc.



2008 Survey Responses

IEEE C57.91-1995 Guide for Loading Mineral-Oil-Immersed Transformers

The statement in Paragraph 1.2 Purpose in C57.91 states, "Applications of loads in excess of nameplate rating involve some degree of risk. It is the purpose of this guide to identify these risks and to establish limitations and guidelines, the application of which will minimize the risks to an acceptable level." This Guide is a helpful tool in that it outlines a conservative method for determining the risk to insulation life during loading beyond its nameplate rating. This is a "must have" in case of a contingency due to equipment failure or high ambient temperatures during extreme weather.

- John Rossetti
Memphis Light Gas and Water



2008 Survey Responses

IEEE C62.72-2007

Guide for the Application of Surge-Protective Devices for Low-Voltage (1000 V or Less) AC Power Circuits

As stated in the introduction of this standard: One purpose of this guide is to provide specifiers and users of surge-protective devices (SPDs) with an understanding of numerous application considerations to be evaluated before SPDs are installed in low voltage ac power circuits. Given this understanding, specifiers and users can exercise due diligence in applying SPDs, take steps to prevent their misapplications, and act to either prevent or mitigate adverse effects that SPDs may have on a power distribution system. The growth of interest in low-voltage SPDs parallels the increasing number of installations with sensitive, sophisticated, and expensive electronic equipment and components that can be exposed and susceptible to surge voltages. Specifiers and users of SPDs might be under the impression, or might be led to believe the misconception, that by installing one or more SPDs in their respective facility or within specific equipment, there will be total immunity to any and all power system disturbances. Actually, unanticipated and unexpected events can occur, which makes absolute immunity to the events of surges an unreasonable and unrealistic goal. In addition, there are numerous misconceptions that SPDs are so generic in application and construction that the method employed in their installation and their respective locations within a power distribution system are not variables in their functionality. In reality, SPDs will respond to and have an effect on some power system disturbances but not on others. The functionality of any SPD is also directly related to the specific location where it is connected to a low-voltage power distribution system and the methods used to make the required electrical connections to ac power circuits. ; Due to the complex nature of surges and the numerous environments where surges are generated and SPDs exist, the application of SPDs has yet to become an exact science.

— Ronald W Hotchkiss
Surge Suppression Incorporated



2008 Survey Responses

INCITS/ISO/IEC 9075-2003

Family of Standards for Information technology - Database Languages

It is no exaggeration to say that the database language standard, SQL (INCITS/ISO/IEC 9075-*) is one of the most successful, widely-adopted ANSI standards. Ever since it was first published by ANSI in 1986 (it was adopted by ISO as ISO/IEC standard in 1987), it has served as the foundation of a multi-billion dollar industry consisting of database management systems, application development tools, and prepackaged applications. Collectively, they are the backbone of many public and private enterprises. Without SQL-based systems, it would be much harder to manage day-to-day activities of such enterprises, be it a small business or a big government department. The facts that five revisions of the SQL standard have been published in the last 22 years (in 1989, 1992, 1999, 2003, and the latest in this year) by both ANSI and ISO and that there is still an active group continuing further development of the standard (ISO/IEC JTC1 SC32 WG3 and the corresponding body in US, INCITS H2) act as direct proofs of the longevity and the continued interest in this standard. There are not many standards that can claim such an honor.

— Krishna Kulkarni
IBM



2008 Survey Responses

ISA 5.1-1984 (R1992) Instrumentation Symbols and Identification

It really makes the process of control logic development well organized.

- Igor Boiko
Honeywell

Provides a reference and a common ground for different companies to understand the diagrams issued and the design intent.

- Sergio D. Arone
Techint S.A.

ISO 12052:2006 Health informatics - Digital imaging and communication in medicine (DICOM) including workflow and data management

A truly global standard - almost every piece of digital diagnostic imaging equipment manufactured in the world conforms to DICOM. It created the market for digital imaging in medicine, including Picture Archiving and Communications Systems (PACS) - many billions of dollars annually. It has led to an electronic imaging workflow with rapid availability of diagnostic results - and improved patient care, especially in emergency and trauma cases. It has extended the reach of diagnostic imaging, allowing radiologists to interpret images acquired in remote locations - including Antarctica and the International Space Station. Beyond the technical and market impact of the standard, the operation of the DICOM Standards Committee has been a model of collaboration between the clinical and industrial communities, and cooperation among the highly competitive equipment manufacturers - for the benefit of the medical profession and patients. Moreover, the DICOM Committee has endeavored to collaborate with and leverage the work of other Standards Developing Organizations, including ISO, IEC, CEN, HL7, IHTSDO, IETF, ECMA, and others.

- Harry Solomon
GE Healthcare



2008 Survey Responses

ISO 22222

Personal financial planning -- Requirements for personal financial planners

The standard has provided many in the business community with a new appreciation of the ISO. Prior to establishing the TC 222-Persoanl Financial Planning few in our "new Profession" had heard of the ISO. This became a 2 way street with the financial planning community becoming aware of the ISO and world wide ISO members have become familiar with Personal Financial Planning and the Standard which has brought 20 countries together in the creation of the ISO 22222 standard.

