

Minutes
Control Protocols Working Group
Thursday, 22 October 2015
Westgate Las Vegas Casino & Resort
Las Vegas, Nevada

Presiding co-chairpersons:

Maya Nigrosh; Electronic Theatre Controls, Inc.; A; MP
Michael Lay; Philips Color Kinetics; Royal Philips; P; MP

Recording secretaries:

Erin Grabe; PLASA NA; exf; G
Karl G. Ruling; PLASA NA; exf; G

Members in attendance:

Daniel W. Antonuk; Electronic Theatre Controls, Inc.; P; MP
Paul Beasley; Walt Disney Imagineering; Walt Disney Company; P; U
Scott M. Blair; Full Throttle Films/ VER; P; DR
Brent Boulnois; Candela Controls, Inc.; A; DR
Ian Campbell; Doug Fleenor Design, Inc.; A; MP
Milton Davis; Doug Fleenor Design, Inc.; A; MP
Hamish Dumbreck; JESE Ltd.; James Embedded Systems Engineering; O; MP
Bill Ellis; Candela Controls, Inc.; P; DE
Andrew Frazer; Stellasces.com; P; MP
Robert Goddard; Goddard Design Co.; P; MP
Bill Hewlett; Hewlett Electronics; O; CP
Maurits van der Hoorn; Pathway Connectivity; Acuity Brands Inc.; A; MP
Eric Johnson; O; G
Jonathan Kemble; High End Systems; Barco; P; MP
Paul Kleissler; City Theatrical, Inc.; P; MP
Ulrich Kunkel; E3 Engineering & Education for Entertainment GmbH; P; U
Jason Kyle; JPK Systems Ltd.; O; MP
Roger Lattin; I.A.T.S.E. Local 728; P; U
Joshua Liposky; Lex Products Corp.; A; CP
Dan Lisowski; Dept. Of Theatre and Drama; University of Wisconsin - Madison; P; DE
Kevin Loewen; Pathway Connectivity Inc.; Acuity Brands Inc.; P; MP
John Musarra; O; U
Peter Newman; Open Lighting Project; A; G
Simon Newton; Open Lighting Project; P; G
Kimberly Corbett Oates; Schuler Shook; P; DE
Jason Potterf; Cisco; P; MP
Charles Reese; Production Resource Group; P; DR
Larry Schoeneman; DesignLab Chicago, Inc.; P; DR
Sean Sill; Open Lighting Project; O; G
Dane Styczynski; Dept. Of Theatre and Drama; University of Wisconsin - Madison; A; DE
Christopher Tilton; Westlake Reed Leskosky; O; DE
Oliver Waits; Avolites Ltd.; O; MP
Peter Willis; Howard Eaton Lighting Ltd.; P; CP
Adam De Witt; Adept Anomaly; I; U

Visitor:

Diane Miller; PRG

1 Opening remarks

Maya Nigrosh called the CPWG meeting to order in bucolic Las Vegas at 9:03. She noted that some members were attending via WebEx and asked that all phones be silenced. Maya Nigrosh also noted that co-chair Mike Lay is live texting to the online folks.

2 Attendance

2.1 Introductions of those physically present and circulation of attendance sheet

A sign-in sheet was passed around the room while self-introductions took place.

2.2 Introductions of those present via WebEx

Michael Lay introduced those joining via WebEx.

2.3 Determination of a quorum

By a count of voters' raised hands and the results of a WebEx poll, Maya Nigrosh announced a quorum and supermajority present.

2.4 Recognition of alternate voting members

Alternate voters were recognized.

3 Membership

3.1 Requirements for membership

The following statement was read aloud to the assembly by Maya Nigrosh:

Membership is open to all who are affected by the work of the group. People and companies that would be in any interest category other than a manufacturer interest category are, at this time, particularly encouraged to apply for membership. Voting members are required to attend meetings and to vote on letter ballots. Voting members and their alternates may not miss three consecutive meetings without a loss of voting status.

3.2 Changes to observer status due to lack of attendance

There were no voters in jeopardy of a change to Observer status due to lack of attendance at this meeting. Maya Nigrosh complimented the group for their attendance records.

