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## American National Standards

### Call for comment on proposals listed

This section solicits public comments on proposed draft new American National Standards, including the national adoption of ISO and IEC standards as American National Standards, and on proposals to revise, reaffirm or withdraw approval of existing American National Standards. A draft standard is listed in this section under the ANSI-accredited standards developer (ASD) that sponsors it and from whom a copy may be obtained. Comments in connection with a draft American National Standard must be submitted in writing to the ASD no later than the last day of the comment period specified herein. Such comments shall be specific to the section(s) of the standard under review and include sufficient detail so as to enable the reader to understand the commenter's position, concerns and suggested alternative language, if appropriate. Please note that the ANSI Executive Standards Council (ExSC) has determined that an ASD has the right to require that interested parties submit public review comments electronically, in accordance with the developer's procedures.

#### Ordering Instructions for "Call-for-Comment" Listings

1. **Order from the organization indicated for the specific proposal.**
2. **Use the full identification in your order, including the BSR prefix; for example, Electric Fuses BSR/SAE J554.**
3. **Include remittance with all orders.**
4. **BSR proposals will not be available after the deadline of call for comment.**

Comments should be addressed to the organization indicated, with a copy to the Board of Standards Review, American National Standards Institute, 25 West 43rd Street, New York, NY 10036. Fax: 212-840-2298; e-mail: [psa@ansi.org](mailto:psa@ansi.org)

\* Standard for consumer products

## Comment Deadline: September 1, 2019

### NSF (NSF International)

#### Revision

BSR/NSF 2-201x (i33r1), Food Equipment (revision of ANSI/NSF 2-2018)

Equipment covered by this Standard includes, but is not limited to, bakery, cafeteria, kitchen, and pantry units and other food handling and processing equipment such as tables and components, counters, hoods, shelves, and sinks.

[Click here to view these changes in full](#)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [arose@nsf.org](mailto:arose@nsf.org)

BSR/NSF 42-201x (i101r1), Drinking Water Treatment Units - Aesthetic Effects (revision of ANSI/NSF 42-2018)

It is the purpose of this Standard to establish minimum requirements for materials, design and construction, and performance of drinking water treatment systems that are designed to reduce specific aesthetic-related (non-health effects) contaminants in public or private water supplies. This Standard also specifies the minimum product literature and labeling information that a manufacturer shall supply to authorized representatives and system owners as well as the minimum service-related obligations that the manufacturer shall extend to system owners.

[Click here to view these changes in full](#)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [mleslie@nsf.org](mailto:mleslie@nsf.org)

BSR/NSF 53-201x (i115r3), Drinking Water Treatment Units - Health Effects (revision of ANSI/NSF 53-2018)

It is the purpose of this Standard to establish minimum requirements for materials, design and construction, and performance of point-of-use and point-of-entry drinking water treatment systems that are designed to reduce specific health-related contaminants in public or private water supplies. Such systems include point-of-entry drinking water treatment systems used to treat all or part of the water at the inlet to a residential facility or a bottled-water production facility, and includes the material and components used in these systems. This Standard also specifies the minimum product literature and labeling information that a manufacturer shall supply to authorized representatives and system owners, as well as the minimum service-related obligations that the manufacturer shall extend to system owners.

[Click here to view these changes in full](#)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [mleslie@nsf.org](mailto:mleslie@nsf.org)

BSR/NSF 53-201x (i119r1), Drinking Water Treatment Units - Health Effects (revision of ANSI/NSF 53-2018)

It is the purpose of this Standard to establish minimum requirements for materials, design and construction, and performance of point-of-use and point-of-entry drinking water treatment systems that are designed to reduce specific health-related contaminants in public or private water supplies. Such systems include point-of-entry drinking water treatment systems used to treat all or part of the water at the inlet to a residential facility or a bottled water production facility, and includes the material and components used in these systems. This Standard also specifies the minimum product literature and labeling information that a manufacturer shall supply to authorized representatives and system owners, as well as the minimum service-related obligations that the manufacturer shall extend to system owners.

[Click here to view these changes in full](#)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [mleslie@nsf.org](mailto:mleslie@nsf.org)

BSR/NSF 244-201x (i5r1), Supplemental Microbiological Water Treatment Systems - Filtration (revision of ANSI/NSF 244-2018)

The point-of-use (POU) and point-of-entry (POE) systems addressed by this Standard are designed to be used for the supplemental microbial control of specific organisms that may occasionally be present in drinking water (public or private) because of intermittent incursions. Certain of these specific organisms that may be introduced into the drinking water are considered established or potential health hazards. This Standard establishes requirements for POU and POE drinking water treatment systems, and the materials and components used in these systems.

[Click here to view these changes in full](#)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [mleslie@nsf.org](mailto:mleslie@nsf.org)

BSR/NSF 350-201x (i44r1), Onsite Residential and Commercial Water Reuse Treatment Systems (revision of ANSI/NSF 350-2018)

This Standard contains minimum requirements for onsite residential and commercial graywater treatment systems. Systems may include graywater reuse treatment systems having a rated treatment capacity up to 5,678 L/d (1,500 gal/d); or Commercial graywater reuse treatment systems. This applies to onsite commercial reuse treatment systems that treat combined commercial facility graywater with capacities exceeding 5,678 L/d (1,500 gal/d) and commercial facility laundry water only of any capacity. Management methods and end uses appropriate for the treated effluent discharged from graywater residential and commercial treatment systems meeting this Standard are limited to subsurface discharge to the environment only.

[Click here to view these changes in full](#)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [jsnider@nsf.org](mailto:jsnider@nsf.org)

BSR/NSF 401-201x (i14r1), Drinking Water Treatment Units - Emerging Compounds/Incidental Contaminants (revision of ANSI/NSF 401-2018)

The purpose of this Standard is to establish minimum requirements for materials, design and construction, and performance of drinking water treatment systems that are designed to reduce emerging compounds in public or private water supplies, such as pharmaceutical, personal care products (PPCPs), and endocrine disrupting compounds (EDCs).

[Click here to view these changes in full](#)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [mleslie@nsf.org](mailto:mleslie@nsf.org)

## **UL (Underwriters Laboratories, Inc.)**

### ***Revision***

BSR/UL 746A-201X, Standard for Safety for Polymeric Materials - Short Term Property Evaluations (revision of ANSI/UL 746A-2019)

This proposal covers the inclusion of the Glow-Wire Test (GWIT) in Section 9.9 of UL 746A for Polymer Variation Evaluation.

[Click here to view these changes in full](#)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Derrick Martin, (510) 319-4271, [Derrick.L.Martin@ul.com](mailto:Derrick.L.Martin@ul.com)

BSR/UL 746B-201X, Standard for Safety for Polymeric Materials - Long Term Property Evaluations (revision of ANSI/UL 746B-2019)

This proposal covers the removal of the thickness limitation for Polymeric Film Materials with Respect to Generic RTI Ratings.

[Click here to view these changes in full](#)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Derrick Martin, (510) 319-4271, [Derrick.L.Martin@ul.com](mailto:Derrick.L.Martin@ul.com)

BSR/UL 1242-201X, Standard for Electrical Intermediate Metal Conduit - Steel (revision of ANSI/UL 1242-2018)

(1) Introduction of a specific gravity range for copper sulfate; (2) Removal of chamfer angle and chamfer diameter requirement for couplings.

[Click here to view these changes in full](#)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Joshua Johnson, (919) 549-1053, [Joshua.Johnson@ul.com](mailto:Joshua.Johnson@ul.com)

## **Comment Deadline: September 16, 2019**

### **AAFS (American Academy of Forensic Sciences)**

#### ***New Standard***

BSR/ASB Std 053-201x, Standard for Report Content in Forensic Toxicology (new standard)

This document sets minimum content requirements for forensic toxicology reports. It defines the critical elements of the report, explains acceptable reporting language, and provides instructions on issuing supplemental or amended reports. The document also provides direction on adding interpretive information to the laboratory report.

Single copy price: Free

Obtain an electronic copy from: <http://www.asbstandardsboard.org/>

Order from: Document will be provided electronically on AAFS Standards Board website free of charge.

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [asb@aafs.org](mailto:asb@aafs.org). This is a public comment period for a recirculation. Updated document, redline version, and comments can be viewed on the AAFS Standards Board website at: <http://www.asbstandardsboard.org/notice-of-standard-development-and-coordination/>.

BSR/ASB Std 099-201x, Standard for Footwear/Tire Examination Proficiency Testing Program (new standard)

This standard outlines the requirements for proficiency test providers and footwear and tire examiners for creating proficiency tests appropriate for use by a footwear and tire examiner. The standard also provides recommendations for testing frequency. The guidance provided is primarily concerned with the discipline-level content and the footwear and tire examiner's ability to perform work and not organizational compliance.

Single copy price: Free

Obtain an electronic copy from: <http://www.asbstandardsboard.org/>

Order from: Document will be provided electronically on AAFS Standards Board website free of charge

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [asb@aafs.org](mailto:asb@aafs.org). Document and comments template can be viewed on the AAFS Standards Board website at: <http://www.asbstandardsboard.org/notice-of-standard-development-and-coordination//>

## **ANS (American Nuclear Society)**

### ***Reaffirmation***

BSR/ANS 5.10-1998 (R201x), Airborne Release Fractions at Non-Reactor Nuclear Facilities (reaffirmation of ANSI/ANS 5.10-1998 (R2012))

This standard provides criteria for defining Airborne Release Fractions (ARFs) for radioactive materials under accident conditions (excluding nuclear criticalities) at non-reactor nuclear facilities. The criteria in this standard provide requirements for selecting ARFs based on the calculated or assumed forms of radioactive material released. This standard may be applied to determine the ARFs for certain applicable reactor plant events for which alternative methodologies are not mandated by regulatory requirements. Because the predominant physical forms of radioactive materials in non-reactor facilities are solids and liquids, the standard focuses on these forms. Criteria are also provided for gases and materials that can be converted into the form of a vapor.

Single copy price: \$145.00

Obtain an electronic copy from: [orders@ans.org](mailto:orders@ans.org)

Order from: [orders@ans.org](mailto:orders@ans.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [pschroeder@ans.org](mailto:pschroeder@ans.org)

## **APCO (Association of Public-Safety Communications Officials-International)**

### ***Revision***

BSR/APCO 2.103.2-201x, Public Safety Communications Common Incident Types for Data Exchange (revision and redesignation of ANSI/APCO 2.103.1-2012)

This standard focuses on providing a standardized list of incident type codes to facilitate effective incident exchange between Next Generation 9-1-1 (NG9-1-1) Public Safety Answering Points (PSAPs) and other authorized agencies. The ability to efficiently share incident information between disparate PSAPs and other authorized agencies is a critical component of public safety interoperability. An agency that is receiving information about an incident must receive a basic level of incident classification to assure they understand the type of situation being handled. Creating a standardized incident type code list does not mean that an agency must change the codes they use internally. The intent is to have each agency map their internal codes to the standardized list. No change in the agency's internal process for incident entry will be necessary.

Single copy price: Free

Obtain an electronic copy from: [apcostandards@apcointl.org](mailto:apcostandards@apcointl.org)

Order from: Stacy Banker, (920) 579-1153, [apcostandards@apcointl.org](mailto:apcostandards@apcointl.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## **ASA (ASC S2) (Acoustical Society of America)**

### ***New National Adoption***

BSR ASA S2.80-201x/Part 1/ISO 20816-1-2016, Mechanical vibration - Measurement and evaluation of machine vibration - Part 1: General guidelines (a nationally adopted international standard) (identical national adoption of ISO 20816-1:2016)

This proposed national adoption establishes general conditions and procedures for the measurement and evaluation of vibration using measurements made on rotating, non-rotating, and non-reciprocating parts of complete machines. It is applicable to measurements of both absolute and relative radial shaft vibration with regard to the monitoring of radial clearances, but excludes axial shaft vibration. The general evaluation criteria, which are presented in terms of both vibration magnitude and change of vibration, relate to both operational monitoring and acceptance testing. They have been provided primarily with regard to securing reliable, safe, long-term operation of the machine while minimizing adverse effects on associated equipment. Guidelines are also presented for setting operational limits.

Single copy price: \$141.00

Obtain an electronic copy from: [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Order from: Caryn Mennigke, (631) 390-0215, [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

BSR ASA S2.80-201x/Part 2/ISO 20816-2-2017, Mechanical vibration - Measurement and evaluation of machine vibration - Part 2: Land-based gas turbines, steam turbines and generators in excess of 40 MW, with fluid-film bearings and rated speeds of 1 500 r/min, 1 800 r/min and 3 600 r/min (a nationally adopted international standard) (identical national adoption of ISO 20816-2:2017)

This proposed national adoption is applicable to land-based gas turbines, steam turbines and generators (whether coupled with gas and/or steam turbines) with power outputs greater than 40 MW, fluid-film bearings and rated speeds of 1 500 r/min, 1 800 r/min, 3 000 r/min, or 3 600 r/min. The criteria provided in this document can be applied to the vibration of the gas turbine, steam turbine and generator (including synchronizing clutches). This document establishes provisions for evaluating the severity of the following in-situ, broadband vibration: (a) structural vibration at all main bearing housings or pedestals measured radial (i.e., transverse) to the shaft axis; (b) structural vibration at thrust bearing housings measured in the axial direction; and (c) vibration of rotating shafts radial (i.e., transverse) to the shaft axis at, or close to, the main bearings.

Single copy price: \$138.00

Obtain an electronic copy from: [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Order from: Caryn Mennigke, (631) 390-0215, [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

BSR ASA S2.81-201x/Part 2/ISO 21940-2-2017, Mechanical vibration - Rotor balancing - Part 2: Vocabulary (a nationally adopted international standard) (identical national adoption of ISO 21940-2:2017)

This proposed identical national adoption defines terms on balancing. It complements ANSI/ASA S2.1/ISO 2041, which is a general vocabulary on mechanical vibration and shock.

Single copy price: \$45.00

Obtain an electronic copy from: [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Order from: Caryn Mennigke, (631) 390-0215, [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

BSR/ASA S2.81-201x/Part 11/ISO 21940-11-2016, Mechanical vibration - Rotor balancing - Part 11: Procedures and tolerances for rotors with rigid behaviour (identical national adoption of ISO 21940-11:2016)

This proposed identical national adoption establishes procedures and unbalance tolerances for balancing rotors with rigid behavior. It specifies (a) the magnitude of the permissible residual unbalance, (b) the necessary number of correction planes, (c) the allocation of the permissible residual unbalance to the tolerance planes, and (d) how to account for errors in the balancing process. This document does not cover the balancing of rotors with flexible behavior. Procedures and tolerances for rotors with flexible behavior are dealt with in ANSI/ASA S2.81/Part 12/ISO 21940-12.

Single copy price: \$162.00

Obtain an electronic copy from: [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Order from: Caryn Mennigke, (631) 390-0215, [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

BSR/ASA S2.81-201x/Part 12/ISO 21940-12-2016, Mechanical vibration - Rotor balancing - Part 12: Procedures and tolerances for rotors with flexible behaviour (identical national adoption of ISO 21940-12:2016)

This proposed identical national adoption presents typical configurations of rotors with flexible behavior in accordance with their characteristics and balancing requirements, describes balancing procedures, specifies methods of assessment of the final state of balance, and establishes guidelines for balance quality criteria. Can also serve as a basis for more involved investigations, e.g., when a more exact determination of the required balance quality is necessary. If due regard is paid to the specified methods of manufacture and balance tolerances, satisfactory running conditions can be expected. Not intended to serve as an acceptable specification for any rotor, but rather to give indications of how to avoid gross deficiencies and unnecessarily restrictive requirements. Structural resonances and modifications thereof lie outside the scope of this document.

Single copy price: \$162.00

Obtain an electronic copy from: [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Order from: Caryn Mennigke, (631) 390-0215, [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

BSR/ASA S2.81-201x/Part 14/ISO 21940-14-2012, Mechanical vibration - Rotor balancing - Part 14: Procedures for assessing balance errors (a nationally adopted international standard) (identical national adoption of ISO 21940-14:2012)

This proposed identical national adoption specifies the requirements for the following: identifying errors in the unbalance measuring process of a rotor; assessing the identified errors; and taking the errors into account. Specifies balance acceptance criteria, in terms of residual unbalance, for both directly after balancing and for a subsequent check of the balance quality by the user. For the main typical errors, this document lists methods for their reduction in an informative annex.

Single copy price: \$105.00

Obtain an electronic copy from: [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Order from: Caryn Mennigke, (631) 390-0215, [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## **ASABE (American Society of Agricultural and Biological Engineers)**

### ***Revision***

BSR/ASAE S436.2 MONYEAR-201x, Field Test Procedure for Determining Irrigation Water Distribution Uniformity of Center Pivot and Lateral Move Systems (revision and redesignation of ANSI/ASAE S436.1 JUN1996 (R2016))

This Standard defines an in-field method for characterizing the uniformity of water distribution of sprinkler packages installed on center pivots and lateral move irrigation machines.

Single copy price: \$65.00

Obtain an electronic copy from: [walsh@asabe.org](mailto:walsh@asabe.org)

Order from: Jean Walsh, (269) 932-7027, [walsh@asabe.org](mailto:walsh@asabe.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## **ASQ (American Society for Quality)**

### ***New Standard***

BSR/ASQ ID1-201x, Inspection techniques and requirements - Guidelines (new standard)

Pertains to the inspections and tests necessary to substantiate conformity to drawings, specifications, and contractual requirements as well as all inspection and tests required by regulatory/statutory requirements.

Single copy price: \$86.00 (List price); \$69.00 (ASQ member price)

Obtain an electronic copy from: [standards@asq.org](mailto:standards@asq.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [standards@asq.org](mailto:standards@asq.org)

## **AWS (American Welding Society)**

### ***New Standard***

BSR/AWS D8.10M-201X, Specification for Automotive Weld Quality-Laser Beam Welding of Steel (new standard)

This document contains both visual and measurable acceptance criteria for laser beam welds in steels. The information contained in this standard may be used as an aid by designers, laser beam welding equipment manufacturers, welded product producers, and others involved in the automotive industry, and laser beam welding of steels.

Single copy price: \$36.00

Obtain an electronic copy from: [mdiaz@aws.org](mailto:mdiaz@aws.org)

Order from: Mario Diaz, (305) 443-9353, [mdiaz@aws.org](mailto:mdiaz@aws.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## **AWS (American Welding Society)**

### ***Revision***

BSR/AWS A3.0M/A3.0-201x, Standard Terms and Definitions Including Terms for Adhesive Bonding, Brazing, Soldering, Thermal Cutting, and Thermal Spraying (revision of ANSI/AWS A3.0M/A3.0-2009)

This standard is a glossary of the technical terms used in the welding industry. Its purpose is to establish standard terms to aid in the communication of information related to welding and allied processes. Since it is intended to be a comprehensive compilation of welding terminology, nonstandard terms used in the welding industry are also included. All terms are either standard or nonstandard. They are arranged in word-by-word alphabetical sequence.

Single copy price: \$86.00

Obtain an electronic copy from: [sborrero@aws.org](mailto:sborrero@aws.org)

Order from: [sborrero@aws.org](mailto:sborrero@aws.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [adavis@aws.org](mailto:adavis@aws.org)

BSR/AWS C3.8M/C3.8-201x, Specification for the Ultrasonic Pulse-Echo Examination of Braze Joints (revision of ANSI/AWS C3.8M/C3.8-2011)

This specification provides the minimum requirements for the pulse-echo ultrasonic examination of braze joints. Its purpose is to standardize braze-joint ultrasonic examination requirements for all applications in which braze joints of assured quality are required. It provides the minimum requirements for equipment, procedures, and the documentation of such tests.

Single copy price: \$30.00 (AWS Members)/\$40.00 (Non-members)

Obtain an electronic copy from: [kbulger@aws.org](mailto:kbulger@aws.org)

Order from: Kevin Bulger, (800) 443-9353, [kbulger@aws.org](mailto:kbulger@aws.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## **AWWA (American Water Works Association)**

### ***Reaffirmation***

BSR/AWWA C301-2014 (R201x), Prestressed Concrete Pressure Pipe, Steel-Cylinder Type (reaffirmation of ANSI/AWWA C301-2014)

This standard describes the manufacture of circumferentially prestressed concrete pressure pipe in diameter sizes 16 in. (410 mm) through 144 in. (3,660 mm) manufactured with a steel cylinder and wire reinforcement. Larger sizes have been manufactured based on the concepts presented in this standard.

Single copy price: Free

Obtain an electronic copy from: [ETSsupport@awwa.org](mailto:ETSsupport@awwa.org)

Order from: AWWA, Vicki David, [vdavid@awwa.org](mailto:vdavid@awwa.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: AWWA, Paul J. Olson, [polson@awwa.org](mailto:polson@awwa.org)

BSR/AWWA C304-2014 (R201x), Design of Prestressed Concrete Cylinder Pipe (reaffirmation of ANSI/AWWA C304-2014)

This standard defines the methods to be used in the structural design of buried prestressed concrete cylinder pipe (PCCP) under internal pressure. These methods are provided for the design of pipe subjected to the effects of working, transient, and field-test load and internal pressure combinations.

Single copy price: Free

Obtain an electronic copy from: [ETSsupport@awwa.org](mailto:ETSsupport@awwa.org)

Order from: AWWA, Vicki David, [vdavid@awwa.org](mailto:vdavid@awwa.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: AWWA, Paul J. Olson, [polson@awwa.org](mailto:polson@awwa.org)

**CSA (CSA America Standards Inc.)****Revision**

BSR Z83.21-201x, Commercial Dishwashers (revision of ANSI Z83.21-2017)

Details for test and examination of commercial gas-fired and electric dishwashers for use with natural, manufactured and mixed, and liquefied petroleum gases, and LP gas-air mixtures.

Single copy price: Free

Obtain an electronic copy from: [ansi.contact@csagroup.org](mailto:ansi.contact@csagroup.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [ansi.contact@csagroup.org](mailto:ansi.contact@csagroup.org)

**ECIA (Electronic Components Industry Association)****Reaffirmation**

BSR/EIA 364-61A (R201x), Resistance to Soldering Heat from Rework Test Procedure for Electrical Connectors and Sockets Mounted on Printed Circuit Boards (reaffirmation of ANSI/EIA 364-61-A-2014)

This standard establishes a test method for determining if connectors or sockets can withstand exposure to solder rework conditions using either soldering iron, solder pot/fountain/wave solder, or hot gas/vapor techniques. It is important to note that compliant pin connectors or sockets can be affected by solder rework if they are in close proximity to other connectors or sockets undergoing solder rework.

Single copy price: \$82.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

BSR/EIA 364-11C-2014 (R201x), Resistance to Solvents - Test Procedure for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-11C-2014)

This procedure is to determine the ability of connector materials to withstand solvents that may be used to clean components.

Single copy price: \$75.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

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BSR/EIA 364-21E-2014 (R201x), Insulation Resistance Test Procedure for Electrical Connectors, Sockets, and Coaxial Contacts (reaffirmation of ANSI/EIA 364-21E-2014)

This standard applies to electrical connectors, sockets, and coaxial contacts.

Single copy price: \$75.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

BSR/EIA 364-26-C-2014 (R201x), Salt Spray Test Procedure for Electrical Connectors, Contacts and Sockets (reaffirmation of ANSI/EIA 364-26-C-2014)

This standard establishes a test method to assess the effects of a controlled salt-laden atmosphere on electrical connector components, finishes, and mechanisms and permit electrical readings to be taken after exposure when specified.

Single copy price: \$82.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

BSR/EIA 364-32G-2014 (R201x), Thermal Shock (Temperature Cycling) Test Procedure for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-32G-2014)

This test is conducted for the purpose of determining the resistance of a given electrical connector or socket to exposure at extremes of high and low temperatures and to the shock of alternate exposures to these extremes, simulating the worst probable conditions of storage, transportation, and application.

Single copy price: \$82.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)



BSR/EIA 364-38D-2014 (R201x), Cable Pull-Out Test Procedure for Electrical Connectors (reaffirmation of ANSI/EIA 364-38D-2014)

This standard establishes a test method to determine the axial tensile load that can be applied to a mated pair of connectors and the holding effect of a connector cable clamp without causing any detrimental effects upon the cable or connector when subjected to inadvertent axial tensile loads.

Single copy price: \$76.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

BSR/EIA 364-49-2013 (R201x), Ultraviolet Radiation Test Procedure for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-49-2013)

This standard establishes a test method to determine heating effects of direct solar radiation on connector and contact materials and to help identify the actinic (photodegradation) effects of direct solar radiation on these same materials.

Single copy price: \$76.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

BSR/EIA 364-55-A-2008 (R201x), Current Cycling Test Procedure for Electrical Contacts, Connectors and Sockets (reaffirmation of ANSI/EIA 364-55-A-2008 (R2014))

This standard establishes test methods to determine the current cycling characteristics of mated electrical contacts, connectors, and sockets using, but not limited to, crimp, press-fit contacts, insulation displacement contact (IDC) terminations, soldered or mechanically attached termination techniques.

Single copy price: \$72.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

BSR/EIA 364-60A-2008 (R201x), General Methods for Testing of Contact Finishes for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-60A-2008 (R2014))

This test procedure details the methods for determining the porosity of contact finishes used in electrical connector, contacts, and sockets.

Single copy price: \$104.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

BSR/EIA 364-63-2013 (R201x), Accessory Thread Strength Test Procedure for Circular Electrical Connectors (reaffirmation of ANSI/EIA 364-63-2013)

This test procedure establishes a test method to determine whether the accessory thread strength and the portion of the connector that accepts cable clamps and adaptors shall be capable of withstanding torque requirements specified in the referencing document.

Single copy price: \$75.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

BSR/EIA 364-64-2014 (R201x), Spring Finger Force Test Procedure for Circular Connectors (reaffirmation of ANSI/EIA 364-64-2014)

This test procedure establishes a test method to directly determine the forces necessary to engage and separate the electromagnetic interference (EMI) plugs with a receptacle due to the spring fingers.

Single copy price: \$72.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

BSR/EIA 364-86A-2014 (R201x), Polarizing/Coding Key Overstress Test Procedure for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-86A-2014)

This test procedure establishes a test method to determine the effectiveness of polarization/coding keys when a connector pair is misregistered (improperly mated).

Single copy price: \$75.00

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

## **ECIA (Electronic Components Industry Association)**

### **Revision**

BSR/EIA 364-51B-201x, Ice Resistance of Mated Connectors (revision and redesignation of ANSI/EIA 364-51A-2002 (R2016))

This standard establishes test methods to determine the ability of mated electrical connectors to resist the effects of ice build-up due to water splashing or brief immersion in water, where water is free to drain off of the connector surfaces.

Single copy price: \$72.00

Obtain an electronic copy from: [www.global.ihs.com](http://www.global.ihs.com)

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

## **NECA (National Electrical Contractors Association)**

### **New Standard**

BSR/NECA 402-201x, Standard for Installing and Maintaining Motor Control Centers (new standard)

This standard describes the installation and maintenance for low-voltage motor control centers (MCCs) rated 600 VAC or less with a horizontal bus rating of 2,500 amperes or less.

Single copy price: \$25.00 (NECA members)/\$50.00 (nonmembers)

Obtain an electronic copy from: [neis@necanet.org](mailto:neis@necanet.org)

Order from: Aga Golriz, (301) 215-4549, [Aga.golriz@necanet.org](mailto:Aga.golriz@necanet.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## **NECA (National Electrical Contractors Association)**

### **Revision**

BSR/NECA 121-201X, Standard for Installing Nonmetallic-Sheathed Cable (Type NM-B) and Underground-Feeder and Branch-Circuit Cable (Type UF) (revision of ANSI/NECA 121-2008)

This standard describes installation procedures for nonmetallic-sheathed cable (Type NM) and underground feeder and branch-circuit cable (Type UF).

Single copy price: \$25.00 (NECA members)/\$55.00 (nonmembers)

Obtain an electronic copy from: [neis@necanet.org](mailto:neis@necanet.org)

Order from: Aga Golriz, (301) 215-4549, [Aga.golriz@necanet.org](mailto:Aga.golriz@necanet.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## **NEMA (ASC C8) (National Electrical Manufacturers Association)**

### **Reaffirmation**

BSR/ICEA P-54-440-2009/NEMA WC-51-2009 (R201x), Ampacities of Cables Installed in Trays (reaffirmation of ANSI/ICEA P-54-440-2009/NEMA WC-51-2009 (R2014))

This Standards Publication covers the ampacity ratings for 600- to 15,000-volt solid dielectric cables installed in cable trays. Ampacity ratings are tabulated for single conductor cables, triplexed assemblies of single conductor cables, and three-conductor cables incorporating an overall jacket.

Single copy price: \$106.00

Order from: [Communications@nema.org](mailto:Communications@nema.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [khaled.masri@nema.org](mailto:khaled.masri@nema.org)

## **NEMA (ASC C8) (National Electrical Manufacturers Association)**

### **Revision**

BSR ICEA S-81-570-201x, Standard for 600 Volt Rated Cables of Ruggedized Design for Direct Burial Installation as Single Conductors or Assemblies of Single Conductors (revision of ANSI/ICEA S-81-570-2012)

This standard applies to the materials, constructions, and testing of single conductor cables and assemblies of completed single conductor cables used for the distribution of electrical energy at phase-to-phase voltages not exceeding 600 volts or phase to ground not exceeding 480 V, and at temperatures not exceeding 75°C or 90°C, as applicable to the construction. It requires the use of ruggedized extruded insulations to improve the resistance of the cable to certain forms of mechanical damage associated with their intended use as directly buried Secondary Distribution and Service Cables.

Single copy price: \$136.00

Obtain an electronic copy from: [khaled.masri@nema.org](mailto:khaled.masri@nema.org)

Order from: [Communications@nema.org](mailto:Communications@nema.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [khaled.masri@nema.org](mailto:khaled.masri@nema.org)

BSR/NEMA WC 53/ICEA T-27-581-201x, Standard Test Methods for Extruded Dielectric Power, Control, Instrumentation, and Portable Cables for Test (revision and redesignation of ANSI/ICEA T-27-581-2016)

This Standard applies to the testing of covered conductors, extruded dielectric insulated power, control, instrumentation, and portable cables.

Single copy price: \$162.00

Obtain an electronic copy from: [khaled.masri@nema.org](mailto:khaled.masri@nema.org)

Order from: [Communications@nema.org](mailto:Communications@nema.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [khaled.masri@nema.org](mailto:khaled.masri@nema.org)

## **OPEI (Outdoor Power Equipment Institute)**

### **Revision**

BSR/OPEI B175.3-201x, (Standard) for Outdoor Power Equipment Internal Combustion Engine-Powered Hand-Held Grass Trimmers and Brushcutters - Safety and Environmental Requirements (revision of ANSI/OPEI B175.3-2013)

The purpose of this standard is to establish safety and environmental requirements for internal combustion engine-powered, hand-held, grass trimmers and brushcutters. The requirements of this standard apply to internal combustion engine-powered, hand-held, grass trimmers intended for use with flexible nonmetallic line, or other types of nonmetallic cutting attachments, and internal combustion engine-powered, hand-held, brushcutters intended for use with cutting blades and other cutting attachments.

Single copy price: Free

Obtain an electronic copy from: [gknott@opei.org](mailto:gknott@opei.org)

Order from: Greg Knott, OPEI, 703-549-7600, [gknott@opei.org](mailto:gknott@opei.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

BSR/OPEI Z130.1-201x, (Standard) for Golf Cars - Safety and Performance Specifications (revision and redesignation of ANSI/ILTV Z130.1-2012)

This standard provides safety and performance specifications relating to golf cars, driven by electric motors or internal combustion engines, specifically intended for and used on golf courses for transporting golfers and their equipment.

Single copy price: Free

Obtain an electronic copy from: [gknott@opei.org](mailto:gknott@opei.org)

Order from: Greg Knott, OPEI, 703-549-7600, [gknott@opei.org](mailto:gknott@opei.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

BSR/OPEI Z135-201x, (Standard) for Personal Transport Vehicles - Safety and Performance Specifications (revision and redesignation of ANSI/ILTV Z135-2012)

This standard provides safety and performance specifications relating to personal transport vehicles, (PTVs), driven by electric motors or internal combustion engines, to be operated on designated roadways or within a closed community where permitted by law or by regulatory authority rules.

Single copy price: Free

Obtain an electronic copy from: [gknott@opei.org](mailto:gknott@opei.org)

Order from: Greg Knott, OPEI, 703-549-7600, [gknott@opei.org](mailto:gknott@opei.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

**TCNA (ASC A108) (Tile Council of North America)*****New Standard***

BSR A108.4-201x, Installation of Ceramic Tile with Organic Adhesives or Water Cleanable Tile-Setting Epoxy Adhesive (new standard)

This standards covers the installation of ceramic tile using organic adhesives or water-cleanable tile-setting epoxy adhesives.

Single copy price: \$15.00

Obtain an electronic copy from: [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Katelyn Simpson, [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

**TCNA (ASC A108) (Tile Council of North America)*****Reaffirmation***

BSR A108.5-1999 (R201x), Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar (reaffirmation of ANSI A108.5-1999 (R2010))

This standard covers the installation of ceramic tile with dry-set portland cement mortar or latex-portland cement mortar.

Single copy price: \$15.00

Obtain an electronic copy from: [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Katelyn Simpson, [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

BSR A108.6-1999 (R201x), Installation of Ceramic Tile with Chemical Resistant, Water Cleanable Tile-Setting and -Grouting Epoxy (reaffirmation of ANSI A108.6-1999 (R2010))

This method covers the installation of ceramic tile with chemical-resistant, water-cleanable tile-setting and -grouting epoxy.

Single copy price: \$15.00

Obtain an electronic copy from: [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Katelyn Simpson, [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

BSR A108.8-1999 (R201x), Installation of Ceramic Tile with Chemical Resistant Furan Resin Mortar and Grout (reaffirmation of ANSI A108.8-1999 (R2010))

This standard covers the installation of ceramic tile with chemical-resistant furan resin mortar and grout.

Single copy price: \$15.00

Obtain an electronic copy from: [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Katelyn Simpson, [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

BSR A108.9-1999 (R201x), Installation of Ceramic Tile with Modified Epoxy Emulsion Mortar/Grout (reaffirmation of ANSI A108.9-1999 (R2010))

This standard covers the installation of ceramic tile with modified-emulsion mortar/grout.

Single copy price: \$15.00

Obtain an electronic copy from: [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Katelyn Simpson, [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

BSR A108.12-1999 (R201x), Installation of Ceramic Tile with EGP (Exterior Glue Plywood) Latex-Portland Cement Mortar (reaffirmation of ANSI A108.12-1999 (R2010))

This standard covers the installation of ceramic tile with exterior glue plywood (EGP) latex-portand cement mortar.

Single copy price: \$15.00

Obtain an electronic copy from: [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Katelyn Simpson, [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

BSR A108.14-2010 (R201x), Installation of Paper-Faced Glass Mosaic Tile (reaffirmation of ANSI A108.14-2010)

This standard covers the installation of paper-faced glass mosaic tile.

Single copy price: \$15.00

Obtain an electronic copy from: [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Katelyn Simpson, [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

BSR A118.10-2014 (R201x), Standard Specifications for Load Bearing, Bonded, Waterproof Membrane for Thin-Set Ceramic Tile and Dimension Stone Installation (reaffirmation of ANSI A118.10-2014)

This specification describes the test methods and minimum requirements for load-bearing, bonded, waterproof membranes for thin-set ceramic-tile and dimension-stone installation.

Single copy price: \$15.00

Obtain an electronic copy from: [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Katelyn Simpson, [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

BSR A118.12-2014 (R201x), Standard Specifications for Crack Isolation Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation (reaffirmation of ANSI A118.12-2014)

This specification describes the test methods and minimum requirements for crack isolation membranes for thin-set ceramic-tile and dimension-stone installation.

Single copy price: \$15.00

Obtain an electronic copy from: [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Katelyn Simpson, [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

BSR A118.13-2014 (R201x), Standard Specifications for Bonded Sound Reduction Membranes for Thin-set Ceramic Tile Installation (reaffirmation of ANSI A118.13-2014)

This specification describes the test methods and minimum requirements for sound reduction membranes for thin-set ceramic-tile installation.

Single copy price: \$15.00

Obtain an electronic copy from: [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Katelyn Simpson, [ksimpson@tileusa.com](mailto:ksimpson@tileusa.com)

## **TIA (Telecommunications Industry Association)**

### ***Addenda***

BSR/TIA 222-H-1-201x, Structural Standard for Antenna Supporting Structures, Antennas and Small Wind Turbine Support Structures - Addendum 1 (addenda to ANSI/TIA 222-H-2017)

The main goals of the TR-14 Committee is to update the amplification forces on antenna-supporting structures supported by buildings or other supporting structures, update to section 4.9.9 anchor-bolt calculation and miscellaneous minor updates, and corrections to some sections of the ANSI/TIA 222-H Standard.

Single copy price: \$101.00

Obtain an electronic copy from: [standards@tiaonline.org](mailto:standards@tiaonline.org)

Order from: TIA; [standards@tiaonline.org](mailto:standards@tiaonline.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [standards@tiaonline.org](mailto:standards@tiaonline.org)

## UL (Underwriters Laboratories, Inc.)

### ***New Standard***

BSR/UL 1389-201x, Standard for Safety for Plant Oil Extraction Equipment for Installation and Use in Ordinary (Unclassified) Locations and Hazardous (Classified) Locations (new standard)

This Standard covers commercial- and industrial-plant oil extraction equipment for installation and use indoors in an ordinary (unclassified) locations and hazardous (classified) locations. Based on the application, installation is in accordance with the manufacturer's installation instructions, together with the following, as applicable (a) CSA C22.1, Canadian Electrical Code, Part 1 (CE Code); ULC-S4400, Premises, Buildings and Equipment Utilized for the Cultivation, Processing and Production of Cannabis; National Fire Code of Canada (NFC); and CSA B149.1, Natural Gas and Propane Installation Code; and (b) NFPA 70, National Electrical Code (NEC), International Fire Code (IFC), NFPA 1, Fire Code, NFPA 55 Compressed Gases and Cryogenic Fluids Code, and NFPA 58, Liquefied Petroleum Gas Code. Plant oil-extraction equipment includes: (a) Preparatory equipment, for preparing the plant material for extraction of the oil, such as trimming, deseeding, and drying/curing; (b) Extractors, for removing the oil from the plant material by the use of Liquefied Petroleum Gas (LPG), butane, propane solvents, ethanol or pentane (flammable solvents) and Carbon Dioxide (CO<sub>2</sub>) (non-flammable solvent); (c) Extraction booths or pods, for enclosing/protecting plant oil extraction equipment; and (d) Post-processing equipment, for finalizing the plant oil extraction process such as vacuum ovens, rotary evaporators, and solvent recovery pumps.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

## UL (Underwriters Laboratories, Inc.)

### ***Revision***

BSR/UL 207-201x, Standard for Safety for Refrigerant-Containing Components and Accessories, Nonelectrical (revision of ANSI/UL 207-2014)

This proposal for UL 207 covers: Revisions to include requirements to cover refrigeration fittings, changes to include refrigeration line sets, deletion of limited-charge systems requirements, addition of nonmetallic materials requirements, proposed clarification to marking requirements, remove four refrigerants from Table 11.1, Editorial Corrections

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

## Comment Deadline: October 1, 2019

Reaffirmations and withdrawals available electronically may be accessed at: [webstore.ansi.org](http://webstore.ansi.org)

## APPA (APPA - Leadership in Educational Facilities)

### ***New Standard***

BSR/APPA TCO 1000-2-201x, Total Cost of Ownership for Facilities Asset Management (TCO) - Part 2: Implementation and Data Elements (new standard)

Demands on asset managers to maintain the mission of the organization while meeting the requirements of increasingly more diverse consumers, escalating budgetary realities, and the threat of failure from aging assets require an asset management professional's response to be beyond the "business as usual" model. TCO brings a new strategy that allows financial administrators to have full knowledge of an investment: How the investment is operating, how the investment is performing, how much additional financial commitment will be needed throughout the life-cycle of the investment, and when to best recapitalize the investment in the asset. The impacts of consistent or occasional noninvestment can also be analyzed for long-term overall impact.

Single copy price: \$250.00

Obtain an electronic copy from: [billie@appa.org](mailto:billie@appa.org)

Order from: Billie Zidek, (703) 542-3846, [billie@appa.org](mailto:billie@appa.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## **CGA (Compressed Gas Association)**

### **Revision**

BSR/CGA G-2.1-201x, Requirements for the Storage and Handling of Anhydrous Ammonia (revision of ANSI CGA G-2.1-2014)

This standard is intended to apply to the design, construction, repair, alteration, location, installation, and operation of anhydrous ammonia systems including refrigerated ammonia storage systems. This standard does not apply to:

- Ammonia manufacturing plants;
- Refrigeration systems where ammonia is used solely as a refrigerant. Such systems are covered in American National Standards Institute (ANSI)/American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 15, Safety Standard for Refrigeration Systems and ANSI/International Institute of Ammonia Refrigeration (IIAR) 2, American National Standard for Equipment, Design and Installation of Closed-Circuit Ammonia Mechanical Refrigerating Systems;
- Ammonia transportation pipelines; and
- Ammonia barges and tankers.

Single copy price: Free

Order from: Kristy Mastromichalis, (703) 788-2728, [kmastromichalis@cganet.com](mailto:kmastromichalis@cganet.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

## **ITI (INCITS) (InterNational Committee for Information Technology Standards)**

### **Reaffirmation**

INCITS 31-2009 [R201x], Information Technology - Codes for the Identification of Counties and Equivalent Areas of the United States, Puerto Rico, and the Insular Areas (reaffirmation of INCITS 31-2009 [R2014])

This standard establishes a structure for the assignment of identifying data codes to counties and county equivalents of the United States and its insular and associated areas, for the purpose of information interchange among data processing systems.

Single copy price: \$60.00

Obtain an electronic copy from: <http://webstore.ansi.org/>

Order from: <http://webstore.ansi.org/>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [comments@standards.incits.org](mailto:comments@standards.incits.org)

INCITS 38-2009 [R201x], Information Technology - Codes for the Identification of the States and Equivalent Areas within the United States, Puerto Rico, and the Insular Areas (reaffirmation of INCITS 38-2009 [R2014])

This standard establishes a structure for the assignment of identifying codes to states and state equivalents of the United States and its insular areas.

Single copy price: \$60.00

Obtain an electronic copy from: <http://webstore.ansi.org/>

Order from: <http://webstore.ansi.org/>

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INCITS 452-2009 [R201x], Information technology - AT Attachment-8 ATA/ATAPI Command Set (ATA8-ACS) (reaffirmation of INCITS 452-2009 [R2014])

The set of AT Attachment standards consists of this standard and the ATA implementation standards described in AT Attachment - 8 ATA/ATAPI Architecture Model (ATA8-AAM). The AT Attachment ATA Command Set (ATA8-ACS) specifies the command-set host systems use to access storage devices. It provides a common command set for systems manufacturers, system integrators, software suppliers, and suppliers of intelligent storage devices. Figure 1 shows the relationship of this standard to the other standards and related projects in the ATA and SCSI families of standards and specifications.

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INCITS 454-2009 [R201x], Information Technology - Codes for the Identification of Metropolitan and Micropolitan Statistical Areas and Related Statistical Areas of the United States and Puerto Rico (reaffirmation of INCITS 454-2009 [R2014])

This standard establishes a structure for the assignment of data codes by which to uniquely identify metropolitan and micropolitan statistical areas generically referred to as "core-based statistical" areas; and related statistical areas i.e., metropolitan divisions, combined statistical areas, New England city and town areas (NECTAs), NECTA divisions, and combined NECTAs of the United States and Puerto Rico for the purpose of information interchange among data processing systems.

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INCITS 455-2009 [R201x], Information Technology - Codes for the Identification of Congressional Districts and Equivalent Areas of the United States, Puerto Rico, and the Insular Areas (reaffirmation of INCITS 455-2009 [R2014])

This standard establishes a structure for the assignment of identifying data codes to congressional districts of the United States and its insular and associated areas, for the purpose of information interchange among data processing systems.

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INCITS 478-2011/AM 1-2014 [R201x], Information technology - Serial Attached SCSI - 2.1 (SAS-2.1) - Amendment 1 (reaffirmation of INCITS 478-2011/AM 1-2014)

Amendment 1 to INCITS 478-2011.

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INCITS 485-2014 [R201x], Information Technology - Fibre Channel - Single-Byte Command Code Sets Mapping Protocol - 5 (FC-SB-5) (reaffirmation of INCITS 485-2014)

This project proposal recommends the development of a set of technical additions and clarifications to INCITS 466-2011, Fibre Channel - Single-Byte Command Code Sets - 4 Mapping Protocol (FC-SB- 4) to define enhancements to the link-control and transport-mode protocols to expand the capabilities and increase the efficiency of transport-mode operations.

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INCITS 489-2014 [R201x], Information Technology - SCSI over PCIe (RTM) Architecture (SOP) (reaffirmation of INCITS 489-2014)

The SCSI family of standards provides for many different transport protocols that define the rules for exchanging information between different SCSI devices. This standard defines the rules for exchanging information between SCSI devices using a PCI Express queuing layer. Other SCSI transport protocol standards define the rules for exchanging information between SCSI devices using other interconnects.

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INCITS 508-2014 [R201x], Information Technology - Storage Management - Host Bus Adapter Application Programming Interface - 2nd Generation (SM-HBA-2) (reaffirmation of INCITS 508-2014)

A standard application programming interface (API) defines a scope within which, and a grammar by which it is possible to write application software without attention to vendor-specific infrastructure behavior. This standard specifies a standard API, the scope of which is the management of Fibre Channel (FC) and Serial Access SCSI (SAS) HBAs, and the use of FC and SAS capabilities for discovery and management of the components of the respective fabric or domain.

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INCITS 509-2014 [R201x], Information Technology - Fibre Channel - Backbone - 6 (FC-BB-6) (reaffirmation of INCITS 509-2014)

This standard consists of distinct Fibre Channel mappings resulting in the following models:

- FC-BB\_IP (FC over TCP/IP backbone network);
- Transparent FC-BB consisting of:
  - FC-BB\_GFPT (FC over SONET/SDH/OTN/PDH backbone network using GFPT adaptation);
  - FC-BB\_PW (FC over MPLS network using PW adaptation); and
  - FC-BB\_E (FC over Ethernet).

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INCITS 514-2014 [R201x], Information technology - SCSI Block Commands - 3 (SBC-3) (reaffirmation of INCITS 514-2014)

This standard defines the command set extensions to facilitate operation of SCSI direct access block devices. The clauses in this standard, implemented in conjunction with the applicable clauses of SPC-4, specify the standard command set for SCSI direct access block devices.

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INCITS 519-2014 [R201x], Information technology - Serial Attached SCSI-3 (SAS-3) (reaffirmation of INCITS 519-2014)

The SCSI family of standards provides for many different transport protocols that define the rules for exchanging information between different SCSI devices. This standard specifies the functional requirements for the Serial Attached SCSI (SAS) physical interconnect, which is compatible with the Serial ATA physical interconnect. The SAS Protocol Layer - 3 (SPL-3) standard documents the SAS protocol layer corresponding to the Serial Attached SCSI - 3 (SAS-3), defining the rules for exchanging information between SCSI devices using a serial interconnect.

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INCITS 532:2014 [R201x], Information Technology - Vocabulary Description and Management (reaffirmation of INCITS 532-2014)

This standard addresses the description and management of open vocabularies. The main purpose of this is to support data interchange and data interoperability across organizations, systems, subject, time, and geography. This standard specifies three main ideas:

- A model for the contents of a vocabulary (clause 4);
- A model for a registry of vocabularies (clause 5); and
- A set of procedures for managing a vocabulary registration process (clause 6).

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INCITS/ISO 19115-1:2014 [R201x], Geographic information - Metadata - Part 1: Fundamentals (reaffirm a national adoption INCITS/ISO 19115-1:2014 [2014])

ISO 19115-1:2014 defines the schema required for describing geographic information and services by means of metadata. It provides information about the identification; the extent; the quality; the spatial and temporal aspects; the content; the spatial reference; and the portrayal, distribution, and other properties of digital geographic data and services. ISO 19115-1:2014 is applicable to:

- the cataloguing of all types of resources, clearinghouse activities, and the full description of datasets and services; and
- geographic services, geographic datasets, dataset series, and individual geographic features and feature properties.