— Stuart Kessler
RSM McGladresy

ISO 362-1:2007

Measurement of noise emitted by accelerating road vehicles - Engineering method - Part 1: M and N categories

This is the latest technical revision to ISO 362 which is the basis for all global motor vehicle noise regulatory requirements. The latest version moves ISO 362 to a performance based standard capably of correctly measuring the noise emission from current and future propulsion technologies used in road transport. The ISO 362 versions have proven their worth over the many years of use by both industry and governments.

— Doug Moore
General Motors



2008 Survey Responses

ISO 6395:2008

Earth-moving machinery - Determination of sound power level - Dynamic test conditions

These standards are needed to establish how to measure sound for defined duty cycles as part of the EU noise Directives.

- Kerry Cone
John Deere

ISO 6396:2008

Earth-moving machinery - Determination of emission sound pressure level at operators position - Dynamic test conditions

These standards are needed to establish how to measure sound for defined duty cycles as part of the EU noise Directives.

- Kerry Cone
John Deere

ISO 9001:2000

Quality management systems -- Requirements

This process approach based standard provides a means by which the organization can determine what is most important in terms of their current market place and a means to plan strategic actions to move the business to the future market.

- Deann Desai
Georgia Tech



2008 Survey Responses

ISO/IEC 10646:2003 Information technology - Universal Multiple-Octet Coded Character Set (UCS)

The international standard "Universal Multiple-Octet Coded Character Set" ISO/IEC 10646:2003 together with its affiliated Unicode Standard establish the fundamentals of worldwide electronic communication using written text. Because the Universal Character Set encodes all written characters of most of the world's languages, exchanging e-mails and office document as well as creating web and print publications is not a problem. Virtually any computer in the world these days allows its user to read and write in English, Russian, Spanish, French, Arabic, Chinese, Devanagari, Thai, Burmese, Kazakh, Georgian, Tibetan or Inuktitut — thanks to ISO/IEC 10646:2003. This standard not only removes the technical obstacles of communication between nations and civilizations, but also contributes to preserving the humanity's long-time memory. Whether it's international treaties, legal documents, literature, corporate communication, news, blogs, gossip or private e-mail correspondence — the Universal Character Set will act as the Rosetta Stone of the 21st century, ensuring that those texts will continue to be readable in decades and centuries from now.

— Adam Twardoch
Fontlab Ltd.

ISO/IEC 10646:2003 Information technology - Universal Multiple-Octet Coded Character Set (UCS)

Permits worldwide lossless text data interchange by providing a single catalog for all the characters of all languages and special publishing applications; helps preserve the human cultural heritage of written material over the centuries. Helps get rid of myriads of older technology constrained codings for textual information.

— V.S. Umamaheswaran
IBM



2008 Survey Responses

ISO/IEC 10646:2003

Information technology - Universal Multiple-Octet Coded Character Set (UCS)

My day to day work, and leisure, involves reading documents in various languages, written with different scripts. ISO 10646 (a.k.a. Unicode) facilitates exchange of such documents in a well-defined manner.

— Matitihu Allouche
IBM

This standard provides consistent platform independent management of textual data on computers. Other codepage implementations are either too vague, too incomplete or undocumented.

— Anonymous

Unicode has allowed the communities of the world to communicate with each other, allowed the study and availability of ancient civilizations to the world, and has helped preserve the culture and language of minority cultures before they disappear.

— Mike McKenna
Yahoo, Inc.



2008 Survey Responses

ISO/IEC 11179-1:2004

Family of Standards for Information technology - Metadata registries (MDR)

This family of standards addresses the semantics of data. Many standards address the structure of data (data modeling), but none until now are built for semantics. As more organizations use the Web for disseminating and sharing data, the requirements for understanding that data go up commensurately. Given a business model where data are electronically obtained continually, on-line descriptions of data are required. Also, harmonizing data from different sources requires detailed descriptions of the data, too. The requirements of the Semantic Web point to the need for a formalized, machine interpretable set of descriptions. The descriptions are known as metadata. Metadata are data and can be stored and managed like an other data. Such a database is a metadata repository. The repository is known as a registry if a registration process is in place. Registration helps solve the problems of keeping track of what descriptions are in the registry, keeping track of the provenance of the things described (the history or where it came from), and providing a means of discovery by interested parties. The ISO/IEC 11179 family of standards addresses many of the requirements for building a registry for the semantics of data.

— Dan Gillman
Bureau of Labor Statistics

ISO/IEC 12207:2008

Systems and software engineering - Software life cycle processes

It provides a baseline for the responsible practice of software engineering. Hence improves practice across all IT industries.

— James W. Moore
MITRE Corporation



2008 Survey Responses

ISO/IEC 14443:2008

Family of Standards for Identification cards - Contactless integrated circuit cards - Proximity cards

This standard is the basis for both electronic payment and for passport security. Electronic payment is reducing the time we have to spend in line and speeding up transit transactions. Passports- this standard is helping increase security and speeding up the que as you transit internationally.

