



September equinox: Getting darker and lighter

“YOU HAVE NOT SENT ME YOUR TSP News yet, correct? Can you advise when I will receive it?”

So wrote Beverly Inglesby, *Protocol’s* Editor, Thursday morning, nudging me that she needed the story. I’d been waiting for public reviews to close, submissions to ANSI to be processed, and metaphoric milestones to be passed. However, that mile-by-mile notion of progress, while it makes for a clear story, is as artificial as breaking the year into seasons. We passed the September equinox on September 23, at 08:22 UTC. Now each day will have more darkness and less sunlight in the northern hemisphere, where people are in fall, heading toward winter, but in the south, the days will be getting brighter, since they are in spring, heading toward summer. The Earth keeps spinning and tumbling around the Sun, and winter will turn into spring. PLASA’s Technical Standards Program keeps tumbling on, too. Every ending is a beginning, and any moment is as much “news” as any other.

Projects I was waiting for

As I write this, there are nine documents in public review: eight draft standards listed on our website (http://tsp.plasa.org/tsp/documents/public_review_docs.php) and a revised version of our *Policies and Procedures for the Development and Approval of Technical Standards*, listed for review in ANSI’s *Standards Action* weekly newsletter. All the reviews time-out at the end of the day on Monday 28 September, after I must turn in this story. Also, over the last few weeks we have submitted two applications to accept documents as American National Standards and one to withdraw a standard.

ANSI’s time for processing them can be anything from two weeks to two months—so we wait.

A listing of what’s in public review right now will give you an idea of where we are headed, just as frost on the lawn signals the approaching season. So far, we have received comments from only a few people, but the reviews are open until they are not. People are procrastinators; whether a review runs 60, 45, or 30 days, the comments always come in at the end.

BSR E1.4-1 – 201x, Entertainment Technology Manual Counterweight Rigging Systems—The current *ANSI E1.4 – 2014* standard has been opened for revision, with the idea of making it into a suite of standards dealing with manually powered and dead-hung rigging in theatres. BSR E1.4-1 is the part that is most like the existing *ANSI E1.4* in that it applies to permanently installed, manually operated, counterweight-assisted systems for raising, lowering, and suspending scenery, lighting, and similar loads. So far, one person has responded to the public review notice, and he sent a blank response form.

BSR E1.22 – 201x, Entertainment Technology – Fire Curtain Safety Systems—BSR E1.22-201x is a revision of the 2009 ANSI standard. It is being updated to better align it with the requirements stated in *NFPA 80*. See Dan Culhane’s article on page 28 in this issue of *Protocol* for a detailed explanation of what’s being changed and why.

BSR E1.31 – 201x, Entertainment Technology – Lightweight Streaming Protocol for Transport of DMX512 using ACN—This draft standard describes a mechanism to transfer DMX512-A packets over a TCP/IP network using a subset of

the ACN protocol suite. This revision adds DMX universe synchronization, so devices in large control systems will respond on cue, instead of some now and some . . . later. So far we have received no comments.

BSR E1.33 – 201x, Entertainment Technology – (RDMnet) – Message Transport and Device Management of ANSI E1.20 (RDM) Over IP Networks—This draft standard describes a method of implementing *ANSI E1.20 Remote Device Management* messaging over an IPv4 network. To date, one person has commented to urge us to future-proof the standard by making it work for IPv6 networks and to develop robust encryption, citing the security vulnerabilities of SCADA networks—the decentralized networks used to control the traffic lights and other big systems in modern society. We’ve been working on this E1.33 project for nine years; it might be good to get it done rather than entertaining feature-creep. The CPWG has already started a project to study the possible impact of IPv6 on entertainment lighting control systems. At the last CPWG meeting, no one could think of a show that uses IPv6; they are all IPv4.

BSR E1.43 – 201x, Entertainment Technology – Performer Flying Systems—This document establishes a minimum level of performance parameters for the design, manufacture, use, and maintenance of performer flying systems used in the production of entertainment events. We’ve received comments from three people so far.

BSR E1.42 – 201x, Entertainment Technology – Safety Standard for Orchestra Pit Lifts—Orchestra pit lifts are not the subject of any current national standard. As a result, some inspectors evaluate them using their own judgment

while others try to apply passenger elevator codes to them—and those rules really don't fit. E1.42 is being written to address this lack of a standard. The scope is limited to safety, and to orchestra or forestage lifts, that are installed as a part of the building and that are not custom-built for a show. One person has commented in this public review so far.