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INCITS/ISO 6936:1988 [R201x], Information Processing - Conversion between the Two Coded Character Sets of ISO 646 and ISO 6937-2 and the CCITT International Telegraph Alphabet No. 2 (ITA 2) (reaffirm a national adoption INCITS/ISO 6936:1988 [R2014])

Lays down rules for converting between 58 characteristics of CCITT International Telegraph Alphabet No. 2 (Recommendation F.1) and the characters according to the ISO 646 and 6937-2 coded sets. Serves for interaction between international telex service and terminals in data networks if telex character repertoire is sufficient.

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INCITS/ISO 19157:2013 [R201x], Geographic information - Data quality (reaffirm a national adoption INCITS/ISO 19157:2013 [2014])

ISO 19157:2013 establishes the principles for describing the quality of geographic data. It:

- defines components for describing data quality;
- specifies components and content structure of a register for data quality measures;
- describes general procedures for evaluating the quality of geographic data; and
- establishes principles for reporting data quality.

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INCITS/ISO/IEC 6523-1:1998 [R201x], Information technology - Structure for the identification of organizations and organization parts - Part 1: Identification of organization identification schemes (reaffirm a national adoption INCITS/ISO/IEC 6523-1:1998 [R2014])

This part of ISO/IEC 6523 specifies a structure for globally and unambiguously identifying organizations, and parts thereof, for the purpose of information interchange. This part of ISO/IEC 6523 also makes recommendations regarding cases where prior agreements may be concluded between interchange partners. This part of ISO/IEC 6523 does not specify file organization techniques, storage media, languages, etc. to be used in its implementation.

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INCITS/ISO/IEC 6523-2:1998 [R201x], Information technology - Structure for the identification of organizations and organization parts - Part 2: Registration of organization identification schemes (reaffirm a national adoption INCITS/ISO/IEC 6523-2:1998 [R2014])

This part of ISO/IEC 6523 specifies the procedure for the registration of organization identification schemes, and the requirements for the administration of International Code Designator values, to designate these organization identification schemes.

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INCITS/ISO/IEC 7501-1:2008 [R201x], Identification cards - Machine readable travel documents - Part 1: Machine readable passport (reaffirm a national adoption INCITS/ISO/IEC 7501-1:2008 [R2014])

ISO/IEC 7501-1:2008 is intended for use in all applications relating to machine-readable passports (MRPs). It specifies the form and provides guidance on the construction of MRPs, in particular in relation to those aspects of the MRP where details of the rightful holder are presented in a form which is both visual and machine readable. It equally defines the specifications to be used by States wishing to issue an electronically enabled version of the MRP (ePassport) for secure carriage and access to an expanded set of details, including globally interoperable biometric data for confirming the presenter as the rightful holder of the ePassport.

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INCITS/ISO/IEC 7501-3:2005 [R201x], Identification cards - Machine readable travel documents - Part 3: Machine readable official travel documents (reaffirm a national adoption INCITS/ISO/IEC 7501-3:2005 [R2014])

ISO/IEC 7501-3:2005 is a short-form endorsement of the International Civil Aviation Organization (ICAO) Document Doc 9303 Part 3 - Size-1 and Size-2 Machine Readable Official Travel Documents. ICAO Doc 9303 Part 3 specifies generic formats and minimum data elements for visual inspection and machine reading of official travel documents in the ID-1 and ID-2 card formats containing standardized, globally interoperable machine-readable optical character recognition (OCR) data, which may at the option of Governments, be accepted in lieu of a passport as defined in Annex 9 (Chapter 3, paragraph 3.4) to the Convention on International Civil Aviation year 1946 (as revised).

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INCITS/ISO/IEC 7816-1:2011 [R201x], Identification cards - Integrated circuit(s) cards with contacts - Part 1: Physical characteristics (reaffirm a national adoption INCITS/ISO/IEC 7816-1:2011 [2014])

ISO/IEC 7816-1:2011 specifies the physical characteristics of integrated circuit cards with contacts. It applies to identification cards of the ID-1 card type, which can include embossing and/or a magnetic stripe and/or tactile identifier mark as specified in ISO/IEC 7811. Test methods are specified in ISO/IEC 10373-1. ISO/IEC 7816-1:2011 applies to cards which have a physical interface with electrical contacts. It does not, however, define the nature, number and position of the integrated circuits in the cards.

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INCITS/ISO/IEC 7816-5:2004 [R201x], Identification cards - Integrated circuit(s) cards with contacts - Part 5: Registration system for application in IC Cards (reaffirm a national adoption INCITS/ISO/IEC 7816-5:2004 [R2014])

This part of ISO/IEC 7816 specifies a registration procedure for application providers, and establishes the authorities and procedures to ensure and optimize the reliability of this registration.

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INCITS/ISO/IEC 7816-7:1999 [R201x], ID Cards - Integrated circuit cards with contacts - Part 7: Interindustry commands for Structured Card Query Language (SCQL) (reaffirm a national adoption INCITS/ISO/IEC 7816-7:1999 [R2014])

This part of ISO/IEC 7816 specifies the concept of a SCQL database (SCQL = Structured Card Query Language based on SQL, see ISO 9075) and the related interindustry enhanced commands.

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INCITS/ISO/IEC 7816-10:1999 [R201x], ID Cards - Integrated circuit cards with contacts - Part 10: Electronic signal and answer to reset for synchronous cards (reaffirm a national adoption INCITS/ISO/IEC 7816-10:1999 [R2014])

This part of ISO/IEC 7816 specifies the power, signal structures, and the structure for the answer to reset between an integrated circuit(s) card with synchronous transmission and an interface device such as a terminal. The specifications in ISO/IEC 7816-3 apply where appropriate, unless otherwise stated in this standard. It also covers signal rates, operating conditions, and communication with the integrated circuit(s) card. This part of ISO/IEC 7816 specifies two types of synchronous cards: type 1 and type 2.

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INCITS/ISO/IEC 9541-4:2009 [R201x], Information technology - Font information interchange - Part 4: Harmonization to Open Font Format (reaffirm a national adoption INCITS/ISO/IEC 9541-4:2009 [R2014])

ISO/IEC 9541 specifies the architecture of font resources, as well as the formats for font interchange among information processing systems. It also specifies the architecture and formats that can be used to construct font references in general electronic document interchange. ISO/IEC 9541-4:2009 specifies the correspondences between ISO/IEC 9541 font resource and ISO/IEC 14496-22, Open Font Format file (OFF), to define ISO/IEC 9541 font resource from a given OFF file. The classification (required or optional), syntax, and possible values of the properties are defined in ISO/IEC 9541-1 and ISO/IEC 9541-2.

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INCITS/ISO/IEC 9797-1:2011 [R201x], Information technology - Security techniques - Message Authentication Codes (MACs) - Part 1: Mechanisms using a block cipher (reaffirm a national adoption INCITS/ISO/IEC 9797-1:2011 [2014])

ISO/IEC 9797-1:2011 specifies six MAC algorithms that use a secret key and an n-bit block cipher to calculate an m-bit MAC. ISO/IEC 9797-1:2011 can be applied to the security services of any security architecture, process, or application.

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INCITS/ISO/IEC 9798-4:1999 [R201x], Information Technology - Security techniques - Entity authentication - Part 4: Mechanisms using a cryptographic check function (formerly ANSI/ISO/IEC 9798-4:1999) (reaffirm a national adoption INCITS/ISO/IEC 9798-4:1999 [R2014])

This part of ISO/IEC 9798 specifies entity authentication mechanisms using a cryptographic check function. Two mechanisms are concerned with the authentication of a single entity (unilateral authentication), while the remaining are mechanisms for mutual authentication of two entities.

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INCITS/ISO/IEC 10021-8:1999 [R201x], Information Technology - Message Handling Systems (MHS) - Part 8: Electronic Data Interchange Messaging Service (reaffirm a national adoption INCITS/ISO/IEC 10021-8:1999 [R2014])

This part of ISO/IEC 10021 defines the overall system and service of EDI messaging. Other aspects of message-handling systems and services are defined in other parts of ISO/IEC 10021. The layout of Standards | Recommendations defining the message-handling system and services is shown in table 1 of ISO/IEC 10021-1 | ITU-T Recommendation X/F.400. The public services built on MHS, as well as access to and from the MHS for public services are defined in the ITU-T's F.400-Series of Recommendations.

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INCITS/ISO/IEC 10021-9:1999 [R201x], Information Technology - Message Handling Systems (MHS) - Part 9: Electronic Data Interchange Messaging System (reaffirm a national adoption INCITS/ISO/IEC 10021-9:1999 [R2014])

This Recommendation | International Standard is one of a series on message handling. The entire set provides a comprehensive blueprint for a Message Handling System (MHS) realized by any number of cooperating open systems.

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INCITS/ISO/IEC 10746-2:2009 [R201x], Information technology - Open distributed processing - Reference model - Part 2: Foundations (reaffirm a national adoption INCITS/ISO/IEC 10746-2:2009 [2014])

ISO/IEC 10746 provides a coordinating framework for the standardization of open distributed processing (ODP). This supports distribution, interworking, portability, and platform and technology independence. It establishes an enterprise architecture framework for the specification of ODP systems. ISO/IEC 10746 defines the essential concepts necessary to specify open distributed processing systems from five prescribed viewpoints. It provides a well-developed framework for the structuring of specifications for large-scale, distributed systems

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INCITS/ISO/IEC 10746-3:2009 [R201x], Information technology - Open distributed processing - Reference model: Architecture - Part 3 (reaffirm a national adoption INCITS/ISO/IEC 10746-3:2009 [2014])

ISO/IEC 10746 provides a coordinating framework for the standardization of open distributed processing (ODP). This supports distribution, interworking, portability, and platform and technology independence. It establishes an enterprise architecture framework for the specification of ODP systems. ISO/IEC 10746 defines the essential concepts necessary to specify open distributed processing systems from five prescribed viewpoints. It provides a well-developed framework for the structuring of specifications for large-scale, distributed systems.

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INCITS/ISO/IEC 10918-4:1999 [R201x], Information technology - Digital compression and coding of continuous-tone still images: Registration of JPEG profiles, SPIFF profiles, SPIFF tags, SPIFF colour spaces, APPn markers, SPIFF compression types and Registration Authorities (reaffirm a national adoption INCITS/ISO/IEC 10918-4:1999 [R2014])

This Recommendation | International Standard provides for the unique registration of JPEG and SPIFF Profiles, SPIFF Tags, SPIFF colour Spaces, application specific Markers, SPIFF Compression types and images Registration authorities as defined in the CCITT Rec. T.81 | ISO/IEC 10918-1 and ITU-T Rec. T.84 | ISO/IEC 10918-3. Unless otherwise specified, (P)rofiles, (T)ags, colour (S)paces, (M)arkers, (C)ompression types and image (R)egistration authorities will be referred to as PTSMCR items.

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INCITS/ISO/IEC 10918-3:1997/AM1:1999 [R201x], Information technology - Digital compression and coding of continuous-tone still images: Extensions - Amendment 1: Provisions to allow registration of new compression types and versions in the SPIFF header (reaffirm a national adoption INCITS/ISO/IEC 10918-3:1997/AM1:1999 [R2014])

Amendment 1 to ISO/IEC 10918-3:1997.

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INCITS/ISO/IEC 11160-2:2013 [R201x], Information technology - Minimum information to be included in specification sheets - Printers - Part 2: Class 3 and Class 4 printers (reaffirm a national adoption INCITS/ISO/IEC 11160-2:2013 [2014])

ISO/IEC 11160 is intended to facilitate users in selecting a printer which meets their requirements. ISO/IEC 11160 specifies the minimum information to be included in the specification sheets of printers in order for users to compare the characteristics of different machines. The term "Specification Sheets" applies to documents which describe the performance characteristics of the printers to be included in instruction manuals, product brochures, or on websites. ISO/IEC 11160 applies to printers that could be operated in an office environment. Printers requiring specially equipped rooms or specially instructed operators are not considered in ISO/IEC 11160.

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INCITS/ISO/IEC 11179-3:2013 [R201x], Information technology - Metadata registries (MDR) - Part 3: Registry metamodel and basic attributes (reaffirm a national adoption INCITS/ISO/IEC 11179-3:2013 [2014])

ISO/IEC 11179-3:2013 specifies the structure of a metadata registry in the form of a conceptual data model.

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INCITS/ISO/IEC 11179-4:2004 [R201x], Information technology - Metadata registries (MDR) - Part 4: Formulation of data elements (reaffirm a national adoption INCITS/ISO/IEC 11179-4:2004 [R2014])

ISO/IEC 11179-4:2004 specifies requirements and recommendations for constructing definitions for data and metadata. Only semantic aspects of definitions are addressed; specifications for formatting the definitions are deemed unnecessary for the purposes of this standard. While especially applicable to the content of metadata registries as specified in ISO/IEC 11179-3, ISO/IEC 11179-4:2004 is useful broadly for developing definitions for data and metadata.

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INCITS/ISO/IEC 11693-1:2012 [R201x], Identification cards - Optical memory cards - Part 1: General characteristics (reaffirm a national adoption INCITS/ISO/IEC 11693-1:2012 [2014])

The intent of ISO/IEC 11693-1:2012 is to provide necessary information for card manufacturers, card issuers, and card users interested in interchanging information encoded on optical memory cards. ISO/IEC 11693-1:2012 serves as a guide to companies that plan to develop equipment and systems using optical memory cards. The data content and use of the cards depend upon the applications developed by each industry group.

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INCITS/ISO/IEC 11694-1:2012 [R201x], Identification cards - Optical memory cards - Linear recording method - Part 1: Physical characteristics (reaffirm a national adoption INCITS/ISO/IEC 11694-1:2012 [2014])

ISO/IEC 11694-1:2012 defines the physical characteristics of optical memory cards using the linear recording method.

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INCITS/ISO/IEC 11694-2:2012 [R201x], Identification Cards - Optical Memory Cards - Linear Recording Method - Part 2: Dimensions and Location of the Accessible Optical Area (reaffirm a national adoption INCITS/ISO/IEC 11694-2:2012 [2014])

ISO/IEC 11694-2:2012 defines the dimensions and location of the accessible optical area of optical memory cards with ID-1 dimensions using the linear recording method.

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INCITS/ISO/IEC 13250-2:2006 [R201x], Information technology - Topic Maps - Part 2: Data model (reaffirm a national adoption INCITS/ISO/IEC 13250-2:2006 [R2014])

ISO/IEC 13250-2:2006 specifies the Topic Maps data model. It defines the abstract structure and interpretation of topic maps, the rules for merging topic maps and a set of fundamental subject identifiers. The purpose of the data model is to define the interpretation of the Topic Maps interchange syntax and to serve as a foundation for the definition of supporting standards for canonicalization, querying, constraints, etc.

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INCITS/ISO/IEC 13250-3:2013 [R201x], Information technology - Topic Maps - Part 3: XML syntax (reaffirm a national adoption INCITS/ISO/IEC 13250-3:2013 [2014])

ISO/IEC 13250-3:2013 defines an XML-based interchange syntax for Topic Maps, which can be used to interchange instances of the data model defined in ISO/IEC 13250-2. It also defines a mapping from the interchange syntax to the data model. The syntax is defined with a RELAX-NG schema, and more precision is provided through the mapping to the data model, which effectively also defines the interpretation of the syntax.

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INCITS/ISO/IEC 13250-4:2009 [R201x], Information technology - Topic Maps - Part 4: Canonicalization (reaffirm a national adoption INCITS/ISO/IEC 13250-4:2009 [R2014])

ISO/IEC 13250-4:2009 defines a format known as Canonical XTM, or CXTM for short. The format is an XML format, and has the property that it guarantees that two equivalent Topic Maps Data Model instances (ISO/IEC 13250-2) will always produce byte-by-byte identical serializations, and that non-equivalent instances will always produce different serializations. CXTM thus enables direct comparison of two topic maps to determine equality by comparison of their canonical serializations.

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INCITS/ISO/IEC 13818-2:2013 [R201x], Information Technology - Generic Coding of Moving Pictures and Associated Audio Information: Video (reaffirm a national adoption INCITS/ISO/IEC 13818-2:2013 [2014])

This Recommendation | International Standard specifies the coded representation of picture information for digital storage media and digital video communication and specifies the decoding process. The representation supports constant bit rate transmission, variable bit rate transmission, random access, channel hopping, scalable decoding, bitstream editing, as well as special functions such as fast forward playback, fast reverse playback, slow motion, pause, and still pictures. This Recommendation | International Standard is forward compatible with ISO/IEC 11172-2 and upward or downward compatible with EDTV, HDTV, SDTV formats.

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INCITS/ISO/IEC 13818-4:2004 [R201x], Information Technology - Generic Coding of Moving Pictures and Associated Audio Information - Part 4: Conformance Testing (reaffirm a national adoption INCITS/ISO/IEC 13818-4:2004 [R2014])

This part of ISO/IEC 13818 specifies how tests can be designed to verify whether bitstreams and decoders meet requirements specified in parts 1, 2, 3 and 7 of ISO/IEC 13818. In this part of ISO/IEC 13818, encoders are not addressed specifically. An encoder may be said to be an ISO/IEC 13818 encoder if it generates bitstreams compliant with the syntactic and semantic bitstream requirements specified in parts 1, 2, 3, and 7 of ISO/IEC 13818.

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INCITS/ISO/IEC 13818-7:2006 [R201x], Information technology - Generic coding of moving pictures and associated audio information - Part 7: Advance Audio Coding (AAC) (reaffirm a national adoption INCITS/ISO/IEC 13818-7:2006 [R2014])

This International Standard describes the MPEG-2 audio non-backwards compatible standard called MPEG-2 Advance Audio Coding, AAC [1], a higher quality multichannel standard than achievable while requiring MPEG-1 backwards compatibility. This MPEG-2 AAC audio standard allows for ITU-R "indistinguishable" quality according to [2] at data rates of 320 kbit/s for five full-bandwidth channel audio signals. The AAC decoding process makes use of a number of required tools and a number of optional tools. Table 1 lists the tools and their status as required or optional. Required tools are mandatory in any possible profile. Optional tools may not be required in some profiles.

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INCITS/ISO/IEC 13818-10:1999 [R201x], Information Technology - Generic coding of moving pictures and associated audio information - Part 10: Conformance extensions for Digital Storage Media Command and Control (DSM-CC) (reaffirm a national adoption INCITS/ISO/IEC 13818-10:1999 [R2014])

This part of ISO/IEC 13818 defines compliance to Data Storage Media Command and Control (DSM-CC) standard in 2 steps: the static review and the dynamic review, as defined in ISO/IEC 9646 Conformance Testing standard. The static review requirements are specified in clause 4 of this part of ISO/IEC 13818 in the form of Protocol Implementation Conformance Statement (PICS) proforma. The ATS used for dynamic review is described in clause 5.

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INCITS/ISO/IEC 13818-4:2004/AM1:2005 [R201x], Information Technology - Generic Coding of Moving Pictures and Associated Audio Information - Part 4: Conformance Testing - Amendment 1: MPEG-2 IPMP Conformance Testing (reaffirm a national adoption INCITS/ISO/IEC 13818-4:2004/AM1:2005 [R2014])

Amendment 1 to ISO/IEC 13818-4:2004.

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INCITS/ISO/IEC 13818-4:2004/AM2:2005 [R201x], Information technology - Generic coding of moving pictures and associated audio information - Part 4: Conformance testing - Amendment 2: Additional audio conformance test sequences (reaffirm a national adoption INCITS/ISO/IEC 13818-4:2004/AM2:2005 [R2014])

Amendment 2 to ISO/IEC 13818-4:2004.

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INCITS/ISO/IEC 13818-6:1998/AM2:2000 [R201x], Information technology - Generic coding of moving pictures and associated audio information - Part 6: Extensions for DSM-CC - Amendment 2: Additions to support synchronized download services, opportunistic data services and resource announcement in broadcast and interactive services (reaffirm a national adoption INCITS/ISO/IEC 13818-6:1998/AM2:2000 [R2014])

Amendment 2 to ISO/IEC 13818-6:1998.

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INCITS/ISO/IEC 13818-7:2006/AM1:2007 [R201x], Information technology - Generic coding of moving pictures and associated audio information - Part 7: Advanced Audio Coding (AAC) - Amendment 1: Transport of MPEG Surround in AAC (reaffirm a national adoption INCITS/ISO/IEC 13818-7:2006/AM1:2007 [R2014])

Amendment 1 to ISO/IEC 13818-7:2006.

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INCITS/ISO/IEC 13888-1:2009 [R201x], Information technology - Security techniques - Non-repudiation - Part 1: General (reaffirm a national adoption INCITS/ISO/IEC 13888-1:2009 [R2014])

This part of ISO/IEC 13888 serves as a general model for subsequent parts specifying non-repudiation mechanisms using cryptographic techniques. ISO/IEC 13888 provides non-repudiation mechanisms for the following phases of non-repudiation:

- evidence generation;
- evidence transfer, storage and retrieval; and
- evidence verification.

Dispute arbitration is outside the scope of ISO/IEC 13888.

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INCITS/ISO/IEC 14496-13:2004 [R201x], Information technology - Coding of audio-visual objects - Part 13: Intellectual Property Management and Protection (IPMP) extensions (reaffirm a national adoption INCITS/ISO/IEC 14496-13:2004 [R2014])

The definition, as well as Extension tags, syntax and semantics for an IPMP\_Data\_BaseClass to support the following functionalities. Mutual Authentication for IPMP tool to IPMP tool as well as IPMP tool to Terminal communication. The requesting by IPMP tools of the connection/disconnection to requested IPMP tools. The notification to IPMP tools of the connection/disconnection of IPMP tools. Common IPMP processing. IPMP tool to/from User interaction.

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INCITS/ISO/IEC 14496-16:2011 [R201x], Information technology - Coding of audio-visual objects - Part 16: Animation Framework eXtension (AFX) (reaffirm a national adoption INCITS/ISO/IEC 14496-16:2011 [2014])

ISO/IEC 14496-16:2011 specifies MPEG-4 Animation Framework eXtension (AFX) model for representing and encoding 3D graphics assets to be used standalone or integrated in interactive multimedia presentations (the latter when combined with other parts of MPEG-4). Within this model, MPEG-4 is extended with higher-level synthetic objects for geometry, texture, and animation as well as dedicated compressed representations.

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INCITS/ISO/IEC 14496-17:2006 [R201x], Information technology - Coding of audio-visual objects - Part 17: Streaming text format (reaffirm a national adoption INCITS/ISO/IEC 14496-17:2006 [R2014])

ISO/IEC 14496-17:2006 was developed in response to the need for a generic method for coding of text at very low bitrate as one of the multimedia components within an audiovisual presentation. ISO/IEC 14496-17:2006 allows, for example, subtitles and Karaoke song texts to be coded and transported as separate text streams at bitrates that are sufficiently low for use in mobile services over IP. Target applications are in particular found in areas with severe transmission bandwidth constraints, such as mobile services over IP.

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INCITS/ISO/IEC 14496-18:2004 [R201x], Information technology - Coding of audio-visual objects - Part 18: Font compression and streaming (reaffirm a national adoption INCITS/ISO/IEC 14496-18:2004 [R2014])

This part of ISO/IEC 14496 specifies functionalities for the communication of font data as part of the MPEG-4 encoded audio-visual presentation. More specifically, it defines: (1) Font format representation that is utilized for font data encoding (OpenType); (2) Font compression technology for TrueType and OpenType fonts with TrueType outlines; and (3) The coded representation of information in font data streams.

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INCITS/ISO/IEC 14496-19:2004 [R201x], Information technology - Coding of audio-visual objects - Part 19: Synthesized texture stream (reaffirm a national adoption INCITS/ISO/IEC 14496-19:2004 [R2014])

This part of ISO/IEC 14496 specifies functionalities for the transmission of Synthesized Texture data as part of the MPEG-4 encoded audio-visual presentation. More specifically, it defines: (1) The synthesized texture format representation that is utilized for Synthesized Texture data encoding; and (2) The coded representation of Synthesized Texture data streams.

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INCITS/ISO/IEC 14496-21:2006 [R201x], Information technology - Coding of audio-visual objects - Part 21: MPEG-J Graphics Framework eXtensions (GFX) (reaffirm a national adoption INCITS/ISO/IEC 14496-21:2006 [R2014])

This International Standard specifies MPEG-J Graphics Framework eXtension (GFX). This extension enables Java-based applications to control the rendering and composition of synthetic and natural media in a programmatic manner.

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INCITS/ISO/IEC 14496-23:2008 [R201x], Information technology - Coding of audio-visual objects - Part 23: Symbolic Music Representation (reaffirm a national adoption INCITS/ISO/IEC 14496-23:2008 [R2014])

This International Standard defines the Symbolic Music Representation technology. By capitalising the Symbolic Music Representation technology, the acronym "SMR" has been derived. A symbolic representation of music is a logical structure based on symbolic elements representing audiovisual events, the relationship between those events, and aspects related to how those events can be rendered and synchronized with other media types.

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INCITS/ISO/IEC 14496-25:2011 [R201x], Information technology - Coding of audio-visual objects - Part 25: 3D Graphics Compression Model (reaffirm a national adoption INCITS/ISO/IEC 14496-25:2011 [2014])

ISO/IEC 14496-25:2011 describes a model for connecting 3D graphics compression tools defined in ISO/IEC 14496 to graphics primitives defined in any other standard, specification, or recommendation. The goal of ISO/IEC 14496-25:2011 is to specify an architectural model able to accommodate third-party XML-based descriptions of scene graph and graphics primitives with (potential) binarization tools and with MPEG-4 3D graphics compression tools specified in ISO/IEC 14496-2, ISO/IEC 14496-11, and ISO/IEC 14496-16.

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INCITS/ISO/IEC 14496-2:2004/AM1:2004 [R201x], Information Technology - Coding of Audio-Visual Objects - Part 2: Visual - Amendment 1: Error resilient simple scalable profile (reaffirm a national adoption INCITS/ISO/IEC 14496-2:2004/AM1:2004 [R2014])  
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INCITS/ISO/IEC 14496-2:2004/AM2:2005 [R201x], Information Technology - Coding of Audio-Visual Objects - Part 2: Visual - Amendment 2: New Levels for Simple Profile (reaffirm a national adoption INCITS/ISO/IEC 14496-2:2004/AM2:2005 [R2014])  
Amendment 2 to ISO/IEC 14496-2:2004.

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INCITS/ISO/IEC 14496-2:2004/AM3:2007 [R201x], Information Technology - Coding of Audio-Visual Objects - Part 2: Visual - Amendment 3: Support for Colour Spaces (reaffirm a national adoption INCITS/ISO/IEC 14496-2:2004/AM3:2007 [R2014])  
Amendment 3 to ISO/IEC 14496-2:2004

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INCITS/ISO/IEC 14496-2:2004/AM4:2008 [R201x], Information technology -- Coding of audio-visual objects -- Part 2: Visual - Amendment 4: Simple profile level 6 (reaffirm a national adoption INCITS/ISO/IEC 14496-2:2004/AM4:2008 [R2014])  
Amendment 4 to ISO/IEC 14496-2:2004.

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INCITS/ISO/IEC 14496-4:2004/AM1:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 1: Conformance testing for MPEG-4 (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM1:2005 [R2014])

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INCITS/ISO/IEC 14496-4:2004/AM2:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 2: MPEG-4 conformance extensions for XMT and media nodes (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM2:2005 [R2014])

Amendment 2 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM3:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 3: Visual new levels and tools (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM3:2005 [R2014])

Amendment 3 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM4:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 4: IPMPX conformance extensions (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM4:2005 [R2014])

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INCITS/ISO/IEC 14496-4:2004/AM5:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 5: Conformance extensions for error-resilient simple scalable profile (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM5:2005 [R2014])

Amendment 5 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM6:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 6: Advanced Video Coding conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM6:2005 [R2014])

Amendment 6 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM7:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 7: AFX conformance extensions (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM7:2005 [R2014])

Amendment 7 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM9:2006 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 9: AVC fidelity range extensions conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM9:2006 [R2014])

Amendment 9 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-5:2001/AM4:2004 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 4: IPMPX reference software extensions (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM4:2004 [R2014])

Amendment 4 to ISO/IEC 14496-5:2001.

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INCITS/ISO/IEC 14496-5:2001/AM5:2004 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 5: Reference software extensions for error resilient simple scalable profile (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM5:2004 [R2014])

Amendment 5 to ISO/IEC 14496-5:2001.

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INCITS/ISO/IEC 14496-5:2001/AM6:2005 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 6: Advanced Video Coding (AVC) and High Efficiency Advanced Audio Coding (HE AAC) reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM6:2005 [R2014])

Amendment 6 to ISO/IEC 14496-5:2001.

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Amendment 7 to ISO/IEC 14496-5:2001.

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INCITS/ISO/IEC 14496-5:2001/AM8:2006 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 8: AVC fidelity range extensions reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM8:2006 [R2014])

Amendment 8 to ISO/IEC 14496-5:2001.

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INCITS/ISO/IEC 14496-5:2001/AM9:2007 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 9: Morphing & Textures reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM9:2007 [R2014])

Amendment 9 to ISO/IEC 14496-5:2001.

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INCITS/ISO/IEC 14496-4:2004/AM17:2007 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 17: Advanced text and 2D graphics conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM17:2007 [R2014])

Amendment 17 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM23:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 23: Synthesized texture conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM23:2008 [R2014])

Amendment 23 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM24:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 24: File format conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM24:2008 [R2014])

Amendment 24 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM25:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 25: LAsER and SAF conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM25:2008 [R2014])

Amendment 25 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM26:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 26: Conformance levels and bitstreams for Open Font Format (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM26:2008 [R2014])

Amendment 26 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM27:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 27: LAsER and SAF extensions conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM27:2008 [R2014])

Amendment 27 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM28:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 28: Conformance extensions for simple profile level 6 (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM28:2008 [R2014])

Amendment 28 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-4:2004/AM29:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 29: Symbolic Music Representation conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM29:2008 [R2014])

Amendment 29 to ISO/IEC 14496-4:2004.

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INCITS/ISO/IEC 14496-5:2001/AM10:2007 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 10: SSC, DST, ALS and SLS reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM10:2007 [R2014])

Amendment 10 to ISO/IEC 14496-5:2001.

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INCITS/ISO/IEC 14496-5:2001/AM11:2007 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 11: MPEG-J GFX Reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM11:2007 [R2014])

Amendment 11 to ISO/IEC 14496-5:2001.

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INCITS/ISO/IEC 14496-5:2001/AM12:2007 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 12: Updated file format reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM12:2007 [R2014])

Amendment 12 to ISO/IEC 14496-5:2001.

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INCITS/ISO/IEC 14496-5:2001/AM13:2008 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 13: Geometry and shadow reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM13:2008 [R2014])

Amendment 13 to ISO/IEC 14496-5:2001.

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INCITS/ISO/IEC 14496-5:2001/AM16:2008 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 16: Symbolic Music Representation reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM16:2008 [R2014])

Amendment 16 to ISO/IEC 14496-5:2001.

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INCITS/ISO/IEC 14772-2:2004 [R201x], Information technology - Computer graphics and image processing - The Virtual Reality Modelling Language (VRML) - Part 2: External Authoring Interface (EAI) (reaffirm a national adoption INCITS/ISO/IEC 14772-2:2004 [R2014])

ISO/IEC 14772-1, the Virtual Reality Modeling Language (VRML), defines a file format that integrates 3D graphics and multimedia. Conceptually, each VRML file is a 3D time-based space that contains graphic and aural objects that can be dynamically modified through a variety of mechanisms. This part of ISO/IEC 14772 defines the interface that applications external to the VRML browser may use to access and manipulate the objects defined in ISO/IEC 14772-1.

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INCITS/ISO/IEC 14888-2:2008 [R201x], Information technology - Security techniques - Digital signatures with appendix - Part 2: Integer factorization based mechanisms (reaffirm a national adoption INCITS/ISO/IEC 14888-2:2008 [R2014])

This part of ISO/IEC 14888 specifies digital signatures with appendix whose security is based on the difficulty of factoring the modulus in use. For each signature scheme, it specifies: (a) the relationships and constraints between all the data elements required for signing and verifying; (b) a signature mechanism, i.e., how to produce a signature of a message with the data elements required for signing; and (c) a verification mechanism, i.e., how to verify a signature of a message with the data elements required for verifying.

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INCITS/ISO/IEC 15444-6:2013 [R201x], Information technology - JPEG 2000 image coding system - Part 6: Compound image file format (reaffirm a national adoption INCITS/ISO/IEC 15444-6:2013 [2014])

This Recommendation | International Standard defines a normative but optional file format for storing compound images using the JPEG 2000 file format family architecture. This format is an extension of the JP2 file format defined in Rec. ITU-T T.800 | ISO/IEC 15444-1 Annex I and uses boxes defined for both the JP2 file format and the JPX file format defined in Rec. ITU-T T.801 | ISO/IEC 15444-2 Annex M. This Recommendation | International Standard is useful for applications storing multiple pages, images with mixed content, and/or images that need more structure than provided in JP2.

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INCITS/ISO/IEC 15444-8:2007 [R201x], Information technology - JPEG 2000 image coding system: Secure JPEG 2000 (reaffirm a national adoption INCITS/ISO/IEC 15444-8:2007 [R2014])

This Recommendation | International Standard specifies the framework, concepts, and methodology for securing JPEG 2000 codestreams. The scope of this Recommendation | International Standard is to define: (1) a normative codestream syntax containing information for interpreting secure image data; (2) a normative process for registering JPSEC tools with a registration authority delivering a unique identifier; (3) informative examples of JPSEC tools in typical use cases; and (4) informative guidelines on how to implement security services and related metadata.

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INCITS/ISO/IEC 15444-9:2005 [R201x], Information technology - JPEG 2000 image coding system: Interactivity tools, APIs and protocols (reaffirm a national adoption INCITS/ISO/IEC 15444-9:2005 [R2014])

This Recommendation | International Standard defines, in an extensible manner, syntaxes and methods for the remote interrogation and optional modification of JPEG 2000 codestreams and files in accordance with their definition in the following parts of ISO/IEC 15444:

- ITU-T Rec. T.800 | ISO/IEC 15444-1:2004 and its definition of a JPEG 2000 codestream and JP2 fileformat; and
- the JPEG 2000 family of file formats as defined in further parts of ISO/IEC 15444.

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INCITS/ISO/IEC 15444-11:2007 [R201x], Information technology - JPEG 2000 image coding system: Wireless (reaffirm a national adoption INCITS/ISO/IEC 15444-11:2007 [R2014])

This Recommendation | International Standard defines, in an extensible manner, syntaxes and methods for the protection against errors that may occur during the transmission of JPEG 2000 codestreams compliant with ITU-T Rec. T.800 | ISO/IEC 15444-1.

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INCITS/ISO/IEC 15444-13:2008 [R201x], Information technology - JPEG 2000 image coding system: An entry level JPEG 2000 encoder (reaffirm a national adoption INCITS/ISO/IEC 15444-13:2008 [R2014])

This Recommendation | International Standard was developed by the Joint Photographic Experts Group (JPEG), the joint ISO/ITU-T committee responsible for developing standards for continuous-tone still picture coding. It also refers to the Recommendations | International Standards produced by this committee: ITU-T Rec. T.81 | ISO/IEC 10918-1, ITU-T Rec. T.83 | ISO/IEC 10918-2, ITU-T Rec. T.84 | ISO/IEC 10918-3 and ITU-T Rec. T.87 | ISO/IEC 14495-1.

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INCITS/ISO/IEC 15938-9:2005 [R201x], Information technology - Multimedia content description interface - Part 9: Profiles and levels (reaffirm a national adoption INCITS/ISO/IEC 15938-9:2005 [R2014])

This part of 15938-9 collects standard profiles and levels for MPEG-7, specified across all ISO/IEC 15938 parts. While all parts are potential candidates for profiling, current profiles concentrate on the description definition language [ISO/IEC 15938-2], visual [ISO/IEC 15938-3], audio [ISO/IEC 15938-4], and multimedia description schemes [ISO/IEC 15938-5], which are based on the namespace versioning defined in schema definition [ISO/IEC 15938-10].

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INCITS/ISO/IEC 15938-10:2005 [R201x], Information technology - Multimedia content description Interface - Part 10: Schema definition (reaffirm a national adoption INCITS/ISO/IEC 15938-10:2005 [R2014])

This International Standard specifies a metadata system for describing multimedia content. This part of ISO/IEC 15938 specifies the schema definition across all parts of ISO/IEC 15938. This part of ISO/IEC 15938 collects the description tools specified in ISO/IEC 15938, assigns a namespace designator, and specifies the resulting syntax description in a single schema using description definition language from ISO/IEC 15938-2.

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INCITS/ISO/IEC 15938-1:2002/AM1:2005 [R201x], Information technology - Multimedia content description interface - Part 1: Systems - Amendment 1: Systems extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-1:2002/AM1:2005 [R2014])

Amendment 1 to ISO/IEC 15938-1:2002.

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INCITS/ISO/IEC 15938-1:2002/AM2:2006 [R201x], Information technology - Multimedia content description interface - Part 1: Systems - Amendment 2: Fast access extension (reaffirm a national adoption INCITS/ISO/IEC 15938-1:2002/AM2:2006 [R2014])

Amendment 2 to ISO/IEC 15938-1:2002.

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INCITS/ISO/IEC 15938-3:2002/AM1:2004 [R201x], Information technology - Multimedia content description interface - Part 3: Visual - Amendment 1: Visual extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-3:2002/AM1:2004 [R2014])

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INCITS/ISO/IEC 15938-3:2002/AM2:2006 [R201x], Information technology - Multimedia content description interface - Part 3: Visual - Amendment 2: Perceptual 3D Shape Descriptor (reaffirm a national adoption INCITS/ISO/IEC 15938-3:2002/AM2:2006 [R2014])

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INCITS/ISO/IEC 15938-4:2002/AM1:2004 [R201x], Information technology - Multimedia content description interface - Part 4: Audio - Amendment 1: Audio extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-4:2002/AM1:2004 [R2014])

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INCITS/ISO/IEC 15938-4:2002/AM2:2006 [R201x], Information technology - Multimedia content description interface - Part 4: Audio - Amendment 2: High-level descriptors (reaffirm a national adoption INCITS/ISO/IEC 15938-4:2002/AM2:2006 [R2014])  
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INCITS/ISO/IEC 15938-5:2003/AM1:2004 [R201x], Information technology - Multimedia content description interface - Part 5: Multimedia description schemes - Amendment 1: Multimedia description schemes extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-5:2003/AM1:2004 [R2014])  
Amendment 1 to ISO/IEC 15938-5:2003.

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INCITS/ISO/IEC 15938-5:2003/AM2:2005 [R201x], Information technology - Multimedia content description interface - Part 5: Multimedia description schemes - Amendment 2: Multimedia description schemes user preference extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-5:2003/AM2:2005 [R2014])  
Amendment 2 to ISO/IEC 15938-5:2003.

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INCITS/ISO/IEC 15938-5:2003/AM3:2008 [R201x], Information technology - Multimedia content description interface - Part 5: Multimedia description schemes - Amendment 3: Improvements to geographic descriptor (reaffirm a national adoption INCITS/ISO/IEC 15938-5:2003/AM3:2008 [R2014])  
Amendment 3 to ISO/IEC 15938-5:2003.

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INCITS/ISO/IEC 15938-6:2003/AM1:2006 [R201x], Information technology - Multimedia content description interface - Part 6: Reference software - Amendment 1: Reference software extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-6:2003/AM1:2006 [R2014])  
Amendment 1 to ISO/IEC 15938-6:2003.

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INCITS/ISO/IEC 15938-6:2003/AM2:2007 [R201x], Information technology - Multimedia content description interface - Part 6: Reference software - Amendment 2: Reference software of perceptual 3D shape descriptor (reaffirm a national adoption INCITS/ISO/IEC 15938-6:2003/AM2:2007 [R2014])

Amendment 2 to ISO/IEC 15938-6:2003.

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INCITS/ISO/IEC 15938-7:2003/AM1:2005 [R201x], Information technology - Multimedia content description interface - Part 7: Conformance testing - Amendment 1: Conformance extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-7:2003/AM1:2005 [R2014])

Amendment 1 to ISO/IEC 15938-7:2003.

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INCITS/ISO/IEC 15938-7:2003/AM2:2007 [R201x], Information technology - Multimedia content description interface - Part 7: Conformance testing - Amendment 2: Fast access extensions conformance (reaffirm a national adoption INCITS/ISO/IEC 15938-7:2003/AM2:2007 [R2014])

Amendment 2 to ISO/IEC 15938-7:2003

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INCITS/ISO/IEC 15938-7:2003/AM3:2007 [R201x], Information technology - Multimedia content description interface - Part 7: Conformance testing - Amendment 3: Conformance testing of perceptual 3D shape descriptor (reaffirm a national adoption INCITS/ISO/IEC 15938-7:2003/AM3:2007 [R2014])

Amendment 3 to ISO/IEC 15938-7:2003.

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INCITS/ISO/IEC 15938-7:2003/AM4:2008 [R201x], Information technology - Multimedia content description interface - Part 7: Conformance testing - Amendment 4: Improvements to geographic descriptor conformance (reaffirm a national adoption INCITS/ISO/IEC 15938-7:2003/AM4:2008 [R2014])

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INCITS/ISO/IEC 15944-10:2013 [R201x], Information technology - Business Operational View - Part 10: IT-enabled coded domains as semantic components in business transactions (reaffirm a national adoption INCITS/ISO/IEC 15944-10:2013 [2014])

The primary purpose of ISO/IEC 15944-10:2013 is to provide, in a single consolidated document, an integrated approach for the key concepts and their definitions as well as rules pertaining to "coded domains" as they already exist in the multipart ISO/IEC 15944 eBusiness standard, especially Parts 1, 2, 5, and 8. It does so in a systematic and rules-based manner. As such, ISO/IEC 15944-10:2013 serves as a methodology and tool for an IT-enabled approach to existing widely used standards, specifications, authority files, pick-lists, etc.

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INCITS/ISO/IEC 18023-1:2006 [R201x], Information technology - Synthetic Environment Data Representation Interchange Specification (SEDRIS) - Part 1: Functional specification (reaffirm a national adoption INCITS/ISO/IEC 18023-1:2006 [R2014])

ISO/IEC 18023-1:2005 addresses the concepts, syntax, and semantics for the representation and interchange of environmental data. It specifies: a data representation model for expressing environmental data; specifications of the data types and classes that together constitute the data representation model; and an application program interface that supports the storage and retrieval of environmental data using the data representation model.

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INCITS/ISO/IEC 18023-2:2006 [R201x], Information technology - Synthetic Environment Data Representation and Interchange Specification (SEDRIS): Part 2: Abstract transmittal format (reaffirm a national adoption INCITS/ISO/IEC 18023-2:2006 (R2014))

ISO/IEC 18023-2:2006 specifies the abstract syntax of a SEDRIS transmittal. Actual encodings (e.g., binary encoding) are specified in other parts of ISO/IEC 18023.

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INCITS/ISO/IEC 18023-3:2006 [R201x], Information technology - Synthetic Environment Data Representation and Interchange Specification (SEDRIS): Part 3: Transmittal format binary encoding (reaffirm a national adoption INCITS/ISO/IEC 18023-3:2006 [R2014])

ISO/IEC 18023-3:2006 defines a binary encoding for DRM objects specified in ISO/IEC 18023-1 according to the abstract syntax specified in ISO/IEC 18023-2.

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INCITS/ISO/IEC 18024-4:2006 [R201x], Information technology - Synthetic Environment Data Representation and Interchange Specification (SEDRIS) Language Bindings - Part 4: C (reaffirm a national adoption INCITS/ISO/IEC 18024-4:2006 [R2014])

ISO/IEC 18024-4:2006 specifies a language-dependent layer for the C programming language. ISO/IEC 18023-1 specifies a language-independent application program interface (API) for SEDRIS. For integration into a programming language, the SEDRIS API is embedded in a language-dependent layer obeying the particular conventions of that language.

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INCITS/ISO/IEC 18042-4:2006 [R201x], Information technology - Computer graphics and image processing - Spatial Reference Model (SRM) language bindings - Part 4: C (reaffirm a national adoption INCITS/ISO/IEC 18042-4:2006 (R2014))

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INCITS/ISO/IEC 19757-2:2008 [R201x], Information technology - Document Schema Definition Language (DSDL) - Part 2: Regular-grammar-based validation - RELAX NG (reaffirm a national adoption INCITS/ISO/IEC 19757-2:2008 [R2014])

ISO/IEC 19757-2:2008 specifies RELAX NG, a schema language for XML. A RELAX NG schema specifies a pattern for the structure and content of an XML document. The pattern is specified by using a regular tree grammar. It establishes requirements for RELAX NG schemas and specifies when an XML document matches the pattern specified by a RELAX NG schema.

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INCITS/ISO/IEC 19757-8:2008 [R201x], Information technology - Document Schema Definition Languages (DSDL) - Part 8: Document Semantics Renaming Language (DSRL) (reaffirm a national adoption INCITS/ISO/IEC 19757-8:2008 [R2014])

ISO/IEC 19757-8:2008 specifies a mechanism that allows users to assign locally meaningful names to XML elements, attributes, entities, and processing instructions, without having to completely rewrite the Document Type Definition (DTD) or schema against which they are to be validated. In addition, ISO/IEC 19757-8:2008 provides an XML-based format for declaring the replacement text for entity references and provides a mechanism that allows users to define default values for both element content and attribute values.

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INCITS/ISO/IEC 19757-9:2008 [R201x], Information technology - Document Schema Definition Languages (DSDL) - Part 9: Namespace and datatype declaration in Document Type Definitions (DTDs) (reaffirm a national adoption INCITS/ISO/IEC 19757-9:2008 [R2014])

ISO/IEC 19757-9:2008 defines a language that is designed to extend the declarative functionality of an XML Document Type Definition (DTD) to include declaring one or more namespaces to which some or all of the element and attribute names in a DTD belong, declaring constraints on the content of elements with content model ANY to contain elements whose names belong to one or more specified namespaces, declaring datatypes for elements that contain data content only and for attribute values.

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INCITS/ISO/IEC 19775-1:2013 [R201x], Information technology - Computer graphics, image processing and environmental data representation - Extensible 3D (X3D) - Part 1: Architecture and base components (reaffirm a national adoption INCITS/ISO/IEC 19775-1:2013 [2014])

ISO/IEC 19775, X3D, defines a software system that integrates network-enabled 3D graphics and multimedia. Conceptually, each X3D application is a 3D time-based space that contains graphic and aural objects that can be dynamically modified through a variety of mechanisms. ISO/IEC 19775-1:2013 defines the architecture and base components of X3D.

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INCITS/ISO/IEC 19785-4:2010/COR1:2013 [R201x], Information technology - Common Biometric Exchange Formats Framework (CBEFF) - Part 4: Security block format specifications - Technical Corrigendum 1 (reaffirm a national adoption INCITS/ISO/IEC 19785-4:2010/COR1:2013 [2014])

This is the first technical corrigendum to ISO/IEC 19785-4:2010 and ISO/IEC 19785-4:2010 specifies security block formats (see ISO/IEC 19785-1) registered in accordance with ISO/IEC 19785-2 as formats defined by the CBEFF biometric organization ISO/IEC JTC 1/SC 37, and specifies their registered security block format identifiers. [The security block format identifier is recorded in the standard biometric header (SBH) of a patron format (or defined by that patron format as the only available security block format).]

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INCITS/ISO/IEC 19794-7:2014 [R201x], Information technology - Biometric data interchange formats - Part 7: Signature/sign time series data (reaffirm a national adoption INCITS/ISO/IEC 19794-7:2014 [2014])

Specifies data interchange formats for signature/sign behavioral data captured in the form of a multi-dimensional time series using devices such as digitizing tablets or advanced pen systems. The data interchange formats are generic, in that they may be applied and used in a wide range of application areas where handwritten signs or signatures are involved. No application-specific requirements or features are addressed in ISO/IEC 19794-7:2014.

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INCITS/ISO/IEC 19794-8:2006 [R201x], Information technology - Biometric data interchange formats - Part 8: Finger pattern skeletal data (reaffirm a national adoption INCITS/ISO/IEC 19794-8:2006 [R2014])

ISO/IEC 19794-8:2006 specifies the interchange format for the exchange of pattern-based skeletal fingerprint recognition data. The data format is generic, in that it may be applied and used in a wide range of application areas where automated fingerprint recognition is involved. The exchange format defined in ISO/IEC 19794-8:2006 describes all characteristics of a fingerprint in a small data record. Thus, it allows for the extraction of both spectral information (orientation, frequency, phase, etc.) and features (minutiae, core, ridge count, etc.). Transformations like translation and rotation can also be accommodated by the format defined in this standard.