— Steve Lazar
Texas Instruments

ISO/IEC 14776-413:2007

Information technology - Small Computer System Interface (SCSI) - Part 413: SCSI Architecture Model -3 (SAM-3)

This is the core standard of the Small Computer Systems Interface, including some 4-6 closely related standards, that created a common storage model for disk drives, storage arrays, and most other storage devices, even including USB thumbdrives and aircraft data systems. The technology created a simple storage access interface completely independent of the underlying storage device technology. It is used in everything from the personal computer (where the DVD drives use the SCSI-based ATAPI standard) to the largest enterprise storage area network. Without SCSI, your doctor would not have your digital X-Rays stored, your bank would not have your checking account stored, and you would not be able use the internet.

— Robert Snively
Brocade



2008 Survey Responses

ISO/IEC 1539-1

Information technology - Programming languages - Fortran

Fortran is the premiere programming language for engineering and scientific computing. As both hardware and software technology evolve, it is important for programming tools to evolve with them.

— Van Snyder
Jet Propulsion Laboratory

ISO/IEC 17024

Conformity assessment - General requirements for bodies operating certification of persons

While products, machines, and industries were the key drivers of an industrial economy, people constitute the central element of a knowledge economy. Ultimately, it is the quality of people that drives any process. An organization or a country is only as good as its people (human capital). Hence, people with the requisite knowledge, skills, and attitude to perform various tasks constitute the most critical aspect of modern society. Consequently, any standard that affects people and improves the quality of personnel makes the most significant difference. ANSI/ISO/IEC 17024: Conformity assessment-General requirements for bodies operating certification of persons has been drawn up with objective of achieving and promoting a globally accepted benchmark for organizations operating certification of persons. This standard seeks to assure the different stakeholders that persons who are certified to perform certain tasks have the requisite capabilities to perform those tasks. Organizations from a wide spectrum of industries including crane operators, safety professionals, health care workers, dental lab technicians, and information security professionals have been accredited under ANSI/ISO/IEC 17024. What's more this standard actually seems to be making a difference! According to Roger L. Brauer, Executive Director, Board of Certified Safety Professionals (BCSP), accreditation under ANSI/ISO/IEC 17024 has added value to BCSP and has served as catalyst for continuous quality improvement.

— Vijay Krishna
American National Standards Institute



2008 Survey Responses

ISO/IEC 19501:2005

Information technology - Open Distributed Processing - Unified Modeling Language (UML) Version 1.4.2

Software & Systems Engineering rely on interoperable tools from a variety of vendors. Metamodel exchange is essential, for example, for transferring information (not just data) between a high-end requirements tool and a high-end domain modeling tool, as is seamless systems engineering from high-level design through automated software system generation in standardized languages such as C++. Special UML "profiles" allow specialization in Enterprise Architectures (such as UPDM) and in pure Systems Engineering (such as SysML).

— Leonard F. Levine
Data Interchange Standards Association

ISO/IEC 19752:2004

Information technology - Method for the determination of toner cartridge yield for monochromatic electrophotographic printers and multi-function devices that may contain printer components

This standard set the ground work for the creation of several standards that have changed the way yield is advertised to the consumer. This change has improved the understanding that consumers have about yield and gives them better tools to make a purchase decision.

— Paul Jeran
Hewlett Packard



2008 Survey Responses

ISO/IEC 26300:2006 Information technology - Open Document Format for Office Applications (OpenDocument) v1.0

This standard allows free interchange of documents between users using different platforms and application software. Because the standard is open and not biased towards a specific application program, it promotes healthy competition and thus benefits to all users.

— Matitiahu Allouche
IBM

ISO/IEC 26300:2006 Information technology - Open Document Format for Office Applications (OpenDocument) v1.0

OpenDocument provides an open standard for electronic documents. It is significant for one because as a public standard, it will allow archived government, business, and personal documents to be readable in the future regardless of the software technology. Secondly, because OpenDocument is itself built on the open XML and SGML standards it is not reinventing technology but applying proven standards. Thirdly and perhaps most significantly, it facilitates commerce and communication by allowing seamless document interchange without concern about document conversion. Finally, it helps consumers by creating a meritocracy among the software developers, forcing them to concentrate on writing better software rather than better formats, and allowing consumers to choose the software that fits their budget or other needs rather than being forced to choose based on the software's document format and market share.

— Alan Shea
HCJB Global Technology Center



2008 Survey Responses

ISO/IEC 9075-2:2008 Information technology - Database languages - SQL - Part 2: Foundation

This is the basis for standard implementations of the SQL language. In my own company, it has been a guiding light in the development of our own SQL engines.