BSR E1.46 – 201x, Standard for the Prevention of Falls from Theatrical Stages and Raised Performance Platforms—

Falling off a stage or raised performance platform can ruin your whole day. Health and safety regulations offer little guidance that is suitable for theatrical environments. This document reminds people that fall protection is not optional, and provides guidance for protecting all people at risk. To date, one person has commented in this public review (the third), and has offered mostly wordsmithing advice.

BSR E1.53 – 201x, Overhead Mounting of Luminaires, Lighting Accessories, and Other Portable Devices: Specification and Practice—This draft standard offers specifications for the primary and secondary mounting devices for portable stage and studio luminaires and accessories. The document is meant to address questions about what C-clamps and safeties should, or should not, be used, and whether a safety is needed at all. Four people have commented so far—one noting all the typos that somehow are never eradicated.

ANSI audit

The ninth document in public review is our *Policies and Procedures for the Development and Approval of Technical Standards*, usually simply called “the P&P.” PLASA's TSP was recently audited by ANSI, as it must be every five years, and the auditors found some discrepancies between our procedures as written and the *ANSI Essential Requirements: Due process requirements for American National Standards*, and a few between our procedures as written and as practiced. These were relatively minor (e.g., standards that had no measurements did not use SI units, but our P&P said our standards shall), but they needed to

be addressed, and the auditors had some suggestions on how our procedures could be simplified. Changes to our P&P going beyond simply bringing the procedures into line with the *Essential Requirements* trigger a 30-day public review, which was announced in the August 28 issue of *Standards Action*.

The close of our audit is pending the outcome of the public review. No one has commented so far, and it is unlikely that anyone will. Our draft P&P conforms to the *ANSI Essential Requirements*, and is there anyone not in favor of shortening the standards-drafting process?

Waiting for ANSI

Earlier this month (September) we submitted BSR-9 forms to ANSI for action on three documents: the reaffirmation of the 2010 edition of *ANSI E1.30-4, EPI 26, Device Description Language (DDL) Extensions for DMX512 and E1.31 Devices*, the approval of a revised version of *ANSI E1.37-2, Entertainment Technology – Additional Message Sets for ANSI E1.20 (RDM) – Part 2, IPv4 & DNS Configuration Messages*, and the withdrawal of *ANSI E1.45, Unidirectional Transport of IEEE 802 Data Frames Over ANSI E1.11 (DMX512-A)*. As I was writing this paragraph, emails came in notifying me that the ANSI Board of Standards Review had approved the first two actions, so those are done, and now we need to publish them. We are still waiting for a response about withdrawing *E1.45*.

The *ANSI E1.45* withdrawal is a disappointment. It is being withdrawn because it does not comply with our patent policy, which states that we do not intend to publish any standard that contains protected intellectual property unless that property can be licensed by anyone for a reasonable fee on a non-discriminatory basis. There are patents, issued in Korea and in the United States, that cover key parts of the standard. We do not have satisfactory assurance from the holder of the patents, the Electronic Telecommunications Research Institute, that licensing is available for a reasonable fee on a non-discriminatory basis. Therefore, we are withdrawing the standard.

The idea of writing a standard like *E1.45* was brought to PLASA's Control Protocols Working Group by ETRI staff. An application they showed, transmitting karaoke lyrics to a tablet computer, didn't impress CPWG members, but more discussion came up with more compelling applications, such as cueing audio guides at a museum. Besides, it was a technical problem difficult enough to be interesting but not so difficult as to be a lot of work.

PLASA does not conduct patent searches and does not warrant that its standards contain no protected intellectual property, but at every working group meeting a statement is read aloud that asks those present to identify any protected intellectual property that they know about that might have a bearing on a standard being developed. What we don't want to do is spend the valuable time of our volunteers—worth many thousands of dollars—developing a standard that can't be used without onerous licensing fees. Despite the repeated calls for patents at meetings, the ETRI representatives did not reveal their patent applications or patents.

This kind of behavior is toxic to any volunteer organization. The best we can do is make it unprofitable. We're withdrawing *ANSI E1.45*.

Published recently

Since I last wrote, we have had three standards published: *ANSI E1.17 – 2015, Entertainment Technology – Architecture for Control Networks (ACN)*; *ANSI E1.54 – 2015, PLASA Standard for Color Communication in Entertainment Lighting*; and *ANSI E1.55 – 2015, Standard for Theatrical Makeup Mirror Lighting*. *ANSI E1.17 – 2015* has one revised part, EPI 19, ACN Discovery on IP Networks. The other parts are as they were in the 2010 edition. *ANSI E1.54* is a new standard for specifying color. There are lots of ways to talk about color, but this outlines one and standardizes it so that it can be used to pass color information between different devices and yet be in a form that can be understood by humans. The last one published (in order as

well as numerically) is ANSI E1.55, *Standard for Theatrical Makeup Mirror Lighting*, which describes the topology of the makeup mirror lighting system, the quantity of light, the distribution of light from those sources, apparent source size, brightness, color rendering, and correlated color temperature. It's intended to help theatre consultants, architects, and venue owners provide makeup mirror lighting that won't give Actors Equity business reps extra arbitration work, but its subject matter is interesting enough that ANSI's communications staff chose to highlight it in the September 16 issue of "Voluntary Standards Cover the Spectrum: From Makeup Mirror Lighting to Workplace First Aid Kits." You can read the ANSI article at <http://plasa.me/ayhok>.