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INCITS/ISO/IEC 19794-1:2011/AM1:2013 [R201x], Information technology - Biometric data interchange formats - Part 1: Framework - Amendment 1: Conformance testing methodology (reaffirm a national adoption INCITS/ISO/IEC 19794-1:2011/AM1:2013 [2014])

This conformance testing methodology amends ISO/IEC 19794-1:2011 which describes the general aspects and requirements for defining biometric data interchange formats. The notation and transfer formats provide platform independence and separation of transfer syntax from content definition. ISO/IEC 19794-1:2011 defines what is commonly applied for biometric data formats, i.e., the standardization of the common content, meaning, and representation of biometric data formats of biometric types considered in the specific parts of ISO/IEC 19794.

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INCITS/ISO/IEC 19794-4:2011/COR1:2012 [R201x], Information technology - Biometric data interchange formats - Part 4: Finger image data - Technical Corrigendum 1 (reaffirm a national adoption INCITS/ISO/IEC 19794-4:2011/COR1:2012 [2014])

Technical Corrigendum 1 to ISO/IEC 19794-4:2011.

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INCITS/ISO/IEC 19794-4:2011/AM1:2013 [R201x], Information technology - Biometric data interchange formats - Part 4: Finger image data - Amendment 1: Conformance testing methodology and clarification of defects (reaffirm a national adoption INCITS/ISO/IEC 19794-4:2011/AM1:2013 [2014])

This is the first amendment to ISO/IEC 19794-4:2011 on Conformance testing methodology and clarification of defects and ISO/IEC 19794-4:2011 specifies a data record interchange format for storing, recording, and transmitting the information from one or more finger or palm image areas within an ISO/IEC 19785-1 data structure. This can be used for the exchange and comparison of finger image data.

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INCITS/ISO/IEC 19794-5:2011/AM1:2014 [R201x], Information technology - Biometric data interchange formats - Part 5: Face image data - Amendment 1: Conformance testing methodology and clarification of defects (reaffirm a national adoption INCITS/ISO/IEC 19794-5:2011/AM1:2014 [2014])

This is the first amendment to the 2011 edition of ISO/IEC 19794-5 that:

- specifies a record format for storing, recording, and transmitting information from one or more facial images or a short video stream of facial images;
- specifies scene constraints of the facial images;
- specifies photographic properties of the facial images;
- specifies digital image attributes of the facial images; and
- provides best practices for the photography of faces.

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INCITS/ISO/IEC 19794-6:2011/COR1:2012 [R201x], Information technology - Biometric data interchange formats - Part 6: Iris image data - Technical Corrigendum 1 (reaffirm a national adoption INCITS/ISO/IEC 19794-6:2011/COR1:2012 [2014])

This is the first corrigendum to ISO/IEC 19794-6:2011 and ISO/IEC 19794-6:2011 specifies iris image interchange formats for biometric enrollment, verification, and identification systems. The image information might be stored as:

- an array of intensity values optionally compressed with ISO/IEC 15948 or ISO/IEC 15444, or
- an array of intensity values optionally compressed with ISO/IEC 15948 or ISO/IEC 15444 that might be cropped around the iris, with the iris at the center, and which might incorporate region-of-interest masking of non-iris regions.

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INCITS/ISO/IEC 19795-2:2007 [R201x], Information technology - Biometric performance testing and reporting - Part 2: Testing methodologies for technology and scenario evaluation (reaffirm a national adoption INCITS/ISO/IEC 19795-2:2007 [R2014])

ISO/IEC 19795-2:2007 addresses two specific biometric performance testing methodologies: technology and scenario evaluation. The large majority of biometric tests are of one of these two generic evaluation types. Technology evaluations evaluate enrollment and comparison algorithms by means of previously collected corpuses, while scenario evaluations evaluate sensors and algorithms by processing of samples collected from Test Subjects in real time. The former is intended for generation of large volumes of comparison scores and candidate lists indicative of the fundamental discriminating power of an algorithm.

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INCITS/ISO/IEC 19795-4:2008 [R201x], Information technology - Biometric performance testing and reporting - Part 4: Interoperability performance testing (reaffirm a national adoption INCITS/ISO/IEC 19795-4:2008 [R2014])

ISO/IEC 19795-4:2008 prescribes methods for technology and scenario evaluations of multi-supplier biometric systems that use biometric data conforming to biometric data interchange format standards.

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INCITS/ISO/IEC 20008-1:2013 [R201x], Information technology - Security techniques - Anonymous digital signatures - Part 1: General (reaffirm a national adoption INCITS/ISO/IEC 20008-1:2013 [2014])

ISO/IEC 20008-1:2013 specifies principles, including a general model, a set of entities, a number of processes, and general requirements for the following two categories of anonymous digital signature mechanisms: (1) signature mechanisms using a group public key, and (2) signature mechanisms using multiple public keys.

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INCITS/ISO/IEC 20008-2:2013 [R201x], Information technology - Security techniques - Anonymous digital signatures - Part 2: Mechanisms using a group public key (reaffirm a national adoption INCITS/ISO/IEC 20008-2:2013 [2014])

ISO/IEC 20008-2:2013 specifies anonymous digital signature mechanisms, in which a verifier makes use of a group public key to verify a digital signature. It provides:

- a general description of an anonymous digital signature mechanism using a group public key; and
- a variety of mechanisms that provide such anonymous digital signatures.

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INCITS/ISO/IEC 20009-1:2013 [R201x], Information technology - Security techniques - Anonymous entity authentication - Part 1: General (reaffirm a national adoption INCITS/ISO/IEC 20009-1:2013 [2014])

ISO/IEC 20009-1:2013 specifies a model, requirements, and constraints for anonymous entity authentication mechanisms that allow the legitimacy of an entity to be corroborated.

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INCITS/ISO/IEC 21000-4:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 4: Intellectual Property Management and Protection Components (reaffirm a national adoption INCITS/ISO/IEC 21000-4:2006 [R2014])

This part of ISO/IEC 21000 specifies how to include IPMP information and protected parts of Digital Items in a DIDL document. It purposely does not specify protection measures, keys, key management, trust management, encryption algorithms, certification infrastructures, or other components that would also be needed as part of a complete IPMP solution. The IPMP DIDL encapsulates and protects a part of the hierarchy of a Digital Item, and associates appropriate identification and protection information with it. The description of IPMP governance and tools is required to satisfy IPMP for a Digital Item or its parts to be accessed.

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INCITS/ISO/IEC 21000-5:2004 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 5: Rights Expression Language (reaffirm a national adoption INCITS/ISO/IEC 21000-5:2004 [R2014])

This part of ISO/IEC 21000 specifies the syntax and semantics of a Rights Expression Language. This part of ISO/IEC 21000 does not give any permission, including permissions about who is legally or technically allowed to create Rights Expressions. It does not specify the security measures of trusted systems, propose specific applications, or describe the details of the systems required for accounting (monetary transactions, state transactions, and so on). It also does not specify if or when Rights Expressions shall be consulted.

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INCITS/ISO/IEC 21000-6:2004 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 6: Rights Data Dictionary (reaffirm a national adoption INCITS/ISO/IEC 21000-6:2004 [R2014])

This part of ISO/IEC 21000 describes a Rights Data Dictionary which comprises a set of clear, consistent, structured, integrated and uniquely identified Terms (as defined in Clause 5.4) to support the MPEG-21 Rights Expression Language (REL), ISO/IEC 21000-5. Annex A specifies the methodology for and structure of the RDD Dictionary, and specifies how further terms may be defined under the governance of a Registration Authority, requirements for which are described in Annex C.

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INCITS/ISO/IEC 21000-8:2008 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 8: Reference software (reaffirm a national adoption INCITS/ISO/IEC 21000-8:2008 [R2014])

This International Standard describes reference software implementing the normative clauses of the other parts of ISO/IEC 21000. The information provided is applicable for determining the reference software modules available for parts of ISO/IEC 21000, understanding the functionality of the available reference software modules, and utilizing the available reference software modules.

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INCITS/ISO/IEC 21000-9:2005 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 9: File Format (reaffirm a national adoption INCITS/ISO/IEC 21000-9:2005 [R2014])

This International Standard specifies the MPEG-21 file format, in which an MPEG-21 XML document (e.g., Digital Item Declaration (DID)) and some or all of its referenced content can be placed in a single "content package" file. This enables the interchange, editing, and "playback" of MPEG-21 documents.

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INCITS/ISO/IEC 21000-10:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 10: Digital Item Processing (reaffirm a national adoption INCITS/ISO/IEC 21000-10:2006 [R2014])

This Part of ISO/IEC 21000, entitled Digital Item Processing (DIP), specifies the syntax and semantics of tools that may be used to process Digital Items. The tools provide a normative set of tools that specify the processing of a Digital Item in a predefined manner.

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INCITS/ISO/IEC 21000-14:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 14: Conformance Testing (reaffirm a national adoption INCITS/ISO/IEC 21000-14:2007 [R2014])

This International Standard specifies conformance points and conformance tests for different parts of ISO/IEC 21000. Based on the various conformance points, it is identified which requirements defined in ISO/IEC 21000 apply to those conformance points. The tests are developed to ascertain whether a particular artifact (such as a piece of software or hardware or a document) meets all the requirements for a specific conformance point or not.

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INCITS/ISO/IEC 21000-15:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 15: Event Reporting (reaffirm a national adoption INCITS/ISO/IEC 21000-15:2006 [R2014])

This part of ISO/IEC 21000 specifies:

- how to express Event Report Requests (ER-R) that contain information about which Events to report, what information is to be reported and to whom; and
- how to express Event Reports (ER) which are created by an MPEG-21 Peer in response to an Event Report Request when the conditions specified by an ER-R are met.

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INCITS/ISO/IEC 21000-16:2005 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 16: Binary Format (reaffirm a national adoption INCITS/ISO/IEC 21000-16:2005 [R2014])

This part of ISO/IEC 21000 specifies the ISO/IEC 21000 binary format which is an alternative serialization format of descriptions as specified within other ISO/IEC 21000 parts, e.g., ISO/IEC 21000-2. This enables the efficient interchange or storage of ISO/IEC 21000 descriptions.

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INCITS/ISO/IEC 21000-17:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 17: Fragment Identification of MPEG Resources (reaffirm a national adoption INCITS/ISO/IEC 21000-17:2006 [R2014])

ISO/IEC 21000-17:2006 specifies a normative syntax for Fragment Identifiers to be used in URIs (Uniform Resource Identifiers) for addressing parts of any resource whose Internet Media Type is one of: audio/mpeg; video/mpeg; video/mp4; audio/mp4; application/mp4. ISO/IEC 21000 (MPEG-21) defines an open framework for multimedia delivery and consumption, with both the content creator and content consumer as focal points. The vision for MPEG-21 is to define a multimedia framework to enable transparent and augmented use of multimedia resources across a wide range of networks and devices used by different communities.

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INCITS/ISO/IEC 21000-18:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 18: Digital Item Streaming (reaffirm a national adoption INCITS/ISO/IEC 21000-18:2007 [R2014])

This part of ISO/IEC 21000 specifies tools for Digital Item Streaming. The first tool is the Bitstream Binding Language, which describes how Digital Items (comprising the Digital Item Declaration, metadata and resources) can be mapped to delivery channels such as MPEG-2 Transport Streams or the Real-time Transport Protocol.

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INCITS/ISO/IEC 21000-3:2003/AM1:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 3: Digital Item Identification - Amendment 1: Related identifier types (reaffirm a national adoption INCITS/ISO/IEC 21000-3:2003/AM1:2007 [R2014])

Amendment 1 to ISO/IEC 21000-3:2003.

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INCITS/ISO/IEC 21000-4:2006/AM1:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 4: Intellectual Property Management and Protection Components - Amendment 1: IPMP components base profile (reaffirm a national adoption INCITS/ISO/IEC 21000-4:2006/AM1:2007 [R2014])

Amendment 1 to ISO/IEC 21000-4:2006.

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INCITS/ISO/IEC 21000-5:2004/AM1:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 5: Rights Expression Language - Amendment 1: MAM (Mobile And optical Media) profile (reaffirm a national adoption INCITS/ISO/IEC 21000-5:2004/AM1:2007 [R2014])

Amendment 1 to ISO/IEC 21000-5:2004.

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INCITS/ISO/IEC 21000-5:2004/AM2:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 5: Rights Expression Language - Amendment 2: DAC (Dissemination And Capture) profile (reaffirm a national adoption INCITS/ISO/IEC 21000-5:2004/AM2:2007 [R2014])

Amendment 2 to ISO/IEC 21000-5:2004.

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INCITS/ISO/IEC 21000-5:2004/AM3:2008 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 5: Rights Expression Language - Amendment 3: Open access content (OAC) profile (reaffirm a national adoption INCITS/ISO/IEC 21000-5:2004/AM3:2008 [R2014])

Amendment 3 to ISO/IEC 21000-5:2004.

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INCITS/ISO/IEC 21000-6:2004/AM1:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 6: Rights Data Dictionary - Amendment 1: Digital Item Identifier relationship types (reaffirm a national adoption INCITS/ISO/IEC 21000-6:2004/AM1:2006 [R2014])

Amendment 1 to ISO/IEC 21000-6:2004.

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INCITS/ISO/IEC 21000-9:2005/AM1:2008 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 9: File Format - Amendment 1: MIME type registration (reaffirm a national adoption INCITS/ISO/IEC 21000-9:2005/AM1:2008 [R2014])

Amendment 1 to ISO/IEC 21000-9:2005.

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INCITS/ISO/IEC 21000-10:2006/AM1:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 10: Digital Item Processing - Amendment 1: Additional C++ bindings (reaffirm a national adoption INCITS/ISO/IEC 21000-10:2006/AM1:2006 [R2014])  
Amendment 1 to ISO/IEC 21000-10:2006.

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INCITS/ISO/IEC 21000-15:2006/AM1:2008 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 15: Event Reporting - Amendment 1: Security in Event Reporting (reaffirm a national adoption INCITS/ISO/IEC 21000-15:2006/AM1:2008 [R2014])  
Amendment 1 to ISO/IEC 21000-15:2006.

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INCITS/ISO/IEC 23000-2:2008 [R201x], Information technology - Multimedia application format (MPEG-A) - Part 2: MPEG music player application format (Ed 2) (reaffirm a national adoption INCITS/ISO/IEC 23000-2:2008 [R2014])

This part of ISO/IEC 23000 presents a basic architecture for constructing an annotated music library. It defines a simple file format for songs and a file format for albums and playlists. A conformant player application has to support all these specified file formats.

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INCITS/ISO/IEC 23000-3:2007 [R201x], Information technology - Multimedia application format (MPEG-A) - Part 3: MPEG photo player application format (reaffirm a national adoption INCITS/ISO/IEC 23000-3:2007 [R2014])

This part of ISO/IEC 23000, also known as "photo player MAF", specifies a file format for digital photo library applications. It establishes a standardized solution for the carriage of images and associated metadata, to facilitate simple and fully interoperable exchange across different devices and platforms. The set of metadata includes MPEG-7 visual content descriptions, as well as acquisition-based metadata (such as date, time and camera settings). This allows compliant devices to support new, content-enhanced functionality, such as intelligent browsing, content-based search or automatic categorization.

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INCITS/ISO/IEC 23000-5:2011 [R201x], Information technology - Multimedia application format (MPEG-A) - Part 5: Media streaming application format (Ed 2) (reaffirm a national adoption INCITS/ISO/IEC 23000-5:2011 [2014])

ISO/IEC 23000-5:2011 specifies a digital item structure, a file format, and references a set of protocols used in a media streaming environment for applications where governed audio and video information is streamed to an end-user device by means of existing protocols such as MPEG-2 Transport Stream or Real Time Protocol over User Datagram Protocols over Internet Protocol (RTP/UDP/IP), and provides informative implementation examples corresponding to specific applications.

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INCITS/ISO/IEC 23000-7:2008 [R201x], Information technology - Multimedia application format (MPEG-A) - Part 7: Open access application format (reaffirm a national adoption INCITS/ISO/IEC 23000-7:2008 [R2014])

This International Standard specifies a container format, which can contain any type of content and can also transport additional metadata. This packaging mechanism offers the possibility to enrich the content with human and machine-readable metadata and is not limited to a specific content type. Unlike other application formats, the open access application format is not a multimedia-based format.

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INCITS/ISO/IEC 23000-9:2008 [R201x], Information technology - Multimedia application format (MPEG-A) - Part 9: Digital Multimedia Broadcasting application format (reaffirm a national adoption INCITS/ISO/IEC 23000-9:2008 [R2014])

This part of ISO/IEC 23000 specifies a file format that pertains to both terrestrial digital multimedia broadcasting (T-DMB) and satellite digital multimedia broadcasting (S-DMB) contents and services. It integrates the existing DMB contents with appropriate additional information to facilitate storage, interchange, management, editing, and presentation of the contents in protected, governed, and interoperable ways.

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INCITS/ISO/IEC 23001-1:2006 [R201x], Information technology - MPEG systems technologies - Part 1: Binary MPEG format for XML (reaffirm a national adoption INCITS/ISO/IEC 23001-1:2006 [R2014])

This part of ISO/IEC 23001 provides a standardized set of technologies for encoding XML documents. It addresses a broad spectrum of applications and requirements by providing a generic method for transmitting and compressing XML documents.

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INCITS/ISO/IEC 23001-2:2008 [R201x], Information technology - MPEG systems technologies - Part 2: Fragment request units (reaffirm a national adoption INCITS/ISO/IEC 23001-2:2008 [R2014])

This part of ISO/IEC 23001 specifies the fragment request unit technology. It comprises a syntax and semantics for expressing a request for fragments of XML. It also specifies how such requests can be used in XML based systems such as ISO/IEC 15938-1 and ISO/IEC 23001-1. The technology can be used in resource constrained environments so that only the fragments of XML of interest at a given time need be transmitted to a requesting peer from a responding peer. It can also be used for node-by-node navigation of a remote XML document.

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INCITS/ISO/IEC 23001-3:2008 [R201x], Information technology - MPEG systems technologies - Part 3: XML IPMP messages (reaffirm a national adoption INCITS/ISO/IEC 23001-3:2008 [R2014])

This part of ISO/IEC 23001 specifies XML IPMP messages (hereinafter IPMP Messages) which are a simple and natural extension of the IPMP Information Descriptors defined in ISO/IEC 21000-4. They allow dispatching of the IPMP information related to a protected content element retrieved from the associated digital item to the modules in charge of performing the IPMP operations required to access the protected content element.

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INCITS/ISO/IEC 23001-5:2008 [R201x], Information technology - MPEG systems technologies - Part 5: Bitstream Syntax Description Language (BSDL) (reaffirm a national adoption INCITS/ISO/IEC 23001-5:2008 [R2014])

This part of ISO/IEC 23001 specifies BSDL (Bitstream Syntax Description Language), a language based on W3C XML Schema to describe the structure of a bitstream with an XML document named BS Description.

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INCITS/ISO/IEC 23001-1:2006/AM1:2007 [R201x], Information technology - MPEG systems technologies - Part 1: Binary MPEG format for XML - Amendment 1: Conformance and reference software (reaffirm a national adoption INCITS/ISO/IEC 23001-1:2006/AM1:2007 [R2014])

Amendment 1 to ISO/IEC 23001-1:2006.

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INCITS/ISO/IEC 23001-1:2006/AM2:2008 [R201x], Information technology - MPEG systems technologies - Part 1: Binary MPEG format for XML - Amendment 2: Conservation of prefixes and extensions on encoding of wild cards (reaffirm a national adoption INCITS/ISO/IEC 23001-1:2006/AM2:2008 [R2014])

Amendment 2 to ISO/IEC 23001-1:2006.

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INCITS/ISO/IEC 23002-1:2006 [R201x], Information technology - MPEG video technologies - Part 1: Accuracy requirements for implementation of integer-output 8x8 inverse discrete cosine transform (reaffirm a national adoption INCITS/ISO/IEC 23002-1:2006 [R2014])

A number of image and video coding related standards include a requirement for decoders to implement an integer-output 8x8 inverse discrete cosine transform (IDCT) for the generation of inverse transformed sample differences with a nominal range from  $-2B$  to  $(2B) - 1$  for some integer number of bits  $B$ , where  $B$  is greater than or equal to 8. This part of ISO/IEC 23002 specifies conformance requirements for establishing sufficient accuracy in such an integer-output IDCT implementation. It is intended to be suitable for reference to establish partial or complete requirements for IDCT accuracy for conformance to other standards that require IDC.

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INCITS/ISO/IEC 23002-2:2008 [R201x], Information technology - MPEG video technologies - Part 2: Fixed-point 8x8 inverse discrete cosine transform and discrete cosine transform (reaffirm a national adoption INCITS/ISO/IEC 23002-2:2008 [R2014])

This part of ISO/IEC 23002 specifies a particular implementation of an integer-output 8x8 IDCT that fully conforms to the accuracy requirements specified in ISO/IEC 23002-1 and additionally meets or exceeds all accuracy requirements specified for IDCT precision in a number of international video coding standards. It additionally provides a (nonnormative) specification of an integer-output 8x8 forward DCT based on the same factorization structure.

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INCITS/ISO/IEC 23002-3:2007 [R201x], Information technology - MPEG video technologies - Part 3: Representation of auxiliary video and supplemental information (reaffirm a national adoption INCITS/ISO/IEC 23002-3:2007 [R2014])

This part of ISO/IEC 23002 defines auxiliary video streams as data coded as video sequences and supplementing a primary video sequence. Depth maps and parallax maps are the first specified types of auxiliary video streams, relating to stereoscopic-view video content.

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Amendment 1 to ISO/IEC 23002-1:2006.

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INCITS/ISO/IEC 23003-1:2007 [R201x], Information technology - MPEG audio technologies - Part 1: MPEG Surround (reaffirm a national adoption INCITS/ISO/IEC 23003-1:2007 [R2014])

This International Standard describes the MPEG Surround standard (Spatial Audio Coding, SAC), that is capable of re-creating N channels based on M<N transmitted channels, and additional control data. In the preferred modes of operating the spatial audio coding system, the M channels can either be a single mono channel or a stereo channel pair. The control data represents a significant lower data rate than required for transmitting all N channels, making the coding very efficient while at the same time ensuring compatibility with both M channel devices and N channel devices.

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INCITS/ISO/IEC 23003-1:2007/AM1:2008 [R201x], Information technology - MPEG audio technologies - Part 1: MPEG Surround - Amendment 1: Conformance testing (reaffirm a national adoption INCITS/ISO/IEC 23003-1:2007/AM1:2008 [R2014])

Amendment 1 to ISO/IEC 23003-1:2007.

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INCITS/ISO/IEC 23003-1:2007/AM2:2008 [R201x], Information technology - MPEG audio technologies - Part 1: MPEG Surround - Amendment 2: Reference software (reaffirm a national adoption INCITS/ISO/IEC 23003-1:2007/AM2:2008 [R2014])

Amendment 2 to ISO/IEC 23003-1:2007.

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INCITS/ISO/IEC 23004-1:2007 [R201x], Information technology - Multimedia Middleware - Part 1: Architecture (reaffirm a national adoption INCITS/ISO/IEC 23004-1:2007 [R2014])

This part of ISO/IEC 23004 defines the architecture of the MPEG Multimedia Middleware (M3W) technology.

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INCITS/ISO/IEC 23004-2:2007 [R201x], Information technology - Multimedia Middleware - Part 2: Multimedia application programming interface (API) (reaffirm a national adoption INCITS/ISO/IEC 23004-2:2007 [R2014])

This part of ISO/IEC 23004 defines the Multimedia application programming interface (API) of MPEG Multimedia Middleware. The context of this Multimedia API is described in ISO/IEC 23004-1.

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INCITS/ISO/IEC 23004-3:2007 [R201x], Information technology - Multimedia Middleware - Part 3: Component model (reaffirm a national adoption INCITS/ISO/IEC 23004-3:2007 [R2014])

This part of ISO/IEC 23004 defines the Multimedia Middleware (M3W) Component Model and Core Framework. The context of the M3W Component Model and Core Framework is described in ISO/IEC 23004-1.

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INCITS/ISO/IEC 23004-4:2007 [R201x], Information technology - Multimedia Middleware - Part 4: Resource and quality management (reaffirm a national adoption INCITS/ISO/IEC 23004-4:2007 [R2014])

This part of ISO/IEC 23004 defines the Resource and Quality Management framework of the MPEG Multimedia Middleware (M3W) technology.

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INCITS/ISO/IEC 23004-5:2008 [R201x], Information technology - Multimedia Middleware - Part 5: Component download (reaffirm a national adoption INCITS/ISO/IEC 23004-5:2008 [R2014])

This part of ISO/IEC 23004 defines the MPEG Multimedia Middleware (M3W) technology Download Architecture. This definition contains the specification of the part of the M3W application programming interface (API) related to download as well as the realization. The M3W API specification provides a uniform view of the download functionality provided by M3W. The specification of the realization is relevant for those who are making an implementation of a download framework for M3W.

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INCITS/ISO/IEC 23004-6:2008 [R201x], Information technology - Multimedia Middleware - Part 6: Fault management (reaffirm a national adoption INCITS/ISO/IEC 23004-6:2008 [R2014])

This part of ISO/IEC 23004 defines the MPEG Multimedia Middleware (M3W) technology Fault Management Architecture. It contains the specification of the part of the M3W application programming interface (API) related to Fault Management as well as the realization. The M3W API specification provides a uniform view of the Fault Management functionality provided by M3W. The specification of the realization is relevant for those who are making an implementation of a Fault Management framework for M3W.

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INCITS/ISO/IEC 23004-7:2008 [R201x], Information technology - Multimedia Middleware - Part 7: System integrity management (reaffirm a national adoption INCITS/ISO/IEC 23004-7:2008 [R2014])

This part of ISO/IEC 23004 defines the MPEG Multimedia Middleware (M3W) technology Integrity Management Architecture. It contains the specification of the part of the M3W application programming interface (API) related to Integrity Management as well as the realization. The M3W API specification provides a uniform view of the Integrity Management functionality provided by M3W. The specification of the realization is relevant for those who are making an implementation of an Integrity Management framework for M3W.

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INCITS/ISO/IEC 24713-1:2008 [R201x], Information technology - Biometric profiles for interoperability and data interchange - Part 1: Overview of biometric systems and biometric profiles (reaffirm a national adoption INCITS/ISO/IEC 24713-1:2008 [R2014])

ISO/IEC 24713-1:2008 provides common definitions used within the profile standards and references other standards applicable to the successful implementation of a generic biometric system. A harmonized (with the other part 1 standards in WG 3 and WG5) generic biometric system is described and a diagram is present. The description includes detail of the individual components present in a generic biometric system.

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INCITS/ISO/IEC 24727-2:2008 [R201x], Identification cards - Programming Interfaces for Integrated Circuit Cards - Part 2: Generic card edge (reaffirm a national adoption INCITS/ISO/IEC 24727-2:2008 [R2014])

ISO/IEC 24727-2:2008 defines a generic card interface for integrated circuit cards. This interface is presented as: command-response pairs for interoperability, card and application capability description and determination. ISO/IEC 24727-2:2008 is based on ISO/IEC 7816-4, ISO/IEC 7816-8, ISO/IEC 7816-9, and ISO/IEC 7816-15.

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INCITS/ISO/IEC 24727-3:2008 [R201x], Identification cards - Programming interfaces for Integrated Circuit Card - Part 3: Application interface (reaffirm a national adoption INCITS/ISO/IEC 24727-3:2008 [R2014])

This part of ISO/IEC 24727 defines services as representations of action requests and action responses to be supported at the client-application service interface. The services are described in a programming-language-independent way. This part of ISO/IEC 24727 is the application interface of the Open Systems Interconnection Reference Model defined in ISO/IEC 7498-1. It provides a high-level interface for a client-application making use of information storage and processing operations of a card-application as viewed on the generic card interface. This part of ISO/IEC 24727 does not mandate a specific implementation methodology for this interface.

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INCITS/ISO/IEC 24727-4:2008 [R201x], Identification cards - Integrated circuit card programming interfaces - Part 4: Application programming interface (API) administration (reaffirm a national adoption INCITS/ISO/IEC 24727-4:2008 [R2014])

ISO/IEC 24727 defines a set of programming interfaces for interactions between integrated circuit cards and external applications to include generic services for multi-sector use. This part of ISO/IEC 24727 standardizes the connectivity and security mechanisms between the client application and the card application. It specifies API-Administration of service-independent and implementation-independent ISO/IEC 24727-compliant modules, including security, that enables action requests to a specific card-application of an ICC such that, when coupled to data model and content discovery operations, the card-application can be used by a variety of client-applications.

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INCITS/ISO/IEC 27033-2:2012 [R201x], Information technology - Security techniques - Network security - Part 2: Guidelines for the design and implementation of network security (reaffirm a national adoption INCITS/ISO/IEC 27033-2:2012 [2014])

This part of ISO/IEC 27033 gives guidelines for organizations to plan, design, implement, and document network security.

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INCITS/ISO/IEC 27033-5:2013 [R201x], Information technology - Security techniques - Network security - Part 5: Securing communications across networks using Virtual Private Networks (VPNs) (reaffirm a national adoption INCITS/ISO/IEC 27033-5:2013 [2014])

ISO/IEC 27033-5:2013 gives guidelines for the selection, implementation, and monitoring of the technical controls necessary to provide network security using Virtual Private Network (VPN) connections to interconnect networks and connect remote users to networks.

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INCITS/ISO/IEC 29109-1:2009/COR 1:2010 [R201x], Information technology - Conformance testing methodology for Biometric Data Interchange Records as defined in ISO/IEC 19794 - Part 1: Generalized conformance testing methodology - Technical Corrigendum 1 (reaffirm a national adoption INCITS/ISO/IEC 29109-1:2009/COR 1:2010 [2014])

This is the first corrigendum to ISO/IEC 29109-1:2009 and ISO/IEC 29109-1:2009 defines the concepts of conformance testing for biometric data interchange formats and defines a general conformance testing framework. It specifies common (modality-neutral) elements of the testing methodology, such as test methods and procedures, implementation conformance claim, and test results reporting. It also provides the assertion language definition and sets forth other testing and reporting requirements, and outlines other aspects of the conformance testing methodology that are generally applicable and not modality-specific.

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INCITS/ISO/IEC 29182-1:2013 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 1: General overview and requirements (reaffirm a national adoption INCITS/ISO/IEC 29182-1:2013 [2014])

ISO/IEC 29182-1:2013 provides a general overview of the characteristics of a sensor network and the organization of the entities that comprise such a network. It also describes the general requirements that are identified for sensor networks.

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INCITS/ISO/IEC 29182-2:2013 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 2: Vocabulary and terminology (reaffirm a national adoption INCITS/ISO/IEC 29182-2:2013 [2014])

ISO/IEC 29182-2:2013 is intended to facilitate the development of International Standards in sensor networks. It presents terms and definitions for selected concepts relevant to the field of sensor networks. It establishes a general description of concepts in this field and identifies the relationships among those concepts. It may also be used as guidance for development of other parts of ISO/IEC 29182 and any other sensor-network-related standard.

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INCITS/ISO/IEC 29182-3:2014 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 3: Reference architecture views (reaffirm a national adoption INCITS/ISO/IEC 29182-3:2014 [2014])

ISO/IEC 29182-3:2014 provides Sensor Network Reference Architecture (SNRA) views. The architecture views include business, operational, systems, and technical perspectives, and these views are presented in functional, logical, and/or physical views where applicable. ISO/IEC 29182-3:2014 focuses on high-level architecture views which can be further developed by system developers and implementers for specific applications and services.

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INCITS/ISO/IEC 29182-4:2013 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 4: Entity models (reaffirm a national adoption INCITS/ISO/IEC 29182-4:2013 [2014])

The purpose of the ISO/IEC 29182 series is to:

- provide guidance to facilitate the design and development of sensor networks;
- improve interoperability of sensor networks; and
- make sensor network components plug-and-play, so that it becomes fairly easy to add/remove sensor nodes to/from an existing sensor network.

ISO/IEC 29182-4 presents models for the entities that enable sensor network applications and services according to the Sensor Network Reference Architecture (SNRA).

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INCITS/ISO/IEC 29182-5:2013 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 5: Interface definitions (reaffirm a national adoption INCITS/ISO/IEC 29182-5:2013 [2014])

ISO/IEC 29182-5:2013 provides the definitions and requirements of sensor network (SN) interfaces of the entities in the Sensor Network Reference Architecture and covers the following aspects:

- interfaces between functional layers to provide service access for the modules in the upper layer to exchange messages with modules in the lower layer; and
- interfaces between entities introduced in the Sensor Network Reference Architecture enabling sensor network services and applications.

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INCITS/ISO/IEC 29182-6:2014 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 6: Application Profiles (reaffirm a national adoption INCITS/ISO/IEC 29182-6:2014 [2014])

ISO/IEC 29182-6:2014 describes and provides a compilation of sensor network applications for which International Standardized Profiles (ISPs) are needed, guidelines for the structured description of sensor network applications, and examples for structured sensor network applications. It does not cover ISPs for which drafting rules are described in ISO/IEC TR 10000. Due to the generic character of ISO/IEC 29182, fully developed ISPs will not be included in this International Standard.

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INCITS/ISO/IEC 29192-3:2012 [R201x], Information technology - Security techniques - Lightweight cryptography - Part 3: Stream ciphers (reaffirm a national adoption INCITS/ISO/IEC 29192-3:2012 [2014])

This part of ISO/IEC 29192 specifies two dedicated keystream generators for lightweight stream ciphers:

- Enocoro: A lightweight keystream generator with a key size of 80 or 128 bits; and
- Trivium: A lightweight keystream generator with a key size of 80 bits.

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INCITS/ISO/IEC 29192-4:2013 [R201x], Information technology - Security techniques - Lightweight cryptography - Part 4: Mechanisms using asymmetric techniques (reaffirm a national adoption INCITS/ISO/IEC 29192-4:2013 [2014])

ISO/IEC 29192-4:2013 specifies three lightweight mechanisms using asymmetric techniques: (a) a unilateral authentication mechanism based on discrete logarithms on elliptic curves; (b) an authenticated lightweight key exchange (ALIKE) mechanism for unilateral authentication and establishment of a session key; and (c) an identity-based signature mechanism.

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INCITS/ISO/IEC 1001:2012 [R201x], Information technology - Digitally recorded media for information interchange and storage - Test method for the estimation of lifetime of optical media for long-term data storage (reaffirm a national adoption INCITS/ISO/IEC 1001:2012 [R2014])

ISO/IEC 1001:2012 specifies the file structure and the labeling of magnetic tapes for the interchange of information between users of information processing systems. It specifies:

- volume and file structure;
- basic characteristics of the blocks containing the records constituting the file;
- recorded labels for identifying files, file sections and volumes of magnetic tapes; and
- four nested levels of interchange.

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INCITS/ISO/IEC 1989:2014 [R201x], Information technology - Programming languages, their environments and system software interfaces - Programming language COBOL (reaffirm a national adoption INCITS/ISO/IEC 1989:2014 [2014])

This International Standard specifies the syntax and semantics of COBOL. Its purpose is to promote a high degree of machine independence to permit the use of COBOL on a variety of data processing systems.

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INCITS/ISO/IEC 5218:2004 [R201x], Information Interchange - Representation of Human Sexes (reaffirm a national adoption INCITS/ISO/IEC 5218:2004 [R2014])

ISO/IEC 5218:2004 specifies a uniform representation of human sexes for the interchange of information. It provides a set of numeric codes that are independent of language-derived codes and as such is intended to provide a common basis for the international exchange of information containing human sex data.

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INCITS/ISO/IEC 9973:2013 [R201x], Information technology - Computer graphics, image processing and environmental data representation - Procedures for registration of items (reaffirm a national adoption INCITS/ISO/IEC 9973:2013 [2014])

ISO/IEC 9973:2013 specifies procedures to be followed in preparing, maintaining, and publishing the International Register of Items for any standard whose classes of items are applicable to this register. The items that may be registered fall into several broad categories including:

- computer graphics concepts;
- data structures used by relevant standards;
- spatial and environmental concepts, and
- profiles of relevant standards.

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INCITS/ISO/IEC 10779:2008 [R201x], Information technology - Accessibility guidelines for elderly persons and persons with disabilities (reaffirm a national adoption INCITS/ISO/IEC 10779:2008 [R2014])

ISO/IEC 10779:2008 specifies accessibility guidelines to be considered when planning, developing and designing electrophotographic copying machines, page printers and multi-function devices. These guidelines are intended to improve accessibility required when primarily older persons, persons with disabilities, and persons with temporary disabilities use office equipment.

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INCITS/ISO/IEC 11404:2007 [R201x], Information technology - General-Purpose Datatypes (GPD) (reaffirm a national adoption INCITS/ISO/IEC 11404:2007 [R2014])

ISO/IEC 11404:2007 specifies the nomenclature and shared semantics for a collection of datatypes commonly occurring in programming languages and software interfaces, referred to as the General-Purpose Datatypes (GPD).

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INCITS/ISO/IEC 11574:2000 [R201x], Information Technology - Telecommunications and Information Exchange between Systems - Private Integrated Services Network - Circuit-mode 64 kbit/s Bearer Services - Service Description, Functional Capabilities and Information Flows (reaffirm a national adoption INCITS/ISO/IEC 11574:2000 [R2014])

This International Standard specifies the service description and control aspects, including functional capabilities and information flows, of standardized circuit-mode bearer services which may be supported by a Private Integrated Services Network (PISN). This International Standard includes the following basic services: Circuit-mode 64-kbit/s unrestricted 8-kHz structured bearer service category; Circuit-mode 64-kbit/s 8-kHz structured bearer service category usable for speech information transfer; Circuit-mode 64-kbit/s 8-kHz structured bearer service category usable for 3.1-kHz audio information transfer.

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INCITS/ISO/IEC 12862:2011 [R201x], Information technology - 120 mm (8,54 Gbytes per side) and 80 mm (2,66 Gbytes per side) DVD recordable disk for dual layer (DVD-R for DL) (reaffirm a national adoption INCITS/ISO/IEC 12862:2011 [2014])

ISO/IEC 12862:2011 specifies the mechanical, physical, and optical characteristics of a 120-mm and an 80-mm dual layer DVD recordable disk to enable the interchange of such disks. It specifies the quality of the pre-recorded, unrecorded, and recorded signals, the format of the data, the format of the information zone, the format of the unrecorded zone, and the recording method, thereby allowing for information interchange by means of such disks. This disk is identified as a DVD-recordable disk for dual layer (DVD-R for DL).

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INCITS/ISO/IEC 13240:2001 [R201x], Information technology - Document description and processing languages - Interchange Standard for Multimedia Interactive Documents (ISMID) (reaffirm a national adoption INCITS/ISO/IEC 13240:2001 [R2014])

This International Standard, known as the Interchange Standard for Multimedia Interactive Documents or ISMID, facilitates the interchange of Multimedia Interactive Documents (MIDs) among heterogeneous interactive document development and delivery systems by providing the architecture from which common interchange languages can be created. ISMID is a client architecture of International Standard ISO/IEC 10744:1997, Information technology - Hypermedia/Time-based Structuring Language (HyTime) and is an SGML application conforming to International Standard ISO 8879, Standard Generalized Markup Language.

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INCITS/ISO/IEC 14417:1999 [R201x], Information Technology - Data Recording Format DD-1 for Magnetic Tape Cassette Conforming to ISO/IEC 1016 (formerly ANSI/ISO/IEC 14417-1999) (reaffirm a national adoption INCITS/ISO/IEC 14417:1999 [R2014])

This International Standard specifies the media characteristics, the recorded tape format, and the file structure requirements to enable information interchange between information processing systems using 19.0-mm-wide magnetic tape and cassette conforming to IEC 61016, Section 2.

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INCITS/ISO/IEC 14662:2010 [R201x], Information technology - Open-edi reference model (reaffirm a national adoption INCITS/ISO/IEC 14662:2010 [2014])

ISO/IEC 14662:2010 specifies the framework for co-ordinating the integration of existing International Standards and the development of future International Standards for the inter-working of Open-edi Parties via Open-edi and provides a reference for those International Standards. As such it serves to guide the work necessary to accomplish Open-edi by providing the context to be used by developers of International Standards to ensure the coherence and integration of related standardized modeling and descriptive techniques, services, service interfaces, and protocols.

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INCITS/ISO/IEC 14957:2010 [R201x], Information technology - Representation of data element values - Notation of the format (reaffirm a national adoption INCITS/ISO/IEC 14957:2010 [2014])

ISO/IEC 14957:2010 specifies the notation to be used for stating the format, i.e., the character classes, used in the representation of data elements and the length of these representations. It also specifies additional notations relative to the representation of numerical figures. For example, this formatting technique might be used as part of the metadata for data elements. The scope of ISO/IEC 14957:2010 is limited to graphic characters, such as digits, letters, and special characters. The scope is limited to the basic datatypes of characters, character strings, integers, reals, and pointers.

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INCITS/ISO/IEC 15948:2004 [R201x], Information technology - Computer graphics and image processing - Portable Network Graphics (PNG): Functional specification (reaffirm a national adoption INCITS/ISO/IEC 15948:2004 [R2014])

ISO/IEC 15948:2004 specifies a datastream and an associated file format, Portable Network Graphics (PNG, pronounced "ping"), for a lossless, portable, compressed individual computer graphics image transmitted across the Internet. Indexed-colour, greyscale, and truecolour images are supported, with optional transparency. Sample depths range from 1 to 16 bits. PNG is fully streamable with a progressive display option. It is robust, providing both full-file integrity checking and simple detection of common transmission errors.

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INCITS/ISO/IEC 17341:2009 [R201x], Information technology - Data Interchange on 120 mm and 80 mm Optical Disk using +RW Format - Capacity: 4,7 Gbytes and 1,46 Gbytes per Side (Recording speed up to 4X) (reaffirm a national adoption INCITS/ISO/IEC 17341:2009 [R2014])

This International Standard specifies the mechanical, physical and optical characteristics of 120 mm rewritable optical disks with capacities of 4.7 GB and 9.4 GB. It specifies the quality of the recorded and unrecorded signals, the format of the data and the recording method, thereby allowing for information interchange by means of such disks. The data can be written, read, and overwritten many times using the phase change method. These disks are identified as +RW.

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INCITS/ISO/IEC 17344:2009 [R201x], Information technology - Data Interchange on 120 mm and 80 mm Optical Disk using +R Format - Capacity: 4,7 and 1,46 Gbytes per Side (Recording speed up to 16X) (reaffirm a national adoption INCITS/ISO/IEC 17344:2009 [R2014])

This International Standard specifies the mechanical, physical and optical characteristics of 120-mm recordable optical disks with capacities of 4.7 Gbytes and 9.4 Gbytes. It specifies the quality of the recorded and unrecorded signals, the format of the data and the recording method, thereby allowing for information interchange by means of such disks. The data can be written once and read many times using a nonreversible method. These disks are identified as +R.

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INCITS/ISO/IEC 17629:2014 [R201x], Information technology - Method for measuring first print out time for digital printing devices (reaffirm a national adoption INCITS/ISO/IEC 17629:2014 [2014])

ISO/IEC 17629:2014 specifies a method for measuring the first print-out time of digital printing devices. It is applicable to digital printing devices and multifunctional devices. It is intended to be used for black and white (B&W) as well as colour digital printing devices and multifunctional devices of any underlying marking technology. It includes instructions for test charts, test setup procedure, test procedure, and the reporting requirements for the digital printing measurements.

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INCITS/ISO/IEC 17963:2013 [R201x], Web Services for Management (WS-Management) Specification (reaffirm a national adoption INCITS/ISO/IEC 17963:2013 [2014])

ISO/IEC 17963:2013 describes a Web services protocol based on SOAP for use in management-specific domains. These domains include the management of entities such as PCs, servers, devices, Web services and other applications manageable entities. Services can expose only a WS-Management interface or compose the WS-Management service interface with some of the many other Web service specifications.

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INCITS/ISO/IEC 17998:2012 [R201x], Information technology - SOA Governance Framework (reaffirm a national adoption INCITS/ISO/IEC 17998:2012 [2014])

ISO/IEC 17998:2012 describes a framework that provides context and definitions to enable organizations to understand and deploy service-oriented architecture (SOA) governance.

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INCITS/ISO/IEC 18025:2014 [R201x], Information technology - Environmental Data Coding Specification (EDCS) (reaffirm a national adoption INCITS/ISO/IEC 18025:2014 [2014])

ISO/IEC 18025:2014 provides mechanisms to specify unambiguously objects used to model environmental concepts. To accomplish this, a collection of nine EDCS dictionaries of environmental concepts are specified:

- Classifications: Specify the type of environmental objects;
- Attributes: Specify the state of environmental objects;
- Attribute value characteristics: Specify information concerning the values of attributes;
- Attribute enumerants: Specify the allowable values for the state of an enumerated attribute;
- Units: Specify quantitative measures of the state of some environmental objects;
- Unit scales: Allow a wide range of numerical values to be stated;
- Unit equivalence classes: Specify sets of units that are mutually comparable;
- Organizational schemas: Useful for locating classifications and attributes sharing a common context; and
- Groups: into which concepts sharing a common context are collected.

A functional interface is also specified.

As denoting and encoding a concept requires a standard way of identifying the concept, ISO/IEC 18025:2014 specifies labels and codes in the dictionaries.

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INCITS/ISO/IEC 18032:2005 [R201x], Information technology - Security techniques - Prime number generation (reaffirm a national adoption INCITS/ISO/IEC 18032:2005 [R2014])

ISO/IEC 18032:2005 specifies methods for generating and testing prime numbers. Prime numbers are used in various cryptographic algorithms, mainly in asymmetric encryption algorithms and digital signature algorithms.

Firstly, ISO/IEC 18032:2005 specifies methods for testing whether a given number is prime. The testing methods included in ISO/IEC 18032:2005 can be divided into two groups:

- Probabilistic primality tests, which have a small error probability. All probabilistic tests described in this standard may declare a composite to be a prime. One test described in this standard may declare a prime to be composite;
- Deterministic methods, which are guaranteed to give the right verdict. These methods use so-called primality certificates.

Secondly, ISO/IEC 18032:2005 specifies methods to generate prime numbers. Again, both probabilistic and deterministic methods are presented.

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INCITS/ISO/IEC 19502:2005 [R201x], Information technology - Meta Object Facility (MOF) (reaffirm a national adoption INCITS/ISO/IEC 19502:2005 [R2014])

ISO/IEC 19502:2005 defines a metamodel (defined using Meta Object Facility, MOF), a set of interfaces [defined using Open Distributed Processing (ODP) Interface Definition Language (IDL) (ITU-T Recommendation X.920 (1997) | ISO/IEC 14750:1999)] that can be used to define and manipulate a set of interoperable metamodels and their corresponding models. ISO/IEC 19502:2005 also defines the mapping from MOF to ODP IDL. These interoperable metamodels include the Unified Modeling Language (UML) metamodel (ISO/IEC 19501:2005), the MOF meta-metamodel, as well as future standard technologies that will be specified using metamodels.

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INCITS/ISO/IEC 19503:2005 [R201x], Information technology - XML Metadata Interchange (XMI) (reaffirm a national adoption INCITS/ISO/IEC 19503:2005 [R2014])

The main purpose of ISO/IEC 19503:2005 (XMI) is to enable easy interchange of metadata between application development lifecycle tools (such as modeling tools based on the Unified Modeling Language (UML), ISO/IEC 19501, and metadata repositories/frameworks based on the Meta Object Facility (MOF), ISO/IEC 19502) in distributed heterogeneous environments. ISO/IEC 19503:2005 integrates three key industry standards: XML, eXtensible Markup Language, a W3C standard; UML, Unified Modeling Language, an OMG modeling specification which is now ISO/IEC 19501; MOF, Meta Object Facility (ISO/IEC 19502).

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INCITS/ISO/IEC 19508:2014 [R201x], Information technology - Object Management Group Meta Object Facility (MOF) Core (reaffirm a national adoption INCITS/ISO/IEC 19508:2014 [2014])

ISO/IEC 15908:2014 provides the basis for metamodel definition in OMG's family of MDA languages and is based on a simplification of UML2's class modeling capabilities. In addition to providing the means for metamodel definition, it adds core capabilities for model management in general, including Identifiers, a simple generic Tag capability and Reflective operations that are defined generically and can be applied regardless of metamodel.