— Anonymous

ITU-T Q.700 series Signaling System 7

Common Channel Signalling (CCS) fundamentally changed the way telecoms works by enabling separate and independent information transfer for control of bearer channels and services. The advent of CCS enabled much more rapid call setup compared to previous in-band signalling mechanisms. More importantly, the new Transaction Capabilities Application Part (TCAP) of CCS7 or Signalling System No. 7 (SS7) enabled much more rapid deployment of services since the logic and data could be centralized as opposed to having to be replicated at every node. SS7 made Intelligent Networks possible. Today, SS7 is universally used within the PSTN and in mobile networks. GSM and CDMA 2G and 3G cellular networks depend entirely on SS7, especially on TCAP to support registration and roaming without which we would not have mobile telephony as we know it. (ANSI's SS7 standards are directly based on the ITU Recommendations with changes only as needed to suit the North American environment.)

— John Visser
Nortel



2008 Survey Responses

N15.41-1984 (R1994)

Derivation of Measurement Control Programs - General Principles

A measurement control system helps to minimize the risk of producing incorrect measurement results. Inaccurate measurements may lead to incorrect decisions involving the use, disposition, or safety evaluation of nuclear materials. This standard describes the principles of a measurement control program that enable a facility to derive a sound measurement control program. Revision of the standard is underway to bring the principles and requirements in line with current practices and approaches of quality assurance, including method validation, traceability and use of reference materials, measurement uncertainty, and proficiency testing. Measurement control is the backbone for achieving robust and defensible analytical data.

— Steven Goldberg
U.S. Department of Education-New Brunswick Laboratory



2008 Survey Responses

NAACCR Volume V Standard for Pathology Laboratory Electronic Reporting

The North American Association of Central Cancer Registries, Inc., (NAACCR) publication, Standards for Cancer Registries, Volume V, Pathology Laboratory Electronic Reporting (www.naacr.org/standards/volumev), describes recommended standards for electronically transmitting reports (pathology, cytology and hematology) from pathology laboratories to central cancer registries. The goal is to define the HL7 format for the transmission of pathology data elements to cancer registries. This standard can be used by pathology laboratories, vendors, and other groups. Included in this volume are standard specifications using HL7 version 2.3.1. NAACCR is a professional organization that develops and promotes uniform data standards for cancer registration; provides education and training; certifies population-based registries; aggregates and publishes data from central cancer registries; and promotes the use of cancer surveillance data and systems for cancer control and epidemiologic research, public health programs, and patient care to reduce the burden of cancer in North America. Monitoring the occurrence of cancer (cancer surveillance) is a cornerstone of cancer control decision-making. Surveillance is used to trigger case investigations, follow trends, evaluate the effectiveness of prevention programs such as screening and early detection, and inform public health priorities. Most cancers are definitively diagnosed by histology, so surveillance programs identify new cases, and collect further information on cases previously reported, using pathology reports. Diagnosing and treating cancer patients is increasingly occurring in non-hospital settings. This shift from the traditional domain presents a problem for central cancer registries, which need complete, accurate case ascertainment; non-hospital cancer cases are often under-reported. It is essential that central cancer registries develop electronic case ascertainment standards for non-hospital sources. Anatomic pathology laboratories are a major non-hospital source necessary for complete data collection. Lacking a standardized system for pathology laboratory reporting results in under-reporting. Further, each central cancer registry develops its own procedures for capturing these cases. In turn, pathology laboratories must comply with the different state or province/territory cancer registry specifications that require them to report. This Volume V standard provides the required specifications for central cancer registries to communicate using a common message structure.

— Lori A. Havener
North American Association of Central Cancer Registries



2008 Survey Responses

NCPDP Telecommunication Standard Version D.0

This standard is used by the pharmacy industry - pharmacies, vendors, clearinghouse, payers, health plans, to relay medication and service transactions for the standardized exchange of information. The pharmacy industry is one of the only sectors of the healthcare industry that has embraced the real-time, online exchange of information to affect patient service and health.

— Anonymous

This standard is used in electronic prescribing - for doctors and pharmacies to communicate system to system about a prescription, cutting down prescription errors and illegibility. It also provides medication history from entities.

— Anonymous

NEMA ANSI C82.11:2002, High-frequency Fluorescent Lamp Ballasts

Compliance with this performance standard provides a level playing field for all electronic fluorescent ballast manufacturers and simplifies user choices.

— Howard Wolfman
OSRAM Sylvania



2008 Survey Responses

NFPA 70-2008 National Electrical Code

Today's society is dependent on electricity to light and heat our homes, businesses and factories. We rely on it to produce our food, our clothing, and virtually all of the products that we consider necessary and/or nice to have. While electricity is vital to our society, it is at the same time dangerous. When used improperly, electricity can damage equipment, cause fires and cause serious injury or death. The National Electrical Code sets forth the minimum requirements by which electricity can properly be put to a positive use for our society while maintaining the safety of user, installers, and property.

- Bob Baird
Independent Electrical Contractors, Inc.

NFPA 79-2007 Electrical Standard for Industrial Machinery

IT PROVIDES COMMON COMMUNICATION FOR INDUSTRIAL APPLICATIONS.

- Marykate Johnson
Empire Abrasive Equipment Co.

NFPA 96-2008 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations

This is the standard that requires kitchen exhaust systems to be cleaned by a trained personal

- Robert Schuler
Bentley Resources Inc.