All these standards, and over 40 other American National Standards and umpteen legacy documents, are available for free download at <http://www.tsp.plasa.org/freestandards>. The free download is sponsored by ProSight Specialty Insurance.

Call for members

PLASA's TSP works to maintain a balance of interest on the working groups to help ensure that the standards developed are for the benefit of everyone: the people who make equipment, the people who sell or rent it, the people who specify it, and the people who use it. To do this, periodically the TSP issues a call for new members in particular interest categories. At this time, the following working groups are looking for voting members in the noted interest categories to help balance the interests in the working group.

Control Protocols: dealer/rental companies, designers

Electrical Power: dealer/rental companies, designers

Floors: dealer/rental companies, designers

Fog and Smoke: dealer/rental companies, designers, general interest, manufacturers

Photometrics: dealer/rental companies, designers, users

Rigging: designers

Stage Lifts: users, general interest

Voters in PLASA's Technical Standards Program are required to attend meetings and to vote on letter ballots. Membership in PLASA is not a requirement for participation in the PLASA Technical Standards Program. More information about becoming involved in the Technical Standards Program is available at http://tsp.plasa.org/tsp/working_groups/index.html.

Supporting the TSP

During our recent ANSI audit, the auditor pointed out that we give away the standards, we charge nothing for the public review documents, and we charge nothing for participation in the program. So, how do we support the program, the auditor asked? Good question.

The support of ProSight, mentioned above, and the donations of the Investors in Innovation, noted below, only pay part of what it costs to run the Technical Standards Program. It costs about \$220,000 to run the program each year. This year the TSP is on target to have a budget shortfall of about \$90,000, which is historically small. A budget report from 2008 (picked because I found it first on the hard drive) shows a shortfall of \$101,615.37 with a deficit of \$105,335.37 projected for 2009. These budget shortfalls were covered by ESTA from 1994 through 2010 and PLASA North America from 2011 to the present. However, these levels of support from the parent trade association are no longer sustainable.

While donations will remain a key element to the success of the program, PLASA's Technical Standards Council has announced that as of 1 January 2016, there will be a \$100 participation fee for the Technical Standards Program to help reduce the deficit. The ANSI's *Essential Requirements* state that there are to be no undue financial barriers to participation on any accredited consensus body. The TSC feels that the \$100 fee is within these requirements. The participation fee will be per person per year, regardless of voting status, regardless of the number of working groups, or the number of other representatives a person's company or organization has on various working groups. Working group meetings will continue to be open to visitors, approved minutes will continue to be posted for free download on the TSP website, and public review documents will continue to be free, but if people want to participate as voting members or observers in one or more working groups, they will need to pay the

fee annually.

We probably will lose a percentage of the TSP's 520 members, but we hope not many. The fee is quite modest compared to the real costs of participating now, which includes the costs of travel for those who attend meetings in person, and the costs in time for those who attend by teleconference or who simply read the agendas and minutes, and who comment during public reviews. The program must be put on a more secure financial footing; if it disappears, the American National Standards we have worked so hard to create will disappear, too. That would be a serious disappointment.

Investors in Innovation

The Technical Standards Program depends on the support of companies and individuals who make undirected donations. If you would like to help support the Technical Standards Program in its work, please consider joining the Investors in Innovation. Information about becoming an Investor in Innovation is available at <http://tsp.plasa.org/invest>.

Since 15 April 2013, all of the standards published by PLASA's Technical Standards Program are available to download free of charge at <http://www.tsp.plasa.org/freestandards>, thanks to the sponsorship of ProSight Specialty Insurance. As of 28 September, there have been 36,419 standards downloaded with a retail value of \$1,113,475.00 by 6,486 users. The sponsorship has been invaluable in making PLASA's standards part of the way the entertainment industry does business and talks about our industry with other standards organizations and government. ■



Karl G. Ruling is PLASA's Technical Standards Manager. He also serves as Protocol's Senior Technical Editor. He can be reached at karl.ruling@plasa.org.