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INCITS/ISO/IEC 19509:2014 [R201x], Information technology - Object Management Group XML Metadata Interchange (XMI) (reaffirm a national adoption INCITS/ISO/IEC 19509:2014 [2014])

ISO/IEC 19509:2014 supports the Meta Object Facility (MOF) Core defined in ISO/IEC 19508. MOF is the foundation technology for describing metamodels. It covers a wide range of domains, and is based on a constrained subset of UML. XMI is a widely used XML interchange format. It defines the following aspects involved in describing objects in XML: the representation of objects in terms of XML elements and attributes; the standard mechanisms to link objects within the same file or across files; the validation of XMI documents using XML Schemas; object identity, which allows objects to be referenced from other objects in terms of IDs and UUIDs.

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INCITS/ISO/IEC 19772:2009 [R201x], Information technology - Security techniques - Authenticated encryption (reaffirm a national adoption INCITS/ISO/IEC 19772:2009 [R2014])

This International Standard specifies six methods for authenticated encryption, i.e., defined ways of processing a data string with the following security objectives:

- Data confidentiality, i.e., protection against unauthorized disclosure of data;
- Data integrity, i.e., protection that enables the recipient of data to verify that it has not been modified; and
- Data origin authentication, i.e., protection that enables the recipient of data to verify the identity of the data originator.

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INCITS/ISO/IEC 19774:2006 [R201x], Information Technology - Computer Graphics and Image Processing - Humanoid Animation (H-Anim) (reaffirm a national adoption INCITS/ISO/IEC 19774:2006 [R2014])

ISO/IEC 19774:2006, specifies a systematic method for representing humanoids in a network-enabled 3D graphics and multimedia environment. Conceptually, each humanoid is an articulated character that can be embedded in different representation systems and animated using the facilities provided by the representation system. ISO/IEC 19774:2006 specifies the abstract form and structure of humanoids. ISO/IEC 19774:2006 is intended for a wide variety of presentation systems and application and provides wide latitude in interpretation and implementation of the functionality.

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INCITS/ISO/IEC 19790:2012 [R201x], Information technology - Security techniques - Security requirements for cryptographic modules (reaffirm a national adoption INCITS/ISO/IEC 19790:2012 [2014])

This International Standard specifies the security requirements for a cryptographic module utilised within a security system protecting sensitive information in computer and telecommunication systems. This International Standard defines four security levels for cryptographic modules to provide for a wide spectrum of data sensitivity (e.g., low-value administrative data, million dollar funds transfers, life-protecting data, personal identity information, and sensitive information used by government) and a diversity of application environments (e.g., a guarded facility, an office, removable media, and a completely unprotected location).

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INCITS/ISO/IEC 20005:2013 [R201x], Information technology - Sensor networks - Services and interfaces supporting collaborative information processing in intelligent sensor networks (reaffirm a national adoption INCITS/ISO/IEC 20005:2013 [2014])

ISO/IEC 20005:2013 specifies services and interfaces supporting collaborative information processing (CIP) in intelligent sensor networks which includes:

- CIP functionalities and CIP functional model;
- common services supporting CIP; and
- common service interfaces to CIP.

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INCITS/ISO/IEC 24734:2014 [R201x], Information technology - Method for measuring digital printing productivity (reaffirm a national adoption INCITS/ISO/IEC 24734:2014 [2014])

ISO/IEC 24734:2014 specifies a method for measuring the productivity of digital printing devices with various office applications and print job characteristics. It is applicable to digital printing devices, including single-function and multi-function devices, regardless of print technology (e.g., inkjet, laser). Devices can be equipped with a range of paper feed and finishing options either directly connected to the computer system or via a network. It is intended to be used for black and white (B&W) as well as colour digital printing devices.

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INCITS/ISO/IEC 24756:2009 [R201x], Information technology - Framework for specifying a common access profile (CAP) of needs and capabilities of users, systems, and their environments (reaffirm a national adoption INCITS/ISO/IEC 24756:2009 [R2014])

ISO/IEC 24756:2009 defines a framework for specifying a common access profile (CAP) of needs and capabilities of users, computing systems, and their environments, including access supported by assistive technologies. It provides a basis for identifying and dealing with accessibility issues in a standardized manner across multiple platforms. It can be used to evaluate the accessibility of existing systems in particular environments for particular users.

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INCITS/ISO/IEC 24761:2009 [R201x], Information technology - Security techniques - Authentication context for biometrics (reaffirm a national adoption INCITS/ISO/IEC 20009-1:2013 [2014])

ISO/IEC 20009-1:2013 specifies a model, requirements, and constraints for anonymous entity authentication mechanisms that allow the legitimacy of an entity to be corroborated.

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INCITS/ISO/IEC 25434:2008 [R201x], Information technology - Data interchange on 120 mm and 80 mm optical disk using +R DL format - Capacity: 8,55 Gbytes and 2,66 Gbytes per side (recording speed up to 16X) (reaffirm a national adoption INCITS/ISO/IEC 24756:2009 [R2014])

ISO/IEC 24756:2009 defines a framework for specifying a common access profile (CAP) of needs and capabilities of users, computing systems, and their environments, including access supported by assistive technologies. It provides a basis for identifying and dealing with accessibility issues in a standardized manner across multiple platforms. It can be used to evaluate the accessibility of existing systems in particular environments for particular users.

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INCITS/ISO/IEC 26925:2009 [R201x], Information technology - Data interchange on 120 mm and 80 mm optical disk using +RW HS format - Capacity: 4,7 Gbytes and 1,46 Gbytes per side (recording speed 8X) (reaffirm a national adoption INCITS/ISO/IEC 26925:2009 [R2014])

This International Standard specifies the mechanical, physical, and optical characteristics of 120-mm rewritable optical disks with capacities of 4.7 Gbytes and 9.4 Gbytes. It specifies the quality of the recorded and unrecorded signals, the format of the data and the recording method, thereby allowing for information interchange by means of such disks. The data can be written, read, and overwritten many times using the phase-change method. These disks are identified as +RW HS (High Speed).

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INCITS/ISO/IEC 27001:2013 [R201x], Information technology - Security techniques - Information security management systems - Requirements (reaffirm a national adoption INCITS/ISO/IEC 27001:2013 [2014])

ISO/IEC 27001:2013 specifies the requirements for establishing, implementing, maintaining, and continually improving an information security management system within the context of the organization. It also includes requirements for the assessment and treatment of information security risks tailored to the needs of the organization. The requirements set out in ISO/IEC 27001:2013 are generic and are intended to be applicable to all organizations, regardless of type, size, or nature.

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INCITS/ISO/IEC 27002:2013 [R201x], Information technology - Security techniques - Code of practice for information security controls (reaffirm a national adoption INCITS/ISO/IEC 27002:2013 [2014])

ISO/IEC 27002:2013 gives guidelines for organizational information security standards and information security management practices including the selection, implementation, and management of controls, taking into consideration the organization's information security risk environment(s).

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INCITS/ISO/IEC 27037:2012 [R201x], Information technology - Security techniques - Guidelines for identification, collection, acquisition and preservation of digital evidence (reaffirm a national adoption INCITS/ISO/IEC 27037:2012 [2014])

This International Standard provides guidelines for specific activities in handling digital evidence, which are identification, collection, acquisition, and preservation of digital evidence that may be of evidential value. This International Standard provides guidance to individuals with respect to common situations encountered throughout the digital evidence handling process and assists organizations in their disciplinary procedures and in facilitating the exchange of potential digital evidence between jurisdictions.

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INCITS/ISO/IEC 29115:2013 [R201x], Information technology - Security techniques - Entity authentication assurance framework (reaffirm a national adoption INCITS/ISO/IEC 29115:2013 [2014])

ISO/IEC 29115:2013 provides a framework for managing entity authentication assurance in a given context. In particular, it:

- specifies four levels of entity authentication assurance;
- specifies criteria and guidelines for achieving each of the four levels of entity authentication assurance;
- provides guidance for mapping other authentication assurance schemes to the four LoAs;
- provides guidance for exchanging the results of authentication that are based on the four LoAs; and
- provides guidance concerning controls that should be used to mitigate authentication threats.

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INCITS/ISO/IEC 29191:2012 [R201x], Information technology - Security techniques - Requirements for partially anonymous, partially unlinkable authentication (reaffirm a national adoption INCITS/ISO/IEC 29191:2012 [2014])

This International Standard provides a framework and establishes requirements for partially anonymous, partially unlinkable authentication.

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INCITS/ISO/IEC 29361:2008 [R201x], Information technology - Web Services Interoperability - WS-I Basic Profile Version 1.1 (reaffirm a national adoption INCITS/ISO/IEC 29361:2008 [2014])

ISO/IEC 29361:2008 defines the WS-I Basic Profile 1.1, consisting of a set of non-proprietary Web services specifications, along with clarifications, refinements, interpretations, and amplifications of those specifications which promote interoperability.

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INCITS/ISO/IEC 29642:2009 [R201x], Information technology - Data interchange on 120 mm and 80 mm optical disk using +RW DL format - Capacity: 8,55 Gbytes and 2,66 Gbytes per side (recording speed 2,4x) (reaffirm a national adoption INCITS/ISO/IEC 29642:2009 [R2014])

This International Standard specifies the mechanical, physical and optical characteristics of 120 mm rewritable optical disks with capacities of 8,55 Gbytes and 17,1 Gbytes. It specifies the quality of the recorded and unrecorded signals, the format of the data and the recording method, thereby allowing for information interchange by means of such disks. The data can be written, read and overwritten many times using the phase change method. These disks are identified as +RW DL.

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INCITS/ISO/IEC 30111:2013 [R201x], Information technology - Security techniques - Lightweight cryptography - Part 4: Mechanisms using asymmetric techniques (reaffirm a national adoption INCITS/ISO/IEC 30111:2013 [2014])

ISO/IEC 30111:2013 gives guidelines for how to process and resolve potential vulnerability information in a product or online service. ISO/IEC 30111:2013 is applicable to vendors involved in handling vulnerabilities

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INCITS/ISO/IEC 40210:2011 [R201x], Information Technology - W3C SOAP Version 1.2 - Part 1: Messaging Framework (Second Edition) (reaffirm a national adoption INCITS/ISO/IEC 40210:2011 [2014])

SOAP Version 1.2 (SOAP) is a lightweight protocol intended for exchanging structured information in a decentralized, distributed environment. It uses XML technologies to define an extensible messaging framework providing a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation-specific semantics.

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INCITS/ISO/IEC 40220:2011 [R201x], Information Technology - W3C SOAP Version 1.2 - Part 2: Adjuncts (Second Edition) (reaffirm a national adoption INCITS/ISO/IEC 40220:2011 [2014])

SOAP Version 1.2 is a lightweight protocol intended for exchanging structured information in a decentralized, distributed environment. ISO/IEC 40220:2011 defines a set of adjuncts for use with the SOAP Version 1.2 messaging framework specified in ISO/IEC 40210:2011. ISO/IEC 40220:2011 depends on ISO/IEC 40210:2011.

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INCITS/ISO/IEC 40230:2011 [R201x], Information Technology - W3C SOAP Message Transmission Optimization Mechanism (reaffirm a national adoption INCITS/ISO/IEC 40230:2011 [2014])

ISO/IEC 40230:2011 specifies an abstract feature for optimizing the transmission and/or wire format of a SOAP message by selectively encoding portions of the message, while still presenting an XML Infoset to the SOAP application.

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INCITS/ISO/IEC 40240:2011 [R201x], Information Technology - W3C Web Services Addressing 1.0 - Core (reaffirm a national adoption INCITS/ISO/IEC 40240:2011 [2014])

Web Services Addressing provides transport-neutral mechanisms to address Web services and messages. ISO/IEC 42040:2011 defines a set of abstract properties and an XML Infoset representation thereof to reference Web services and to facilitate end-to-end addressing of endpoints in messages. It enables messaging systems to support message transmission through networks that include processing nodes such as endpoint managers, firewalls, and gateways in a transport-neutral manner.

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INCITS/ISO/IEC 40250:2011 [R201x], Information Technology - W3C Web Services Addressing 1.0 - SOAP Binding (reaffirm a national adoption INCITS/ISO/IEC 40250:2011 [2014])

Web Services Addressing provides transport-neutral mechanisms to address Web services and messages. ISO/IEC 42050:2011 defines the binding of the abstract properties defined in ISO/IEC 42040 to SOAP Messages.

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INCITS/ISO/IEC 40260:2011 [R201x], Information Technology - W3C Web Services Addressing 1.0 - Metadata (reaffirm a national adoption INCITS/ISO/IEC 40260:2011 [2014])

Web Services Addressing provides transport-neutral mechanisms to address Web services and messages. ISO/IEC 40260:2011 defines how the abstract properties defined in ISO/IEC 40240 are described using Web Services Description Language (WSDL), how to include WSDL metadata in endpoint references, and how WS-Policy can be used to indicate the support of WS-Addressing by a Web service.

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INCITS/ISO/IEC 40270:2011 [R201x], Information technology - W3C Web Services Policy 1.5 - Framework (reaffirm a national adoption INCITS/ISO/IEC 40270:2011 [2014])

ISO/IEC 40270:2011 defines a framework and a model for expressing policies that refer to domain-specific capabilities, requirements, and general characteristics of entities in a Web services-based system.

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INCITS/ISO/IEC 40280:2011 [R201x], Information technology - W3C Web Services Policy 1.5 - Attachment (reaffirm a national adoption INCITS/ISO/IEC 40280:2011 [2014])

ISO/IEC 40280:2011 defines two general-purpose mechanisms for associating policies, as defined in ISO/IEC 40270, with the subjects to which they apply. It also defines how these general-purpose mechanisms can be used to associate policies with Web Services Description Language (WSDL) and Universal Description, Discovery and Integration (UDDI) descriptions.

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INCITS/ISO/IEC 40500:2012 [R201x], Information Technology - W3C Web Content Accessibility Guidelines (WCAG) 2.0 (reaffirm a national adoption INCITS/ISO/IEC 40500:2012 [2014])

ISO/IEC 40500:2012 [Web Content Accessibility Guidelines (WCAG) 2.0] covers a wide range of recommendations for making Web content more accessible. Following these guidelines will make content accessible to a wider range of people with disabilities, including blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities, photo-sensitivity, and combinations of these. Following these guidelines will also often make your Web content more usable to users in general.

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INCITS/ISO/IEC 13240:2001/COR1:2003 [R201x], Information technology - Document description and processing languages - Interchange Standard for Multimedia Interactive Documents (ISMID) - Corrigendum 1 (reaffirm a national adoption INCITS/ISO/IEC 13240:2001/COR1:2003 [R2014])

This International Standard, known as the Interchange Standard for Multimedia Interactive Documents or ISMID, facilitates the interchange of Multimedia Interactive Documents (MIDs) among heterogeneous interactive document development and delivery systems by providing the architecture from which common interchange languages can be created. ISMID is a client architecture of International Standard ISO/IEC 10744:1997, Information Technology -- Hypermedia/Time-based Structuring Language (HyTime), and is an SGML application conforming to International Standard ISO 8879, Standard Generalized Markup Language.

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## **ITI (INCITS) (InterNational Committee for Information Technology Standards)**

### ***Stabilized Maintenance***

INCITS 378-2009 [S201x], Information Technology - Finger Minutiae Format for Data Interchange (stabilized maintenance of INCITS 378-2009 [R2014])

This Standard specifies a concept and data format for representation of fingerprints using the fundamental notion of minutiae. The data format is generic in that it may be applied and used in a wide range of application areas where automated fingerprint recognition is involved. No application-specific requirements or features are addressed in this standard. The Standard contains definitions of relevant terms, a description of where minutiae shall be defined, a data format for containing the data, and conformance information. An amendment to this standard is currently in process.

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INCITS 381-2009 [S201x], Information Technology - Finger Image Based Data Interchange Format (stabilized maintenance of [INCITS 381-2009 [R2014])

This standard specifies a data record interchange format for storing, recording, and transmitting the information from one or more finger or palm image areas. An amendment to this standard is currently in process.

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INCITS 385-2004 [S201x], Information technology - Face Recognition Format for Data Interchange (stabilized maintenance of INCITS 385-2004 [R2014])

This standard specifies definitions of photographic (environment, subject pose, focus, etc.) properties, digital image attributes, and a face interchange format for relevant applications, including human examination and computer-automated face recognition.

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INCITS 423.4-2009 [S201x], Information Technology - Conformance Testing Methodology Standard for Biometric Data Interchange Format Standards - Part 4: Conformance Testing Methodology for INCITS 381-2004, Finger Image-Based Data Interchange Format (stabilized maintenance of INCITS 423.4-2009 [R2014])

This part of ANSI INCITS 423 is concerned with conformance testing of implementations claiming conformance to the Finger-Image-Based Data Interchange Format specification as per ANSI INCITS 381-2004. Further, this part of ANSI INCITS 423 is concerned with testing only of the Biometric Data Interchange Records (BDIR) requirements as defined in ANSI INCITS 381-2004. For the purposes of this part of ANSI INCITS 423, and as also described in Part 1: Generalized Conformance Testing Methodology of ANSI INCITS 423, conformance testing of the CBEFF requirements as set forth in ANSI INCITS 381-2004 is not within the scope of this part of ANSI INCITS 423.

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INCITS 450-2009 [S201x], Information technology - Fibre Channel - Physical Interface - 4 (FC-PI-4) (stabilized maintenance of INCITS 450-2009 [R2014])

This International Standard describes the physical interface portions of high-performance electrical and optical link variants that support the higher level Fibre Channel protocols including FC-FS-2 and the higher Upper Level Protocols (ULPs) associated with HIPPI, SCSI, IP, and others.

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INCITS/ISO/IEC 10149:1995 [S201x], Information Technology - Data Interchange on Read-Only 120 mm Optical Data Disks (CD-ROM) (stabilized maintenance of INCITS/ISO/IEC 10149:1995 [R2014])

Specifies the characteristics of 120-mm optical disks (CD-ROM) for information interchange between information processing systems and for information storage.

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INCITS/ISO/IEC 11976:2008 [S201x], Information technology - Data interchange on 130 mm rewritable and write-once-read-many ultra density optical (UDO) disk cartridges - Capacity: 60 Gbytes per cartridge - Second generation (stabilized maintenance of INCITS/ISO/IEC 11976:2008 [R2014])

Specifies the mechanical, physical, and optical characteristics of a 130 mm optical disk cartridge (ODC) that employs thermo-optical Phase Change effects to enable data interchange between such disks.

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## **ITI (INCITS) (InterNational Committee for Information Technology Standards)**

### ***Withdrawal***

INCITS 377-2009 [R2014], Information technology - Finger Pattern Data Interchange Format (withdrawal of INCITS 377-2009 [R2014])

This is the revised version of Finger Pattern Data Interchange Format, ANSI INCITS 377-2004. This standard specifies an interchange format for the exchange of pattern-based fingerprint recognition data. It describes the conversion of a raw fingerprint image to a cropped and down-sampled finger pattern followed by the cellular representation of the finger pattern image to create the finger-pattern interchange data.

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INCITS 407-2005 [R2015], Information technology - BIOS Enhanced Disk Drive Services - 3 (EDD-3) (withdrawal of INCITS 407-2005 [R2015])

This standard assumes that the reader is familiar with the conventional INT 13h interface, the usage of the BIOS Device Parameter Table, and the basic operation of mass storage devices. This standard describes in detail BIOS functions and data structures that are used as an abstraction layer to allow higher-level applications to access mass storage devices in an interface and command-set independent manner. To comply with this standard, higher-level software shall call the INT functions using the data structures described in this standard, and system firmware shall provide the INT functions and data structures described in this standard.

The storage industry has increased the capacity and functionality of many types of mass storage devices. This increase in capacity and functionality has required the development of a BIOS interface. This standard documents the BIOS interface that is supplied by many BIOS vendors.

This standard defines solutions to the following INT 13h BIOS-specific issues:

- The INT 13h interface has a limit of 528 megabytes (MB);
- The INT 13h interface allows more than two devices to be attached to a system but has no consistent method for storing the additional configuration parameters;
- The INT 13h interface does not define CHS-independent methods for addressing devices. The methods defined by the INT 13h interface are not device-geometry independent. A different method of address representation and operation is needed;
- Methods of data transfer continue to be added to ATA devices. Capabilities such as, DMA modes, multisector data transfers and PIO modes are not reported to the operating system via the INT 13h interface;
- Systems require more than two storage devices, and with this requirement comes the requirement to assign the order in which the devices are to be accessed. The INT 13 interface does not provide this capability;
- The INT 13h interface does not make location and configuration information available to operating systems that do not use the BIOS to access mass storage devices;
- The INT 13h interface does not provide a linkage between the BIOS device assignments on the operating system device letter assignments; and
- The INT 13h interface does not use data structures that apply to both IA-32 and IA-64 compatible architecture systems.

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INCITS 407-2005/Erratum 1-2009 [R2014], Information technology - BIOS Enhanced Disk Drive Services - 3 (EDD-3) - Erratum 1 (withdrawal of INCITS 407-2005/Erratum 1-2009 [R2014])

Erratum to INCITS 407-2005.

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INCITS 423.3-2009 [R2014], Information technology - Conformance Testing Methodology - Part 3: Conformance Testing Methodology for INCITS 377-2004, Finger Pattern Data Interchange Format (withdrawal of INCITS 423.3-2009 [R2014])

This standard is concerned with conformance testing of implementations claiming conformance to the Finger Pattern Data Interchange Format specification defined in ANSI INCITS 377-2004. More specifically, it is concerned with testing only of the Biometric Data Interchange Records (BDIR) requirements as defined in ANSI INCITS 423.1-2008.

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INCITS 453-2009 [R2014], Information Technology - North American Profile of ISO 19115:2003 - Geographic Information - Metadata (NAP - Metadata) (withdrawal of INCITS 453-2009 [R2014])

The North American Profile of ISO 19115:2003, Geographic information - Metadata, is intended to identify geospatial metadata that are needed for North American organizations to describe their geospatial data, including dataset and dataset series, and related Web services. It is based on ISO 19115:2003, Geographic information - Metadata, and ISO 19106:2004, Geographic information - Profiles.

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INCITS 490-2014, Information technology - SCSI over PCIe (RTM) architecture (SOP) (withdrawal of INCITS 490-2014)

The SCSI family of standards provides for different transport protocols that define the methods for exchanging information between SCSI devices. This standard defines the transport methods for exchanging information between SCSI devices using a PCI Express interconnect. This standard defines a queuing layer, used by SOP. Other SCSI transport protocol standards define the methods for exchanging information between SCSI devices using other interconnects. Figure 1 shows the relationship of this standard to the other standards and related projects in the SCSI family of standards.

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INCITS/ISO 19153:2014 [2014], Geospatial Digital Rights Management Reference Model (GeoDRM RM) (withdrawal of INCITS/ISO 19153:2014 [2014])

ISO 19153:2014 is a reference model for digital rights management (DRM) functionality for geospatial resources (GeoDRM). As such, it is connected to the general DRM market in that geospatial resources shall be treated as nearly as possible like other resources, such as music, text, or services. It is not the intention to reinvent a market nor the technology that already exists and is thriving, but to make sure that a larger market has access to geospatial resources through a mechanism that it understands and that is similar to and consistent with the ones already in use.

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INCITS/ISO/IEC 5138-2:1980 [S2019], Office Machines - Vocabulary - Part 02: Duplicators (withdrawal of INCITS/ISO/IEC 5138-2:1980 [S2019])

The Vocabulary is intended to facilitate international exchanges in the field of office machines. It presents, in two languages, terms and definitions of selected concepts relevant to this field and identifies relationships between the entries. This section of the Vocabulary deals with duplicators. It concerns the main operating processes and types of machines used, their functions and technical parts.

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INCITS/ISO/IEC 5138-3:1981 [S2019], Office Machines - Vocabulary - Part 03: Addressing Machines (withdrawal of INCITS/ISO/IEC 5138-3:1981 [S2019])

The Vocabulary is intended to facilitate international exchanges in the field of office machines. It presents, in two languages, terms and definitions of selected concepts relevant to this field and identifies relationships between the entries. This section of the Vocabulary deals with addressing machines. It concerns the main operating processes and types of machines used, their functions and technical parts.

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INCITS/ISO/IEC 5138-4:1981 [S2019], Office Machines - Vocabulary - Part 04: Letter Opening Machines (withdrawal of INCITS/ISO/IEC 5138-4:1981 [S2019])

The Vocabulary is intended to facilitate international exchanges in the field of office machines. It presents, in two languages, terms and definitions of selected concepts relevant to this field and identifies relationships between the entries. This section of the Vocabulary deals with letter opening machines. It concerns the main operating processes and types of machines used, their functions and technical parts.

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INCITS/ISO/IEC 5138-5:1981 [S2019], Office Machines - Vocabulary - Part 05: Letter Folding Machines (withdrawal of INCITS/ISO/IEC 5138-5:1981 [S2019])

The Vocabulary is intended to facilitate international exchanges in the field of office machines. It presents, in two languages, terms and definitions of selected concepts relevant to this field and identifies relationships between the entries. This section of the Vocabulary deals with letter folding machines. It concerns the main operating processes and types of machines used, their functions and technical parts.

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INCITS/ISO/IEC 5138-9:1984 [S2019], Office Machines - Vocabulary - Part 9: Typewriters (withdrawal of INCITS/ISO/IEC 5138-9:1984 [S2019])

Intended to facilitate international exchanges in the field of office machines. It presents, in two languages, terms and definitions of selected concepts relevant to this field and identifies relationship between the entries. Deals with typewriters. It concerns the main operating processes and types of machines used, their functions and technical parts.

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INCITS/ISO/IEC 11179-2:2005 [R2014], Information technology - Metadata registries (MDR) - Part 2: Classification (withdrawal of INCITS/ISO/IEC 11179-2:2005 [R2014])

ISO/IEC 11179-2:2005 restates and elaborates on the procedures and techniques of ISO/IEC 11179-3:2003 for registering classification schemes and classifying administered items in a metadata registry (MDR). All types of administered items can be classified, including object classes, properties, representations, value domains, and data element concepts, as well as data elements themselves.

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INCITS/ISO/IEC 15444-12:2012 [2014], Information technology - JPEG 2000 image coding system - Part 12: ISO base media file format (withdrawal of INCITS/ISO/IEC 15444-12:2012 [2014])

This part of ISO/IEC 15444 specifies the ISO base media file format, which is a general format forming the basis for a number of other more specific file formats. This format contains the timing, structure, and media information for timed sequences of media data, such as audio-visual presentations. This part of ISO/IEC 15444 is applicable to JPEG 2000, but its technical content is identical to that of ISO/IEC 14496-12, which is applicable to MPEG-4.

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INCITS/ISO/IEC 19784-2:2007 [R2018], Information technology - Biometric application programming interface - Part 2: Biometric archive function provider interface (withdrawal of INCITS/ISO/IEC 19784-2:2007 [R2018])

Defines the interface between a biometric service provider (BSP) and a biometric archive function provider (BAFP) for BioAPI. A BAFP encapsulates all functionality for the storage, search, and management of biometric reference data regardless of the kind of physical storage media. Using a BAFP, a BSP does not have to provide special handling of different storage media like database servers, smartcards, database web services, etc. Whatever media is used, the BSP in all cases handles the same interface for a BAFP. The interface description contains management functions to attach and detach different BAFPs, to query biometric data records and to store biometric data records.

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INCITS/ISO/IEC 19784-2:2007/COR 1:2011 [R2018], Information technology - Biometric application programming interface - Part 2: Biometric archive function provider interface - Technical Corrigendum 1 (withdrawal of INCITS/ISO/IEC 19784-2:2007/COR 1:2011 [R2018])

Technical Corrigendum 1 to ISO/IEC 19784-2:2007.

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INCITS/ISO/IEC 19784-2:2007/COR 2:2013 [2014], Information technology - Biometric application programming interface - Part 2: Biometric archive function provider interface - Technical Corrigendum 2 (withdrawal of INCITS/ISO/IEC 19784-2:2007/COR 2:2013 [2014])

This is the second technical corrigendum to ISO/IEC 19784-2:2007 and ISO/IEC 19784-2:2007 defines the interface between a biometric service provider (BSP) and a biometric archive function provider (BAFP) for BioAPI. A BAFP encapsulates all functionality for the storage, search and management of biometric reference data regardless of the kind of physical storage media. Using a BAFP, a BSP does not have to provide special handling of different storage media like database servers, smartcards, database web services, etc. Whatever media is used, the BSP in all cases handles the same interface for a BAFP.

Single copy price: \$60.00

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INCITS/ISO/IEC 19794-5:2005/AM 1:2007 [R2014], Information Technology - Biometric data Interchange Formats - Part 5: Face Image Data - Amendment 1: Face Image Data on Conditions for Taking Photographs (withdrawal of INCITS/ISO/IEC 19794-5:2005/AM 1:2007 [R2014])

This is the first amendment to ISO/IEC 19794-5:2005 and ISO/IEC 19794-5:2005 specifies scene, photographic, digitization, and format requirements for images of faces to be used in the context of both human verification and computer-automated recognition. The approach to specifying scene and photographic requirements in this format is to carefully describe constraints on how a photograph should appear rather than to dictate how the photograph should be taken.

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INCITS/ISO/IEC 19794-5:2005/COR 1:2008 [R2014], Information technology - Biometric data interchange formats - Part 5: Face image data - Technical Corrigendum 1 (withdrawal of INCITS/ISO/IEC 19794-5:2005/COR 1:2008 [R2014])

This is the first corrigendum to ISO/IEC 19794-5:2005 and ISO/IEC 19794-5:2005 specifies scene, photographic, digitization, and format requirements for images of faces to be used in the context of both human verification and computer-automated recognition. The approach to specifying scene and photographic requirements in this format is to carefully describe constraints on how a photograph should appear rather than to dictate how the photograph should be taken.

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INCITS/ISO/IEC 19794-5:2005/COR 2:2008 [R2014], Information technology - Biometric data interchange formats - Part 5: Face image data - Technical Corrigendum 2 (withdrawal of INCITS/ISO/IEC 19794-5:2005/COR 2:2008 [R2014])

This is the second corrigendum to ISO/IEC 19794-5:2005 and ISO/IEC 19794-5:2005 specifies scene, photographic, digitization, and format requirements for images of faces to be used in the context of both human verification and computer automated recognition. The approach to specifying scene and photographic requirements in this format is to carefully describe constraints on how a photograph should appear rather than to dictate how the photograph should be taken.

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INCITS/ISO/IEC 19794-5:2005/AM 2:2009 [R2015], Information technology - Biometric data interchange formats - Part 5: Face image data - Amendment 2 (withdrawal of INCITS/ISO/IEC 19794-5:2005/AM 2:2009 [R2015])

Amendment 2 to ISO/IEC 19794-5:2005.

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INCITS/ISO/IEC 19794-5:2005/COR 3:2013 [R2018], Information technology - Biometric data interchange formats - Part 5: Face image data - Technical Corrigendum 3 (withdrawal of INCITS/ISO/IEC 19794-5:2005/COR 3:2013 [R2018])

Technical Corrigendum 3 to ISO/IEC 19794-5:2005.

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INCITS/ISO/IEC 24709-2:2007 [R2014], Information technology - Conformance testing for the biometric application programming interface (BioAPI) - Part 2: Test assertions for biometric service providers (withdrawal of INCITS/ISO/IEC 24709-2:2007 [R2014])

ISO/IEC 24709-2:2007 defines a number of test assertions written in the assertion language specified in ISO/IEC 24709-1. These assertions enable a user of ISO/IEC 24709-2:2007 (such as a testing laboratory) to test the conformance to ISO/IEC 19784-1 (BioAPI 2.0) of any biometric service provider (BSP) that claims to be a conforming implementation of that International Standard. Each test assertion specified in ISO/IEC 24709-2:2007 exercises one or more features of an implementation under test. Assertions are placed into packages (one or more assertions per package) as required by the assertion language.

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INCITS/ISO/IEC 24752-3:2008 [R2014], Information technology - User interfaces - Universal remote console - Part 3: Presentation template (withdrawal of INCITS/ISO/IEC 24752-3:2008 [R2014])

ISO/IEC 24752 facilitates operation of information and electronic products through remote and alternative interfaces and intelligent agents. ISO/IEC 24752-3:2008 defines a language (presentation template markup language) for describing modality-independent user interface specifications, or presentation templates, associated with a user interface socket description as defined by ISO/IEC 24752-2.

Single copy price: \$62.00

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INCITS/ISO/IEC 24708:2008 [R2014], Information technology - Biometrics - BioAPI Interworking Protocol (withdrawal of INCITS/ISO/IEC 24708:2008 [R2014])

ISO/IEC 24708:2008 specifies the syntax, semantics, and encodings of a set of messages (BIP messages) that enable a BioAPI-conforming application (see ISO/IEC 19784-1) to request biometric operations in BioAPI-conforming biometric service providers (BSPs) across node or process boundaries, and to be notified of events originating in those remote BSPs. It also specifies extensions to the architecture and behavior of the BioAPI framework (specified in ISO/IEC 19784-1) that supports the creation, processing, sending, and reception of BIP messages. It is applicable to all distributed applications of BioAPI.

Single copy price: \$133.00

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## **Project Withdrawn**

In accordance with clause 4.2.1.3.3 Discontinuance of a standards project of the ANSI Essential Requirements, an accredited standards developer may abandon the processing of a proposed new or revised American National Standard or portion thereof if it has followed its accredited procedures. The following projects have been withdrawn accordingly:

### **VITA (VMEbus International Trade Association (VITA))**

BSR/VITA 42.3-2014 (R201x), XMC PCI Express Protocol Layer Standard (reaffirmation of ANSI/VITA 42.3-2014)

This standard describes a method for implementing PCI Express on the VITA 42.0, XMC mezzanine form factor.

Inquiries may be directed to Jing Kwok, (602) 281-4497, [jing.kwok@vita.com](mailto:jing.kwok@vita.com)

## **Notice of Withdrawal: ANS at least 10 years past approval date**

The following American National Standards have not been revised or reaffirmed within ten years from the date of their approval as American National Standards and accordingly are withdrawn:

### **TCNA (ASC A108) (Tile Council of North America)**

ANSI A108.4-2009, Installation of Ceramic Tile with Organic Adhesives or Water Cleanable Tile-Setting Epoxy Adhesive

Inquiries may be directed to Kathy Snipes, TCNA (ASC A108); [kshnipes@tileusa.com](mailto:kshnipes@tileusa.com)

# Call for Members (ANS Consensus Bodies)

Directly and materially affected parties who are interested in participating as a member of an ANS consensus body for the standards listed below are requested to contact the sponsoring standards developer directly and in a timely manner.

## ACMA (American Composites Manufacturers Association)

**Office:** 3033 Wilson Boulevard, Suite 420  
Arlington, VA 22201

**Contact:** Larry Cox

**Phone:** (740) 928-3286

**E-mail:** Lcox1225@gmail.com

BSR/AMCA PIC-Standard Practice-201x, Code of Standard Practice  
Industry Guidelines for Fabrication and Installation of Pultruded  
FRP Structures (revision of ANSI/AMCA PIC-Standard Practice-2011)

## ASA (ASC S2) (Acoustical Society of America)

**Office:** 1305 Walt Whitman Road  
Suite 300  
Melville, NY 11747

**Contact:** Caryn Mennigke

**Phone:** (631) 390-0215

**E-mail:** asastds@acousticalsociety.org

BSR ASA S2.80-201x/Part 1/ISO 20816-1-2016, Mechanical vibration -  
Measurement and evaluation of machine vibration - Part 1: General  
guidelines (a nationally adopted international standard) (identical  
national adoption of ISO 20816-1:2016)

BSR ASA S2.80-201x/Part 2/ISO 20816-2-2017, Mechanical vibration -  
Measurement and evaluation of machine vibration - Part 2: Land-  
based gas turbines, steam turbines and generators in excess of 40  
MW, with fluid-film bearings and rated speeds of 1 500 r/min,  
1 800 r/min and 3 600 r/min (a nationally adopted international  
standard) (identical national adoption of ISO 20816-2:2017)

BSR ASA S2.81-201x/Part 2/ISO 21940-2-2017, Mechanical vibration -  
Rotor balancing - Part 2: Vocabulary (a nationally adopted  
international standard) (identical national adoption of ISO 21940  
-2:2017)

BSR/ASA S2.81-201x/Part 11/ISO 21940-11-2016, Mechanical  
vibration - Rotor balancing - Part 11: Procedures and tolerances for  
rotors with rigid behaviour (identical national adoption of ISO  
21940-11:2016)

BSR/ASA S2.81-201x/Part 12/ISO 21940-12-2016, Mechanical  
vibration - Rotor balancing - Part 12: Procedures and tolerances for  
rotors with flexible behaviour (identical national adoption of ISO  
21940-12:2016)

BSR/ASA S2.81-201x/Part 14/ISO 21940-14-2012, Mechanical  
vibration - Rotor balancing - Part 14: Procedures for assessing  
balance errors (a nationally adopted international standard)  
(identical national adoption of ISO 21940-14:2012)

## ASQ (American Society for Quality)

**Office:** 600 N Plankinton Ave  
Milwaukee, WI 53203

**Contact:** Julie Sharp

**Phone:** (800) 248-1946

**E-mail:** standards@asq.org

BSR/ASQ ID1-201x, Inspection techniques and requirements -  
Guidelines (new standard)

## ASSP (ASC A10) (American Society of Safety Professionals)

**Office:** 520 N. Northwest Highway  
Park Ridge, IL 60068

**Contact:** Tim Fisher

**Phone:** (847) 768-3411

**E-mail:** TFisher@ASSP.org

BSR/ASSP A10.50-201X, Standard for Heat Stress Management in  
Construction and Demolition Operations (new standard)

## ECIA (Electronic Components Industry Association)

**Office:** 13873 Park Center Road  
Suite 315  
Herndon, VA 20171

**Contact:** Laura Donohoe

**Phone:** (571) 323-0294

**E-mail:** ldonohoe@ecianow.org

BSR/EIA 364-51B-201x, Ice Resistance of Mated Connectors (revision  
and redesignation of ANSI/EIA 364-51A-2002 (R2016))

BSR/EIA 364-61A (R201x), Resistance to Soldering Heat from Rework  
Test Procedure for Electrical Connectors and Sockets Mounted on  
Printed Circuit Boards (reaffirmation of ANSI/EIA 364-61-A-2014)

BSR/EIA 364-11C-2014 (R201x), Resistance to Solvents Test Procedure  
for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA  
364-11C-2014)

BSR/EIA 364-21E-2014 (R201x), Insulation Resistance Test Procedure  
for Electrical Connectors, Sockets, and Coaxial Contacts  
(reaffirmation of ANSI/EIA 364-21E-2014)



BSR/EIA 364-26-C-2014 (R201x), Salt Spray Test Procedure for Electrical Connectors, Contacts and Sockets (reaffirmation of ANSI/EIA 364-26-C-2014)

BSR/EIA 364-32G-2014 (R201x), Thermal Shock (Temperature Cycling) Test Procedure for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-32G-2014)

BSR/EIA 364-38D-2014 (R201x), Cable Pull-Out Test Procedure for Electrical Connectors (reaffirmation of ANSI/EIA 364-38D-2014)

BSR/EIA 364-49-2013 (R201x), Ultraviolet Radiation Test Procedure for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-49-2013)

BSR/EIA 364-55-A-2008 (R201x), Current Cycling Test Procedure for Electrical Contacts, Connectors and Sockets (reaffirmation of ANSI/EIA 364-55-A-2008 (R2014))

BSR/EIA 364-60A-2008 (R201x), General Methods for Testing of Contact Finishes for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-60A-2008 (R2014))

BSR/EIA 364-63-2013 (R201x), Accessory Thread Strength Test Procedure for Circular Electrical Connectors (reaffirmation of ANSI/EIA 364-63-2013)

BSR/EIA 364-64-2014 (R201x), Spring Finger Force Test Procedure for Circular Connectors (reaffirmation of ANSI/EIA 364-64-2014)

BSR/EIA 364-86A-2014 (R201x), Polarizing/Coding Key Overstress Test Procedure for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-86A-2014)

#### **EOS/ESD (ESD Association, Inc.)**

**Office:** 7900 Turin Rd., Bldg. 3  
Rome, NY 13440

**Contact:** Christina Earl

**Phone:** (315) 339-6937

**E-mail:** cearl@esda.org

BSR/ESD STM11.11-201x, ESD Association Standard Test Method for Protection of Electrostatic Discharge Susceptible Items - Surface Resistance Measurement of Planar Materials (revision of ANSI/ESD STM11.11-2015)

BSR/ESD STM11.12-201x, ESD Association Standard Test Method for Protection of Electrostatic Discharge Susceptible Items - Volume Resistance Measurement of Static Dissipative Planar Materials (revision of ANSI/ESD STM11.12-2015)

BSR/ESD STM11.13-201x, ESD Association Standard Test Method for the Protection of Electrostatic Discharge Susceptible Items - Two-Point Resistance Measurement (revision of ANSI/ESD STM11.13-2018)

#### **ITI (INCITS) (InterNational Committee for Information Technology Standards)**

**Office:** 700 K Street NW  
Suite 600  
Washington, DC 20001

**Contact:** Lynn Barra

**Phone:** (202) 737-8888

**E-mail:** comments@standards.incits.org

INCITS 31-2009 [R201x], Information Technology - Codes for the Identification of Counties and Equivalent Areas of the United States, Puerto Rico, and the Insular Areas (reaffirmation of INCITS 31-2009 [R2014])

INCITS 38-2009 [R201x], Information Technology - Codes for the Identification of the States and Equivalent Areas within the United States, Puerto Rico, and the Insular Areas (reaffirmation of INCITS 38-2009 [R2014])

INCITS 377-2009 [R2014], Information technology - Finger Pattern Data Interchange Format (withdrawal of INCITS 377-2009 [R2014])

INCITS 378-2009 [S201x], Information Technology - Finger Minutiae Format for Data Interchange (stabilized maintenance of INCITS 378-2009 [R2014])

INCITS 381-2009 [S201x], Information Technology - Finger Image Based Data Interchange Format (stabilized maintenance of [INCITS 381-2009 [R2014])

INCITS 385-2004 [S201x], Information technology - Face Recognition Format for Data Interchange (stabilized maintenance of INCITS 385-2004 [R2014])

INCITS 407-2005 [R2015], Information technology - BIOS Enhanced Disk Drive Services - 3 (EDD-3) (withdrawal of INCITS 407-2005 [R2015])

INCITS 407-2005/Erratum 1-2009 [R2014], Information technology - BIOS Enhanced Disk Drive Services - 3 (EDD-3) - Erratum 1 (withdrawal of INCITS 407-2005/Erratum 1-2009 [R2014])

INCITS 423.3-2009 [R2014], Information technology - Conformance Testing Methodology - Part 3: Conformance Testing Methodology for INCITS 377-2004, Finger Pattern Data Interchange Format (withdrawal of INCITS 423.3-2009 [R2014])

INCITS 423.4-2009 [S201x], Information Technology - Conformance Testing Methodology Standard for Biometric Data Interchange Format Standards - Part 4: Conformance Testing Methodology for INCITS 381-2004, Finger Image-Based Data Interchange Format (stabilized maintenance of INCITS 423.4-2009 [R2014])

INCITS 450-2009 [S201x], Information technology - Fibre Channel - Physical Interface - 4 (FC-PI-4) (stabilized maintenance of INCITS 450-2009 [R2014])

INCITS 452-2009 [R201x], Information technology - AT Attachment-8 ATA/ATAPI Command Set (ATA8-ACS) (reaffirmation of INCITS 452-2009 [R2014])

- INCITS 453-2009 [R2014], Information Technology - North American Profile of ISO 19115:2003 - Geographic Information - Metadata (NAP - Metadata) (withdrawal of INCITS 453-2009 [R2014])
- INCITS 454-2009 [R201x], Information Technology - Codes for the Identification of Metropolitan and Micropolitan Statistical Areas and Related Statistical Areas of the United States and Puerto Rico (reaffirmation of INCITS 454-2009 [R2014])
- INCITS 455-2009 [R201x], Information Technology - Codes for the Identification of Congressional Districts and Equivalent Areas of the United States, Puerto Rico, and the Insular Areas (reaffirmation of INCITS 455-2009 [R2014])
- INCITS 478-2011/AM 1-2014 [R201x], Information technology - Serial Attached SCSI - 2.1 (SAS-2.1) - Amendment 1 (reaffirmation of INCITS 478-2011/AM 1-2014)
- INCITS 485-2014 [R201x], Information Technology - Fibre Channel - Single-Byte Command Code Sets Mapping Protocol - 5 (FC-SB-5) (reaffirmation of INCITS 485-2014)
- INCITS 489-2014 [R201x], Information technology - SCSI over PCIe (RTM) architecture (SOP) (reaffirmation of INCITS 489-2014)
- INCITS 490-2014, Information technology - SCSI over PCIe (RTM) architecture (SOP) (withdrawal of INCITS 490-2014)
- INCITS 508-2014 [R201x], Information Technology - Storage Management - Host Bus Adapter Application Programming Interface - 2nd Generation (SM-HBA-2) (reaffirmation of INCITS 508-2014)
- INCITS 509-2014 [R201x], Information Technology - Fibre Channel - Backbone - 6 (FC-BB-6) (reaffirmation of INCITS 509-2014)
- INCITS 514-2014 [R201x], Information technology - SCSI Block Commands - 3 (SBC-3) (reaffirmation of INCITS 514-2014)
- INCITS 519-2014 [R201x], Information technology - Serial Attached SCSI-3 (SAS-3) (reaffirmation of INCITS 519-2014)
- INCITS 532:2014 [R201x], Information Technology - Vocabulary Description and Management (reaffirmation of INCITS 532-2014)
- INCITS/ISO 19115-1:2014 [R201x], Geographic information - Metadata - Part 1: Fundamentals (reaffirm a national adoption INCITS/ISO 19115-1:2014 [2014])
- INCITS/ISO 6936:1988 [R201x], Information Processing - Conversion between the Two Coded Character Sets of ISO 646 and ISO 6937-2 and the CCITT International Telegraph Alphabet No. 2 (ITA 2) (reaffirm a national adoption INCITS/ISO 6936:1988 [R2014])
- INCITS/ISO 19157:2013 [R201x], Geographic information - Data quality (reaffirm a national adoption INCITS/ISO 19157:2013 [2014])
- INCITS/ISO 19153:2014 [2014], Geospatial Digital Rights Management Reference Model (GeoDRM RM) (withdrawal of INCITS/ISO 19153:2014 [2014])
- INCITS/ISO/IEC 5138-2:1980 [S2019], Office Machines - Vocabulary - Part 02: Duplicators (withdrawal of INCITS/ISO/IEC 5138-2:1980 [S2019])
- INCITS/ISO/IEC 5138-3:1981 [S2019], Office Machines - Vocabulary - Part 03: Addressing Machines (withdrawal of INCITS/ISO/IEC 5138-3:1981 [S2019])
- INCITS/ISO/IEC 5138-4:1981 [S2019], Office Machines - Vocabulary - Part 04: Letter Opening Machines (withdrawal of INCITS/ISO/IEC 5138-4:1981 [S2019])
- INCITS/ISO/IEC 5138-5:1981 [S2019], Office Machines - Vocabulary - Part 05: Letter Folding Machines (withdrawal of INCITS/ISO/IEC 5138-5:1981 [S2019])
- INCITS/ISO/IEC 5138-9:1984 [S2019], Office Machines - Vocabulary - Part 9: Typewriters (withdrawal of INCITS/ISO/IEC 5138-9:1984 [S2019])
- INCITS/ISO/IEC 6523-1:1998 [R201x], Information technology - Structure for the identification of organizations and organization parts - Part 1: Identification of organization identification schemes (reaffirm a national adoption INCITS/ISO/IEC 6523-1:1998 [R2014])
- INCITS/ISO/IEC 6523-2:1998 [R201x], Information technology - Structure for the identification of organizations and organization parts - Part 2: Registration of organization identification schemes (reaffirm a national adoption INCITS/ISO/IEC 6523-2:1998 [R2014])
- INCITS/ISO/IEC 7501-1:2008 [R201x], Identification cards - Machine readable travel documents - Part 1: Machine readable passport (reaffirm a national adoption INCITS/ISO/IEC 7501-1:2008 [R2014])
- INCITS/ISO/IEC 7501-3:2005 [R201x], Identification cards - Machine readable travel documents - Part 3: Machine readable official travel documents (reaffirm a national adoption INCITS/ISO/IEC 7501-3:2005 [R2014])
- INCITS/ISO/IEC 7816-1:2011 [R201x], Identification cards - Integrated circuit(s) cards with contacts - Part 1: Physical characteristics (reaffirm a national adoption INCITS/ISO/IEC 7816-1:2011 [2014])
- INCITS/ISO/IEC 7816-5:2004 [R201x], Identification cards - Integrated circuit(s) cards with contacts - Part 5: Registration system for application in IC Cards (reaffirm a national adoption INCITS/ISO/IEC 7816-5:2004 [R2014])
- INCITS/ISO/IEC 7816-7:1999 [R201x], ID Cards - Integrated circuit cards with contacts - Part 7: Interindustry commands for Structured Card Query Language (SCQL) (reaffirm a national adoption INCITS/ISO/IEC 7816-7:1999 [R2014])
- INCITS/ISO/IEC 7816-10:1999 [R201x], ID Cards - Integrated circuit cards with contacts - Part 10: Electronic signal and answer to reset for synchronous cards (reaffirm a national adoption INCITS/ISO/IEC 7816-10:1999 [R2014])
- INCITS/ISO/IEC 9541-4:2009 [R201x], Information technology - Font information interchange - Part 4: Harmonization to Open Font Format (reaffirm a national adoption INCITS/ISO/IEC 9541-4:2009 [R2014])