2008 Survey Responses

NFPA 96-2008 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations

This Standard brings the installation, protection and maintenance of exhaust systems for Commercial Cooking Operations under one understandable and uniquely readable standard. It is an extremely simple document that most people in the industry can understand and apply to systems that differ throughout the country and the world.

— Joel Berkowitz
Fireproofing Corporation of America



2008 Survey Responses

R-013-1992 Software Reliability

The recommended practice prescribes the methods for assessing and predicting the reliability of software, based on a life cycle approach to software reliability engineering. It provides information necessary for the application of software reliability measurement to a project, lays a foundation for building consistent methods, and establishes the basic principle for collecting the data needed to assess and predict the reliability of software. The document prescribes how any user can participate in on-going, software reliability assessments and predictions. Software Reliability Engineering (SRE) is an established discipline that can help organizations improve the reliability of their products and processes. The American Institute of Aeronautics and Astronautics (AIAA) defines SRE as the application of statistical techniques to data collected during system development and operation to specify, predict, estimate, and assess the reliability of software-based systems. The recommended practice is a composite of models, and tools and describes the what and how of software reliability engineering. It is important for an organization to have a disciplined process if it is to produce high reliability software. The recommended practice is described and how it is enhanced to include a life cycle approach to SRE that takes into account the risk to reliability of requirements changes. A requirements change may induce ambiguity and uncertainty in the development process that cause errors in implementing the changes. Subsequently, these errors propagate through later phases of development and maintenance. These errors may result in significant risks associated with implementing the requirements. For example, reliability risk (i.e., risk of faults and failures induced by changes in requirements) may be incurred by deficiencies in the process (e.g., lack of precision in requirements). Organizations will benefit from the recommended practice by reducing the risk of imprecise requirements that lead to software failures.

— Norman Schneidewind
Naval Postgraduate School



2008 Survey Responses

SAE J1349

Engine Power Test Code - Spark Ignition and Compression Ignition - Net Power Rating

This SAE Standard has been adopted by SAE to specify: a. A basis for net engine power rating; b. Reference inlet air and fuel supply test conditions; c. A method for correcting observed power to reference conditions; d. A method for determining net full load engine power with a dynamometer.

— Cindy Reese
SAE International

SAE J1388

Personnel Protection - Skid Steer Loaders

This SAE Standard is intended to provide personnel protection guidelines for skid steer loaders. This document is intended as a guide towards standard practice, but may be subject to frequent change to keep pace with experience and technical advances. This should be kept in mind when considering its use. This document provides performance criteria for newly manufactured loaders and it is not intended for in-service machines.

— Cindy Reese
SAE International



2008 Survey Responses

SAE J1699/3 OBD II Compliance Test Cases

The main purpose of this Recommended Practice is to verify that vehicles are capable of communicating a minimum subset of information, in accordance with the diagnostic test services specified in SAE J1979: E/E Diagnostic Test Modes, or the equivalent document ISO 15031-5: Communication Between Vehicle and External Equipment for Emissions-Related Diagnostics 2 Part 5: Emissions-related diagnostic services. Any software meeting these specifications will utilize the vehicle interface that is defined in SAE J2534, Recommended Practice for Pass-Thru Vehicle Programming.

— Cindy Reese
SAE International

SAE J1766 Recommended Practice for Electric and Hybrid Electric Vehicle Battery Systems Crash Integrity Testing

Electric and Hybrid Electric Vehicles contain many types of battery systems. Adequate barriers between occupants and battery systems are necessary to provide protection from potentially harmful factors and materials within the battery system that can cause injury to occupants of the vehicle during a crash. This SAE Recommended Practice is applicable to all Electric Vehicle and Hybrid Electric Vehicle battery designs, including those described in SAE J1797. The potentially harmful factors and materials addressed by this document include electrical isolation integrity, electrolyte spillage, and retention of the battery system. The purpose of this document is to define test methods and performance criteria which evaluate battery system spillage, battery retention, and electrical system isolation in Electric and Hybrid Electric Vehicles during specified crash tests.

— Cindy Reese
SAE International



2008 Survey Responses

SAE J1879

Handbook for Robustness Validation of Semiconductor Devices in Automotive Applications

This document will primarily address intrinsic reliability of electronic components for use in automotive electronics. Where practical, methods of extrinsic reliability detection and prevention will also be addressed. This document primarily deals with integrated circuit issues, but can easily be adapted for use in discrete or passive component qualification with the generation of a list of failure mechanisms relevant to those devices. Component qualification is the main scope of this document. Other procedures addressing extrinsic defects are specifically addressed in the monitoring chapter. This document is to be used within the context of achieving Zero Defect in component manufacturing and product use. NOTE: The term "shall" indicates a binding requirement.

— Cindy Reese
SAE International

SAE J1939

Recommended Practice for a Serial Control and Communications Vehicle Network

SAE J1939 is the vehicle bus standard used for communication and diagnostics among vehicle components, originally by the car and heavy duty truck industry in the United States. The J1939 standards family is maintained to ensure CAN device interoperability. J1939, the top-level document in the collection, is the master control for definitions common to many applications and industries, while companion documents explain component rationalization and product standardization for a particular application or industry. Communication systems designed according to J1939 standards are EMI/RFI tolerant, free of connection wires, easy to install, and feature log, record, remote access, and self-diagnosis capabilities.