- INCITS/ISO/IEC 9797-1:2011 [R201x], Information technology - Security techniques - Message Authentication Codes (MACs) - Part 1: Mechanisms using a block cipher (reaffirm a national adoption INCITS/ISO/IEC 9797-1:2011 [2014])
- INCITS/ISO/IEC 9798-4:1999 [R201x], Information Technology - Security techniques - Entity authentication - Part 4: Mechanisms using a cryptographic check function (formerly ANSI/ISO/IEC 9798-4:1999) (reaffirm a national adoption INCITS/ISO/IEC 9798-4:1999 [R2014])
- INCITS/ISO/IEC 10021-8:1999 [R201x], Information Technology - Message Handling Systems (MHS) - Part 8: Electronic Data Interchange Messaging Service (reaffirm a national adoption INCITS/ISO/IEC 10021-8:1999 [R2014])
- INCITS/ISO/IEC 10021-9:1999 [R201x], Information Technology - Message Handling Systems (MHS) - Part 9: Electronic Data Interchange Messaging System (reaffirm a national adoption INCITS/ISO/IEC 10021-9:1999 [R2014])
- INCITS/ISO/IEC 10746-2:2009 [R201x], Information technology - Open distributed processing - Reference model - Part 2: Foundations (reaffirm a national adoption INCITS/ISO/IEC 10746-2:2009 [2014])
- INCITS/ISO/IEC 10746-3:2009 [R201x], Information technology - Open distributed processing - Reference model: Architecture - Part 3 (reaffirm a national adoption INCITS/ISO/IEC 10746-3:2009 [2014])
- INCITS/ISO/IEC 10918-4:1999 [R201x], Information technology - Digital compression and coding of continuous-tone still images: Registration of JPEG profiles, SPIFF profiles, SPIFF tags, SPIFF colour spaces, APPn markers, SPIFF compression types and Registration Authorities (reaffirm a national adoption INCITS/ISO/IEC 10918-4:1999 [R2014])
- INCITS/ISO/IEC 10918-3:1997/AM1:1999 [R201x], Information technology - Digital compression and coding of continuous-tone still images: Extensions - Amendment 1: Provisions to allow registration of new compression types and versions in the SPIFF header (reaffirm a national adoption INCITS/ISO/IEC 10918-3:1997/AM1:1999 [R2014])
- INCITS/ISO/IEC 11160-2:2013 [R201x], Information technology - Minimum information to be included in specification sheets - Printers - Part 2: Class 3 and Class 4 printers (reaffirm a national adoption INCITS/ISO/IEC 11160-2:2013 [2014])
- INCITS/ISO/IEC 11179-3:2013 [R201x], Information technology - Metadata registries (MDR) - Part 3: Registry metamodel and basic attributes (reaffirm a national adoption INCITS/ISO/IEC 11179-3:2013 [2014])
- INCITS/ISO/IEC 11179-4:2004 [R201x], Information technology - Metadata registries (MDR) - Part 4: Formulation of data elements (reaffirm a national adoption INCITS/ISO/IEC 11179-4:2004 [R2014])
- INCITS/ISO/IEC 11179-2:2005 [R2014], Information technology - Metadata registries (MDR) - Part 2: Classification (withdrawal of INCITS/ISO/IEC 11179-2:2005 [R2014])
- INCITS/ISO/IEC 11693-1:2012 [R201x], Identification cards - Optical memory cards - Part 1: General characteristics (reaffirm a national adoption INCITS/ISO/IEC 11693-1:2012 [2014])
- INCITS/ISO/IEC 11694-1:2012 [R201x], Identification cards - Optical memory cards - Linear recording method - Part 1: Physical characteristics (reaffirm a national adoption INCITS/ISO/IEC 11694-1:2012 [2014])
- INCITS/ISO/IEC 11694-2:2012 [R201x], Identification cards - Optical memory cards - Linear recording method - Part 2: Dimensions and Location of the Accessible Optical Area (reaffirm a national adoption INCITS/ISO/IEC 11694-2:2012 [2014])
- INCITS/ISO/IEC 13250-2:2006 [R201x], Information technology - Topic Maps - Part 2: Data model (reaffirm a national adoption INCITS/ISO/IEC 13250-2:2006 [R2014])
- INCITS/ISO/IEC 13250-3:2013 [R201x], Information technology - Topic Maps - Part 3: XML syntax (reaffirm a national adoption INCITS/ISO/IEC 13250-3:2013 [2014])
- INCITS/ISO/IEC 13250-4:2009 [R201x], Information technology - Topic Maps - Part 4: Canonicalization (reaffirm a national adoption INCITS/ISO/IEC 13250-4:2009 [R2014])
- INCITS/ISO/IEC 13818-2:2013 [R201x], Information technology - Generic coding of moving pictures and associated audio information: Video (reaffirm a national adoption INCITS/ISO/IEC 13818-2:2013 [2014])
- INCITS/ISO/IEC 13818-4:2004 [R201x], Information Technology - Generic coding of moving pictures and associated audio information - Part 4: Conformance testing (reaffirm a national adoption INCITS/ISO/IEC 13818-4:2004 [R2014])
- INCITS/ISO/IEC 13818-7:2006 [R201x], Information technology - Generic coding of moving pictures and associated audio information - Part 7: Advance Audio Coding (AAC) (reaffirm a national adoption INCITS/ISO/IEC 13818-7:2006 [R2014])
- INCITS/ISO/IEC 13818-10:1999 [R201x], Information Technology - Generic coding of moving pictures and associated audio information - Part 10: Conformance extensions for Digital Storage Media Command and Control (DSM-CC) (reaffirm a national adoption INCITS/ISO/IEC 13818-10:1999 [R2014])
- INCITS/ISO/IEC 13818-4:2004/AM1:2005 [R201x], Information Technology - Generic Coding of Moving Pictures and Associated Audio Information - Part 4: Conformance Testing - Amendment 1: MPEG-2 IPMP conformance testing (reaffirm a national adoption INCITS/ISO/IEC 13818-4:2004/AM1:2005 [R2014])
- INCITS/ISO/IEC 13818-4:2004/AM2:2005 [R201x], Information technology - Generic coding of moving pictures and associated audio information - Part 4: Conformance testing - Amendment 2: Additional audio conformance test sequences (reaffirm a national adoption INCITS/ISO/IEC 13818-4:2004/AM2:2005 [R2014])

- INCITS/ISO/IEC 13818-6:1998/AM2:2000 [R201x], Information technology - Generic coding of moving pictures and associated audio information - Part 6: Extensions for DSM-CC Amendment 2: Additions to support synchronized download services, opportunistic data services and resource announcement in broadcast and interactive services (reaffirm a national adoption INCITS/ISO/IEC 13818-6:1998/AM2:2000 [R2014])
- INCITS/ISO/IEC 13818-7:2006/AM1:2007 [R201x], Information technology - Generic coding of moving pictures and associated audio information - Part 7: Advanced Audio Coding (AAC) - Amendment 1: Transport of MPEG Surround in AAC (reaffirm a national adoption INCITS/ISO/IEC 13818-7:2006/AM1:2007 [R2014])
- INCITS/ISO/IEC 13888-1:2009 [R201x], Information technology - Security techniques - Non-repudiation - Part 1: General (reaffirm a national adoption INCITS/ISO/IEC 13888-1:2009 [R2014])
- INCITS/ISO/IEC 14496-13:2004 [R201x], Information technology - Coding of audio-visual objects - Part 13: Intellectual Property Management and Protection (IPMP) extensions (reaffirm a national adoption INCITS/ISO/IEC 14496-13:2004 [R2014])
- INCITS/ISO/IEC 14496-16:2011 [R201x], Information technology - Coding of audio-visual objects - Part 16: Animation Framework eXtension (AFX) (reaffirm a national adoption INCITS/ISO/IEC 14496-16:2011 [2014])
- INCITS/ISO/IEC 14496-17:2006 [R201x], Information technology - Coding of audio-visual objects - Part 17: Streaming text format (reaffirm a national adoption INCITS/ISO/IEC 14496-17:2006 [R2014])
- INCITS/ISO/IEC 14496-18:2004 [R201x], Information technology - Coding of audio-visual objects - Part 18: Font compression and streaming (reaffirm a national adoption INCITS/ISO/IEC 14496-18:2004 [R2014])
- INCITS/ISO/IEC 14496-19:2004 [R201x], Information technology - Coding of audio-visual objects - Part 19: Synthesized texture stream (reaffirm a national adoption INCITS/ISO/IEC 14496-19:2004 [R2014])
- INCITS/ISO/IEC 14496-21:2006 [R201x], Information technology - Coding of audio-visual objects - Part 21: MPEG-J Graphics Framework eXtensions (GFX) (reaffirm a national adoption INCITS/ISO/IEC 14496-21:2006 [R2014])
- INCITS/ISO/IEC 14496-23:2008 [R201x], Information technology - Coding of audio-visual objects - Part 23: Symbolic Music Representation (reaffirm a national adoption INCITS/ISO/IEC 14496-23:2008 [R2014])
- INCITS/ISO/IEC 14496-25:2011 [R201x], Information technology - Coding of audio-visual objects - Part 25: 3D Graphics Compression Model (reaffirm a national adoption INCITS/ISO/IEC 14496-25:2011 [2014])
- INCITS/ISO/IEC 14496-2:2004/AM1:2004 [R201x], Information Technology - Coding of Audio-Visual Objects - Part 2: Visual - Amendment 1: Error resilient simple scalable profile (reaffirm a national adoption INCITS/ISO/IEC 14496-2:2004/AM1:2004 [R2014])
- INCITS/ISO/IEC 14496-2:2004/AM2:2005 [R201x], Information Technology - Coding of Audio-Visual Objects - Part 2: Visual - Amendment 2: New Levels for Simple Profile (reaffirm a national adoption INCITS/ISO/IEC 14496-2:2004/AM2:2005 [R2014])
- INCITS/ISO/IEC 14496-2:2004/AM3:2007 [R201x], Information technology - Coding of audio-visual objects - Part 2: Visual - Amendment 3: Support for colour spaces (reaffirm a national adoption INCITS/ISO/IEC 14496-2:2004/AM3:2007 [R2014])
- INCITS/ISO/IEC 14496-2:2004/AM4:2008 [R201x], Information technology - Coding of audio-visual objects - Part 2: Visual - Amendment 4: Simple profile level 6 (reaffirm a national adoption INCITS/ISO/IEC 14496-2:2004/AM4:2008 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM1:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 1: Conformance testing for MPEG-4 (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM1:2005 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM2:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 2: MPEG-4 conformance extensions for XMT and media nodes (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM2:2005 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM3:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 3: Visual new levels and tools (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM3:2005 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM4:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 4: IPMPX conformance extensions (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM4:2005 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM5:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 5: Conformance extensions for error-resilient simple scalable profile (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM5:2005 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM6:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 6: Advanced Video Coding conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM6:2005 [R2014])

- INCITS/ISO/IEC 14496-4:2004/AM7:2005 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 7: AFX conformance extensions (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM7:2005 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM9:2006 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 9: AVC fidelity range extensions conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM9:2006 [R2014])
- INCITS/ISO/IEC 14496-5:2001/AM4:2004 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 4: IPMPX reference software extensions (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM4:2004 [R2014])
- INCITS/ISO/IEC 14496-5:2001/AM5:2004 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 5: Reference software extensions for error resilient simple scalable profile (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM5:2004 [R2014])
- INCITS/ISO/IEC 14496-5:2001/AM6:2005 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 6: Advanced Video Coding (AVC) and High Efficiency Advanced Audio Coding (HE AAC) reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM6:2005 [R2014])
- INCITS/ISO/IEC 14496-5:2001/AM7:2005 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 7: AFX reference software extensions (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM7:2005 [R2014])
- INCITS/ISO/IEC 14496-5:2001/AM8:2006 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 8: AVC fidelity range extensions reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM8:2006 [R2014])
- INCITS/ISO/IEC 14496-5:2001/AM9:2007 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 9: Morphing & Textures reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM9:2007 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM17:2007 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 17: Advanced text and 2D graphics conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM17:2007 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM23:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 23: Synthesized texture conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM23:2008 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM24:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 24: File format conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM24:2008 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM25:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 25: LAsER and SAF conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM25:2008 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM26:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 26: Conformance levels and bitstreams for Open Font Format (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM26:2008 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM27:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 27: LAsER and SAF extensions conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM27:2008 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM28:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 28: Conformance extensions for simple profile level 6 (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM28:2008 [R2014])
- INCITS/ISO/IEC 14496-4:2004/AM29:2008 [R201x], Information technology - Coding of audio-visual objects - Part 4: Conformance testing - Amendment 29: Symbolic Music Representation conformance (reaffirm a national adoption INCITS/ISO/IEC 14496-4:2004/AM29:2008 [R2014])
- INCITS/ISO/IEC 14496-5:2001/AM10:2007 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 10: SSC, DST, ALS and SLS reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM10:2007 [R2014])
- INCITS/ISO/IEC 14496-5:2001/AM11:2007 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 11: MPEG-J GFX Reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM11:2007 [R2014])
- INCITS/ISO/IEC 14496-5:2001/AM12:2007 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 12: Updated file format reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM12:2007 [R2014])
- INCITS/ISO/IEC 14496-5:2001/AM13:2008 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 13: Geometry and shadow reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM13:2008 [R2014])

- INCITS/ISO/IEC 14496-5:2001/AM16:2008 [R201x], Information technology - Coding of audio-visual objects - Part 5: Reference software - Amendment 16: Symbolic Music Representation reference software (reaffirm a national adoption INCITS/ISO/IEC 14496-5:2001/AM16:2008 [R2014])
- INCITS/ISO/IEC 14772-2:2004 [R201x], Information technology - Computer graphics and image processing - The Virtual Reality Modelling Language (VRML) - Part 2: External Authoring Interface (EAI) (reaffirm a national adoption INCITS/ISO/IEC 14772-2:2004 [R2014])
- INCITS/ISO/IEC 14888-2:2008 [R201x], Information technology - Security techniques - Digital signatures with appendix - Part 2: Integer factorization based mechanisms (reaffirm a national adoption INCITS/ISO/IEC 14888-2:2008 [R2014])
- INCITS/ISO/IEC 15444-6:2013 [R201x], Information technology - JPEG 2000 image coding system - Part 6: Compound image file format (reaffirm a national adoption INCITS/ISO/IEC 15444-6:2013 [2014])
- INCITS/ISO/IEC 15444-8:2007 [R201x], Information technology - JPEG 2000 image coding system: Secure JPEG 2000 (reaffirm a national adoption INCITS/ISO/IEC 15444-8:2007 [R2014])
- INCITS/ISO/IEC 15444-9:2005 [R201x], Information technology - JPEG 2000 image coding system: Interactivity tools, APIs and protocols (reaffirm a national adoption INCITS/ISO/IEC 15444-9:2005 [R2014])
- INCITS/ISO/IEC 15444-11:2007 [R201x], Information technology - JPEG 2000 image coding system: Wireless (reaffirm a national adoption INCITS/ISO/IEC 15444-11:2007 [R2014])
- INCITS/ISO/IEC 15444-13:2008 [R201x], Information technology - JPEG 2000 image coding system: An entry level JPEG 2000 encoder (reaffirm a national adoption INCITS/ISO/IEC 15444-13:2008 [R2014])
- INCITS/ISO/IEC 15444-12:2012 [2014], Information technology - JPEG 2000 image coding system - Part 12: ISO base media file format (withdrawal of INCITS/ISO/IEC 15444-12:2012 [2014])
- INCITS/ISO/IEC 15938-9:2005 [R201x], Information technology - Multimedia content description interface - Part 9: Profiles and levels (reaffirm a national adoption INCITS/ISO/IEC 15938-9:2005 [R2014])
- INCITS/ISO/IEC 15938-10:2005 [R201x], Information technology - Multimedia content description Interface - Part 10: Schema definition (reaffirm a national adoption INCITS/ISO/IEC 15938-10:2005 [R2014])
- INCITS/ISO/IEC 15938-1:2002/AM1:2005 [R201x], Information technology - Multimedia content description interface - Part 1: Systems - Amendment 1: Systems extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-1:2002/AM1:2005 [R2014])
- INCITS/ISO/IEC 15938-1:2002/AM2:2006 [R201x], Information technology - Multimedia content description interface - Part 1: Systems - Amendment 2: Fast access extension (reaffirm a national adoption INCITS/ISO/IEC 15938-1:2002/AM2:2006 [R2014])
- INCITS/ISO/IEC 15938-3:2002/AM1:2004 [R201x], Information technology - Multimedia content description interface - Part 3: Visual - Amendment 1: Visual extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-3:2002/AM1:2004 [R2014])
- INCITS/ISO/IEC 15938-3:2002/AM2:2006 [R201x], Information technology - Multimedia content description interface - Part 3: Visual - Amendment 2: Perceptual 3D Shape Descriptor (reaffirm a national adoption INCITS/ISO/IEC 15938-3:2002/AM2:2006 [R2014])
- INCITS/ISO/IEC 15938-4:2002/AM1:2004 [R201x], Information technology - Multimedia content description interface - Part 4: Audio - Amendment 1: Audio extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-4:2002/AM1:2004 [R2014])
- INCITS/ISO/IEC 15938-4:2002/AM2:2006 [R201x], Information technology - Multimedia content description interface - Part 4: Audio - Amendment 2: High-level descriptors (reaffirm a national adoption INCITS/ISO/IEC 15938-4:2002/AM2:2006 [R2014])
- INCITS/ISO/IEC 15938-4:2002/AM2:2006 [R201x], Information technology - Multimedia content description interface - Part 4: Audio - Amendment 2: High-level descriptors (reaffirm a national adoption INCITS/ISO/IEC 15938-4:2002/AM2:2006 [R2014])
- INCITS/ISO/IEC 15938-5:2003/AM1:2004 [R201x], Information technology - Multimedia content description interface - Part 5: Multimedia description schemes - Amendment 1: Multimedia description schemes extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-5:2003/AM1:2004 [R2014])
- INCITS/ISO/IEC 15938-5:2003/AM2:2005 [R201x], Information technology - Multimedia content description interface - Part 5: Multimedia description schemes - Amendment 2: Multimedia description schemes user preference extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-5:2003/AM2:2005 [R2014])
- INCITS/ISO/IEC 15938-5:2003/AM3:2008 [R201x], Information technology - Multimedia content description interface - Part 5: Multimedia description schemes - Amendment 3: Improvements to geographic descriptor (reaffirm a national adoption INCITS/ISO/IEC 15938-5:2003/AM3:2008 [R2014])
- INCITS/ISO/IEC 15938-6:2003/AM1:2006 [R201x], Information technology - Multimedia content description interface - Part 6: Reference software - Amendment 1: Reference software extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-6:2003/AM1:2006 [R2014])
- INCITS/ISO/IEC 15938-6:2003/AM2:2007 [R201x], Information technology - Multimedia content description interface - Part 6: Reference software - Amendment 2: Reference software of perceptual 3D shape descriptor (reaffirm a national adoption INCITS/ISO/IEC 15938-6:2003/AM2:2007 [R2014])

- INCITS/ISO/IEC 15938-7:2003/AM1:2005 [R201x], Information technology - Multimedia content description interface - Part 7: Conformance testing - Amendment 1: Conformance extensions (reaffirm a national adoption INCITS/ISO/IEC 15938-7:2003/AM1:2005 [R2014])
- INCITS/ISO/IEC 15938-7:2003/AM2:2007 [R201x], Information technology - Multimedia content description interface - Part 7: Conformance testing - Amendment 2: Fast access extensions conformance (reaffirm a national adoption INCITS/ISO/IEC 15938-7:2003/AM2:2007 [R2014])
- INCITS/ISO/IEC 15938-7:2003/AM3:2007 [R201x], Information technology - Multimedia content description interface - Part 7: Conformance testing - Amendment 3: Conformance testing of perceptual 3D shape descriptor (reaffirm a national adoption INCITS/ISO/IEC 15938-7:2003/AM3:2007 [R2014])
- INCITS/ISO/IEC 15938-7:2003/AM4:2008 [R201x], Information technology - Multimedia content description interface - Part 7: Conformance testing - Amendment 4: Improvements to geographic descriptor conformance (reaffirm a national adoption INCITS/ISO/IEC 15938-7:2003/AM4:2008 [R2014])
- INCITS/ISO/IEC 15944-10:2013 [R201x], Information technology - Business Operational View - Part 10: IT-enabled coded domains as semantic components in business transactions (reaffirm a national adoption INCITS/ISO/IEC 15944-10:2013 [2014])
- INCITS/ISO/IEC 18023-1:2006 [R201x], Information technology - Synthetic Environment Data Representation Interchange Specification (SEDRIS) - Part 1: Functional specification (reaffirm a national adoption INCITS/ISO/IEC 18023-1:2006 [R2014])
- INCITS/ISO/IEC 18023-2:2006 [R201x], Information technology - Synthetic Environment Data Representation and Interchange Specification (SEDRIS): Part 2: Abstract transmittal format (reaffirm a national adoption INCITS/ISO/IEC 18023-2:2006 [R2014])
- INCITS/ISO/IEC 18023-3:2006 [R201x], Information technology - Synthetic Environment Data Representation and Interchange Specification (SEDRIS): Part 3: Transmittal format binary encoding (reaffirm a national adoption INCITS/ISO/IEC 18023-3:2006 [R2014])
- INCITS/ISO/IEC 18024-4:2006 [R201x], Information technology - Synthetic Environment Data Representation and Interchange Specification (SEDRIS) Language Bindings - Part 4: C (reaffirm a national adoption INCITS/ISO/IEC 18024-4:2006 [R2014])
- INCITS/ISO/IEC 18042-4:2006 [R201x], Information technology - Computer graphics and image processing - Spatial Reference Model (SRM) language bindings - Part 4: C (reaffirm a national adoption INCITS/ISO/IEC 18042-4:2006 [R2014])
- INCITS/ISO/IEC 19757-2:2008 [R201x], Information technology - Document Schema Definition Language (DSDL) - Part 2: Regular-grammar-based validation - RELAX NG (reaffirm a national adoption INCITS/ISO/IEC 19757-2:2008 [R2014])
- INCITS/ISO/IEC 19757-8:2008 [R201x], Information technology - Document Schema Definition Languages (DSDL) - Part 8: Document Semantics Renaming Language (DSRL) (reaffirm a national adoption INCITS/ISO/IEC 19757-8:2008 [R2014])
- INCITS/ISO/IEC 19757-9:2008 [R201x], Information technology - Document Schema Definition Languages (DSDL) - Part 9: Namespace and datatype declaration in Document Type Definitions (DTDs) (reaffirm a national adoption INCITS/ISO/IEC 19757-9:2008 [R2014])
- INCITS/ISO/IEC 19775-1:2013 [R201x], Information technology - Computer graphics, image processing and environmental data representation - Extensible 3D (X3D) - Part 1: Architecture and base components (reaffirm a national adoption INCITS/ISO/IEC 19775-1:2013 [2014])
- INCITS/ISO/IEC 19784-2:2007 [R2018], Information technology - Biometric application programming interface - Part 2: Biometric archive function provider interface (withdrawal of INCITS/ISO/IEC 19784-2:2007 [R2018])
- INCITS/ISO/IEC 19784-2:2007/COR 1:2011 [R2018], Information technology - Biometric application programming interface - Part 2: Biometric archive function provider interface - Technical Corrigendum 1 (withdrawal of INCITS/ISO/IEC 19784-2:2007/COR 1:2011 [R2018])
- INCITS/ISO/IEC 19784-2:2007/COR 2:2013 [2014], Information technology - Biometric application programming interface - Part 2: Biometric archive function provider interface - Technical Corrigendum 2 (withdrawal of INCITS/ISO/IEC 19784-2:2007/COR 2:2013 [2014])
- INCITS/ISO/IEC 19785-4:2010/COR1:2013 [R201x], Information technology - Common Biometric Exchange Formats Framework (CBEFF) - Part 4: Security block format specifications - Technical Corrigendum 1 (reaffirm a national adoption INCITS/ISO/IEC 19785-4:2010/COR1:2013 [2014])
- INCITS/ISO/IEC 19794-7:2014 [R201x], Information technology - Biometric data interchange formats - Part 7: Signature/sign time series data (reaffirm a national adoption INCITS/ISO/IEC 19794-7:2014 [2014])
- INCITS/ISO/IEC 19794-8:2006 [R201x], Information technology - Biometric data interchange formats - Part 8: Finger pattern skeletal data (reaffirm a national adoption INCITS/ISO/IEC 19794-8:2006 [R2014])
- INCITS/ISO/IEC 19794-1:2011/AM1:2013 [R201x], Information technology - Biometric data interchange formats - Part 1: Framework Amendment 1: Conformance testing methodology (reaffirm a national adoption INCITS/ISO/IEC 19794-1:2011/AM1:2013 [2014])
- INCITS/ISO/IEC 19794-4:2011/COR1:2012 [R201x], Information technology - Biometric data interchange formats - Part 4: Finger image data - Technical Corrigendum 1 (reaffirm a national adoption INCITS/ISO/IEC 19794-4:2011/COR1:2012 [2014])

- INCITS/ISO/IEC 19794-4:2011/AM1:2013 [R201x], Information technology - Biometric data interchange formats - Part 4: Finger image data Amendment 1: Conformance testing methodology and clarification of defects (reaffirm a national adoption INCITS/ISO/IEC 19794-4:2011/AM1:2013 [2014])
- INCITS/ISO/IEC 19794-5:2011/AM1:2014 [R201x], Information technology - Biometric data interchange formats - Part 5: Face image data - Amendment 1: Conformance testing methodology and clarification of defects (reaffirm a national adoption INCITS/ISO/IEC 19794-5:2011/AM1:2014 [2014])
- INCITS/ISO/IEC 19794-6:2011/COR1:2012 [R201x], Information technology - Biometric data interchange formats - Part 6: Iris image data - Technical Corrigendum 1 (reaffirm a national adoption INCITS/ISO/IEC 19794-6:2011/COR1:2012 [2014])
- INCITS/ISO/IEC 19794-5:2005/AM 1:2007 [R2014], Information technology - Biometric data interchange formats - Part 5: Face image data - Amendment 1: Face Image Data on Conditions for taking photographs (withdrawal of INCITS/ISO/IEC 19794-5:2005/AM 1:2007 [R2014])
- INCITS/ISO/IEC 19794-5:2005/COR 1:2008 [R2014], Information technology - Biometric data interchange formats - Part 5: Face image data - Technical Corrigendum 1 (withdrawal of INCITS/ISO/IEC 19794-5:2005/COR 1:2008 [R2014])
- INCITS/ISO/IEC 19794-5:2005/COR 2:2008 [R2014], Information technology - Biometric data interchange formats - Part 5: Face image data - Technical Corrigendum 2 (withdrawal of INCITS/ISO/IEC 19794-5:2005/COR 2:2008 [R2014])
- INCITS/ISO/IEC 19794-5:2005/AM 2:2009 [R2015], Information technology - Biometric data interchange formats - Part 5: Face image data - Amendment 2 (withdrawal of INCITS/ISO/IEC 19794-5:2005/AM 2:2009 [R2015])
- INCITS/ISO/IEC 19794-5:2005/COR 3:2013 [R2018], Information technology - Biometric data interchange formats - Part 5: Face image data - Technical Corrigendum 3 (withdrawal of INCITS/ISO/IEC 19794-5:2005/COR 3:2013 [R2018])
- INCITS/ISO/IEC 19795-2:2007 [R201x], Information technology - Biometric performance testing and reporting - Part 2: Testing methodologies for technology and scenario evaluation (reaffirm a national adoption INCITS/ISO/IEC 19795-2:2007 [R2014])
- INCITS/ISO/IEC 19795-4:2008 [R201x], Information technology - Biometric performance testing and reporting - Part 4: Interoperability performance testing (reaffirm a national adoption INCITS/ISO/IEC 19795-4:2008 [R2014])
- INCITS/ISO/IEC 20008-1:2013 [R201x], Information technology - Security techniques - Anonymous digital signatures - Part 1: General (reaffirm a national adoption INCITS/ISO/IEC 20008-1:2013 [2014])
- INCITS/ISO/IEC 20008-2:2013 [R201x], Information technology - Security techniques - Anonymous digital signatures - Part 2: Mechanisms using a group public key (reaffirm a national adoption INCITS/ISO/IEC 20008-2:2013 [2014])
- INCITS/ISO/IEC 20009-1:2013 [R201x], Information technology - Security techniques - Anonymous entity authentication - Part 1: General (reaffirm a national adoption INCITS/ISO/IEC 20009-1:2013 [2014])
- INCITS/ISO/IEC 21000-4:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 4: Intellectual Property Management and Protection Components (reaffirm a national adoption INCITS/ISO/IEC 21000-4:2006 [R2014])
- INCITS/ISO/IEC 21000-5:2004 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 5: Rights Expression Language (reaffirm a national adoption INCITS/ISO/IEC 21000-5:2004 [R2014])
- INCITS/ISO/IEC 21000-6:2004 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 6: Rights Data Dictionary (reaffirm a national adoption INCITS/ISO/IEC 21000-6:2004 [R2014])
- INCITS/ISO/IEC 21000-8:2008 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 8: Reference software (reaffirm a national adoption INCITS/ISO/IEC 21000-8:2008 [R2014])
- INCITS/ISO/IEC 21000-9:2005 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 9: File Format (reaffirm a national adoption INCITS/ISO/IEC 21000-9:2005 [R2014])
- INCITS/ISO/IEC 21000-10:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 10: Digital Item Processing (reaffirm a national adoption INCITS/ISO/IEC 21000-10:2006 [R2014])
- INCITS/ISO/IEC 21000-14:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 14: Conformance Testing (reaffirm a national adoption INCITS/ISO/IEC 21000-14:2007 [R2014])
- INCITS/ISO/IEC 21000-15:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 15: Event Reporting (reaffirm a national adoption INCITS/ISO/IEC 21000-15:2006 [R2014])
- INCITS/ISO/IEC 21000-16:2005 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 16: Binary Format (reaffirm a national adoption INCITS/ISO/IEC 21000-16:2005 [R2014])
- INCITS/ISO/IEC 21000-17:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 17: Fragment Identification of MPEG Resources (reaffirm a national adoption INCITS/ISO/IEC 21000-17:2006 [R2014])
- INCITS/ISO/IEC 21000-18:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 18: Digital Item Streaming (reaffirm a national adoption INCITS/ISO/IEC 21000-18:2007 [R2014])



- INCITS/ISO/IEC 21000-3:2003/AM1:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 3: Digital Item Identification - Amendment 1: Related identifier types (reaffirm a national adoption INCITS/ISO/IEC 21000-3:2003/AM1:2007 [R2014])
- INCITS/ISO/IEC 21000-4:2006/AM1:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 4: Intellectual Property Management and Protection Components - Amendment 1: IPMP components base profile (reaffirm a national adoption INCITS/ISO/IEC 21000-4:2006/AM1:2007 [R2014])
- INCITS/ISO/IEC 21000-5:2004/AM1:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 5: Rights Expression Language - Amendment 1: MAM (Mobile And optical Media) profile (reaffirm a national adoption INCITS/ISO/IEC 21000-5:2004/AM1:2007 [R2014])
- INCITS/ISO/IEC 21000-5:2004/AM2:2007 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 5: Rights Expression Language - Amendment 2: DAC (Dissemination And Capture) profile (reaffirm a national adoption INCITS/ISO/IEC 21000-5:2004/AM2:2007 [R2014])
- INCITS/ISO/IEC 21000-5:2004/AM3:2008 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 5: Rights Expression Language - Amendment 3: Open access content (OAC) profile (reaffirm a national adoption INCITS/ISO/IEC 21000-5:2004/AM3:2008 [R2014])
- INCITS/ISO/IEC 21000-6:2004/AM1:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 6: Rights Data Dictionary - Amendment 1: Digital Item Identifier relationship types (reaffirm a national adoption INCITS/ISO/IEC 21000-6:2004/AM1:2006 [R2014])
- INCITS/ISO/IEC 21000-9:2005/AM1:2008 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 9: File Format - Amendment 1: MIME type registration (reaffirm a national adoption INCITS/ISO/IEC 21000-9:2005/AM1:2008 [R2014])
- INCITS/ISO/IEC 21000-10:2006/AM1:2006 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 10: Digital Item Processing - Amendment 1: Additional C++ bindings (reaffirm a national adoption INCITS/ISO/IEC 21000-10:2006/AM1:2006 [R2014])
- INCITS/ISO/IEC 21000-15:2006/AM1:2008 [R201x], Information technology - Multimedia framework (MPEG-21) - Part 15: Event Reporting - Amendment 1: Security in Event Reporting (reaffirm a national adoption INCITS/ISO/IEC 21000-15:2006/AM1:2008 [R2014])
- INCITS/ISO/IEC 23000-2:2008 [R201x], Information technology - Multimedia application format (MPEG-A) - Part 2: MPEG music player application format (Ed 2) (reaffirm a national adoption INCITS/ISO/IEC 23000-2:2008 [R2014])
- INCITS/ISO/IEC 23000-3:2007 [R201x], Information technology - Multimedia application format (MPEG-A) - Part 3: MPEG photo player application format (reaffirm a national adoption INCITS/ISO/IEC 23000-3:2007 [R2014])
- INCITS/ISO/IEC 23000-5:2011 [R201x], Information technology - Multimedia application format (MPEG-A) - Part 5: Media streaming application format (Ed 2) (reaffirm a national adoption INCITS/ISO/IEC 23000-5:2011 [R2014])
- INCITS/ISO/IEC 23000-7:2008 [R201x], Information technology - Multimedia application format (MPEG-A) - Part 7: Open access application format (reaffirm a national adoption INCITS/ISO/IEC 23000-7:2008 [R2014])
- INCITS/ISO/IEC 23000-9:2008 [R201x], Information technology - Multimedia application format (MPEG-A) - Part 9: Digital Multimedia Broadcasting application format (reaffirm a national adoption INCITS/ISO/IEC 23000-9:2008 [R2014])
- INCITS/ISO/IEC 23001-1:2006 [R201x], Information technology - MPEG systems technologies - Part 1: Binary MPEG format for XML (reaffirm a national adoption INCITS/ISO/IEC 23001-1:2006 [R2014])
- INCITS/ISO/IEC 23001-2:2008 [R201x], Information technology - MPEG systems technologies - Part 2: Fragment request units (reaffirm a national adoption INCITS/ISO/IEC 23001-2:2008 [R2014])
- INCITS/ISO/IEC 23001-3:2008 [R201x], Information technology - MPEG systems technologies - Part 3: XML IPMP messages (reaffirm a national adoption INCITS/ISO/IEC 23001-3:2008 [R2014])
- INCITS/ISO/IEC 23001-5:2008 [R201x], Information technology - MPEG systems technologies - Part 5: Bitstream Syntax Description Language (BSDL) (reaffirm a national adoption INCITS/ISO/IEC 23001-5:2008 [R2014])
- INCITS/ISO/IEC 23001-1:2006/AM1:2007 [R201x], Information technology - MPEG systems technologies - Part 1: Binary MPEG format for XML - Amendment 1: Conformance and reference software (reaffirm a national adoption INCITS/ISO/IEC 23001-1:2006/AM1:2007 [R2014])
- INCITS/ISO/IEC 23001-1:2006/AM2:2008 [R201x], Information technology - MPEG systems technologies - Part 1: Binary MPEG format for XML - Amendment 2: Conservation of prefixes and extensions on encoding of wild cards (reaffirm a national adoption INCITS/ISO/IEC 23001-1:2006/AM2:2008 [R2014])
- INCITS/ISO/IEC 23002-1:2006 [R201x], Information technology - MPEG video technologies - Part 1: Accuracy requirements for implementation of integer-output 8x8 inverse discrete cosine transform (reaffirm a national adoption INCITS/ISO/IEC 23002-1:2006 [R2014])
- INCITS/ISO/IEC 23002-2:2008 [R201x], Information technology - MPEG video technologies - Part 2: Fixed-point 8x8 inverse discrete cosine transform and discrete cosine transform (reaffirm a national adoption INCITS/ISO/IEC 23002-2:2008 [R2014])

- INCITS/ISO/IEC 23002-3:2007 [R201x], Information technology - MPEG video technologies - Part 3: Representation of auxiliary video and supplemental information (reaffirm a national adoption INCITS/ISO/IEC 23002-3:2007 [R2014])
- INCITS/ISO/IEC 23002-1:2006/AM1:2008 [R201x], Information technology - MPEG video technologies - Part 1: Accuracy requirements for implementation of integer-output 8x8 inverse discrete cosine transform - Amendment 1: Software for integer IDCT accuracy testing (reaffirm a national adoption INCITS/ISO/IEC 23002-1:2006/AM1:2008 [R2014])
- INCITS/ISO/IEC 23003-1:2007 [R201x], Information technology - MPEG audio technologies - Part 1: MPEG Surround (reaffirm a national adoption INCITS/ISO/IEC 23003-1:2007 [R2014])
- INCITS/ISO/IEC 23003-1:2007/AM1:2008 [R201x], Information technology - MPEG audio technologies - Part 1: MPEG Surround - Amendment 1: Conformance testing (reaffirm a national adoption INCITS/ISO/IEC 23003-1:2007/AM1:2008 [R2014])
- INCITS/ISO/IEC 23003-1:2007/AM2:2008 [R201x], Information technology - MPEG audio technologies - Part 1: MPEG Surround - Amendment 2: Reference software (reaffirm a national adoption INCITS/ISO/IEC 23003-1:2007/AM2:2008 [R2014])
- INCITS/ISO/IEC 23004-1:2007 [R201x], Information technology - Multimedia Middleware - Part 1: Architecture (reaffirm a national adoption INCITS/ISO/IEC 23004-1:2007 [R2014])
- INCITS/ISO/IEC 23004-2:2007 [R201x], Information technology - Multimedia Middleware - Part 2: Multimedia application programming interface (API) (reaffirm a national adoption INCITS/ISO/IEC 23004-2:2007 [R2014])
- INCITS/ISO/IEC 23004-3:2007 [R201x], Information technology - Multimedia Middleware - Part 3: Component model (reaffirm a national adoption INCITS/ISO/IEC 23004-3:2007 [R2014])
- INCITS/ISO/IEC 23004-4:2007 [R201x], Information technology - Multimedia Middleware - Part 4: Resource and quality management (reaffirm a national adoption INCITS/ISO/IEC 23004-4:2007 [R2014])
- INCITS/ISO/IEC 23004-5:2008 [R201x], Information technology - Multimedia Middleware - Part 5: Component download (reaffirm a national adoption INCITS/ISO/IEC 23004-5:2008 [R2014])
- INCITS/ISO/IEC 23004-6:2008 [R201x], Information technology - Multimedia Middleware - Part 6: Fault management (reaffirm a national adoption INCITS/ISO/IEC 23004-6:2008 [R2014])
- INCITS/ISO/IEC 23004-7:2008 [R201x], Information technology - Multimedia Middleware - Part 7: System integrity management (reaffirm a national adoption INCITS/ISO/IEC 23004-7:2008 [R2014])
- INCITS/ISO/IEC 24709-2:2007 [R2014], Information technology - Conformance testing for the biometric application programming interface (BioAPI) - Part 2: Test assertions for biometric service providers (withdrawal of INCITS/ISO/IEC 24709-2:2007 [R2014])
- INCITS/ISO/IEC 24713-1:2008 [R201x], Information technology - Biometric profiles for interoperability and data interchange - Part 1: Overview of biometric systems and biometric profiles (reaffirm a national adoption INCITS/ISO/IEC 24713-1:2008 [R2014])
- INCITS/ISO/IEC 24727-2:2008 [R201x], Identification cards - Programming Interfaces for Integrated Circuit Cards - Part 2: Generic card edge (reaffirm a national adoption INCITS/ISO/IEC 24727-2:2008 [R2014])
- INCITS/ISO/IEC 24727-3:2008 [R201x], Identification cards - Programming interfaces for Integrated Circuit Card - Part 3: Application interface (reaffirm a national adoption INCITS/ISO/IEC 24727-3:2008 [R2014])
- INCITS/ISO/IEC 24727-4:2008 [R201x], Identification cards - Integrated circuit card programming interfaces - Part 4: Application programming interface (API) administration (reaffirm a national adoption INCITS/ISO/IEC 24727-4:2008 [R2014])
- INCITS/ISO/IEC 24752-3:2008 [R2014], Information technology - User interfaces - Universal remote console - Part 3: Presentation template (withdrawal of INCITS/ISO/IEC 24752-3:2008 [R2014])
- INCITS/ISO/IEC 27033-2:2012 [R201x], Information technology - Security techniques - Network security - Part 2: Guidelines for the design and implementation of network security (reaffirm a national adoption INCITS/ISO/IEC 27033-2:2012 [2014])
- INCITS/ISO/IEC 27033-5:2013 [R201x], Information technology - Security techniques - Network security - Part 5: Securing communications across networks using Virtual Private Networks (VPNs) (reaffirm a national adoption INCITS/ISO/IEC 27033-5:2013 [2014])
- INCITS/ISO/IEC 29109-1:2009/COR 1:2010 [R201x], Information technology - Conformance testing methodology for Biometric Data Interchange Records as defined in ISO/IEC 19794 - Part 1: Generalized conformance testing methodology - Technical Corrigendum 1 (reaffirm a national adoption INCITS/ISO/IEC 29109-1:2009/COR 1:2010 [2014])
- INCITS/ISO/IEC 29182-1:2013 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 1: General overview and requirements (reaffirm a national adoption INCITS/ISO/IEC 29182-1:2013 [2014])
- INCITS/ISO/IEC 29182-2:2013 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 2: Vocabulary and terminology (reaffirm a national adoption INCITS/ISO/IEC 29182-2:2013 [2014])
- INCITS/ISO/IEC 29182-3:2014 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 3: Reference architecture views (reaffirm a national adoption INCITS/ISO/IEC 29182-3:2014 [2014])
- INCITS/ISO/IEC 29182-4:2013 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 4: Entity models (reaffirm a national adoption INCITS/ISO/IEC 29182-4:2013 [2014])

- INCITS/ISO/IEC 29182-5:2013 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 5: Interface definitions (reaffirm a national adoption INCITS/ISO/IEC 29182-5:2013 [2014])
- INCITS/ISO/IEC 29182-6:2014 [R201x], Information technology - Sensor networks: Sensor Network Reference Architecture (SNRA) - Part 6: Application Profiles (reaffirm a national adoption INCITS/ISO/IEC 29182-6:2014 [2014])
- INCITS/ISO/IEC 29192-3:2012 [R201x], Information technology - Security techniques - Lightweight cryptography - Part 3: Stream ciphers (reaffirm a national adoption INCITS/ISO/IEC 29192-3:2012 [2014])
- INCITS/ISO/IEC 29192-4:2013 [R201x], Information technology - Security techniques - Lightweight cryptography - Part 4: Mechanisms using asymmetric techniques (reaffirm a national adoption INCITS/ISO/IEC 29192-4:2013 [2014])
- INCITS/ISO/IEC 1001:2012 [R201x], Information technology - Digitally recorded media for information interchange and storage - Test method for the estimation of lifetime of optical media for long-term data storage (reaffirm a national adoption INCITS/ISO/IEC 1001:2012 [R2014])
- INCITS/ISO/IEC 1989:2014 [R201x], Information technology - Programming languages, their environments and system software interfaces - Programming language COBOL (reaffirm a national adoption INCITS/ISO/IEC 1989:2014 [2014])
- INCITS/ISO/IEC 5218:2004 [R201x], Information Interchange - Representation of Human Sexes (reaffirm a national adoption INCITS/ISO/IEC 5218:2004 [R2014])
- INCITS/ISO/IEC 9973:2013 [R201x], Information technology - Computer graphics, image processing and environmental data representation - Procedures for registration of items (reaffirm a national adoption INCITS/ISO/IEC 9973:2013 [2014])
- INCITS/ISO/IEC 10149:1995 [S201x], Information Technology - Data Interchange on Read-Only 120 mm Optical Data Disks (CD-ROM) (stabilized maintenance of INCITS/ISO/IEC 10149:1995 [R2014])
- INCITS/ISO/IEC 10779:2008 [R201x], Information technology - Accessibility guidelines for elderly persons and persons with disabilities (reaffirm a national adoption INCITS/ISO/IEC 10779:2008 [R2014])
- INCITS/ISO/IEC 11404:2007 [R201x], Information technology - General-Purpose Datatypes (GPD) (reaffirm a national adoption INCITS/ISO/IEC 11404:2007 [R2014])
- INCITS/ISO/IEC 11574:2000 [R201x], Information Technology - Telecommunications and Information Exchange Between Systems - Private Integrated Services Network - Circuit-mode 64 kbit/s Bearer Services - Service Description, Functional Capabilities and Information Flows (reaffirm a national adoption INCITS/ISO/IEC 11574:2000 [R2014])
- INCITS/ISO/IEC 11976:2008 [S201x], Information technology - Data interchange on 130 mm rewritable and write-once-read-many ultra density optical (UDO) disk cartridges - Capacity: 60 Gbytes per cartridge - Second generation (stabilized maintenance of INCITS/ISO/IEC 11976:2008 [R2014])
- INCITS/ISO/IEC 12862:2011 [R201x], Information technology - 120 mm (8,54 Gbytes per side) and 80 mm (2,66 Gbytes per side) DVD recordable disk for dual layer (DVD-R for DL) (reaffirm a national adoption INCITS/ISO/IEC 12862:2011 [2014])
- INCITS/ISO/IEC 13240:2001 [R201x], Information technology - Document description and processing languages - Interchange Standard for Multimedia Interactive Documents (ISMID) (reaffirm a national adoption INCITS/ISO/IEC 13240:2001 [R2014])
- INCITS/ISO/IEC 14417:1999 [R201x], Information Technology - Data Recording Format DD-1 for Magnetic Tape Cassette Conforming to ISO/IEC 1016 (formerly ANSI/ISO/IEC 14417-1999) (reaffirm a national adoption INCITS/ISO/IEC 14417:1999 [R2014])
- INCITS/ISO/IEC 14662:2010 [R201x], Information technology - Open-edi reference model (reaffirm a national adoption INCITS/ISO/IEC 14662:2010 [2014])
- INCITS/ISO/IEC 14957:2010 [R201x], Information technology - Representation of data element values - Notation of the format (reaffirm a national adoption INCITS/ISO/IEC 14957:2010 [2014])
- INCITS/ISO/IEC 15948:2004 [R201x], Information technology - Computer graphics and image processing - Portable Network Graphics (PNG): Functional specification (reaffirm a national adoption INCITS/ISO/IEC 15948:2004 [R2014])
- INCITS/ISO/IEC 17341:2009 [R201x], Information technology - Data Interchange on 120 mm and 80 mm Optical Disk using +RW Format - Capacity: 4,7 Gbytes and 1,46 Gbytes per Side (Recording speed up to 4X) (reaffirm a national adoption INCITS/ISO/IEC 17341:2009 [R2014])
- INCITS/ISO/IEC 17344:2009 [R201x], Information technology - Data Interchange on 120 mm and 80 mm Optical Disk using +R Format - Capacity: 4,7 and 1,46 Gbytes per Side (Recording speed up to 16X) (reaffirm a national adoption INCITS/ISO/IEC 17344:2009 [R2014])
- INCITS/ISO/IEC 17629:2014 [R201x], Information technology - Method for measuring first print out time for digital printing devices (reaffirm a national adoption INCITS/ISO/IEC 17629:2014 [2014])
- INCITS/ISO/IEC 17963:2013 [R201x], Web Services for Management (WS-Management) Specification (reaffirm a national adoption INCITS/ISO/IEC 17963:2013 [2014])
- INCITS/ISO/IEC 17998:2012 [R201x], Information technology - SOA Governance Framework (reaffirm a national adoption INCITS/ISO/IEC 17998:2012 [2014])
- INCITS/ISO/IEC 18025:2014 [R201x], Information technology - Environmental Data Coding Specification (EDCS) (reaffirm a national adoption INCITS/ISO/IEC 18025:2014 [2014])

- INCITS/ISO/IEC 18032:2005 [R201x], Information technology - Security techniques - Prime number generation (reaffirm a national adoption INCITS/ISO/IEC 18032:2005 [R2014])
- INCITS/ISO/IEC 19502:2005 [R201x], Information technology - Meta Object Facility (MOF) (reaffirm a national adoption INCITS/ISO/IEC 19502:2005 [R2014])
- INCITS/ISO/IEC 19503:2005 [R201x], Information technology - XML Metadata Interchange (XMI) (reaffirm a national adoption INCITS/ISO/IEC 19503:2005 [R2014])
- INCITS/ISO/IEC 19508:2014 [R201x], Information technology - Object Management Group Meta Object Facility (MOF) Core (reaffirm a national adoption INCITS/ISO/IEC 19508:2014 [2014])
- INCITS/ISO/IEC 19509:2014 [R201x], Information technology - Object Management Group XML Metadata Interchange (XMI) (reaffirm a national adoption INCITS/ISO/IEC 19509:2014 [2014])
- INCITS/ISO/IEC 19772:2009 [R201x], Information technology - Security techniques - Authenticated encryption (reaffirm a national adoption INCITS/ISO/IEC 19772:2009 [R2014])
- INCITS/ISO/IEC 19774:2006 [R201x], Information technology - Computer graphics and image processing - Humanoid Animation (H-Anim) (reaffirm a national adoption INCITS/ISO/IEC 19774:2006 [R2014])
- INCITS/ISO/IEC 19790:2012 [R201x], Information technology - Security techniques - Security requirements for cryptographic modules (reaffirm a national adoption INCITS/ISO/IEC 19790:2012 [2014])
- INCITS/ISO/IEC 20005:2013 [R201x], Information technology - Sensor networks - Services and interfaces supporting collaborative information processing in intelligent sensor networks (reaffirm a national adoption INCITS/ISO/IEC 20005:2013 [2014])
- INCITS/ISO/IEC 24734:2014 [R201x], Information technology - Method for measuring digital printing productivity (reaffirm a national adoption INCITS/ISO/IEC 24734:2014 [2014])
- INCITS/ISO/IEC 24756:2009 [R201x], Information technology - Framework for specifying a common access profile (CAP) of needs and capabilities of users, systems, and their environments (reaffirm a national adoption INCITS/ISO/IEC 24756:2009 [R2014])
- INCITS/ISO/IEC 24761:2009 [R201x], Information technology - Security techniques - Authentication context for biometrics (reaffirm a national adoption INCITS/ISO/IEC 20009-1:2013 [2014])
- INCITS/ISO/IEC 25434:2008 [R201x], Information technology - Data interchange on 120 mm and 80 mm optical disk using +R DL format - Capacity: 8,55 Gbytes and 2,66 Gbytes per side (recording speed up to 16X) (reaffirm a national adoption INCITS/ISO/IEC 24756:2009 [R2014])
- INCITS/ISO/IEC 26925:2009 [R201x], Information technology - Data interchange on 120 mm and 80 mm optical disk using +RW HS format - Capacity: 4,7 Gbytes and 1,46 Gbytes per side (recording speed 8X) (reaffirm a national adoption INCITS/ISO/IEC 26925:2009 [R2014])
- INCITS/ISO/IEC 27001:2013 [R201x], Information technology - Security techniques - Information security management systems - Requirements (reaffirm a national adoption INCITS/ISO/IEC 27001:2013 [2014])
- INCITS/ISO/IEC 27002:2013 [R201x], Information technology - Security techniques - Code of practice for information security controls (reaffirm a national adoption INCITS/ISO/IEC 27002:2013 [2014])
- INCITS/ISO/IEC 27037:2012 [R201x], Information technology - Security techniques - Guidelines for identification, collection, acquisition and preservation of digital evidence (reaffirm a national adoption INCITS/ISO/IEC 27037:2012 [2014])
- INCITS/ISO/IEC 29115:2013 [R201x], Information technology - Security techniques - Entity authentication assurance framework (reaffirm a national adoption INCITS/ISO/IEC 29115:2013 [2014])
- INCITS/ISO/IEC 29191:2012 [R201x], Information technology - Security techniques - Requirements for partially anonymous, partially unlinkable authentication (reaffirm a national adoption INCITS/ISO/IEC 29191:2012 [2014])
- INCITS/ISO/IEC 29361:2008 [R201x], Information technology - Web Services Interoperability - WS-I Basic Profile Version 1.1 (reaffirm a national adoption INCITS/ISO/IEC 29361:2008 [2014])
- INCITS/ISO/IEC 29642:2009 [R201x], Information technology - Data interchange on 120 mm and 80 mm optical disk using +RW DL format - Capacity: 8,55 Gbytes and 2,66 Gbytes per side (recording speed 2,4x) (reaffirm a national adoption INCITS/ISO/IEC 29642:2009 [R2014])
- INCITS/ISO/IEC 30111:2013 [R201x], Information technology - Security techniques - Lightweight cryptography - Part 4: Mechanisms using asymmetric techniques (reaffirm a national adoption INCITS/ISO/IEC 30111:2013 [2014])
- INCITS/ISO/IEC 40210:2011 [R201x], Information technology - W3C SOAP Version 1.2 - Part 1: Messaging Framework (Second Edition) (reaffirm a national adoption INCITS/ISO/IEC 40210:2011 [2014])
- INCITS/ISO/IEC 40220:2011 [R201x], Information technology - W3C SOAP Version 1.2 - Part 2: Adjuncts (Second Edition) (reaffirm a national adoption INCITS/ISO/IEC 40220:2011 [2014])
- INCITS/ISO/IEC 40230:2011 [R201x], Information technology - W3C SOAP Message Transmission Optimization Mechanism (reaffirm a national adoption INCITS/ISO/IEC 40230:2011 [2014])
- INCITS/ISO/IEC 40240:2011 [R201x], Information technology - W3C Web Services Addressing 1.0 - Core (reaffirm a national adoption INCITS/ISO/IEC 40240:2011 [2014])
- INCITS/ISO/IEC 40250:2011 [R201x], Information technology - W3C Web Services Addressing 1.0 - SOAP Binding (reaffirm a national adoption INCITS/ISO/IEC 40250:2011 [2014])
- INCITS/ISO/IEC 40260:2011 [R201x], Information technology - W3C Web Services Addressing 1.0 - Metadata (reaffirm a national adoption INCITS/ISO/IEC 40260:2011 [2014])

INCITS/ISO/IEC 40270:2011 [R201x], Information technology - W3C Web Services Policy 1.5 - Framework (reaffirm a national adoption INCITS/ISO/IEC 40270:2011 [2014])

INCITS/ISO/IEC 40280:2011 [R201x], Information technology - W3C Web Services Policy 1.5 - Attachment (reaffirm a national adoption INCITS/ISO/IEC 40280:2011 [2014])

INCITS/ISO/IEC 40500:2012 [R201x], Information technology - W3C Web Content Accessibility Guidelines (WCAG) 2.0 (reaffirm a national adoption INCITS/ISO/IEC 40500:2012 [2014])

INCITS/ISO/IEC 24708:2008 [R2014], Information technology - Biometrics - BioAPI Interworking Protocol (withdrawal of INCITS/ISO/IEC 24708:2008 [R2014])

INCITS/ISO/IEC 13240:2001/COR1:2003 [R201x], Information technology - Document description and processing languages - Interchange Standard for Multimedia Interactive Documents (ISMID) - Corrigendum 1 (reaffirm a national adoption INCITS/ISO/IEC 13240:2001/COR1:2003 [R2014])

#### **NECA (National Electrical Contractors Association)**

**Office:** 3 Bethesda Metro Center  
Suite 1100  
Bethesda, MD 20814

**Contact:** Aga Golriz

**Phone:** (301) 215-4549

**E-mail:** Aga.golriz@necanet.org

BSR/NECA 121-201X, Standard for Installing Nonmetallic-Sheathed Cable (Type NM-B) and Underground-Feeder and Branch-Circuit Cable (Type UF) (revision of ANSI/NECA 121-2008)

BSR/NECA 402-201x, Standard for Installing and Maintaining Motor Control Centers (new standard)

BSR/NECA 500-201x, Standard for Installing and Maintaining Indoor Commercial Lighting Systems (new standard)

#### **NEMA (ASC C8) (National Electrical Manufacturers Association)**

**Office:** 1300 North 17th Street  
Rosslyn, VA 22209

**Contact:** Khaled Masri

**Phone:** (703) 841-3278

**E-mail:** Khaled.Masri@nema.org

BSR/ICEA P-54-440-2009/NEMA WC-51-2009 (R201x), Ampacities of Cables Installed in Trays (reaffirmation of ANSI/ICEA P-54-440-2009/NEMA WC-51-2009 (R2014))

#### **NSF (NSF International)**

**Office:** 789 N. Dixboro Road  
Ann Arbor, MI 48105-9723

**Contact:** Monica Leslie

**Phone:** (734) 827-5643

**E-mail:** mleslie@nsf.org

BSR/ANSI 244-201x (i5r1), Supplemental Microbiological Water Treatment Systems - Filtration (revision of ANSI/NSF 244-2018)

BSR/NSF 2-201x (i33r1), Food Equipment (revision of ANSI/NSF 2-2018)

BSR/NSF 42-201x (i101r1), Drinking Water Treatment Units - Aesthetic Effects (revision of ANSI/NSF 42-2018)

BSR/NSF 53-201x (i115r3), Drinking Water Treatment Units - Health Effects (revision of ANSI/NSF 53-2018)

BSR/NSF 53-201x (i119r1), Drinking Water Treatment Units - Health Effects (revision of ANSI/NSF 53-2018)

BSR/NSF 350-201x (i44r1), Onsite Residential and Commercial Water Reuse Treatment Systems (revision of ANSI/NSF 350-2018)

BSR/NSF 401-201x (i14r1), Drinking Water Treatment Units - Emerging Compounds/Incidental Contaminants (revision of ANSI/NSF 401-2018)

#### **OPEI (Outdoor Power Equipment Institute)**

**Office:** 1605 King Street  
Alexandria, VA 22314

**Contact:** Greg Knott

**Phone:** (703) 549-7600

**E-mail:** gknott@opei.org

BSR/OPEI B175.3-201x, (Standard) for Outdoor Power Equipment Internal Combustion Engine-Powered Hand-Held Grass Trimmers and Brushcutters - Safety and Environmental Requirements (revision of ANSI/OPEI B175.3-2013)

BSR/OPEI Z130.1-201x, (Standard) for Golf Cars - Safety and Performance Specifications (revision and redesignation of ANSI/OPEI/ILTVA Z130.1-201x)

BSR/OPEI Z135-201x, (Standard) for Personal Transport Vehicles - Safety and Performance Specifications (revision and redesignation of ANSI/OPEI Z135-201x)

**TIA (Telecommunications Industry Association)**

**Office:** 1320 North Courthouse Road  
Suite 200  
Arlington, VA 22201

**Contact:** Teesha Jenkins

**Phone:** (703) 907-7706

**E-mail:** standards@tiaonline.org

BSR/TIA 222-H-1-201x, Structural Standard for Antenna Supporting Structures, Antennas and Small Wind Turbine Support Structures - Addendum 1 (addenda to ANSI/TIA 222-H-2017)

**VITA (VMEbus International Trade Association (VITA))**

**Office:** 929 W. Portobello Avenue  
Mesa, AZ 85210

**Contact:** Jing Kwok

**Phone:** (602) 281-4497

**E-mail:** jing.kwok@vita.com

BSR/VITA 42.3-201x, XMC PCI Express Protocol Layer Standard (revision of ANSI/VITA 42.3-2014)

# Call for Members (ANS Consensus Bodies)

## GBI (Green Building Initiative)

**Office:** 7805 SW 40th Ave. #80010, Portland, OR 97219

**Contact:** Emily Marx, Manager of Standards and Program Support

**Phone:** 503.274.0448, x103

**E-mail:** [marx@thegbi.org](mailto:marx@thegbi.org)

ANSI GBI 01-2019, Green Globes Assessment Protocol for Commercial Buildings

GBI is reconstituting its Consensus Body for the new Continuous Maintenance process and invites members of the former Consensus Body to reapply and any additional interested parties to apply by August 26, 2019. GBI is looking for members in the following interest categories: Producer, Users and General Interest. For more information and to apply for a Consensus Body or Task Group, please use the appropriate form located at <https://www.thegbi.org/ansi>. You can send completed Consensus Body and/or Task Group applications to Emily Marx, Manager of Standards and Program Support, at [marx@thegbi.org](mailto:marx@thegbi.org).

## **Call for Members (ANS Consensus Bodies)**

### **Call for Committee Members**

#### **ASC O1 – Safety Requirements for Woodworking Machinery**

Are you interested in contributing to the development and maintenance of valuable industry safety standards? The ASC O1 is currently looking for members in the following categories:

- General Interest
- Government
- Producer
- User

If you are interested in joining the ASC O1, contact WMMA Associate Director Jennifer Miller at [jennifer@wmma.org](mailto:jennifer@wmma.org).



# Final Actions on American National Standards

The standards actions listed below have been approved by the ANSI Board of Standards Review (BSR) or by an ANSI-Audited Designator, as applicable.

## AAFS (American Academy of Forensic Sciences)

### *New Standard*

ANSI/ASB Std 022-2019, Standard for Forensic DNA Analysis Training Programs (new standard): 7/26/2019

## AAMI (Association for the Advancement of Medical Instrumentation)

### *New Standard*

ANSI/AAMI 2700-1-2019, Medical Devices and Medical Systems - Essential safety requirements for equipment comprising the patient-centric integrated clinical environment (ICE) - Part 1: General requirements and conceptual model (new standard): 7/29/2019

### *Revision*

ANSI/AAMI ST67-2019, Sterilization of health care products - Requirements and guidance for selecting a sterility assurance level (SAL) for products labeled sterile (revision of ANSI/AAMI ST67-2011 (R2017)): 7/29/2019

## ASA (ASC S12) (Acoustical Society of America)

### *New Standard*

ANSI/ASA S12.60-2019/Part 4, Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Part 4: Acoustic Standards for Physical Education Teaching Environments (new standard): 7/29/2019

## ASABE (American Society of Agricultural and Biological Engineers)

### *New National Adoption*

ANSI/ASABE AD8759-1-2019, Agricultural tractors - Front-mounted equipment - Part 1: Power take-off: Safety requirements and clearance zone around PTO (national adoption with modifications of ISO 8759 -1:2018): 7/29/2019

## ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

### *Addenda*

ANSI/ASHRAE Addendum 34t-2019, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2016): 7/24/2019

ANSI/ASHRAE Addendum 62.1aj-2019, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016): 7/24/2019

ANSI/ASHRAE Addendum 62.1aq-2019, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016): 7/24/2019

ANSI/ASHRAE Addendum 62.1i-2019, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016): 7/24/2019

ANSI/ASHRAE Addendum 62.1n-2019, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016): 7/24/2019

ANSI/ASHRAE Addendum 62.1s-2019, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016): 7/24/2019

ANSI/ASHRAE Addendum a to ANSI/ASHRAE Standard 185.1-2019, Method of Testing UV-C Lights for Use in Air-Handling Units or Air Ducts to Inactivate Airborne Microorganisms (addenda to ANSI/ASHRAE Standard 185.1-2015): 7/25/2019

ANSI/ASHRAE/ICC/USGBC/IES Addendum 189.1bm-2019, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2017): 7/24/2019

ANSI/ASHRAE/IES Addendum 90.1an-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 7/24/2019

ANSI/ASHRAE/IES Addendum 90.1ao-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 7/24/2019

ANSI/ASHRAE/IES Addendum 90.1at-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 7/24/2019

ANSI/ASHRAE/IES Addendum 90.1aw-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 7/24/2019

ANSI/ASHRAE/IES Addendum 90.1ay-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 7/24/2019

ANSI/ASHRAE/IES Addendum 90.1bb-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 7/24/2019

ANSI/ASHRAE/IES Addendum 90.1bf-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 7/24/2019

ANSI/ASHRAE/IES Addendum 90.1t-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 7/24/2019

ANSI/ASHRAE/IES Addendum 90.1v-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016): 7/24/2019

ANSI/ASHRAE/USGBC/IES/ICC Addendum 189.1i-2019, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES/ICC Standard 189.1-2017): 7/24/2019

## ASME (American Society of Mechanical Engineers)

### *Revision*

ANSI/ASME B16.12-2019, Cast Iron Threaded Drainage Fittings (revision of ANSI/ASME B16.12-2009 (R2014)): 7/29/2019

ANSI/ASME RTP-1-2019, Reinforced Thermoset Plastic Corrosion-Resistant Equipment (revision of ANSI/ASME RTP-1-2017): 7/26/2019

**CSA (CSA America Standards Inc.)****New Standard**

ANSI/CHMC 2-2019, Test methods for evaluating material compatibility in compressed hydrogen applications - Polymers (new standard): 7/29/2019

**ECIA (Electronic Components Industry Association)****Reaffirmation**

ANSI/EIA 364-43C-2013 (R2019), Cable Clamping (Bending Moment) Test Procedure for Electrical Connectors (reaffirmation of ANSI/EIA 364-43C-2013): 7/29/2019

ANSI/EIA 364-66A-2000 (R2019), EMI Shielding Effectiveness Test Procedure for Electrical Connectors (reaffirmation of ANSI/EIA 364-66A-2000 (R2013)): 7/29/2019

ANSI/EIA 364-101-2000 (R2019), Attenuation Test Procedure for Electrical Connectors, Sockets, Cable Assemblies or Interconnection Systems (reaffirmation of ANSI/EIA 364-101-2000 (R2013)): 7/29/2019

ANSI/EIA 364-106-2000 (R2019), Standing Wave Ratio (SWR) Test Procedure for Electrical Connectors (reaffirmation of ANSI/EIA 364-106-2000 (R2013)): 7/29/2019

ANSI/EIA/ECA 364-110-2006 (R2019), Thermal Cycling Test Procedure for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA/ECA 364-110-2006 (R2013)): 7/29/2019

**EOS/ESD (ESD Association, Inc.)****New Standard**

ANSI/ESD SP9.2-2019, ESD Association Draft Standard Practice for the Protection of Electrostatic Discharge Susceptible Items - Foot Grounders - Resistive Characterization (new standard): 7/29/2019

**IES (Illuminating Engineering Society)****Revision**

ANSI/IES RP-16 Addendum 3-2019, Definitions and Nomenclature (revision of ANSI/IES RP-16-2017): 7/29/2019

**MHI (Material Handling Industry)****New Standard**

ANSI/MHI ECMA 25-2019, AC Inverters for Use on Electric Overhead Monorail, and Gantry Graveling Cranes (new standard): 7/29/2019

**NEMA (ASC C8) (National Electrical Manufacturers Association)****Reaffirmation**

ANSI/ICEA T-24-380-2013 (R2019), Partial Discharge Test Procedure (reaffirmation of ANSI/ICEA T-24-380-2013): 7/25/2019

**NSF (NSF International)****Revision**

ANSI/NSF 50-2019 (i143r2), Equipment and Chemicals for Swimming Pools, Spas, Hot Tubs, and Other Recreational Water Facilities (revision of ANSI/NSF 50-2017): 7/18/2019

ANSI/NSF 244-2019 (i4r1.1), Supplemental Microbiological Water Treatment Systems - Filtration (revision of ANSI/NSF 244-2018A): 7/22/2019

ANSI/NSF 350-2019 (i43r1), Onsite Residential and Commercial Water Reuse Treatment Systems (revision of ANSI/NSF 350-2018): 7/24/2019

ANSI/NSF 457-2019 (i3r1), Sustainability Leadership Standard for Photovoltaic Modules (revision of ANSI/NSF 457-2017): 7/22/2019

ANSI/NSF 457-2019 (i4r1), Sustainability Leadership Standard for Photovoltaic Modules (revision of ANSI/NSF 457-2017): 7/22/2019

ANSI/NSF/CAN 60-2019 (i82r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF/CAN 60-2018): 7/28/2019

ANSI/NSF/CAN 61-2019 (i147r1), Drinking Water System Components - Health Effects (revision and redesignation of ANSI/NSF 61-2018): 7/21/2019

**SPRI (Single Ply Roofing Industry)****Revision**

ANSI/SPRI RD-1-2019, Performance Standard for Retrofit Drains (revision of ANSI/SPRI RD-1-2014): 7/25/2019

**TIA (Telecommunications Industry Association)****Revision**

ANSI/TIA 607-D-2019, Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises (revision and redesignation of ANSI/TIA 607-C-2015): 7/29/2019

**UL (Underwriters Laboratories, Inc.)****Reaffirmation**

ANSI/UL 879-2009 (R2019), Standard for Safety for Sign Components (reaffirmation of ANSI/UL 879-2009 (R2014)): 7/17/2019

ANSI/UL 2162-2014 (R2019), Standard for Commercial Wood-Fired Baking Ovens - Refractory Type (reaffirmation of ANSI/UL 2162-2014): 7/22/2019

**Revision**

ANSI/UL 746A-2019, Standard for Safety for Polymeric Materials - Short Term Property Evaluations (revision of ANSI/UL 746A-2018): 7/17/2019

ANSI/UL 796-2019, Standard for Safety for Printed-Wiring Boards (revision of ANSI/UL 796-2016): 7/19/2019

ANSI/UL 796-2019a, Standard for Safety for Printed-Wiring Boards (revision of ANSI/UL 796-2016): 7/19/2019

ANSI/UL 891-2019, Standard for Safety for Switchboards (revision of ANSI/UL 891-2012): 7/19/2019

ANSI/UL 891-2019A, Standard for Safety for Switchboards (revision of ANSI/UL 891-2012): 7/19/2019

ANSI/UL 1310-2019, Standard for Safety for Class 2 Power Units (revision of ANSI/UL 1310-2014): 7/25/2019

ANSI/UL 1310-2019A, Standard for Safety for Class 2 Power Units (revision of ANSI/UL 1310-2017): 7/25/2019

ANSI/UL 1310-2019B, Standard for Safety for Class 2 Power Units (revision of ANSI/UL 1310-2017): 7/25/2019

ANSI/UL 2592-2019, Standard for Safety for Low Voltage LED Wire (revision of ANSI/UL 2592-2015): 7/26/2019

# Project Initiation Notification System (PINS)

ANSI Procedures require notification of ANSI by ANSI-accredited standards developers (ASD) of the initiation and scope of activities expected to result in new or revised American National Standards (ANS). Early notification of activity intended to reaffirm or withdraw an ANS and in some instances a PINS related to a national adoption is optional. The mechanism by which such notification is given is referred to as the PINS process. For additional information, see clause 2.4 of the ANSI Essential Requirements: Due Process Requirements for American National Standards.

Following is a list of proposed actions and new ANS that have been received recently from ASDs. Please also review the section in Standards Action entitled "American National Standards Maintained Under Continuous Maintenance" for additional or comparable information with regard to standards maintained under the continuous maintenance option. Use the following Public Document Library url to access PDF & EXCEL reports of approved & proposed ANS: [List of Approved and Proposed ANS](#)

Directly and materially affected interests wishing to receive more information or to submit comments are requested to contact the standards developer directly within 30 days of the publication of this announcement.

## AAFS (American Academy of Forensic Sciences)

Contact: Teresa Ambrosius, (719) 453-1036, [tambrosius@aafs.org](mailto:tambrosius@aafs.org)  
410 North 21st Street, Colorado Springs, CO 80904

### New Standard

BSR/ASB BPR 114-201x, Best Practice Recommendation for Validation of Forensic DNA Software (new standard)

Stakeholders: Forensic DNA laboratories; software vendors.

Project Need: This document includes recommendations specific for the validation of software used in forensic DNA laboratories that impacts the integrity of the evidence, the analytical process, interpretations, and/or statistical conclusions.

This best practice recommendation assists a laboratory in designing validation studies to evaluate the various software programs used in the forensic DNA laboratory. Specifically, this guidance document applies to, but is not limited to, the following: (a) Software used as a component, part, or accessory of instrumentation; (b) Software that impacts chain of custody documentation; (c) Software that impacts the decision process and/or influences conclusions or reporting; and (d) Software created by the laboratory to assist with calculations and/or data transfers. This document does not cover probabilistic genotyping.

BSR/ASB BPR 126-201x, Best Practice Recommendation for Casting of Footwear and Tire Impression Evidence (new standard)

Stakeholders: Footwear and tire examiners, forensic science training and education providers, prosecutors and defense attorneys, judges and juries, and researchers.

Project Need: This document sets forth best practices for casting of footwear and tire-impresion evidence. The document will provide stakeholders an overview of best practice methods which ideally should be followed. The document can be a guide to forensic science trainees and their trainers and should also provide attorneys and the trier of fact a baseline on how to judge the methods of collection of footwear and tire evidence.

This document provides best practice recommendations for casting of footwear and tire impresion evidence by appropriate personnel. Following the recommendations set forth in this document should result in the optimal recovery of impresions. Deviations from this document may/may not preclude examination of recovered impresions. The procedures included in this document may not cover all aspects of unusual or uncommon conditions. This document is not intended as a substitute for training in the detecting of footwear and tire-track evidence. Completion of a training program and experience in these skills is essential to understanding and applying the principles outlined in this document.

BSR/ASB Std 123-201x, Standard for Internal Evaluation of a Laboratory's DNA Mixture Interpretation Protocol (new standard)

Stakeholders: Forensic DNA laboratories.

Project Need: The consistent application of a laboratory's interpretation protocol can be evaluated on a regular basis by having analysts interpret profiles that range in complexity and represent mixtures commonly encountered in casework. By adhering to these requirements, a laboratory can effectively evaluate the application of its mixture interpretation protocol to demonstrate reliable and reproducible interpretation, comparison, and reporting and take appropriate actions for any inconsistencies among staff in accordance with their quality system and other related standards.

This standard provides the requirements for laboratories to evaluate the consistent application of their DNA mixture interpretation protocol. This intra-laboratory evaluation assesses whether the DNA interpretation protocol can be consistently applied to produce reliable and reproducible interpretations and conclusions. This standard applies to capillary-electrophoresis-based STR DNA testing technology and methodology currently used by the laboratory where mixtures of DNA may be encountered, analyzed, and interpreted. This standard applies to manual/binary interpretation methods as well as methods using software as part of the analysis, interpretation, and comparison, and/or for generation of statistical statements. This standard addresses the development of an internal evaluation system, including proper format of data, types of data to use, frequency of evaluation, and how to assess results.

BSR/ASB Std 125-201x, Organizational and Foundational Standard for Medicolegal Death Investigation (new standard)

Stakeholders: Medicolegal death investigators, coroners, medical examiners, law enforcement agencies, the legal community, the medical community, public health officials and agencies, academia, and the public at large.

Project Need: This document may be referenced for inclusion in community resource allocation and planning in order to adequately support medicolegal death investigation responsibilities. This document may be used by federal, state, local, and tribal governments for the development of standard operating procedures backed by sound medicolegal death investigation data.

This document outlines the minimal requirements, fundamental activities, general procedures, facilities, and personnel that are the basic components of a medicolegal death investigation system. This document provides an overarching description of educational frameworks, operational roles, and processes for the medicolegal death investigation system.

### **ACMA (American Composites Manufacturers Association)**

Contact: *Larry Cox, (740) 928-3286, Lcox1225@gmail.com*  
*3033 Wilson Boulevard, Suite 420, Arlington, VA 22201*

#### **Revision**

BSR/AMCA PIC-Standard Practice-201x, Code of Standard Practice Industry Guidelines for Fabrication and Installation of Pultruded FRP Structures (revision of ANSI/AMCA PIC-Standard Practice-2011)

Stakeholders: Composite manufacturers, suppliers to the composites (pultrusion) industry, engineers and designers, and other interested parties.

Project Need: To maintain a national standard for standard practice guidelines for the Pultrusion industry.

The Pultrusion Industry Council initiated the development of the Code of Standard Practice to provide recommendations for construction contract documents, as well as procedures and practices for the fabrication and installation of pultruded FRP structures that is followed by the pultrusion industry manufacturers. The current standard is under committee review for reaffirmation and/or revision.

### **ASSP (ASC A10) (American Society of Safety Professionals)**

Contact: *Tim Fisher, (847) 768-3411, TFisher@ASSP.org*  
*520 N. Northwest Highway, Park Ridge, IL 60068*

#### **New Standard**

BSR/ASSP A10.50-201X, Standard for Heat Stress Management in Construction and Demolition Operations (new standard)

Stakeholders: Occupational safety and health professionals working in the construction and demolition industry or those stakeholders working to address heat stress hazards and exposures.

Project Need: Based upon the consensus of the ANSI/ASSP Committee Members and a justificant rationale put together in a committee discussion paper.

This standard establishes the minimum requirements for the prevention of heat illnesses and management of heat stress hazards and exposures encountered during construction and demolition operations. It establishes procedures for the management of heat stress hazards and the selection and use of appropriate controls and practices to reduce risks presented by heat stress and prevention heat illnesses for construction and demolition environments.

### **EOS/ESD (ESD Association, Inc.)**

Contact: *Christina Earl, (315) 339-6937, cearl@esda.org*  
*7900 Turin Rd., Bldg. 3, Rome, NY 13440*

#### **Revision**

BSR/ESD STM11.11-201x, ESD Association Standard Test Method for Protection of Electrostatic Discharge Susceptible Items - Surface Resistance Measurement of Planar Materials (revision of ANSI/ESD STM11.11-2015)

Stakeholders: Electronics industry, including telecom, consumer, medical, and industrial.

Project Need: This standard test method provides a measurement procedure to determine the surface resistance of planar materials.

This standard test method describes a direct current surface-resistance measurement method used for planar materials. This test method is not intended for insulative materials.

BSR/ESD STM11.12-201x, ESD Association Standard Test Method for Protection of Electrostatic Discharge Susceptible Items - Volume Resistance Measurement of Static Dissipative Planar Materials (revision of ANSI/ESD STM11.12-2015)

Stakeholders: Electronics industry, including telecom, consumer, medical, and industrial.

Project Need: This standard test method defines the test procedure, equipment, sample preparation, and conditioning needed to achieve reproducible volume resistance measurements.

This standard test method defines a direct current measurement to determine the volume resistance of planar materials, without regard to the conduction mechanism. This procedure is intended for measuring the volume resistance of materials that are between  $1.0 \times 10^4$  ohms and  $1.0 \times 10^{11}$  ohms.

BSR/ESD STM11.13-201x, ESD Association Standard Test Method for the Protection of Electrostatic Discharge Susceptible Items - Two-Point Resistance Measurement (revision of ANSI/ESD STM11.13-2018)

Stakeholders: Electronics industry, including telecom, consumer, medical, and industrial.

Project Need: This standard test method provides a test method for measuring the resistance between two points on a surface of an item.

This standard test method is intended for measuring the resistance of packaging items in the range of  $1.0 \times 10^4 < R < 1.0 \times 10^{11}$  ohms.

## **NECA (National Electrical Contractors Association)**

Contact: *Aga Golriz, (301) 215-4549, Aga.golriz@necanet.org*  
*3 Bethesda Metro Center, Suite 1100, Bethesda, MD 20814*

### ***New Standard***

BSR/NECA 500-201x, Standard for Installing and Maintaining Indoor Commercial Lighting Systems (new standard)

Stakeholders: Electrical contractors, specifiers, electrical workers, inspectors, building owners, maintenance engineers.

Project Need: National Electrical Installation Standards (developed in partnership with other industry organizations) are the first performance standards for electrical construction. They go beyond the basic requirements of the National Electrical Code to clearly define what is meant by installing products and systems in a "neat and workmanlike" manner.

This Standard describes installation and maintenance procedures for permanently installed incandescent, halogen, fluorescent, LED, and high-intensity discharge (HID) lighting systems operating at 1000 Volts or less, installed indoors and commonly used in commercial and retail buildings, including, but not necessarily limited to, the following: (1) Recessed lighting systems, such as troffers, downlights, wallwashers, valance lights, and accent lights; (2) Surface-mounted lighting systems, such as surface troffers, wraparounds, surface downlights, monopoints, and decorative fixtures; (3) Suspended lighting systems, such as pendant luminaires, direct, indirect, and uplight systems, and decorative luminaires; (4) Wall-mounted lighting systems, such as sconces or wallpacks; and (5) Track lighting systems. In addition to luminaires, this Standard includes construction materials related to luminaires, including, but not necessarily limited to, lamps, conductors, wiring methods, various special screws and clips, and structural suspension components.

## **NEMA (ASC C8) (National Electrical Manufacturers Association)**

Contact: *Gerard Winstanley, (703) 841-3231, gerard.winstanley@nema.org*  
*1300 N. 17th Street, Suite 900, Rosslyn, VA 22209*

### ***Reaffirmation***

BSR/NEMA WC 61-1992 (R201x), Transfer Impedance Testing (reaffirmation of ANSI/NEMA WC 61-1992 (R2015))

Stakeholders: User and producers of cable.

Project Need: 5-year reaffirmation scheduled.

This standard is intended to provide a reliable surface transfer impedance test method for coaxial cables and shielded multiconductor cables over the frequency range from DC to 100 MHz.

**Revision**

BSR NEMA WC 75-201x, Standard for Controlled Impedance in Internal Electrical Cable (revision of ANSI/NEMA WC 75-2015)

Stakeholders: Parties with an interest in insulated wires for use in aerospace, electrical, electronic, and high-performance applications.

Project Need: Revisions necessary to bring the standard in line with current manufacturing processes.

This standards publication was developed to cover specific requirements for finished cables with controlled impedance twisted pair(s). This standard uniquely enables a user to specify various numbers of pairs (1 - 61) with a required impedance requirement, and tailor the materials to meet a specific end application. The cables are intended for wiring of electrical equipment.

**VITA (VMEbus International Trade Association (VITA))**

Contact: *Jing Kwok, (602) 281-4497, jing.kwok@vita.com*  
*929 W. Portobello Avenue, Mesa, AZ 85210*

**Revision**

BSR/VITA 42.3-201x, XMC PCI Express Protocol Layer Standard (revision of ANSI/VITA 42.3-2014)

Stakeholders: VMEbus manufacturers and users, PMC/XMC manufacturers and users, embedded board manufacturers and users.

Project Need: A need exists to develop a standard for implementing PCI Express on XMC form factor mezzanine modules.

This standard describes a method for implementing PCI Express on the VITA 42.0, XMC mezzanine form factor. This revision extends FRU support for PCIe Gen 2 and above.

# American National Standards Maintained Under Continuous Maintenance

The ANSI Essential Requirements: Due Process Requirements for American National Standards provides two options for the maintenance of American National Standards (ANS): periodic maintenance (see clause 4.7.1) and continuous maintenance (see clause 4.7.2). Continuous maintenance is defined as follows:

The standard shall be maintained by an accredited standards developer. A documented program for periodic publication of revisions shall be established by the standards developer. Processing of these revisions shall be in accordance with these procedures. The published standard shall include a clear statement of the intent to consider requests for change and information on the submittal of such requests. Procedures shall be established for timely, documented consensus action on each request for change and no portion of the standard shall be excluded from the revision process. In the event that no revisions are issued for a period of four years, action to reaffirm or withdraw the standard shall be taken in accordance with the procedures contained in the ANSI Essential Requirements.

The Executive Standards Council (ExSC) has determined that for standards maintained under the Continuous Maintenance option, separate PINS announcements are not required. The following ANSI Accredited Standards Developers have formally registered standards under the Continuous Maintenance option

- **AAMI (Association for the Advancement of Medical Instrumentation)**
- **AARST (American Association of Radon Scientists and Technologists)**
- **AGA (American Gas Association)**
- **AGSC-AGRSS (Auto Glass Safety Council)**
- **ASC X9 (Accredited Standards Committee X9, Incorporated)**
- **ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)**
- **ASME (American Society of Mechanical Engineers)**
- **ASTM (ASTM International)**
- **GBI (Green Building Initiative)**
- **HL7 (Health Level Seven)**
- **IES (Illuminating Engineering Society)**
- **ITI (InterNational Committee for Information Technology Standards)**
- **MHI (Material Handling Industry)**
- **NAHBRC (NAHB Research Center, Inc.)**
- **NBBPVI (National Board of Boiler and Pressure Vessel Inspectors)**
- **NCPDP (National Council for Prescription Drug Programs)**
- **NEMA (National Electrical Manufacturers Association)**
- **NISO (National Information Standards Organization)**
- **NSF (NSF International)**
- **PRCA (Professional Ropes Course Association)**
- **RESNET (Residential Energy Services Network, Inc.)**
- **SAE (SAE International)**
- **TCNA (Tile Council of North America)**
- **TIA (Telecommunications Industry Association)**
- **UL (Underwriters Laboratories, Inc.)**

To obtain additional information with regard to these standards, including contact information at the ANSI Accredited Standards Developer, please visit ANSI Online at [www.ansi.org/asd](http://www.ansi.org/asd), select "Standards Activities," click on "Public Review and Comment" and "American National Standards Maintained Under Continuous Maintenance." This information is also available directly at [www.ansi.org/publicreview](http://www.ansi.org/publicreview)

Alternatively, you may contact the Procedures & Standards Administration department (PSA) at [psa@ansi.org](mailto:psa@ansi.org) or via fax at 212-840-2298. If you request that information be provided via E-mail, please include your E-mail address; if you request that information be provided via fax, please include your fax number. Thank you.

# ANSI-Accredited Standards Developers Contact Information

The addresses listed in this section are to be used in conjunction with standards listed in PINS, Call for Comment and Final Actions. This section is a list of developers who have submitted standards for this issue of *Standards Action* – it is not intended to be a list of all ANSI-Accredited Standards Developers. Please send all address corrections to Standards Action Editor at [standact@ansi.org](mailto:standact@ansi.org).

<p><b>AAFS</b> American Academy of Forensic Sciences 410 North 21st Street Colorado Springs, CO 80904 Phone: (719) 453-1036 Web: <a href="http://www.aafs.org">www.aafs.org</a></p>	<p><b>ASA (ASC S2)</b> Acoustical Society of America 1305 Walt Whitman Road Suite 300 Melville, NY 11747 Phone: (631) 390-0215 Web: <a href="http://www.acousticalsociety.org">www.acousticalsociety.org</a></p>	<p><b>AWWA</b> American Water Works Association 6666 W. Quincy Ave. Denver, CO 80235 Phone: (303) 347-6178 Web: <a href="http://www.awwa.org">www.awwa.org</a></p>	<p><b>MHI</b> Material Handling Industry 8720 Red Oak Boulevard Suite 201 Charlotte, NC 28217 Phone: (704) 714-8755 Web: <a href="http://www.mhi.org">www.mhi.org</a></p>
<p><b>AAMI</b> Association for the Advancement of Medical Instrumentation 901 N. Glebe Road, Suite 300 Arlington, VA 22203 Phone: (703) 647-2779 Web: <a href="http://www.aami.org">www.aami.org</a></p>	<p><b>ASABE</b> American Society of Agricultural and Biological Engineers 2950 Niles Road Saint Joseph, MI 49085 Phone: (269) 932-7027 Web: <a href="http://www.asabe.org">www.asabe.org</a></p>	<p><b>CGA</b> Compressed Gas Association 14501 George Carter Way Suite 103 Chantilly, VA 20151 Phone: (703) 788-2728 Web: <a href="http://www.cganet.com">www.cganet.com</a></p>	<p><b>NECA</b> National Electrical Contractors Association 3 Bethesda Metro Center Suite 1100 Bethesda, MD 20814 Phone: (301) 215-4549 Web: <a href="http://www.neca-neis.org">www.neca-neis.org</a></p>
<p><b>ACMA</b> American Composites Manufacturers Association 3033 Wilson Boulevard, Suite 420 Arlington, VA 22201 Phone: (740) 928-3286 Web: <a href="http://www.icpa-hq.org">www.icpa-hq.org</a></p>	<p><b>ASHRAE</b> American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. 1791 Tullie Circle NE Atlanta, GA 30329 Phone: (678) 539-1209 Web: <a href="http://www.ashrae.org">www.ashrae.org</a></p>	<p><b>CSA</b> CSA America Standards Inc. 8501 E. Pleasant Valley Road Cleveland, OH 44131 Phone: (216) 524-4990 Web: <a href="http://www.csagroup.org">www.csagroup.org</a></p>	<p><b>NEMA (ASC C8)</b> National Electrical Manufacturers Association 1300 N. 17th Street, Suite 900 Rosslyn, VA 22209 Phone: (703) 841-3231 Web: <a href="http://www.nema.org">www.nema.org</a></p>
<p><b>ANS</b> American Nuclear Society 555 North Kensington Avenue La Grange Park, IL 60526 Phone: (708) 579-8268 Web: <a href="http://www.ans.org">www.ans.org</a></p>	<p><b>ASME</b> American Society of Mechanical Engineers Two Park Avenue New York, NY 10016-5990 Phone: (212) 591-8521 Web: <a href="http://www.asme.org">www.asme.org</a></p>	<p><b>ECIA</b> Electronic Components Industry Association 13873 Park Center Road Suite 315 Herndon, VA 20171 Phone: (571) 323-0294 Web: <a href="http://www.ecianow.org">www.ecianow.org</a></p>	<p><b>NSF</b> NSF International 789 N. Dixboro Road Ann Arbor, MI 48105-9723 Phone: (734) 827-5643 Web: <a href="http://www.nsf.org">www.nsf.org</a></p>
<p><b>APCO</b> Association of Public-Safety Communications Officials-International 351 N. Williamson Boulevard Daytona Beach, FL 32114 Phone: (920) 579-1153 Web: <a href="http://www.apcolntl.org">www.apcolntl.org</a></p>	<p><b>ASQ</b> American Society for Quality 600 N Plankinton Ave Milwaukee, WI 53203 Phone: (800) 248-1946 Web: <a href="http://www.asq.org">www.asq.org</a></p>	<p><b>EOS/ESD</b> ESD Association, Inc. 7900 Turin Rd., Bldg. 3 Rome, NY 13440 Phone: (315) 339-6937 Web: <a href="http://www.esda.org">www.esda.org</a></p>	<p><b>OPEI</b> Outdoor Power Equipment Institute 1605 King Street Alexandria, VA 22314 Phone: (703) 549-7600 Web: <a href="http://www.opei.org">www.opei.org</a></p>
<p><b>APPA</b> APPA - Leadership in Educational Facilities 1643 Prince Street Alexandria, VA 22314 Phone: (703) 542-3846 Web: <a href="http://www.appa.org">www.appa.org</a></p>	<p><b>ASSP (Safety)</b> American Society of Safety Professionals 520 N. Northwest Highway Park Ridge, IL 60068 Phone: (847) 768-3411 Web: <a href="http://www.assp.org">www.assp.org</a></p>	<p><b>IES</b> Illuminating Engineering Society 120 Wall Street, Floor 17 New York, NY 10005 Phone: (917) 913-0027 Web: <a href="http://www.ies.org">www.ies.org</a></p>	<p><b>SPRI</b> Single Ply Roofing Industry 465 Waverley Oaks Road Suite 421 Waltham, MA 02452 Phone: (781) 647-7026 Web: <a href="http://www.spri.org">www.spri.org</a></p>
<p><b>ASA (ASC S12)</b> Acoustical Society of America 1305 Walt Whitman Road Suite 300 Melville, NY 11747 Phone: (631) 390-0215 Web: <a href="http://www.acousticalsociety.org">www.acousticalsociety.org</a></p>	<p><b>AWS</b> American Welding Society 8669 Doral Blvd Suite 130 Doral, FL 33166 Phone: (305) 443-9353 Web: <a href="http://www.aws.org">www.aws.org</a></p>	<p><b>ITI (INCITS)</b> InterNational Committee for Information Technology Standards 700 K Street NW Suite 600 Washington, DC 20001 Phone: (202) 737-8888 Web: <a href="http://www.incits.org">www.incits.org</a></p>	<p><b>TCNA (ASC A108)</b> Tile Council of North America 100 Clemson Research Blvd. Anderson, SC 29625 Phone: (864) 646-8453 Web: <a href="http://www.tcnatile.com">www.tcnatile.com</a></p>



**TIA**

Telecommunications Industry  
Association

1320 North Courthouse Road  
Suite 200  
Arlington, VA 22201  
Phone: (703) 907-7706  
Web: [www.tiaonline.org](http://www.tiaonline.org)

**UL**

Underwriters Laboratories, Inc.

333 Pfingsten Road  
Northbrook, IL 60062-2096  
Phone: (847) 664-2850  
Web: [www.ul.com](http://www.ul.com)

**VITA**

VMEbus International Trade  
Association (VITA)

929 W. Portobello Avenue  
Mesa, AZ 85210  
Phone: (602) 281-4497  
Web: [www.vita.com](http://www.vita.com)



# ISO & IEC Draft International Standards

This section lists proposed standards that the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) are considering for approval. The proposals have received substantial support within the technical committees or subcommittees that developed them and are now being circulated to ISO and IEC members for comment and vote. Standards Action readers interested in reviewing and commenting on these documents should order copies from ANSI.

## Comments

Comments regarding ISO documents should be sent to ANSI's ISO Team (isot@ansi.org); comments on ISO documents must be submitted electronically in the approved ISO template and as a Word document as other formats will not be accepted.

Those regarding IEC documents should be sent to Tony Zertuche, General Secretary, USNC/IEC, at ANSI's New York offices (tzertuche@ansi.org). The final date for offering comments is listed after each draft.