— Jack Pokrzywa
SAE International



2008 Survey Responses

SAE J1962

Diagnostic Connector Equivalent to ISO/DIS 15031-3:December 14, 2001

This document is intended to satisfy the requirements of an OBD connector as required by U.S. On-Board Diagnostic (OBD) regulations. The diagnostic connection specified in this document consists of two mating connectors, the vehicle connector and the external test equipment connector. This document specifies: a. The functional requirements for the vehicle connector.

— Cindy Reese
SAE International

SAE J1979

E/E Diagnostic Test Modes

This document is intended to satisfy the data reporting requirements of On-Board Diagnostic (OBD) regulations in the United States and Europe, and any other region that may adopt similar requirements in the future. This document specifies: a. message formats for request and response messages, b. timing requirements between request messages from external test equipment and response messages from vehicles, and between those messages and subsequent request messages, c. behavior of both the vehicle and external test equipment if data is not available, d. a set of diagnostic services, with corresponding content of request and response messages, to satisfy OBD regulations.

— Cindy Reese
SAE International



2008 Survey Responses

SAE J2012 Diagnostic Trouble Code Definitions

Purpose This document supersedes SAE J2012 APR2002, and is technically equivalent to ISO 15031-6:2005 with the exceptions described in Section 1.2. This document is intended to define the standardized Diagnostic Trouble Codes (DTC) that On-Board Diagnostic (OBD) systems in vehicles are required to report when malfunctions are detected. This document includes: a. Diagnostic Trouble Code format. b. A standardized set of Diagnostic Trouble Codes and descriptions c. A standardized set of Diagnostic Trouble Codes subtypes known as Failure Types.

— Cindy Reese
SAE International

SAE J2572 Recommended Practice for Measuring Fuel Consumption and Range of Fuel Cell and Hybrid Fuel Cell Vehicles Fuelled by Compressed Gaseous Hydrogen

This SAE Recommended Practice establishes uniform procedures for testing fuel cell and hybrid fuel cell electric vehicles, excluding low speed vehicles, designed primarily for operation on the public streets, road and highways. The procedure addresses those vehicles under test using compressed hydrogen gas supplied by an off-board source or stored and supplied as a compressed gas onboard. Communication between vehicle manufacturer and the governing authority is essential when starting official manufacturer in-house and official government confirmatory testing that incorporates this practice.

— Jack Pokrzywa
SAE International



2008 Survey Responses

SAE J2574 Fuel Cell Vehicle Technology

This SAE Information Report contains definitions for hydrogen fuel cell powered vehicle terminology. It is intended that this document be a resource for those writing other hydrogen fuel cell vehicle documents, specifically, Standards or Recommended Practices

— Jack Pokrzywa
SAE International

SAE J2578 Recommended Practice for General Fuel Cell Vehicle Safety

This SAE Recommended Practice identifies and defines the preferred technical guidelines relating to the safe integration of fuel cell system, fuel storage, and electrical systems into the overall Fuel Cell Vehicle. Purpose The purpose of this document is to provide introductory mechanical and electrical system safety guidelines that should be considered when designing fuel cell vehicles for use on public roads. Field of Application This document covers fuel cell vehicles designed for use on public roads.

— Jack Pokrzywa
SAE International



2008 Survey Responses

SAE J2579

Technical Information Report for Fuel Systems in Fuel Cell and Other Hydrogen Vehicles

Vehicles manufactured with liquid hydrocarbon as fuels have a long history of implementing appropriate safety measures as specified in SAE Recommended Practices and Standards. With the onset of hydrogen-fueled vehicles, new safety design guidance and methods to verify safe performance will need to be provided to vehicle developers. This SAE Technical Information Report addresses hydrogen and hydrogen handling systems on-board vehicles for the purpose of storing, containing, and delivering hydrogen fuel to power generating systems such as fuel cells and internal combustion engines.

— Jack Pokrzywa
SAE International

SAE J2594

Recommended Practice to Design for Recycling Proton Exchange Membrane (PEM) Fuel Cell Systems

The purpose of this SAE Recommended Practice document is to provide a tool that helps the Fuel Cell system designers and engineers incorporate recyclability into the PEM FC design process. This document should be used to continually assess the recyclability of component and assembly designs during the early design phase, in order to reach optimized recyclability, recycled content, and minimized environmental impact associated with those designs. While there are various types of Fuel Cell architectures being developed, the focus of this document is on Proton Exchange Membrane (PEM) fuel cell stacks and ancillary components for automotive propulsion applications. Within the boundaries of this document are the: Fuel Supply and Storage, Fuel Processor, Fuel Cell Stack, and Balance of Plant, as shown.