## Ordering Instructions

**ISO and IEC Drafts can be made available by contacting ANSI's Customer Service department. Please e-mail your request for an ISO or IEC Draft to Customer Service at sales@ansi.org. When making your request, please provide the date of the Standards Action issue in which the draft document you are requesting appears.**

## ISO Standards

### **ACOUSTICS (TC 43)**

ISO/DIS 2922, Acoustics - Measurement of airborne sound emitted by vessels on inland waterways and harbours - 8/16/2019, \$58.00

### **AGRICULTURAL FOOD PRODUCTS (TC 34)**

ISO/DIS 23349, Animal and vegetable fats and oils - Determination of sterols and stanols in foods and dietary supplements containing added phyosterols - 8/16/2019, \$88.00

### **AIRCRAFT AND SPACE VEHICLES (TC 20)**

ISO/DIS 16404, Space systems - Programme management - Requirements management - 10/12/2019, \$67.00

ISO/DIS 22772, Space systems - Requirements of launch vehicle (LV) to electrical ground support equipment (EGSE) interfaces - 10/10/2019, \$53.00

ISO/DIS 26871, Space systems - Explosive systems and devices - 10/12/2019, \$155.00

### **ANAESTHETIC AND RESPIRATORY EQUIPMENT (TC 121)**

ISO/DIS 80601-2-67, Medical electrical equipment - Part 2-67: Particular requirements for basic safety and essential performance of oxygen-conserving equipment - 8/18/2019, \$125.00

ISO/DIS 80601-2-69, Medical electrical equipment - Part 2-69: Particular requirements for basic safety and essential performance of oxygen concentrator equipment - 8/18/2019, \$125.00

### **BUILDING CONSTRUCTION (TC 59)**

ISO/DIS 19650-3, Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) - Information management using building information modelling - Part 3: Operational phase of assets - 10/13/2019, \$102.00

### **BUILDING CONSTRUCTION MACHINERY AND EQUIPMENT (TC 195)**

ISO/DIS 15643, Road construction and maintenance equipment - Bituminous binder sprayers and binder sprayers/chipping spreaders - Terminology and commercial specifications - 8/18/2019, \$82.00

### **CORROSION OF METALS AND ALLOYS (TC 156)**

ISO/DIS 22410, Corrosion of metals and alloys - Electrochemical measurement of ion transfer resistance to characterize the protective rust layer on weathering steel - 10/13/2019, \$58.00

ISO/DIS 22858, Corrosion of metals and alloys - Electrochemical measurements - Test method for monitoring atmospheric corrosion - 10/12/2019, \$82.00

ISO/DIS 7539-10, Corrosion of metals and alloys - Stress corrosion testing - Part 10: Reverse U-bend method - 8/15/2019, \$53.00

### **EARTH-MOVING MACHINERY (TC 127)**

ISO/DIS 19014-2, Earth-moving machinery - Functional safety - Part 2: Design and evaluation of hardware and architecture requirements for safety-related parts of the control system - 10/13/2019, \$107.00

### **ENVIRONMENTAL MANAGEMENT (TC 207)**

ISO 14040/DAMd1, Environmental management - Life cycle assessment - Principles and framework - Amendment 1 - 10/13/2019, \$29.00

ISO 14044/DAMd2, Environmental management - Life cycle assessment - Requirements and guidelines - Amendment 2 - 10/13/2019, \$40.00

### **ERGONOMICS (TC 159)**

ISO/DIS 11228-1, Ergonomics - Manual handling - Part 1: Lifting, lowering and carrying - 10/12/2019, \$134.00

ISO/DIS 9241-110, Ergonomics of human-system interaction - Part 110: Interaction principles - 8/16/2019, \$98.00

### **FLOOR COVERINGS (TC 219)**

ISO/DIS 8543, Textile floor coverings - Methods for determination of mass - 10/12/2019, \$53.00

### **FOOTWEAR (TC 216)**

ISO/DIS 16181-1, Footwear - Critical substances potentially present in footwear and footwear components - Part 1: Determination of phthalate with solvent extraction - 10/13/2019, \$67.00

ISO/DIS 16181-2, Footwear - Critical substances potentially present in footwear and footwear components - Part 2: Determination of phthalate without solvent extraction - 10/12/2019, \$62.00

**FURNITURE (TC 136)**

ISO/DIS 24496, Office furniture - Office chairs - Methods for the determination of dimensions - 8/15/2019, \$134.00

**INDUSTRIAL AUTOMATION SYSTEMS AND INTEGRATION (TC 184)**

ISO/DIS 23952, Quality information framework (QIF) - An integrated model of manufacturing quality information - 8/15/2019, \$281.00

**INDUSTRIAL TRUCKS (TC 110)**

ISO/DIS 23676, Rough-terrain trucks - Operator training - Content and methods - 8/15/2019, \$53.00

**INFORMATION AND DOCUMENTATION (TC 46)**

ISO/DIS 30300, Information and documentation - Records management - Core concepts and vocabulary - 10/12/2019, \$67.00

**NICKEL AND NICKEL ALLOYS (TC 155)**

ISO/DIS 7524, Ferronickel - Determination of carbon content - Infrared absorption method after combustion in an induction furnace (routine method) - 8/15/2019, \$58.00

ISO/DIS 7526, Ferronickels - Determination of sulfur content - Infra-red absorption method after combustion in an induction furnace [Routine method] - 8/15/2019, \$58.00

**NUCLEAR ENERGY (TC 85)**

ISO/DIS 20043-1, Measurement of radioactivity in the environment - Guidelines for environmental monitoring for effective dose assessment process - Part 1: Planned and existing exposure situation - 10/12/2019, \$93.00

**OPTICS AND OPTICAL INSTRUMENTS (TC 172)**

ISO/DIS 19980, Ophthalmic instruments - Corneal topographers - 10/13/2019, \$82.00

**PERSONAL SAFETY - PROTECTIVE CLOTHING AND EQUIPMENT (TC 94)**

ISO/DIS 16073-6, Wildland firefighting personal protective equipment - Requirements and test methods - Part 6: Footwear - 10/11/2019, \$71.00

**PETROLEUM PRODUCTS AND LUBRICANTS (TC 28)**

ISO 2176/DAmD1, Petroleum products - Lubricating grease - Determination of dropping point - Amendment 1 - 10/12/2019, \$29.00

**ROAD VEHICLES (TC 22)**

ISO 17479/DAmD1, Motorcycles - Measurement methods for gaseous exhaust emissions during inspection or maintenance - Amendment 1 - 10/12/2019, \$29.00

ISO/DIS 21612, Road vehicles - Crosstalk determination for multi-axis load cell - 10/13/2019, \$33.00

ISO/DIS 13063-1, Electrically propelled mopeds and motorcycles - Safety specifications - Part 1: On-board rechargeable energy storage system (RESS) - 10/12/2019, \$53.00

ISO/DIS 13063-2, Electrically propelled mopeds and motorcycles - Safety specifications - Part 2: Vehicle operational safety - 10/13/2019, \$40.00

ISO/DIS 13063-3, Electrically propelled mopeds and motorcycles - Safety specifications - Part 3: Electrical safety - 10/13/2019, \$82.00

ISO/DIS 13216-4, Road vehicles - Anchorages in vehicles and attachments to anchorages for child restraint systems - Part 4: Lower tether anchorages - 10/13/2019, \$71.00

ISO/DIS 15500-3, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 3: Check valve - 10/12/2019, \$33.00

ISO/DIS 15500-4, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 4: Manual valve - 10/12/2019, \$40.00

ISO/DIS 15500-5, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 5: Manual cylinder valve - 10/12/2019, \$40.00

ISO/DIS 15500-6, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 6: Automatic valve - 10/12/2019, \$40.00

ISO/DIS 15500-9, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 9: Pressure regulator - 10/12/2019, \$40.00

ISO/DIS 19206-4, Road vehicles - Test devices for target vehicles, vulnerable road users and other objects, for assessment of active safety functions - Part 4: Requirements for bicyclist targets - 10/12/2019, \$107.00

ISO/DIS 15500-14, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 14: Excess flow valve - 10/12/2019, \$40.00

ISO/DIS 15500-16, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 16: Rigid fuel line in stainless steel - 10/12/2019, \$33.00

ISO/DIS 15500-18, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 18: Filter - 10/12/2019, \$33.00

ISO/DIS 15500-19, Road vehicles - Compressed natural gas (CNG) fuel system components - Part 19: Fittings - 10/12/2019, \$40.00

**RUBBER AND RUBBER PRODUCTS (TC 45)**

ISO/DIS 36, Rubber, vulcanized or thermoplastic - Determination of adhesion to textile fabrics - 8/15/2019, \$53.00

ISO/DIS 506, Rubber latex, natural, concentrate - Determination of volatile fatty acid number - 8/18/2019, \$46.00

ISO/DIS 1432, Rubber, vulcanized or thermoplastic - Determination of low-temperature stiffening (Gehman test) - 8/18/2019, \$67.00

ISO/DIS 289-2, Rubber, unvulcanized - Determinations using a shearing-disc viscometer - Part 2: Determination of pre-vulcanization characteristics - 8/15/2019, \$53.00

**SHIPS AND MARINE TECHNOLOGY (TC 8)**

ISO/DIS 15370, Ships and marine technology - Low-location lighting (LLL) on passenger ships - Arrangement - 10/13/2019, \$98.00

ISO/DIS 17631, Ships and marine technology - Shipboard plans for fire control, damage control, life-saving appliances and means of escape - 10/13/2019, \$102.00

**TEXTILES (TC 38)**

ISO/DIS 105-B06, Textiles - Tests for colour fastness - Part B06: Colour fastness and ageing to artificial light at high temperatures: Xenon arc fading lamp test - 8/15/2019, \$71.00

ISO/DIS 1833-29, Textiles - Quantitative chemical analysis - Part 29: Mixtures of polyamide with polypropylene/polyamide bicomponent (method using sulfuric acid) - 10/10/2019, \$33.00

**THERMAL INSULATION (TC 163)**

ISO/DIS 9229, Thermal insulation - Definitions of terms - 12/6/2012, \$82.00

ISO/DIS 22482, Thermal insulation products - Aerogel blanket for buildings - Determination of physical properties - 10/11/2019, \$53.00

**TOBACCO AND TOBACCO PRODUCTS (TC 126)**

- ISO/DIS 23904, Cigarettes - Determination of selected phenolic compounds in cigarette mainstream smoke with an intense smoking regime using HPLC-FLD - 10/13/2019, \$62.00
- ISO/DIS 23905, Cigarettes - Determination of selected phenolic compounds in cigarette mainstream smoke using HPLC-FLD - 10/12/2019, \$62.00
- ISO/DIS 23919, Cigarettes - Determination of ammonia in cigarette mainstream smoke using ion chromatography - 10/12/2019, \$58.00
- ISO/DIS 23920, Cigarettes - Determination of ammonia in cigarette mainstream smoke under intense smoking conditions using ion chromatography - 10/12/2019, \$58.00

**TRADITIONAL CHINESE MEDICINE (TC 249)**

- ISO/DIS 21292, Traditional Chinese medicine - Electric heating moxibustion equipment - 10/14/2019, \$40.00
- ISO/DIS 22283, Traditional Chinese medicine - Determination of Aflatoxins in natural products by LC-FLD - 8/16/2019, \$62.00
- ISO/DIS 23191, Traditional Chinese medicine - Determination of selected Aconitum alkaloids by HPLC - 10/13/2019, \$62.00

**TRANSPORT INFORMATION AND CONTROL SYSTEMS (TC 204)**

- ISO/DIS 19299, Electronic fee collection - Security framework - 10/12/2019, \$175.00

**TYRES, RIMS AND VALVES (TC 31)**

- ISO/DIS 23671, Passenger car tyres - Method for measuring relative wet grip performance - Loaded new tyres - 10/12/2019, \$77.00

**WATER QUALITY (TC 147)**

- ISO/DIS 22515, Water quality - Iron-55 - Test method using liquid scintillation counting - 10/13/2019, \$77.00

**WELDING AND ALLIED PROCESSES (TC 44)**

- ISO/DIS 9453, Soft solder alloys - Chemical compositions and forms - 10/11/2019, \$71.00

**ISO/IEC JTC 1, Information Technology**

- ISO/IEC DIS 19785-1, Information technology - Common Biometric Exchange Formats Framework - Part 1: Data element specification - 10/17/2019, \$112.00
- ISO/IEC DIS 30106-2, Information technology - Object oriented BioAPI - Part 2: Java implementation - 10/17/2019, \$146.00
- ISO/IEC DIS 30106-3, Information technology - Object oriented BioAPI - Part 3: C# implementation - 10/17/2019, \$125.00
- ISO/IEC DIS 30145-3, Information technology - Smart City ICT reference framework - Part 3: Smart city engineering framework - 10/12/2019, \$67.00
- ISO/IEC/IEEE DIS 24748-3, Systems and software engineering - Life cycle management - Part 3: Guidelines for the application of ISO/IEC/IEEE 12207 (Software life cycle processes) - 10/14/2019, \$146.00

**IEC Standards**

- 14/1012/CDV, IEC 60076-24 ED1: Power transformers - Part 24: Specification of Voltage Regulating Distribution Transformers (VRDT), /2019/10/1
- 17C/719/NP, PNW 17C-719: AC metal enclosed busbar trunking systems (BTS) including solid and air insulated design for rated voltages above 1 kV and up to and including 52 kV, /2019/10/1

- 27/1112/CDV, IEC 60519-8 ED3: Safety in Installations for electroheating and electromagnetic processing - Part 8: Particular requirements for electroslag remelting furnaces, /2019/10/1
- 31J/293/CDV, IEC 60079-10-1 ED3: Explosive atmospheres - Part 10 -1: Classification of areas - Explosive gas atmospheres, /2019/10/1
- 34B/2046/CDV, IEC 60061-2/AMD56 ED3: Amendment 56 - Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 2: Lampholders, /2019/10/1
- 34B/2048/CDV, IEC 60061-3/AMD58 ED3: Amendment 58 - Lamp caps and holders together with gauges for the control of interchangeability and safety - Part 3: Gauges, /2019/10/1
- 35/1431/CD, IEC 60086-5 ED5: Primary batteries - Part 5: Safety of batteries with aqueous electrolyte, 2019/9/20
- 46F/482/NP, PNW 46F-482: Multi radio frequency channel connector Part 3: Sectional specification for MQ5 series circular connector, /2019/10/1
- 47E/671/NP, PNW 47E-671: Semiconductor devices - Part 16-8: Microwave integrated circuits - Limiters, /2019/10/1
- 47E/670/NP, PNW 47E-670: Semiconductor devices - Part 16-7: Microwave integrated circuits - Attenuators, /2019/10/1
- 47F/341/NP, PNW 47F-341: Semiconductor devices - Micro-electromechanical devices - Part 40: Test methods of Micro-electromechanical inertial shock switch threshold, 2019/9/20
- 47F/340/NP, PNW 47F-340: Semiconductor devices - Micro-electromechanical devices - Part 39: Terms and definitions of Micro-electromechanical inertial shock switch, 2019/9/20
- 48B/2746/CD, IEC 60603-7 ED4: Connectors for electronic equipment - Part 7: Detail specification for 8-way, unshielded, free and fixed connectors, /2019/10/1
- 55/1786/CDV, IEC 60317-27-1 ED1: Specifications for particular types of winding wires - Part 27-1: Paper tape covered round copper wire, /2019/10/1
- 55/1787/CDV, IEC 60317-27-2 ED1: Specifications for particular types of winding wires - Part 27-2: Paper tape covered round aluminum wire, /2019/10/1
- 55/1788/CDV, IEC 60317-27-4 ED1: Specifications for particular types of winding wires - Part 27-4: Paper tape covered rectangular aluminum wire, /2019/10/1
- 57/2126/Q, Proposed transformation of ongoing IEC TS 61970-600-1 ED2, "Energy management system application program interface (EMS-API) - Part 600-1: Common Grid Model Exchange Specification (CGMES) - Structure and rules" into an International Standard IEC 61970-600-1 ED1, "Energy management system application program interface (EMS-API) - Part 600-1: Common Grid Model Exchange Standard (CGMES) - Structure and rules", 019/9/6/
- 57/2127/Q, Proposed transformation of ongoing IEC TS 61970-600-2 ED2, "Energy management system application program interface (EMS-API) - Part 600-2: Common Grid Model Exchange Specification (CGMES) - Exchange profiles specification" into an International Standard IEC 61970-600-2 ED1 "Energy management system application program interface (EMS-API) - Part 600-2: Common Grid Model Exchange Standard (CGMES) - Exchange profiles specification", 019/9/6/
- 57/2125/NP, PNW 57-2125: Framework for energy market communications - Part 451-8: HVDC processes, contextual and assembly models for European style market, /2019/10/1
- 59L/173/CD, IEC 63174 ED1: Electrically operated toothbrushes - Method for measuring performance, /2019/10/1
- 62B/1135/CDV, IEC 60522-1 ED1: Medical electrical equipment - Diagnostics X-Rays - Part 1: Determination of quality equivalent filtration and permanent filtration, /2019/10/1

- 62D/1695/CDV, ISO 80601-2-67 ED2: Medical electrical equipment - Part 2-67: Particular requirements for basic safety and essential performance of oxygen-conserving equipment, /2019/10/1
- 64/2387/DC, Amending Clause 534 of IEC 60364-5-53: Low-voltage electrical installations - Part 53 Clause 534: Devices for protection against transient overvoltages, /2019/11/2
- 64/2389/NP, PNW TS 64-2389: Application guides complying with IEC 60364 - Lighting circuits, /2019/10/1
- 64/2388/NP, PNW TS 64-2388: Application guides complying with IEC 60364 - Asynchronous motor starting and protection, /2019/10/1
- 64/2390/NP, PNW TS 64-2390: Application guides complying with IEC 60364 - Uninterruptible Power Systems, /2019/10/1
- 64/2392/NP, PNW TS 64-2392: Application guides complying with IEC 60364 - Source changeover system, /2019/10/1
- 64/2385/DTS, IEC TS 61200-102 ED1: Electrical installation guide, Part 102: Application guide on Low Voltage direct current electrical installation not intended to be connected to Public Distribution Network, /2019/10/1
- 64/2391/NP, PNW TS 64-2391: Application guides complying with IEC 60364 - Rotating generators, /2019/10/1
- 65E/661/NP, PNW 65E-661: Engineering data exchange format for use in industrial automation systems engineering - Automation Markup Language - Part 5: Communication, /2019/10/1
- 85/702/CD, IEC 61557-12/AMD1 ED2: Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 12: Power metering and monitoring devices (PMD), /2019/10/1
- 86B/4223/CD, IEC 61755-3-12 ED1: Fibre Optic Interconnecting Devices and Passive Components - Connector Optical Interfaces - Part 3-12: Connector parameters of dispersion unshifted single mode physically contacting fibres - Angled 2,5 mm and 1,25 mm diameter cylindrical full zirconia ferrules, core location variant 3, 2019/9/20
- 89/1478/DC, Development of a new IEC TS 60695-2-21 - "Fire containment test on finished units", 2019/10/4
- 91/1594/NP, PNW 91-1594: Test methods for electrical materials, printed board and other interconnection structures and assemblies - Part 2-X: Test methods for materials for interconnection structures - Measurement of resilience strength and resilience strength retention factor of flexible dielectric materials, /2019/10/1
- 110/1132/CD, IEC 63145-21-20 ED1: Eyewear display - Part 21-20: Specific measuring methods for VR type - Image quality, 2019/9/20
- 110/1129/FDIS, IEC 62908-12-20 ED1: Touch and interactive displays - Part 12-20: Measuring methods of touch displays - Multi-touch performance, 019/9/6/
- 110/1133/CD, IEC TR 62595-1-4 ED1: Display lighting unit - Part 1-4: Glass light guide plate, 2019/9/20
- 110/1127/CD, IEC 62629-1-2 ED2: 3D display devices - Part 1-2: Generic - Terminology and letter symbols, 2019/9/20
- 112/450/CDV, IEC 61857-41 ED1: Electrical insulation systems - Procedures for thermal evaluation - Part 41: Specific requirements for electrical insulation systems for use in dry-type high-voltage transformers with operating voltages of 1kV and above, /2019/10/1
- 113/499/CD, IEC TS 62607-6-10: Nanomanufacturing - Key control characteristics - Part 6-10: Graphene film - Sheet resistance: Terahertz time-domain spectroscopy, 2019/9/20
- 114/325/CD, IEC TS 62600-4 ED1: Marine energy - Wave, tidal and other water current converters - Part 4: Standard for establishing qualification of new technology, 2019/9/20
- 119/279/FDIS, IEC 62899-101 ED1: Printed Electronics - Part 101: Terminology - Vocabulary, 019/9/6/
- 121A/307/CDV, IEC 60947-4-3 ED3: Low-voltage switchgear and controlgear - Part 4-3: Contactors and motor-starters - Semiconductor controllers and semiconductor contactors for non-motor loads, /2019/10/1
- CIS/F/767(F)/CDV, CISPR 14-1/AMD1/FRAG1 ED6: Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission, 2019/9/20
- CIS/F/768(F)/CDV, CISPR 14-1/AMD1/FRAG4 ED6: Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission, 2019/9/20
- CIS/F/769(F)/CDV, CISPR 14-1/AMD1/FRAG5 ED6: Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission, 2019/9/20
- CIS/F/770(F)/CDV, CISPR 14-2/AMD1/FRAG3 ED2: Fragment 3 of Amendment 1: Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity - Product family standard, 2019/9/20
- CIS/H/402/DTR, CISPR TR 16-4-4/AMD2 ED2: Amendment 2: Model for estimation of radiation from photovoltaic (PV) power generating systems and installations., 2019/9/20
- SyCAAL/154/DTS, IEC TS 63234-2 ED1: (SRD) Economic evaluation of AAL services - Part 2: Example use of the framework for evaluation of an AAL service for monitoring patients with chronic diseases, /2019/10/1
- SyCAAL/153/DTS, IEC TS 63234-1 ED1: (SRD) Economic evaluation of AAL services - Part 1: Framework, /2019/10/1



# Newly Published ISO & IEC Standards

Listed here are new and revised standards recently approved and promulgated by ISO - the International Organization for Standardization – and IEC – the International Electrotechnical Commission. Most are available at the ANSI Electronic Standards Store (ESS) at [www.ansi.org](http://www.ansi.org). All paper copies are available from Standards resellers (<http://webstore.ansi.org/faq.aspx#resellers>).

## ISO Standards

### ISO/IEC JTC 1 Technical Reports

[ISO/IEC TR 19583-1:2019](#), Information technology - Concepts and usage of metadata - Part 1: Metadata concepts, \$68.00

#### ACOUSTICS (TC 43)

[ISO 17208-2:2019](#), Underwater acoustics - Quantities and procedures for description and measurement of underwater sound from ships - Part 2: Determination of source levels from deep water measurements, \$103.00

#### AGRICULTURAL FOOD PRODUCTS (TC 34)

[ISO 17059:2019](#), Oilseeds - Extraction of oil and preparation of methyl esters of triglyceride fatty acids for analysis by gas chromatography (rapid method), \$45.00

[ISO 17410:2019](#), Microbiology of the food chain - Horizontal method for the enumeration of psychrotrophic microorganisms, \$68.00

[ISO 15216-2:2019](#), Microbiology of the food chain - Horizontal method for determination of hepatitis A virus and norovirus using real-time RT-PCR - Part 2: Method for detection, \$185.00

#### AIR QUALITY (TC 146)

[ISO 16000-40:2019](#), Indoor air - Part 40: Indoor air quality management system, \$138.00

#### ANAESTHETIC AND RESPIRATORY EQUIPMENT (TC 121)

[ISO 19223:2019](#), Lung ventilators and related equipment - Vocabulary and semantics, \$45.00

#### ANALYSIS OF GASES (TC 158)

[ISO 19229:2019](#), Gas analysis - Purity analysis and the treatment of purity data, \$103.00

#### CINEMATOGRAPHY (TC 36)

[ISO 4241:2019](#), Cinematography - Projection film leader (time-based), trailer and cue marks - Specifications, \$68.00

#### CONCRETE, REINFORCED CONCRETE AND PRE-STRESSED CONCRETE (TC 71)

[ISO 21914:2019](#), Test methods for fibre-reinforced cementitious composites - Bending moment - Curvature curve by four-point bending test, \$68.00

[ISO 10406-3:2019](#), Fibre-reinforced polymer (FRP) reinforcement of concrete - Test methods - Part 3: CFRP strips, \$68.00

#### FASTENERS (TC 2)

[ISO 3269:2019](#), Fasteners - Acceptance inspection, \$68.00

#### FERROUS METAL PIPES AND METALLIC FITTINGS (TC 5)

[ISO 21053:2019](#), Life cycle analysis and recycling of ductile iron pipes for water applications, \$103.00

#### FLUID POWER SYSTEMS (TC 131)

[ISO 4399:2019](#), Fluid power systems and components - Connectors and associated components - Nominal pressures, \$45.00

#### GEOSYNTHETICS (TC 221)

[ISO 13437:2019](#), Geosynthetics - Installing and retrieving samples in the field for durability assessment, \$68.00

#### IMPLANTS FOR SURGERY (TC 150)

[ISO 22622:2019](#), Implants for surgery - Wear of total ankle-joint prostheses - Loading and displacement parameters for wear-testing machines with load or displacement control and corresponding environmental conditions for test, \$138.00

#### INTERNAL COMBUSTION ENGINES (TC 70)

[ISO 8178-9:2019](#), Reciprocating internal combustion engines - Exhaust emission measurement - Part 9: Test cycles and test procedures for measurement of exhaust gas smoke emissions from compression ignition engines using an opacimeter, \$209.00

#### LIGHT METALS AND THEIR ALLOYS (TC 79)

[ISO 20260:2019](#), Magnesium and magnesium alloys - Determination of mercury, \$68.00

#### MACHINE TOOLS (TC 39)

[ISO 14955-4:2019](#), Machine tools - Environmental evaluation of machine tools - Part 4: Principles for measuring metal-forming machine tools and laser processing machine tools with respect to energy efficiency, \$232.00

#### MATERIALS FOR THE PRODUCTION OF PRIMARY ALUMINIUM (TC 226)

[ISO 10143:2019](#), Carbonaceous materials for the production of aluminium - Calcined coke for electrodes - Determination of the electrical resistivity of granules, \$45.00

[ISO 23028:2019](#), Aluminium oxide primarily used for the production of aluminium - Preparation and storage of test samples, \$68.00

#### MECHANICAL TESTING OF METALS (TC 164)

[ISO 20064:2019](#), Metallic materials - Steel - Method of test for the determination of brittle crack arrest toughness, Kca, \$185.00

#### PAINTS AND VARNISHES (TC 35)

[ISO 2808:2019](#), Paints and varnishes - Determination of film thickness, \$185.00

**PAPER, BOARD AND PULPS (TC 6)**

[ISO 12830:2019](#), Paper, board, pulps and cellulose nanomaterials - Determination of acid-soluble magnesium, calcium, manganese, iron, copper, sodium and potassium, \$138.00

**PETROLEUM PRODUCTS AND LUBRICANTS (TC 28)**

[ISO 21493:2019](#), Petroleum products - Determination of turbidity point and aniline point equivalent, \$68.00

**PHOTOGRAPHY (TC 42)**

[ISO 20954-1:2019](#), Digital cameras - Measurement method for image stabilization performance - Part 1: Optical systems, \$185.00

**PLAIN BEARINGS (TC 123)**

[ISO 13939:2019](#), Foil bearings - Performance testing of foil journal bearings - Testing of static load capacity, friction coefficient and lifetime, \$103.00

**PLASTICS (TC 61)**

[ISO 527-1:2019](#), Plastics - Determination of tensile properties - Part 1: General principles, \$138.00

[ISO 22633:2019](#), Adhesives - Test methods for adhesives for floor coverings and wall coverings - Determination of the dimensional changes of a linoleum floor covering in contact with an adhesive, \$68.00

**RUBBER AND RUBBER PRODUCTS (TC 45)**

[ISO 2285:2019](#), Rubber, vulcanized or thermoplastic - Determination of tension set under constant elongation, and of tension set, elongation, and creep under constant tensile load, \$103.00

[ISO 5893:2019](#), Rubber and plastics test equipment - Tensile, flexural and compression types (constant rate of traverse) - Specification, \$45.00

[ISO 8013:2019](#), Rubber, vulcanized - Determination of creep in compression or shear, \$138.00

[ISO 20163:2019](#), Vulcanized rubber - Determination of free sulfur by gas chromatography (GC) and high performance liquid chromatography (HPLC), \$103.00

**STEEL (TC 17)**

[ISO 4960:2019](#), Steel strip, cold-reduced with a mass fraction of carbon over 0,25%, \$103.00

[ISO 6306:2019](#), Chemical analysis of steel - Order of listing elements in steel standards, \$45.00

[ISO 6930:2019](#), High yield strength steel plates and wide flats for cold forming - Delivery conditions, \$103.00

**SURFACE ACTIVE AGENTS (TC 91)**

[ISO 21264:2019](#), Surface active agents - Detergents - Determination of alkylphenol ethoxylates, \$68.00

**TIMBER (TC 218)**

[ISO 5323:2019](#), Wood flooring and parquet - Vocabulary, \$45.00

**TRANSPORT INFORMATION AND CONTROL SYSTEMS (TC 204)**

[ISO 21219-2:2019](#), Intelligent transport systems - Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) - Part 2: UML modelling rules (TPEG2-UMR), \$185.00

[ISO 21219-3:2019](#), Intelligent transport systems - Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) - Part 3: UML to binary conversion rules (TPEG2-UBCR), \$138.00

[ISO 21219-4:2019](#), Intelligent transport systems - Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) - Part 4: UML to XML conversion rules, \$185.00

[ISO 21219-5:2019](#), Intelligent transport systems - Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) - Part 5: Service framework (TPEG2-SFW), \$185.00

[ISO 21219-6:2019](#), Intelligent transport systems - Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) - Part 6: Message management container (TPEG2-MMC), \$138.00

[ISO 21219-18:2019](#), Intelligent transport systems - Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) - Part 18: Traffic flow and prediction application (TPEG2-TFP), \$209.00

**WATER QUALITY (TC 147)**

[ISO 5815-1:2019](#), Water quality - Determination of biochemical oxygen demand after n days (BOD<sub>n</sub>) - Part 1: Dilution and seeding method with allylthiourea addition, \$138.00

**WELDING AND ALLIED PROCESSES (TC 44)**

[ISO 18592:2019](#), Resistance welding - Destructive testing of welds - Method for the fatigue testing of multi-spot-welded specimens, \$162.00

**ISO Technical Reports****OPTICS AND OPTICAL INSTRUMENTS (TC 172)**

[ISO/TR 14999-2:2019](#), Optics and photonics - Interferometric measurement of optical elements and optical systems - Part 2: Measurement and evaluation techniques, \$209.00

**ISO/IEC JTC 1, Information Technology**

[ISO/IEC 19566-5:2019](#), Information technologies - JPEG systems - Part 5: JPEG universal metadata box format (JUMBF), \$103.00

[ISO/IEC 19566-6:2019](#), Information technologies - JPEG systems - Part 6: JPEG 360, \$138.00

[ISO/IEC 23092-1:2019](#), Information technology - Genomic information representation - Part 1: Transport and storage of genomic information, \$209.00

[ISO/IEC 23001-13:2019](#), Information technology - MPEG systems technologies - Part 13: Media orchestration, \$209.00

[ISO/IEC/IEEE 15289:2019](#), Systems and software engineering - Content of life-cycle information items (documentation), \$209.00

[ISO/IEC/IEEE 21839:2019](#), Systems and software engineering - System of systems (SoS) considerations in life cycle stages of a system, \$162.00

[ISO/IEC/IEEE 21841:2019](#), Systems and software engineering - Taxonomy of systems of systems, \$68.00

[ISO/IEC/IEEE 42020:2019](#), Software, systems and enterprise - Architecture processes, \$232.00

[ISO/IEC/IEEE 42030:2019](#), Software, systems and enterprise - Architecture evaluation framework, \$209.00

# IEC Standards

## FIBRE OPTICS (TC 86)

[IEC 61300-3-53 Ed. 1.0 b:2015](#), Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-53: Examinations and measurements - Encircled angular flux (EAF) measurement method based on two-dimensional far field data from step index multimode waveguide (including fibre), \$117.00

[IEC 61753-056-2 Ed. 1.0 b:2012](#), Fibre optic interconnecting devices and passive components - Performance standard - Part 056-2: Single mode fibre pigtailed style optical fuse for category C - Controlled environment, \$117.00

[IEC 61753-057-2 Ed. 1.0 b:2012](#), Fibre optic interconnecting devices and passive components - Performance standard - Part 057-2: Single mode fibre plug-receptacle style optical fuse for category C - Controlled environment, \$164.00

## MEASURING EQUIPMENT FOR ELECTROMAGNETIC QUANTITIES (TC 85)

[IEC 61557-1 Ed. 3.0 b:2019](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 1: General requirements, \$164.00

[IEC 61557-2 Ed. 3.0 b:2019](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 2: Insulation resistance, \$47.00

[IEC 61557-3 Ed. 3.0 b:2019](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 3: Loop impedance, \$47.00

[IEC 61557-4 Ed. 3.0 b:2019](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 4: Resistance of earth connection and equipotential bonding, \$47.00

[IEC 61557-5 Ed. 3.0 b:2019](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 5: Resistance to earth, \$82.00

[IEC 61557-6 Ed. 3.0 b:2019](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 6: Effectiveness of residual current devices (RCD) in TT, TN and IT systems, \$82.00

[IEC 61557-7 Ed. 3.0 b:2019](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 7: Phase sequence, \$82.00

[S+ IEC 61557-1 Ed. 3.0 en:2019 \(Redline version\)](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 1: General requirements, \$213.00

[S+ IEC 61557-2 Ed. 3.0 en:2019 \(Redline version\)](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 2: Insulation resistance, \$61.00

[S+ IEC 61557-3 Ed. 3.0 en:2019 \(Redline version\)](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 3: Loop impedance, \$107.00

[S+ IEC 61557-4 Ed. 3.0 en:2019 \(Redline version\)](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 4: Resistance of earth connection and equipotential bonding, \$61.00

[S+ IEC 61557-5 Ed. 3.0 en:2019 \(Redline version\)](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 5: Resistance to earth, \$107.00

[S+ IEC 61557-6 Ed. 3.0 en:2019 \(Redline version\)](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 6: Effectiveness of residual current devices (RCD) in TT, TN and IT systems, \$107.00

[S+ IEC 61557-7 Ed. 3.0 en:2019 \(Redline version\)](#), Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 7: Phase sequence, \$107.00

## SEMICONDUCTOR DEVICES (TC 47)

[IEC 62830-6 Ed. 1.0 en:2019](#), Semiconductor devices - Semiconductor devices for energy harvesting and generation - Part 6: Test and evaluation methods for vertical contact mode triboelectric energy harvesting devices, \$164.00



# Proposed Foreign Government Regulations

## Call for Comment

U.S. manufacturers, exporters, regulatory agencies and standards developing organizations may be interested in proposed foreign technical regulations notified by Member countries of the World Trade Organization (WTO). In accordance with the WTO Agreement on Technical Barriers to Trade (TBT Agreement), Members are required to notify proposed technical regulations that may significantly affect trade to the WTO Secretariat in Geneva, Switzerland. In turn, the Secretariat issues and makes available these notifications. The purpose of the notification requirement is to provide global trading partners with an opportunity to review and comment on the regulations before they become final.

The USA Inquiry Point for the WTO TBT Agreement is located at the National Institute of Standards and Technology (NIST) in the Standards Coordination Office (SCO). The Inquiry Point distributes the notified proposed foreign technical regulations (notifications) and makes the associated full-texts available to U.S. stakeholders via its online service, Notify U.S. Interested U.S. parties can register with Notify U.S. to receive e-mail alerts when notifications are added from countries and industry sectors of interest to them.

To register for Notify U.S., please visit <http://www.nist.gov/notifyus/>.

The USA WTO TBT Inquiry Point is the official channel for distributing U.S. comments to the network of WTO TBT Enquiry Points around the world. U.S. business contacts interested in commenting on the notifications are asked to review the comment guidance available on Notify U.S. at <https://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm> prior to submitting comments.

For further information about the USA TBT Inquiry Point, please visit: <https://www.nist.gov/standardsgov/what-we-do/trade-regulatory-programs/usa-wto-tbt-inquiry-point>

Contact the USA TBT Inquiry Point at:(301) 975-2918; Fax: (301) 926-1559; E-mail: [usatbtep@nist.gov](mailto:usatbtep@nist.gov) or [notifyus@nist.gov](mailto:notifyus@nist.gov).

# Information Concerning

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## American National Standards

### Call for Members

#### INCITS Executive Board – ANSI Accredited SDO and US TAG to ISO/IEC JTC 1, Information Technology

The InterNational Committee for Information Technology Standards (INCITS), an ANSI accredited SDO, is the forum of choice for information technology developers, producers and users for the creation and maintenance of formal de jure IT standards. INCITS' mission is to promote the effective use of Information and Communication Technology through standardization in a way that balances the interests of all stakeholders and increases the global competitiveness of the member organizations.

The INCITS Executive Board serves as the consensus body with oversight of its 40+ Technical Committees. Additionally, the INCITS Executive Board has the international leadership role as the US Technical Advisory Group (TAG) to ISO/IEC JTC 1, Information Technology.

Membership in the INCITS Executive Board is open to all directly and materially affected parties in accordance with INCITS membership rules. To find out more about participating on the INCITS Executive Board, contact Jennifer Garner at [jgarner@itic.org](mailto:jgarner@itic.org) or visit <http://www.incits.org/participation/membership-info> for more information.

Membership in all interest categories is always welcome; however, the INCITS Executive Board seeks to broaden its membership base in the following categories:

- Service Providers
- Users
- Standards Development Organizations and Consortia
- Academic Institutions

### Society of Cable Telecommunications

#### ANSI Accredited Standards Developer

SCTE, an ANSI-accredited SDO, is the primary organization for the creation and maintenance of standards for the cable telecommunications industry. SCTE's standards mission is to develop standards that meet the needs of cable system operators, content providers, network and customer premises equipment manufacturers, and all others who have an interest in the industry through a fair, balanced and transparent process.

SCTE is currently seeking to broaden the membership base of its consensus bodies and is interested in new members in all membership categories to participate in new work in fiber-optic networks, advanced advertising, 3D television, and other important topics. Of particular interest is membership from the content (program and advertising) provider and user communities.

Membership in the SCTE Standards Program is open to all directly a materially affected parties as defined in SCTE's membership rules and operating procedures. More information is available at [www.scte.org](http://www.scte.org) or by e-mail from [standards@scte.org](mailto:standards@scte.org).

## ANSI Accredited Standards Developers

### Approval of Reaccreditation

#### American Petroleum Institute (API)

The reaccreditation of the American Petroleum Institute (API), an ANSI member and Accredited Standards Developer (ASD), has been approved at the direction of ANSI's Executive Standards Council, under its recently revised operating procedures for documenting consensus on API-sponsored American National Standards, effective July 31, 2019. For additional information, please contact: Ms. Paula Watkins, Manager, Midstream Standards, American Petroleum Institute, 200 Massachusetts Avenue NW, Washington, DC 20001; phone: 202.682.8197; e-mail: [watkinsp@api.org](mailto:watkinsp@api.org).

#### American Welding Society (AWS)

ANSI's Executive Standards Council has approved the reaccreditation of the American Welding Society (AWS), an ANSI Member and Accredited Standards Developer, under its recently revised AWS TAC Rules of Operation for documenting consensus on AWS-sponsored American National Standards, effective July 31, 2019. For additional information, please contact: Mr. Peter Portela, Director, Standards Development, American Welding Society, 8669 NW 36th Street #130, Miami, FL 33166; phone: 305.443.9353, ext. 311; e-mail: [pportela@aws.org](mailto:pportela@aws.org).

### Withdrawal of ASD Accreditation

#### National Windshield Repair Association (NWRA)

The National Windshield Repair Association (NWRA) has requested the formal withdrawal of its accreditation as a developer of American National Standards (ANS), and of its sponsored-ANS: ANSI/NWRA/ROLAGS 001-2014, Repair of Laminated Automotive Glass Standard. These actions are taken, effective July 30, 2019. For additional information, please contact: Ms. Debra Levy, President, AGSC, Former Executive Director, NWRA, Auto Glass Safety Council, 20 PGA Drive, Suite 201, Stafford, VA 22554; phone: 540.602.3282; e-mail: [deb@glass.com](mailto:deb@glass.com).

## International Organization for Standardization (ISO)

### Establishment of ISO Subcommittee

#### ISO/TC 215/SC 1 – Genomics Informatics

ISO/TC 215 – Health informatics has created a new ISO Subcommittee on Genomics Informatics (ISO/TC 215/SC 1). The Secretariat has been assigned to Republic of Korea (KATS).

ISO/TC 215/SC 1 operates under the following scope:

Development of standards in the field of Genomics Informatics within the scope ISO/TC 215:

Standardization in the field of health informatics, to facilitate capture, interchange and use of health-related data, information, and knowledge to support and enable all aspects of the health system.

Organizations interested in participating on the U.S. TAG should contact ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)).

## ISO Proposal for a New Field of ISO Technical Activity

### Machinery to be Used with Foodstuffs

**Comment Deadline: September 6, 2019**

DIN, the ISO member body for Germany, has submitted to ISO a proposal for a new field of ISO technical activity on Machinery for use with foodstuffs, with the following scope statement:

Standardization of individual machine types and their accessories used in the foodstuffs supply chain, as well as processing systems and complete production lines consisting of these machines.

All these machines process various raw materials and ingredients into intermediate food products and/or ready-to-eat food.

The standards to be created in this TC deal with specific and typical aspects of machines used in the food industry. These aspects include – but are not limited to – health and safety at work for operators (safety of food machinery) and consumer health and safety (food safety). Standards of this TC also focus on hygienic design principles.

Excluded are the fields covered by ISO/TC 23 (Tractors and machinery for agriculture and forestry), ISO/TC 283 (Occupational health and safety management) and ISO/TC 293 (Feed machinery).

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, September 6, 2019.

### Natural and Engineered Stones

**Comment Deadline: August 30, 2019**

UNI, the ISO member body for Italy, has submitted to ISO a proposal for a new field of ISO technical activity standard on natural and engineered stones, with the following scope statement:

Definitions, requirements and test methods for natural stones relating to rough blocks, slabs, semi-finished and finished products intended for use in building and for monuments and for engineered stones with resin or cement binders or a combination of the two, intended for use in countertops and vanities, floor and wall coverings, ancillary uses, for interior and exterior.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, August 30, 2019.

## International Electrotechnical Commission (IEC)

### International Convener Needed

#### Systems Resource Group (SRG)

SRG comprises a group of Systems Methodology experts whose purpose is to guide the development and use of specialized tools and software applications for Systems, and encourage the use of these tools and sharing of best practices within the Systems Committees.

Individuals who are interested in becoming the new International Convener on SRG are invited to contact Tony Zertuche at [TZertuche@ansi.org](mailto:TZertuche@ansi.org) as soon as possible.

Please see the scope for SRG below.

#### Scope:

To serve as a support and consulting resource to SEGs and SyCs. It also specifies tools and provide guidance for Systems Approach Methodology such as architecture models, road maps and use cases. It focuses on the science of system standardization, but does not engage in technical standards work.

### Members Needed

#### New USNC TAG to IEC/TC 125: Personal e-Transporters (PeTs)

Individuals who are interested in joining this USNC TAG are invited to contact Ade Gladstein at [agladstein@ansi.org](mailto:agladstein@ansi.org) as soon as possible.

Please see the scope for TC 125 below.

#### Scope:

Standardization for use on the road or in the public space of electrically powered transport devices (i.e. no human (propulsion) power input) and where the speed control and/or the steering control is electrical/electronic.

This means, standardization in the field of personal e-Transporters, including :

- Safety and reliability (both electrical and functional)
- Protection against hazards (fire and explosion hazards, water ingress, ...)
- Maintenance
- Docking stations for public use
- Recharging
- Recycling

#### Exclusions :

Standardization of electrical bicycles, motorbikes, mopeds and cars are excluded from the scope because they are handled by other TC's :

- IEC TC 69
- ISO TC 149
- ISO TC 22

Standardization of PeTs for home use are excluded because they are handled by IEC TC 59 and TC 61.

## US Representative Needed

### ACEA (Advisory Committee on Environmental Aspects)

ACEA which reports to the SMB (Standardization Management Board), considers all aspects of the protection of the natural environment against detrimental impacts from electrotechnical products and systems.

The USNC Department's Cara Magoon, Program Administrator, has volunteered to replace Jinny Park as the US Representative. However, if there are any individuals who are interested in becoming a new US Representative on ACEA, they are invited to contact Ade Gladstein at [agladstein@ansi.org](mailto:agladstein@ansi.org) as soon as possible.

Please see the scope for ACEA below.

#### Scope:

To advise the SMB on environmental matters and develops Guides. It helps to coordinate IEC work on environmental issues to ensure consistency and to avoid duplication and conflict in IEC publications. Its role is also to ensure that the IEC's standards developers take environmental protection concerns into account in their standardization work. ACEA activities are focused on issues covered by legislation that relate to, for example, environmentally conscious design (eco-design), environmental declaration and more specifically to substance management, end-of-life treatment, and environmental labelling.

## Meeting Notices

### Meeting for Accredited Standards Committee (ASC) B109 Standards B109.1, B109.2, B109.3, and B109.4

Meeting Date: Monday, September 23, 2019- 8:00 AM – 4:00 PM CST

Meeting Location: Peppermill Reno, 2707 S. Virginia St., Reno, Nevada 89502--(Teleconference information available upon request)

Purpose: This is the annual ANSI B109 meeting. Updates will be given for each of the B109 standards.

Please register on line at [www.aga.org](http://www.aga.org). For more information, contact Jeff Meyers, [jmeyers@aga.org](mailto:jmeyers@aga.org).

### National Waste and Recycling Association (NW&RA)

The National Waste and Recycling Association (NW&RA) serves as the secretariat for the ANSI Z245 Committee on Equipment Technology and Operations for Waste and Recyclable Materials. The next meeting will be August 26, 27, and 28th; the Z245.8 Landfill Safety sub-committee will meet at 2:00pm on August 26; the Z245.1 Mobile Equipment sub-committee will participate in a tour of the American Center of Mobility on August 27 at 8:30; and on August 28th the following sub-committees will meet; Z245.2/.5

Compactors and Balers at 8:00am; Z245.4 at noon; and the Z245.3/.6 Waste Containers at 3:00pm. The location of the meeting is at the [Ann Arbor Marriot Ypsilanti at Eagle Crest](#). Those interested in participating can contact Kirk Sander at [ksander@wasterecycling.org](mailto:ksander@wasterecycling.org) or register at :

<https://mx.wasterecycling.org/Events/EventDetails.aspx?MeetingId=%7bB0BA6AEA-F186-E911-80FE-000D3A011CEC%7d>.



## American National Standards (ANS) – Where to find Procedures, Guidance, Interpretations and More...

Please visit ANSI's website ([www.ansi.org](http://www.ansi.org)) for resources that will help you to understand, administer and participate in the American National Standards (ANS) process. Documents posted at these links are updated periodically as new documents and guidance are developed, whenever ANS-related procedures are revised, and routinely with respect to lists of proposed and approved ANS. The main ANS-related link is [www.ansi.org/asd](http://www.ansi.org/asd) and here are some direct links as well as highlights of information that is available:

- *ANSI Essential Requirements: Due process requirements for American National Standards* (always current edition): [www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements)
- ANSI Standards Action (weekly public review announcements of proposed ANS and standards developer accreditation applications, listing of recently approved ANS, and proposed revisions to ANS-related procedures): [www.ansi.org/standardsaction](http://www.ansi.org/standardsaction)
- Accreditation information – for potential developers of American National Standards (ANS): [www.ansi.org/sdoaccreditation](http://www.ansi.org/sdoaccreditation)
- ANS Procedures, ExSC Interpretations and Guidance (including a slide deck on how to participate in the ANS process and the BSR-9 form): [www.ansi.org/asd](http://www.ansi.org/asd)
- Lists of ANSI-Accredited Standards Developers (ASDs), Proposed ANS and Approved ANS: [www.ansi.org/asd](http://www.ansi.org/asd)
- American National Standards Key Steps: [www.ansi.org/anskeysteps](http://www.ansi.org/anskeysteps)
- American National Standards Value: [www.ansi.org/ansvalue](http://www.ansi.org/ansvalue)
- ANS Web Forms for ANSI-Accredited Standards Developers - PINS, BSR8|108, BSR11, Technical Report: [www.ansi.org/PSAWebForms](http://www.ansi.org/PSAWebForms)
- Information about standards Incorporated by Reference (IBR): [www.ansi.org/ibr](http://www.ansi.org/ibr)
- ANSI - Education and Training: [www.standardslearn.org](http://www.standardslearn.org)

If you have a question about the ANS process and cannot find the answer quickly, please send an email to [psa@ansi.org](mailto:psa@ansi.org).

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**NSF International Standard /  
American National Standard –**

# **Food Equipment**

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## **1 General**

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### **1.2 Scope**

Equipment covered by this Standard includes, but is not limited to, bakery, cafeteria, kitchen, and pantry units and other food handling and processing equipment such as tables and components, counters, ~~dinnerware~~ **tableware**, hoods, shelves, and sinks.

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## **5 Design and construction**

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### **5.61 Identification mark**

~~Dinnerware~~ **Tableware** products shall have a permanent marking or an identification plate that denotes the manufacturer's name and product model number. If the manufacturer has more than one production location for the ~~dinnerware~~ **tableware** product, then the production location shall be identified on the marking or identification plate.

*Rationale: now that that definition for Dinnerware has been replaced with Tableware in Standard 170, the logical next step is to replace the use of the term Dinnerware with Tableware in Standard 2.*

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Revision to NSF/ANSI 42-2018  
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NSF/ANSI Standard  
for Drinking Water Treatment Units –

Drinking Water Treatment Units –  
Aesthetic Effects

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NSF/ANSI Standard  
for Drinking Water Treatment Units –

Drinking Water Treatment Units –  
Health Effects

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NSF/ANSI Standard  
for Drinking Water Treatment Units –

Supplemental Microbiological Water Treatment Systems –  
Filtration

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NSF/ANSI Standard  
for Drinking Water Treatment Units –

Drinking Water Treatment Units –  
Emerging Compounds / Incidental Contaminants

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**5 Structural performance**

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**Table 5.1**  
**Structural integrity testing requirements**

<b>Complete systems</b>	<b>Hydrostatic pressure test<sup>1</sup></b>	<b>Cyclic pressure test<sup>1</sup></b>
<b>Complete systems</b>		
complete systems with pressure vessels having a diameter < 203 mm (8 in)	3 × maximum working pressure or 2,070 kPa (300 psig)	100,000 cycles at 0 to 1,040 kPa (0 to 150 psig) or maximum working pressure
complete systems with pressure vessels having a diameter ≥ 203 mm (8 in)	2.4 × maximum working pressure or 2,070 kPa (300 psig)	100,000 cycles at 0 to 1,040 kPa (0 to 150 psig) or maximum working pressure
complete systems designed for open discharge <sup>2</sup>	1.5 × maximum working pressure or 1,040 kPa (150 psig)	10,000 cycles at 0 to 345 kPa (0 to 50 psig)
complete portable systems pressurized by user <sup>3</sup>	1.5 × maximum working pressure	—
<b>Components</b>		
metallic pressure vessels having a diameter < 203 mm (8 in) <sup>4</sup>	3 × maximum working pressure or 2,070 kPa (300 psig)	100,000 cycles at 0 to 1,040 kPa (0 to 150 psig) or maximum working pressure
metallic pressure vessels having a diameter ≥ 203 mm (8 in) <sup>4</sup>	2.4 × maximum working pressure or 2,070 kPa (300 psig)	100,000 cycles at 0 to 1,040 kPa (0 to 150 psig) or maximum working pressure
nonmetallic pressure vessels having a diameter < 203 mm (8 in)	3 × maximum working pressure or 2,070 kPa (300 psig)	100,000 cycles at 0 to 1,040 kPa (0 to 150 psig) or maximum working pressure
nonmetallic pressure vessels having a diameter ≥ 203 mm (8 in)	2.4 × maximum working pressure or 2,070 kPa (300 psig)	100,000 cycles at 0 to 1,040 kPa (0 to 150 psig) or maximum working pressure
disposable metallic pressure vessels and components	3 × maximum working pressure or 2,070 kPa (300 psig)	10,000 cycles at 0 to 1,040 kPa (0 to 150 psig) or maximum working pressure
valves and controls <sup>5</sup>	3 × maximum working pressure or 2,070 kPa (300 psig)	100,000 cycles at 0 to 1,040 kPa (0 to 150 psig) or maximum working pressure
<sup>1</sup> When a choice is given in the table, testing shall be done at the greater pressure. <sup>2</sup> Components downstream of the system on/off valve that are not subject to pressure under the off mode, and that either contain no media subject to plugging or are not designed to contain media shall be exempt from the hydrostatic pressure test, but shall be watertight in normal use. Components that are downstream of the system on/off valve but upstream of media subject to clogging shall meet the requirements of this section. <sup>3</sup> Portable systems designed to utilize only atmospheric pressure or gravity flow shall be exempt from the hydrostatic pressure test, but shall be watertight in normal use. <sup>4</sup> Metallic pressure vessels require measurement of circumference and head deflection. The pressure vessel circumference shall not exhibit a permanent increase of more than 0.2% when measured at the midsection and at 30 cm (12 in) intervals. The top and bottom head deflection of the pressure vessel shall not exhibit a permanent deflection exceeding 0.5% of the vessel diameter. <sup>5</sup> Subject to line pressure and tested as separate components.		



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***Rationale: When the burst testing requirements were balloted to be removed from 42 and 53 in 2011, the heading for components in Table 5 (now Table 5.1) was accidentally deleted. The word "metallic" was also balloted to be removed but was inadvertently left in.***

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Issue 115, Revision 3 (July 2019)

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NSF/ANSI Standard  
for Drinking Water Treatment Units —

## Drinking Water Treatment Units — Health Effects

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### 7 Elective performance claims – Test methods

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#### 7.2 Chemical reduction claims

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#### 7.2.6 Non-regenerating PFOA / PFOS reduction testing

This protocol is designed for non-regenerable POU and POE devices using anion exchange media.

##### 7.2.6.1 PFOA/ PFOS reduction claim

Claims for PFOA / PFOS reduction are permitted when tested in accordance with Section 7.2.6 as long as maximum effluent concentrations in Table 7.7 are not exceeded.

**Table 7.7**  
**PFOA/PFOS reduction requirements**

Substance	Average influent challenge (mg/L)	Maximum effluent concentration (mg/L)	US EPA Method(s)	Compound
PFOA (perfluorooctanoic acid CAS #335-67-1) and PFOS (perfluorooctane sulfonate CAS # 1763-23-1) <sup>1</sup>	0.0015 ± <del>30</del> <b>10</b> %	0.00007 <sup>2</sup>	Refer to Annex L <sup>3</sup>	PFOA and PFOS

<sup>1</sup> Influent challenge levels for PFOS were based on the upper percentile concentration per EPA's UCMR3 occurrence data (2013-2015) (the concentration for which there is high probability [P <0.01] that 99% of the population will be exposed to waters of lower concentration). Influent challenge levels for PFOA were based on the upper percentile concentration of private well and public water supply sampling in Hoosick Falls New York (the concentration for which there is high probability [P <0.10] that 90% of the population will be exposed to waters of

**Table 7.7**  
**PFOA/PFOS reduction requirements**

Substance	Average influent challenge (mg/L)	Maximum effluent concentration (mg/L)	US EPA Method(s)	Compound
lower concentration). This influent concentration is higher than the maximum concentration per US EPA's UCMR3 occurrence data (2013-2015). PFOS and PFOA will be added gravimetrically in a ratio of five parts PFOA to 10 parts PFOS by weight to achieve the total influent concentration.				
<sup>2</sup> Total of both PFOS and PFOA. Based on US EPA Health Advisory level which includes a margin of protection for the most sensitive populations.				
<sup>3</sup> Any needed modification / improvement on the method shall be performed as described and validated within the method. If alternate methods are used they shall be validated as equivalent or better in precision and accuracy than the specified method.				

### 7.2.6.2 Apparatus

Refer to 7.1.2 Figure 2 for an example of the test apparatus.

### 7.2.6.3 Analytical methods

All analyses shall be conducted in accordance with the applicable methods referenced in Section 2 and Annex L.

### 7.2.6.4 Premature filter plugging

If a product prematurely plugs prior to the completion of the required test volume, the volume of the final sample point collected prior to plugging becomes the final test volume to determine capacity.

Applicable actions to remediate premature filter plugging for this tests method are contained in Annex H, Sections H.1, H.2, H.3, and H.6.

### 7.2.6.5 PFOA / PFOS reduction test water

a) A water supply shall be treated by reverse osmosis, then shall be treated by deionization (RO/DI) water and shall have a conductivity of less than 2  $\mu\text{S} / \text{cm}$ .

b) All chemical additions shall take place either after the test tank is filled with the RO/DI water, or while the test tank is being filled. Reagent grade chemicals shall be used for all additions to adjust the RO/DI water to meet the following specific characteristics:

**Table 7.8**  
**PFOA/PFOS influent water characteristics**

Parameter	Target value	Overall average tolerance	Single point tolerance <sup>1</sup>
SO <sub>4</sub> <sup>-2</sup>	200 mg/L	± 20%	± 30%
Cl <sup>-</sup>	100 mg/L	± 20%	± 30%
alkalinity as CaCO <sub>3</sub>	200 mg/L	± 20%	± 30%
PFOA	0.0005 mg/L	± 10%	± 20% <b>40%</b>
PFOS	0.0010 mg/L	± 10%	± 20% <b>40%</b>
temperature	20 °C (68 °F)	± 2.5 °C (± 5 °F)	—
turbidity	< 1 NTU	—	—

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pH	7.5	± 0.5	—
<sup>1</sup> Equals average influent challenge concentration variability plus one of the following, in order of availability: <ol style="list-style-type: none"> <li>1. Acceptable continuing calibration verification (CCV) limits stated in the appropriate US EPA Method.</li> <li>2. Acceptable spike recoveries as stated in the appropriate US EPA Method.</li> <li>3. Opinion of laboratory professionals – no guidance available in US EPA Method.</li> </ol>			

**Rationale: Revision 2 - Revised overall average and single influent tolerance levels to be consistent with Table 7.7 per comment by R. Herman on r1 ballot.**

- c) Dissolve enough sodium bicarbonate ( $\text{NaHCO}_3$ ) in RO/DI water to achieve a test tank concentration of ~~336 mg/L  $\text{NaHCO}_3$~~ . This should be equivalent to 200 mg/L of alkalinity expressed as  $\text{CaCO}_3$ . ~~Stir and transfer the solution to the test tank.~~
- d) Adjust the pH of the test tank solution using hydrochloric acid (HCl) or sodium hydroxide (NaOH) to  $7.5 \pm 0.5$ . Record the amount HCl used.
- e) Dissolve enough magnesium sulfate ( $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ ) in RO/DI water to achieve a test tank concentrations of 200 mg/L as sulfate. Sodium Sulfate ( $\text{NaSO}_4 \cdot 7\text{H}_2\text{O}$ ) may be substituted for 75% of the magnesium sulfate if the presence of hardness interferes with the proper operation of the device under test.
- f) Dissolve enough perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) in RO/DI water to achieve test tank concentration of 0.0005 mg/L of PFOA and 0.0010 mg/L of PFOS.
- g) Mix and measure the final pH, and adjust as needed. Mixing shall be minimized thereafter throughout the duration of the test.
- h) Dissolve enough sodium chloride (NaCl) in RO/DI water to achieve a test tank concentration of 100 mg/L of chloride. Balance this number with the amount of chlorides added from the HCl for pH control to maintain a target of 100 mg/L. Stir and transfer to the test tank.
- i) Each tank of water prepared shall have all of the parameters specified in Table 7.8 verified by analytical methods.

#### 7.2.6.6 Cycle time

The systems shall be operated on a 50%-on / 50%-off cycle basis with a 15 to 40 min cycle, up to 16 h per 24 h period, followed by an 8 h rest under pressure (a 10%-on / 90%-off cycle may be used if requested by the manufacturer for POU systems but for POE systems only 50%-on / 50%-off cycle shall be used).

#### 7.2.6.7 Method – POU

Two systems shall be conditioned using the PFOA / PFOS reduction water specified in Section 7.2.6.5 with the test contaminant present. The conditioning volume shall be excluded from the volume measured as the influent challenge volume for capacity and sample point determination.

##### 7.2.6.7.1 Plumbed-in systems without reservoirs and all faucet-mounted systems

Two systems shall be conditioned in accordance with the manufacturer's instructions and Section 7.2.6.7.

The systems shall be tested using the influent challenge water at the maximum flow rate attainable by setting an initial dynamic pressure of  $410 \pm 20$  kPa ( $60 \pm 3$  psi). The pressure shall not be readjusted although the system may experience some change in dynamic pressure. The operating cycle specified in Section 7.2.6.6 shall be used.

**7.2.6.7.1.1 Refrigerator filters without integral flow control**

Chemical reduction testing for refrigerator filters without an integral automatic fixed flow rate control shall be performed at a controlled flow rate that is equal to or greater than the rated service flow of the refrigerator filter system and refrigerator plumbing.

**7.2.6.7.1.2 Refrigerator filters without integral flow control, with water dispenser and ice maker**

If the refrigerator filter does not include an integral automatic fixed flow rate control, and supplies water to both a water dispenser and an ice maker, then any chemical reduction testing shall be performed at a controlled flow rate equal to or greater than the tested flow rate of the icemaker or the tested flow rate of the water dispenser, whichever is greater.

**7.2.6.7.2 Plumbed-in systems with reservoirs**

Two systems shall be conditioned in accordance with the manufacturer's instructions and Section 7.2.6.7.

The system shall be tested using the influent challenge water at the maximum flow rate attainable by setting an initial dynamic pressure of  $410 \pm 20$  kPa ( $60 \pm 3$  psi). The pressure shall **not** be readjusted although the system may experience some change in dynamic pressure. Where the design of the system does not lend itself to the operating cycle specified in Section 7.2.6.6, the operating cycle shall be a repetitive complete filling and emptying of the reservoir. It is acceptable to run this cycle continuously for 24 h per day.

**7.2.6.7.3 Nonplumbed pour-through-type batch treatment systems**

Two systems shall be conditioned in accordance with the manufacturer's instructions and Section 7.2.6.7.

If the effluent reservoir capacity is equal or greater than two times the volume of the influent reservoir, multiple successive influent reservoir fills shall be performed until the remaining volume in the effluent reservoir is less than the influent reservoir volume. The resulting volume for each filling of the effluent reservoir shall be the batch volume. If the volume of the effluent reservoir is less than two times the volume of the influent reservoir, the batch volume shall be the influent reservoir volume.

Example:

Influent volume (L)	Effluent volume (L)	Batch (L)
1.0	1.8	1.0
1.2	2.5	2.4
1.4	4.0	2.8

**7.2.6.7.3.1 Systems with a manufacturer's recommended use pattern**

Two systems shall be tested using the appropriate influent challenge water using the manufacturer's use pattern. The use pattern shall include information about the rest period between the fillings. The rest period after the influent reservoir has drained given by the manufacturer shall not exceed 75 min and include a tolerance of at least  $\pm 15$  min. The systems shall be operated up to 16 h per 24 h period, followed by an 8 h rest period. Exceptions to the rest period are permissible for laboratory operational needs (e.g., water preparation, equipment malfunctions).

**7.2.6.7.3.2 Systems without a manufacturer's recommended use pattern**

Two systems shall be tested using the appropriate influent challenge water. The systems shall be operated up to 16 h per 24 h period, followed by an 8 h rest period. The test cycle shall include a rest period of 30 to 90 min after the influent reservoir has drained. The total volume per day shall be limited to

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10 batches. Exceptions to the rest period are permissible for laboratory operational needs (e.g., water preparation, equipment malfunctions).

#### **7.2.6.7.3.3 Mouth drawn drinking water treatment units**

Products meeting the definition for mouth drawn drinking water treatment unit shall be evaluated using the method specified in Annex F.

Two systems shall be conditioned in accordance with the manufacturer's instructions and Section 7.2.6.7.

#### **7.2.6.7.3.4 Squeeze bottle drinking water treatment units**

Products meeting the definition for squeeze drawn drinking water treatment unit shall be evaluated using the method specified in Annex G.

Two systems shall be conditioned in accordance with the manufacturer's instructions and Section 7.2.6.7.

#### **7.2.6.8 Method – POE – Full scale units**

Two systems shall be conditioned in accordance with the manufacturer's instructions using the PFOA / PFOS reduction water specified in Section 7.2.6.5 with the test contaminant present. The conditioning volume shall be excluded from the volume measured as the influent challenge volume for capacity and sample point determination. The systems shall be tested using the influent challenge water (Section 7.2.6.5) at the rated service flow at an initial dynamic pressure of  $410 \pm 20$  kPa ( $60 \pm 3$  psi). The pressure shall not be readjusted although the system may experience some change in dynamic pressure. The flow rate shall be controlled to the rated service flow or the maximum flow rate achievable through the entire test, but if the flow rate cannot be maintained at greater than 25% of the rated service flow, the test shall be terminated. The operating cycle specified in Section 7.2.6.6 shall be used.

#### **7.2.6.9 Sampling**

The effluent of the test system shall be sampled after a minimum of one bed volume has passed through the column or half of the cycle "on" time has passed, whichever is greater.

#### **7.2.6.9.2 PFOA and PFOS**

For systems with performance-indication devices, during the "on" portion of the cycle, influent and effluent samples shall be collected for PFOA and PFOS analysis at the start of the test (after the passage of 10 unit volumes) and at 25%, 50%, 75%, 100%, and 120% of the estimated capacity. For systems without performance indication device, during the "on" portion of the cycle, influent and effluent samples shall be collected for PFOA and PFOS analysis at the start of the test (after the passage of 10 unit volumes) and at 50%, 100%, 150%, 180% and 200% of the estimated capacity.

**Rationale: Revision 2 – Revised for clarity per R. Herman's comment on r1 ballot.**

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## NSF/ANSI Standard For Wastewater Technology –

# Onsite residential and commercial water reuse treatment systems

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## 8 Performance testing and evaluation

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### 8.1 Greywater treatment systems with capacities up to 5,678 L/day (1,500 gal/day)

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#### 8.1.2.2.1 Design loading

The system shall be dosed 7 days a week with a greywater volume equivalent to the daily hydraulic capacity of the system. The following schedule shall be adhered to for dosing Class R systems throughout the 26 wk [182 d] evaluation period and for Class C systems during the first 20 wk (140 d), except in those cases where the stress loading requirements differ (see Section 8.1.2.2.2).

Class R and Class C systems claiming service intervals of greater than 6 mo (26 wk [182 d]) shall be loaded beginning in Week 27 at design loading according to the time frame and percent rated daily hydraulic capacity as described in the appropriate tables under Sections 8.1.2.2.1.1, 8.1.2.2.1.2, and 8.1.2.2.1.3 below.

#### 8.1.2.2.1.1 Systems treating combined greywater

Time frame	percent rated daily hydraulic capacity
7:00 a.m. to 10:00 a.m.	approximately 40
11:00 a.m. to 2:00 p.m.	approximately 35
6:00 p.m. to 9:00 p.m.	approximately 25

Individual doses shall be 10 to 15 gal and be uniformly applied over the dosing periods. For systems with a rated capacity less than 400 gpd, individual doses may be adjusted to less than 10 gal as needed to meet the dosing schedule requirements. When the dose volume is adjusted to less than 10 gallons, no more than 20 individual doses shall be delivered to the system per day.

Class C systems shall be dosed 7 days a week according to the following schedule for the final 4.5 wk (31 d):

Time frame	percent rated daily hydraulic capacity
7:00 a.m. to 5:00 p.m.	approximately 90

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9:00 p.m. to 10:00 p.m.	approximately 10
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Individual doses shall be 10 to 15 gal and be uniformly applied over the dosing periods. For systems with a rated capacity less than 400 gpd, individual doses may be adjusted to less than 10 gal as needed to meet the dosing schedule requirements.

Systems evaluated in accordance with the design loading for Class C shall have met the design loading for Class R.

#### 8.1.2.2.1.2 Systems treating bathing water

Time frame	percent rated daily hydraulic capacity
7:00 a.m. to 10:00 a.m.	approximately 50
11:00 a.m. to 2:00 p.m.	approximately 25
6:00 p.m. to 9:00 p.m.	approximately 25

Individual doses shall be 10 to 15 gal and be uniformly applied over the dosing periods. For systems with a rated capacity less than 400 gpd, individual doses may be adjusted to less than 10 gal as needed to meet the dosing schedule requirements. When the dose volume is adjusted to less than 10 gallons, no more than 20 individual doses shall be delivered to the system per day.

#### 8.1.2.2.1.3 Systems treating laundry water

Time frame	percent rated daily hydraulic capacity
7:00 a.m. to 10:00 a.m.	approximately 100; Monday, Tuesday
11:00 a.m. to 2:00 p.m.	approximately 100; Friday, Saturday, Sunday
6:00 p.m. to 9:00 p.m.	approximately 100; Wednesday, Thursday

Individual doses shall be 10 - 15 gal and be uniformly applied over the dosing periods. For systems with a rated capacity less than 400 gpd, individual doses may be adjusted to less than 10 gal as needed to meet the dosing schedule requirements.

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#### 8.1.2.2.2.3 Vacation stress

On the day that the non loading stress is initiated, a system treating combined greywater shall be dosed at 40% of its daily hydraulic capacity between 7:00 a.m. and 10:00 a.m. and at 35% between 11:00 a.m. and 2:00 p.m. A system treating bathing water shall be dosed at 50% of its daily hydraulic capacity between 7:00 a.m. and 10:00 a.m. and at 25% between 11:00 a.m. and 2:00 p.m. A system treating laundry water shall be dosed at 100% of its daily hydraulic capacity between 7:00 a.m. and 10:00 a.m. Dosing shall be discontinued for eight consecutive days, beginning the day after initiating the stress (power shall continue to be supplied to the system). Between 6:00 p.m. and 9:00 p.m. of the ninth day, the system shall be dosed with 60% of its daily hydraulic capacity. This shall include three wash loads (each wash load equal to



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114 L [30 gal]) of the laundry challenge water (described in Section 8.1.2.1.2) for systems designed to treat more than 100 gpd combined greywater. This shall include two wash loads (each wash load equal to 114 L [30 gal]) of the laundry challenge water (described in Section 8.1.2.1.2) for systems designed to treat more than 50 gpd combined greywater. This shall include one wash load (each wash load equal to 114 L [30 gal]) of the laundry challenge water (described in Section 8.1.2.1.2) for systems designed to treat 50 gpd or less combined greywater.

	7:00 a.m. – 10:00 a.m.	11:00 a.m. – 2:00 pm	Following 8 days	Day 9
combined > 100 gpd	40% of daily capacity	35% of daily capacity	no dosing	60% from 6:00 p.m. to 9:00 p.m., including 3 wash loads
combined > 50 gpd	40% of daily capacity	35% of daily capacity	no dosing	60% from 6:00 p.m. to 9:00 p.m., including 2 wash loads
combined ≤ 50 gpd	40% of daily capacity	35% of daily capacity	no dosing	60% from 6:00 p.m. to 9:00 p.m., including 1 wash load
bathing	50% of daily capacity	25% of daily capacity	no dosing	60% from 6:00 p.m. to 9:00 p.m.
laundry	100% of daily capacity	no dosing	no dosing	60% from 6:00 p.m. to 9:00 p.m.

#### 8.1.2.2.4 Water efficiency stress

The water efficiency stress test shall consist of 1 week (7 days) of loading with challenge water at 1.4 times the normal strength (see Sections 8.1.2.1.1, 8.1.2.1.2, and 8.1.2.1.3 for normal strength challenge water, as applicable), and a 40% reduction in the rated daily hydraulic capacity of the design loading (see Sections 8.1.2.2.1.1, 8.1.2.2.1.2, and 8.1.2.2.1.3, as applicable).

Individual doses shall be 6 gal to 15 gal. Individual doses shall be uniformly applied over the dosing periods. For systems with a rated capacity less than 400 gpd, individual doses may be adjusted to less than 6 gal as needed to meet the dosing schedule requirements. When the dose volume is adjusted to less than 6 gallons, no more than 20 individual doses shall be delivered to the system per day.

## BSR/UL 746A, Standard for Safety for Polymeric Materials – Short Term Property Evaluations

### 1. Inclusion of Glow-Wire Test (GWIT) into Section 9.9 for Polymer Variation Evaluation

9.9.2 Table 9.1 indicates the properties that are to be considered leading indicators when evaluating polymer variations. Depending on the results of side-by-side testing based on the test program shown in Table 9.2, the following scenarios may be obtained:

a) *Comparable results:*

All ratings from the original formulation may be extended to the variation. The variation evaluated can be used with either the same or a new designation.

b) *Better results:*

All ratings from the original formulation may be extended to the variation. The variation evaluated can be only used under a new designation.

*Exception: In cases where testing of a polymer variation shows better results, the material may retain the same designation and be assigned better ratings if both of the following conditions are met:*

- 1) *Full side by side testing of all critical properties is conducted in accordance with Program Code C of Table 9.2, and*
- 2) *None of the other tested properties are adversely affected.*

c) *Not all results are comparable and there is no indication for Code D in Table 9.1:*

With the exception of relative thermal indices (RTI), no rating shall be extended to the variation unless determined through direct testing. The variation evaluated can be only used under a new designation.

d) *Not all results are comparable and there is an indication for Code D in Table 9.1:*

No rating shall be extended to the variation unless determined through direct testing. The variation evaluated can be only used under a new designation.

Results are considered comparable if:

1. The PLC ratings (for the applicable tests) are the same or the test result of the Polymer Variation is within  $\pm 10\%$  of the test result obtained for the original formulation.
2. The UL 94 flammability ratings are the same, and

3. The UL 746B RTI values based on LTTA testing, if applicable, comply with Section 19 of UL 746B for related materials.

*Exception: Regarding Item 1, for Tensile/Flexural/Impact strength, the test result of the Polymer variation is within  $\pm 15\%$  of the test result obtained for the original formulation.*

Exception No. 1: Regarding Item 1, for Tensile/Flexural/Impact strength, the test result of the Polymer variation is within  $\pm 15\%$  of the test result obtained for the original formulation.

Exception No. 2: Regarding Item 2, for Glow-Wire Ignition Temperature (GWIT), the test result of the Polymer variation is not more than  $25^{\circ}\text{C}$  ( $77^{\circ}\text{F}$ ) up to  $900^{\circ}\text{C}$  ( $1652^{\circ}\text{F}$ ) and not more than  $30^{\circ}\text{C}$  ( $86^{\circ}\text{F}$ ) between  $900^{\circ}\text{C}$  -  $960^{\circ}\text{C}$  ( $1652^{\circ}\text{F}$  -  $1760^{\circ}\text{F}$ ).

**Table 9.2**

**Test Programs based upon compound variations**

Program Code from Table 9.1	Test Program <sup>(1)</sup>
O	No testing necessary
A	Flame, minimum thickness at all flame ratings assigned to the original material formulation  <i>Exception: HB flammability testing of polymer variations is not required if the burning rate of each previously tested thickness of the original formulation does not exceed 80% of the HB burning rate limits indicated in UL 94, the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances.</i>
B <sup>2</sup>	All the testing required in Program Code A, plus:
	UL 746A: HWI - Hot Wire Ignition or <u>GWIT - Glow Wire Ignition Temperature</u>
	UL 746A: CTI - Comparative Tracking Index
	UL 746A: HDT - Heat Deflection Temp. or VT - Vicat Temp. or BP - Ball
	Pressure Temp (thermoplastics only)
C <sup>2</sup>	Full side by side testing of all critical properties testing required: UL 94: (Flame) Minimum and maximum thickness at all flame ratings assigned to the original material formulation ID: Infrared Analysis (IR), Differential Scanning Calorimetry (DSC), Thermogravimetric Analysis (TGA) UL 746A: Hot Wire Ignition (HWI) or <u>Glow-Wire Ignition Temperature (GWIT)</u> UL746A: High Current Arc Ignition (HAI) UL 746A: Comparative Tracking Index (CTI) UL 746A: Heat Deflection Temp. (HDT) or Vicat Temp.(VT) or Ball Pressure Temp. (BP) (thermoplastics only) UL 746A: Tensile Strength (TS) or Flexural Strength (FS) UL 746A: Tensile Impact (TI) or Izod Impact (II) or Charpy Impact (CI)

D	UL 746B Long Term Thermal Aging (Only for materials with elevated RTI values based on LTTA testing. See UL 746B, Section 8, Relative Thermal Index - Based on Long-Term Thermal Aging-Programs.)
E	UL 746C Suitability for Outdoor Use (Only for materials that were previously subjected to the UV or Water Immersion Program in UL 746C, Section 25, Ultraviolet Light Exposure, and Section 26, Water Exposure and Immersion.)
F <sup>2</sup>	All the testing required in Program Code C, plus:
	UL 746A: Dielectric strength
	UL 746A: Volume resistivity
	UL 746A: Dimensional stability from Table 6.1 of UL 746C
M <sup>2</sup>	Mechanical Properties: UL 746A: Tensile Strength (TS) or Flexural Strength (FS) UL 746A: Tensile Impact (TI) or Izod Impact (II) or Charpy Impact (CI)

## Footnotes

(1) For all Test Programs, identification tests are required: (Infrared Analysis (IR), Differential Scanning Calorimetry (DSC), Thermogravimetric Analysis (TGA))

(2) Following is the thickness requirement for comparison tests other than flammability:

	<p>HWI, HAI, <u>GWIT</u> - Nominal 3.0 mm for materials that are able to be processed at this thickness. If not, the maximum thickness at which the original material formulation was tested.</p> <p><i>Exception: For materials that show PLC-0 in HWI/HAI test at 3.0 mm, perform the comparative test at a next lower thickness at which the original material formulation was tested to show ignition. If the original formulation material did not ignite at any of the tested thickness, then the comparative tests may be carried out at 3.0 mm.</i></p>
	TS/FS - Nominal 3.0 mm or 4.0 mm for materials that are able to be processed at this thickness. If not, the maximum thickness at which the original material formulation was tested.
	HDT - Nominal 3.0 mm/4.0 mm for materials that are able to be processed at this thickness. If not, this test shall not be performed.
	Vicat - Nominal 3.0 mm for materials that are able to be processed at this thickness. If not, stack samples not more than 3 layers to achieve thickness between 3.0 - 6.5 mm.
	CTI, BP - Nominal 3.0 mm for materials that are able to be processed at this thickness. If not, stack multiple samples to obtain a thickness of at least 3.0 mm.
	DS, VR - Nominal 0.75 mm, 1.0 mm, or 1.5 mm for materials that are able to be processed at this thickness. If not, the maximum thickness at which the original material formulation was tested.
	Dimensional Stability - Nominal 3.0 mm for materials that are able to be processed at this thickness. If not, this test shall not be performed.

## BSR/UL 746B, Standard for Safety for Polymeric Materials – Long Term Property Evaluations

### 1. Removal of Thickness Limitation for Polymeric Film Materials with Respect to Generic RTI Ratings

**Table 7.1**

**Relative thermal indices based upon past field-test performance and chemical structure<sup>a</sup>**

Material	ISO designation	Generic thermal index, °C
Polyamide <sup>b</sup>	PA	65
Polycarbonate <sup>b</sup>	PC	80
Polycarbonate/Siloxane Copolymer <sup>k</sup>	PC/Siloxane	80
Polyethylene terephthalate - molding resin <sup>b</sup>	PET	75
film (0.25 mm maximum) <sup>n</sup>	PET	105
Polybutylene (polytetramethylene) terephthalate <sup>b</sup>	PBT	75
Polyphenylene Ether (including PS, PA, PP or TPE modified) <sup>i</sup>	PPE	65
Polypropylene <sup>b,h</sup>	PP	65
Polyetherimide <sup>g</sup>	PEI	105
Polyethersulfone	PES	105
Polyether Ether Ketone	PEEK	130
Polyphthalamide <sup>m</sup>	PPA	85
Polyphenylene Sulfide <sup>p</sup>	PPS	130
Polyimide film (0.25 mm maximum) <sup>n</sup>	PI	130
Molded Phenol Formaldehyde <sup>c</sup>	PF	150
Molded Melamine Formaldehyde <sup>c,d</sup> and Molded melamine formaldehyde/phenol formaldehyde <sup>c,d</sup> - specific gravity < 1.55	MF, MF/PF	130
specific gravity ≥ 1.55		150
Polytetrafluoroethylene	PTFE	
Without inert fillers and/or reinforcements		180
With inert fillers and/or reinforcements		130
Polychlorotrifluoroethylene	PCTFE	150
Fluorinated ethylene propylene	FEP	150

Poly(tetrafluoroethylene, hexafluoropropylene, vinylidene fluoride) <sup>l</sup>	TFE/HFP/VDF	130
Ethylene/Tetrafluoroethylene	E/TFE	105
Urea Formaldehyde <sup>c</sup>	UF	100
Acrylonitrile - butadiene - styrene <sup>b</sup>	ABS	60
Silicone - molding resin <sup>c,d</sup>		150
Silicone rubber - molding resin	SIR	150
addition-cure, vinyl, platinum catalyzed		150
room-temperature vulcanizing, condensation or heat-cured paste	RTV	105
Epoxy - molding resin <sup>c,d</sup>		130
powder coating materials		105
casting or potting resin <sup>b,i</sup>	EP	90
Molded diallyl phthalate <sup>c,d</sup>		130
Molded unsaturated polyester <sup>c,d</sup> alkyd (AMC), bulk (BMC), dough (DMC), sheet (SMC), thick (TMC), and pultrusion molding compounds	UP	105 <sup>e</sup> (electrical) 130 (mechanical)
Liquid crystalline thermotropic aromatic polyester <sup>f</sup>	LCP	130
Ligno-cellulose laminate		60
Vulcanized fiber		90
Cold-molded phenolic, melamine or melamine-phenolic compounds <sup>a</sup> - specific gravity < 1.55		130
specific gravity ≥ 1.55		150
Cold-molded inorganic (hydraulic-cement, etc.) compounds		200
Integrated mica, resin-bonded - epoxy, alkyd or polyester binder		130
phenolic binder		150
silicone binder		200

<sup>a</sup> Generic thermal index is for homopolymer and for the compounding of the same type or relative resins, either grafted or ungrafted only, unless a specific copolymer or blend is indicated. In the case of alloys, the lowest generic index of any component shall be assigned to the composite. The term "grafted" means all of the monomer reacts to form

a polymer, and the polymer chain forms a chemical bond. The term "ungrafted" means that the two types of polymer chains entwine with each other by mechanical blending to form a chemical composite.

<sup>b</sup> Includes glass-fiber reinforcement and/or talc, asbestos, mineral, calcium carbonate, compounding of the same type of resins, either grafted or ungrafted and other inorganic fillers.

<sup>c</sup> Includes only compounds molded by high-temperature and high-pressure processes such as injection, compression, pultrusion, and transfer molding and match-metal die molding; excludes compounds molded by open-mold or low-pressure molding processes such as hand lay-up spray-up, contact bag, filament winding, rotational molding, and powder coating (fluidized bed, electrostatic spray, hot dip, flow coating).

<sup>d</sup> Includes materials having filler systems of fibrous (other than synthetic organic) types but excludes fiber reinforcement systems using resins that are applied in liquid form. Synthetic organic fillers are to be considered acceptable at temperatures not greater than 105°C.

<sup>e</sup> Except 130°C generic thermal index if the material retains at least 50% of its unaged dielectric strength after a 504-hour exposure at 180°C in an air circulating oven. Specimens are to be tested in a dry, as molded, condition. Specimens that are removed from the oven are to be cooled over desiccant for at least 2 hours prior to testing.

<sup>f</sup> Includes only wholly aromatic liquid crystalline thermotropic polyesters; wholly aromatic polyester/amides and wholly aromatic polyester/ethers; excluding amorphous, lyotropic and liquid crystalline aliphatic-aromatic polyesters which are aliphatic in the backbone chain or main chain, and substituted aromatic polyesters (except for methyl or aromatic).

<sup>g</sup> Includes only polyetherimide molding resin.

<sup>h</sup> Includes polypropylene copolymers containing not more than 25% ethylene comonomer, by weight.

<sup>i</sup> Multi-part liquid epoxy materials incorporating acid anhydride or aromatic amine curing agents receive a 130°C generic thermal index.

<sup>j</sup> Includes only those polyphenylene ether materials (polystyrene, polyamide, polypropylene, or thermoplastic elastomer modified) in which the PPE component is not less than 30% of the total composition by weight and that have a Heat Deflection Temperature of at least 70°C at a load (fiber stress) of 1.80 MPa (264 psi).

<sup>k</sup> PC/Siloxane Copolymers in which siloxane comprises less than, or equal to, 5% of the total material composition by weight.

<sup>l</sup> Must have a minimum peak melting point of 160 °C, with less than 25% VDF monomer by weight and the remainder being fully fluorinated monomers.

<sup>m</sup> PPA definition according to ASTM D5336: polyphthalamide, PPA, n-a polyamide in which residues of terephthalic acid or isophthalic acid or a combination of the two comprise at least 55 molar percentage of the dicarboxylic acid portion of the repeating structural units in the polymer chain. Additionally, this definition includes only those polyphthalamide materials that have a Glass Transition Temperature (T<sub>g</sub>) of at least 85°C, when determined through second-heat DSC testing in accordance with the Differential Scanning Calorimetry, Section 47 of the Standard for Polymeric Materials - Short Term Property Evaluations, UL 746A.

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<sup>1</sup> Exception: Material thicker than 0.25 mm gets the same generic RTI if processed using the same technology as film.

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**BSR/UL 1242, Standard for *Electrical Intermediate Metal Conduit – Steel*,****1. Introduction of a Specific Gravity Range for Copper Sulfate****2. Removal of Chamfer Angle and Chamfer diameter Requirement for Couplings****PROPOSAL**

15.1.4 The solution of copper sulfate is to be made from distilled water and the American Chemical Society (ACS) reagent grade of copper sulfate ( $\text{CuSO}_4$ ). In a copper container or in a glass, polyethylene, or other chemically nonreactive container in which a bright piece of copper is present, a quantity of the copper sulfate is to be dissolved in hot distilled water to obtain a solution that has a specific gravity ~~slightly~~ within the range of 1.183 to 1.189 higher than ~~1.186~~ after the solution is cooled to a temperature of  $18.3^\circ\text{C}$  ( $65.0^\circ\text{F}$ ). As necessary, any Any free acid that is present is to be neutralized by the addition of 1 gram of copper oxide ( $\text{CuO}$ ) or 1 gram of copper hydroxide [ $\text{Cu}(\text{OH})_2$ ] per liter of solution. The solution is then to be diluted with distilled water to obtain a specific gravity within the range of 1.183 to 1.189 ~~of exactly 1.186~~ at a temperature of  $18.3^\circ\text{C}$ . The solution is then to be filtered.

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## PROPOSAL

11.1 An elbow shall comply with the appropriate requirements in 5.6 of the Standard for Electrical Rigid Metal Conduit - Steel UL 6, CSA C22.2 No. 45.1, or NMX-J-534-ANCE or the Standard for Electrical Rigid Metal Conduit - Aluminum, Red Brass, and Stainless Steel UL 6A, CSA C22.2 No. 45.2, or NMX-J-576-ANCE. Elbows shall be made from the same grade of tubing as the conduit and shall be treated, coated, threaded, etc. according to the applicable requirements for conduit.

11.2 An elbow shall not be sharper than 90 degrees. The radius  $R$  and the length  $L_s$  of the straight portions at the ends of an elbow shall not be smaller than indicated in Table 11.1. See Figure 11.1.

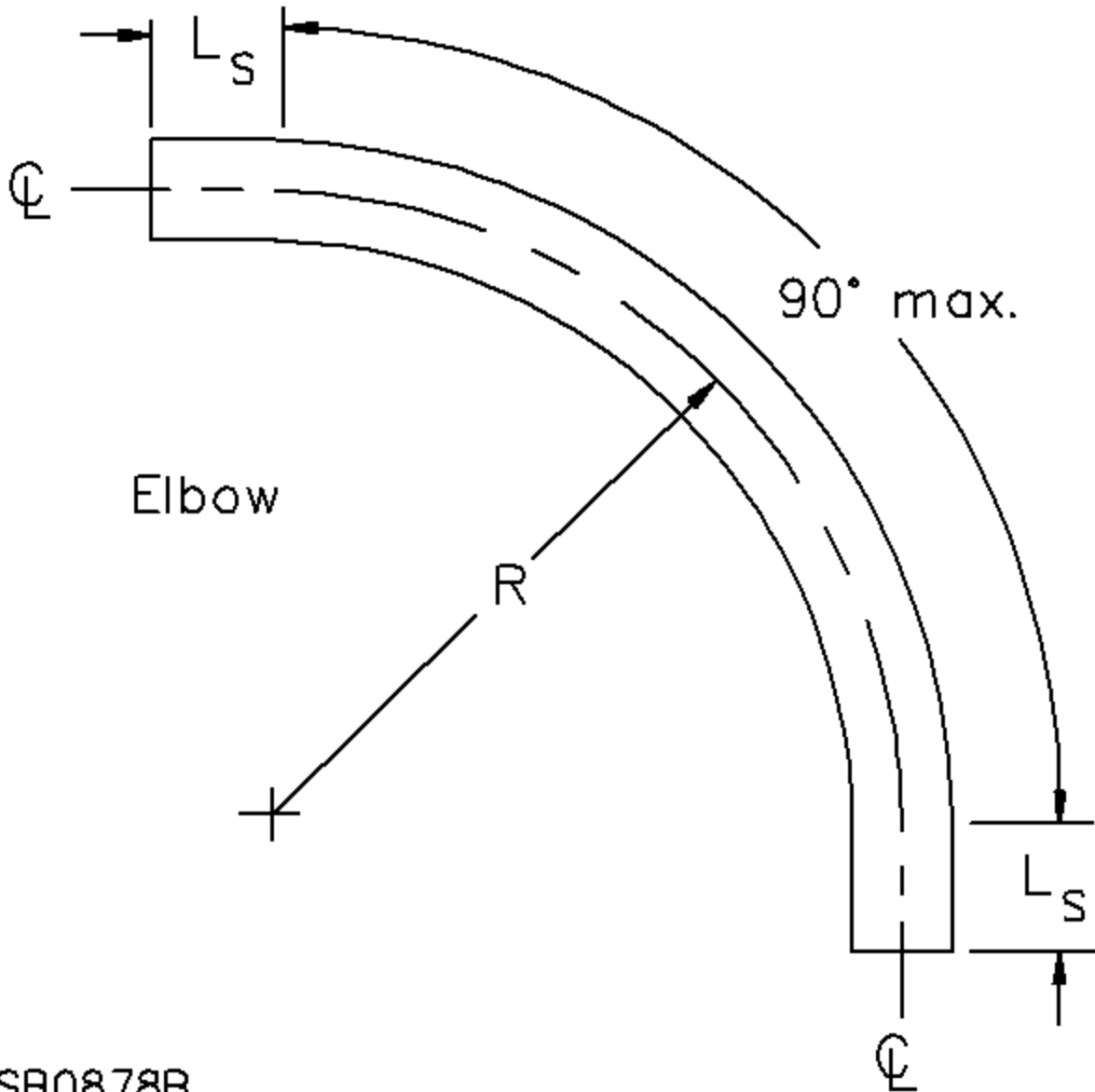
**Table 11.1**

**Minimum dimensions of elbows**

Trade size	(Metric designator)	Radius $R$ to center line of conduit,		Straight length $L_s$ at each end,	
		inches	(mm)	inches	(mm)
1/2	16	4	102	1-1/2	38
3/4	21	4-1/2	114	1-1/2	38
1	27	5-3/4	146	1-7/8	48
1-1/4	35	7-1/4	184	2	51
1-1/2	41	8-1/4	210	2	51
2	53	9-1/2	241	2	51
2-1/2	63	10-1/2	267	3	76
3	78	13	330	3-1/8	79
3-1/2	91	15	381	3-1/4	83
4	103	16	406	3-3/8	86

**Figure 11.1**

**Conduit elbows**



SB0878B

12.1 A threaded coupling shall comply with the appropriate requirements in 5.7 of the Standard for Electrical Rigid Metal Conduit - Steel UL 6, CSA C22.2 No. 45.1, or NMX-J-534-ANCE or the Standard for Electrical Rigid Metal Conduit - Aluminum, Red Brass, and Stainless Steel UL 6A, CSA C22.2 No.

45.2, or NMX-J-576-ANCE. The length of a coupling shall not be less than indicated in Table 12.1.

**Table 12.1**

**Dimensions of straight-tapped couplings**

Trade size	(Metric designator)	Minimum length of coupling,		Nominal exterior diameter of coupling (not a requirement), <sup>a</sup>		Pitch diameter				Chamfer diameter			
						inches		(mm)		inches		(mm)	
		inch	(mm)	inch	(mm)	Max	Min	Max	Min	Max	Min	Max	Min
1/2	16	1-5/8	41.3	1.010	25.7	0.814	0.804	20.7	20.3	0.838	0.798	21.3	20.3
3/4	21	1-41/64	41.7	1.250	31.8	1.024	1.014	26.0	25.7	1.048	1.008	26.6	25.6
1	27	1-31/32	50.0	1.525	38.7	1.283	1.267	32.6	32.2	1.300	1.260	33.0	32.0
1-1/4	35	2-1/32	51.6	1.869	47.5	1.628	1.612	41.4	40.9	1.645	1.605	41.8	40.8
1-1/2	41	2-1/16	52.4	2.155	54.7	1.868	1.852	47.4	47.0	1.885	1.845	47.9	46.9
2	53	2-1/8	54.0	2.650	67.3	2.343	2.327	59.5	59.1	2.360	2.320	59.9	58.9
2-1/2	63	3-3/16	81.0	3.250	82.6	2.828	2.806	71.8	71.3	2.860	2.800	72.6	71.1
3	78	3-5/16	84.1	3.870	98.3	3.453	3.434	87.7	87.1	3.485	3.425	88.5	87.0
3-1/2	91	3-13/32	86.5	4.500	114.3	3.953	3.934	100.4	99.8	3.985	3.925	101.2	99.7

4	103	3- 33/6 4	89.3	4.87 5	123. 8	4.45 3	4.43 4	113. 4	112. 5	4.48 5	4.42 5	113. 9	112. 4
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<sup>a</sup> Although the exterior diameter of a coupling is not specified, it usually is larger than shown (no limit) or is not more than 1.0 percent smaller than shown (1-1/4 inch and larger trade sizes) or is not more than 0.015 inch (0.40 mm) smaller than shown (1 inch and smaller trade sizes) when the coupling complies with the requirements in this standard.

~~12.2 The exterior surface of a coupling shall be protected against corrosion in the same manner as required for conduit. The interior surface shall be treated to prevent corrosion from occurring before the coupling and attached conduit are installed. See 7.2.1.~~

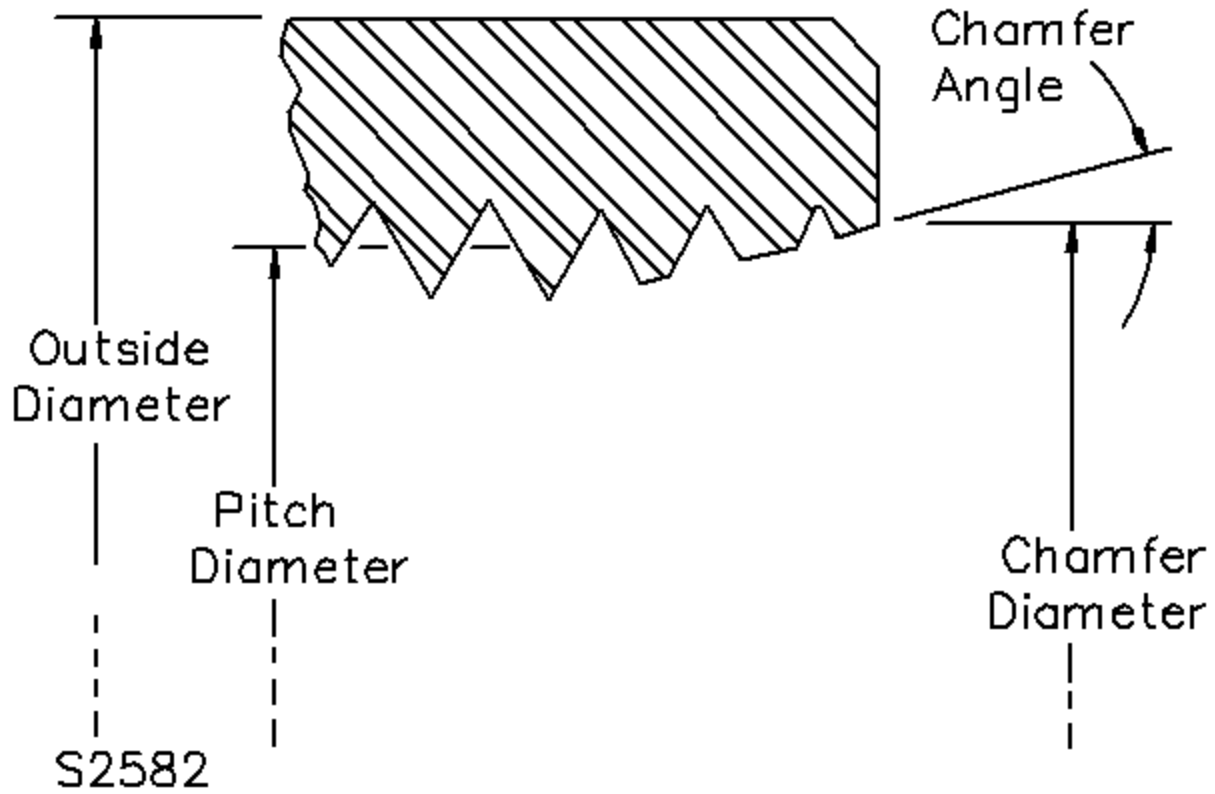
12.3 A coupling shall be straight tapped.

~~12.4 Each end of a coupling shall be chamfered. Chamfer angles shall not be smaller than 11 degrees nor larger than 15 degrees. The chamfer and pitch diameters shall be within the limits specified in Table 12.1. See Figure 12.1. Verification of thread dimensions shall be made on clean undamaged threads before any protective coating has been applied.~~

**Figure 12.1**

**Illustration of the dimensions of a coupling**

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