— Jack Pokrzywa
SAE International



2008 Survey Responses

SAE J2615

Testing Performance of Fuel Cell Systems for Automotive Applications

This recommended practice is intended to provide a framework for performance testing of fuel cell systems designed for automotive applications with direct current output. The procedures described allow for measurement of performance relative to claims by manufacturers of such systems with regard to the following performance criteria.

- Jack Pokrzywa
SAE International

SAE J2617

Recommended Practice for Testing Performance of PEM Fuel Cell Stack Sub-system for Automotive Applications

This recommended practice is intended to serve as a procedure to verify the design specifications or vendor claims of any PEM (Proton Exchange Membrane) type fuel cell stack sub-system for automotive applications. In this document, definitions, specifications, and methods for the performance characterization of the fuel cell stack sub-system are provided. The goal of this recommended practice is to provide a method for users to conduct fuel cell stack sub-system tests on a common basis. This allows the comparison of fuel cell stack sub-systems with different designs where no specific fuel cell system design has been identified. Alternatively, the performance of a specific fuel cell stack sub-system can be assessed in the context of a specific fuel cell system design based on the agreement of the testing parties.

- Jack Pokrzywa
SAE International



2008 Survey Responses

SAE J2711

Recommended Practice for Measuring Fuel Economy and Emissions of Hybrid-Electric and Conventional Heavy-Duty Vehicles

This SAE Recommended Practice was established to provide an accurate, uniform and reproducible procedure for simulating use of heavy-duty hybrid- electric vehicles (HEVs) and conventional vehicles on dynamometers for the purpose of measuring emissions and fuel economy. This document also has a section which provides recommendations for calculating fuel economy and emissions for charge-depleting hybrid-electric vehicles. It should be noted that most heavy-duty vehicles addressed in this document would be powered by engines that are certified separately for emissions. The engine certification procedure appears in the Code of Federal Regulations, Title 40.

— Cindy Reese
SAE International

SAE J2719

Information Report on the Development of a Hydrogen Quality Guideline for Fuel Cell Vehicles

Develop an evolving H₂ Fuel Quality guideline for the vehicular refueling interface, which will mature as technology advances toward commercial feasibility. The latest guideline would form the basis of a proposed standard for commercial hydrogen fuel Purity for H powered vehicles, possibly including ICE's

— Jack Pokrzywa
SAE International



2008 Survey Responses

SAE J2723

Engine Power Test Code - Engine Power and Torque Certification

This document specifies the procedure to be used for a manufacturer to certify the net power and torque rating of a production engine according to J1349 (Rev. 8/04) or the gross engine power of a production engine according to SAE J1995. Manufacturers who advertise their engine power and torque ratings as Certified to SAE J1349 or SAE J1995 shall follow this procedure. Certification of engine power and torque to J1349 or J1995 is voluntary, however, this power certification process is mandatory for those advertising power ratings as "Certified to SAE J1349".

— Cindy Reese
SAE International

SAE J2727

HFC-134a Mobile Air Conditioning System Refrigerant Emission Chart

The original SAE J2727 "Emission Chart" provided a rating system for comparing mobile A/C systems and was not intended to define mobile A/C system refrigerant emission. It had been developed from industry experience of expected system refrigerant emission based upon currently available technologies. The "System Emissions Chart" now contained in this revision is intended to serve as a means of estimating the annual refrigerant emissions rate (grams per year) from new production A/C systems equipped with specified component technologies. It provides emission values for various component technologies that are currently available, and can be expanded as new technologies are commercialized. This document provides the information to develop an Excel file template "System Emissions Chart" for system emission analysis. The chart includes automotive compressor technologies for conventional mobile air conditioning systems as well as those using semi-hermetic compressors. This standard can be considered a companion document to SAE J2763 Test Procedure for Determining Refrigerant Emissions from Mobile Air Conditioning Systems. SAE J2727 estimates system emissions, taking into account production assembly variation. SAE J2763 may be used to quantify emissions from properly assembled systems.

— Jack Pokrzywa
SAE International



2008 Survey Responses

SAE J2735

Dedicated Short Range Communications (DSRC) Message Set Dictionary

This SAE Recommended Practice is intended as a guide toward standard practice and is subject to change to keep pace with experience and technical advances. This SAE Recommended Practice specifies standard message sets, data frames and data elements for use by applications intended to utilize the 5.9 GHz Dedicated Short Range Communications for Wireless Access in Vehicular Environments (DSRC/WAVE, referenced in this document simply as "DSRC"), communication systems. The scope is limited to specifying initial representative message structure and providing sufficient background information to allow readers to properly interpret the DSRC standards and message definitions from the point of view of an application developer.

— Cindy Reese
SAE International

SAE J2758

Determination of the Maximum Available Power from a Rechargeable Energy Storage System on a Hybrid Electric Vehicle

This document describes a test procedure for rating peak power of the Rechargeable Energy Storage System (RESS) used in a combustion engine Hybrid Electric Vehicle (HEV). Other types of vehicles with non fossil fuel primary engines, such as fuel cells, are not intended to use this test procedure.

— Cindy Reese
SAE International



2008 Survey Responses

SAE J2760

Pressure Terminology Used in Fuel Cells and Other Hydrogen Vehicle Applications

SAE J2579 is being developed by the SAE Fuel Cell Vehicle (FCV) Safety Working Group (SWG) to provide recommended practices for Fuel Systems in Fuel Cell and Other Hydrogen Vehicles. As part of this work, definitions for pressurized systems and containers were developed. The purpose of this TIR is to disseminate these definitions prior to the release of SAE J2579 such that other technical groups are aware of the information.

— Jack Pokrzywa
SAE International

SAE J2763

Test Procedure for Determining Refrigerant Emissions from Mobile Air Conditioning Systems

This SAE Standard covers the Mini-Shed testing methodology to measure the rate of refrigerant loss from an automotive air conditioning (A/C) system. This SAE procedure encompasses both front and rear air conditioning systems utilizing

— Jack Pokrzywa
SAE International



2008 Survey Responses

SAE J2791 HFC-134a Refrigerant Electronic Leak Detectors, Minimum Performance Criteria

This SAE Standard provides testing and functional requirements to meet specified minimum performance criteria for electronic HFC-134a probe-type leak detectors. So they will identify smaller refrigerant leaks when servicing all motor vehicle air conditioning systems, including those engineered with improved sealing and smaller refrigerant charges to address environmental concerns and increase system efficiency. This document does not address any safety issues concerning their design or use.

— Jack Pokrzywa
SAE International

SAE J2807 Performance Requirements for Determining Tow-Vehicle Gross Combination Weight Rating and Trailer Weight Rating

This document establishes minimum performance criteria at GCWR and calculation methodology to determine tow vehicle trailer rating for passenger cars, multipurpose passenger vehicles and light trucks up to 19500 lb GVWR (Class 5).

— Cindy Reese
SAE International



2008 Survey Responses

SAE J2830 Process for Comprehension Testing of In-Vehicle Icons

This document describes a process for testing the comprehension of symbols or icons. Although the process may be used to test any symbols or icons, it has been developed specifically for testing ITS active safety symbols or icons (e.g., collision avoidance), or other symbols or icons that reflect some in-vehicle ITS message or function (e.g., navigation, motorist services, infotainment). Within the process, well-defined criteria are used to identify the extent to which the perceived meaning matches the intended meaning for a representative sample of drivers. Though the process described below reflects a paper-and-pencil approach to conducting the testing, electronic means (i.e., conducted using a computer) can be used as well. The data or results from this process are analyzed to assess the drivers' comprehension of the symbol or icon. These data will be used to provide guidance in the design of in-vehicle symbols or icons.

— Jack Pokrzywa
SAE International

TIA 917:2004 Wireless Priority Service Enhancements for CDMA Systems

This standard specifies the intersystem operations required to support Wireless Priority Service (WPS). WPS commands priority service when all radio channels are busy in emergency situations, and gives priority for next available channel to first responders. This standard drives access to critical emergency services when the wireless service is experiencing peak performance.

— Peter Bogard
Telecommunication Industry Association



2008 Survey Responses

TIA/EIA/IS-2000 Family of Standards for CDMA2000 Multi-Carrier 1X and 3X Air Interface Specifications

Over the last 10 years this suite of standards has been the global market leader for Third Generation (3G) wireless communications. Third Generation (3G) is the term used to describe the latest generation of mobile services which provide advanced voice communications and high-speed data connectivity, including access to the Internet, mobile data applications and multimedia content. The International Telecommunication Union (ITU), working with industry standards bodies from around the world, has defined the technical requirements and standards as well as the use of spectrum for 3G systems under the IMT-2000 (International Mobile Telecommunications-2000) program. The ITU requires that IMT-2000 (3G) networks, among other capabilities, deliver improved system capacity and spectrum efficiency over 2G systems and that they support data services at minimum transmission rates of 144 kbps in mobile (outdoor) and 2 Mbps in fixed (indoor) environments. Based on these requirements, in 1999 the ITU approved five radio interface modes for IMT-2000 standards (Recommendation 1457). Three of the five approved standards (cdma2000®, TD-SCDMA, WCDMA) are based on CDMA. cdma2000® is also known by its ITU name, IMT-2000 CDMA Multi-Carrier (MC). At end of 1Q2008 there were 438,400,000 cdma2000® subscribers, 275 commercial operators, 102 countries/territories, 2,014 devices, representing billions of dollars in revenues to vendors and operators, jobs for millions and next-generation communications to hundreds of millions of people worldwide. See www.cdg.org; See www.3gpp2.org. 2008 marks the 25th Anniversary of cellular in the USA, and the 10th Anniversary of the decision to launch 3GPP2 to develop specifications that become TIA cdma2000® standards.

— Dan Bart
Valley View Corporation



2008 Survey Responses

UL 1449-2006 Standard for Safety for Surge Protective Devices

It is mandatory (per NEC 2008) that manufacturers of SPDs who intend for these to be connected to the US power system, have their products LISTED to this Standard.

— Antony J. Surtees
Iskra Protection US