3.3 Processing of new membership requests and changes in membership status:

As of 29 September 2015, the following applications were received and logged:

Brent Boulnois; Candela Controls, Inc.; A; DR
Philip Gartner; AusChristmasLighting; O; U
Jim Ohrberg; Candela Controls, Inc.; A; DR
Jonathan Kemble; High End Systems; Barco; P; MP
Charles Reese; Production Resource Group; O to P
Adam de Witt; Adept Anomaly; I; U

Scott Blair moved to approve the applications and changes in status. The motion was seconded and unanimously approved by voice vote and WebEx poll.

3.4 Consensus body

The full consensus body of this working group at the time of this meeting, including those not present, was:

Name	Representing	Voting status	Interst category
Kevin Loewen	Acuity Brands Inc.	P	MP
Robert Bell	Acuity Brands Inc.	A	MP
Gary Douglas	Acuity Brands Inc.	A	MP

Name	Representing	Voting status	Interst category
Maurits van der Hoorn	Acuity Brands Inc.	A	MP
Adam De Witt	Adept Anomaly	I	U
Jonathan Kemble	Barco	P	MP
Bill Ellis	Candela Controls, Inc.	P	DE
Brent Boulnois	Candela Controls, Inc.	A	DR
Jim Ohrberg	Candela Controls, Inc.	A	DR
Jason Potterf	Cisco	P	MP
Paul Kleissler	City Theatrical, Inc.	P	MP
Harrison Hohnholt	City Theatrical, Inc.	A	MP
Andrew Nikel	City Theatrical, Inc.	A	MP
Larry Schoeneman	DesignLab Chicago, Inc.	P	DR
Doug Fleenor	Doug Fleenor Design, Inc.	P	MP
Milton Davis	Doug Fleenor Design, Inc.	A	MP
Ian Campbell	Doug Fleenor Design, Inc.	A	MP
Ulrich Kunkel	E3 Engineering & Education for Entertainment GmbH	P	U
Daniel W. Antonuk	Electronic Theatre Controls, Inc.	P	MP
Steve Terry	Electronic Theatre Controls, Inc.	A	MP
Maya Nigrosh	Electronic Theatre Controls, Inc.	A	MP
Edward A. (Ted) Paget	Electronic Theatre Controls, Inc.	A	MP
Scott M. Blair	Full Throttle Films/ VER	P	DR
Jeremy Hochman	Full Throttle Films/ VER	A	DR
Claude Ostyn	Full Throttle Films/ VER	A	DR
Robert Goddard	Goddard Design Co.	P	MP
Peter Willis	Howard Eaton Lighting Ltd.	P	CP
Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
John Huntington	I.A.T.S.E. Local 1	A	U
Roger Lattin	I.A.T.S.E. Local 728	P	U
Dennis Grow	I.A.T.S.E. Local 728	A	U
Alan M. Rowe	I.A.T.S.E. Local 728	A	U
Ken Vannice	Ken Vannice LLC	I	G
Tyrone Mellon_Jr.	Lex Products Corp.	P	CP
Joshua Liposky	Lex Products Corp.	A	CP
Michael Karlsson	LumenRadio AB	P	MP
Marcus Bengtsson	LumenRadio AB	A	MP
Hans Lau	LumenRadio AB	A	MP

Name	Representing	Voting status	Interst category
Simon Newton	Open Lighting Project	P	G
Peter Newman	Open Lighting Project	A	G
Charles Reese	Production Resource Group	P	DR
Michael Lay	Royal Philips	P	MP
Kimberly Corbett Oates	Schuler Shook	P	DE
Andrew Frazer	Stellascapes.com	P	MP
Joshua Moyerman	Stellascapes.com	A	MP
Dan Lisowski	University of Wisconsin - Madison	P	DE
Dane Styczynski	University of Wisconsin - Madison	A	DE
Mitch Hefter	USITT	P	U
Paul Beasley	Walt Disney Company	P	U
Randy L. Fox	Walt Disney Company	A	U
Voting Status Key: P = Principal voter, A = Alternate voter, I = Individual voter			
Votes by Interest Category:			
Custom-market producer		CP	2
Designer		DE	3
Dealer or rental company		DR	3
General interest		G	2
Mass-market producer		MP	10
User		U	6
Total votes possible:			26

4 Approval of the minutes from the previous meeting

See *CPmin07-2015.pdf*.

Scott Blair moved to approve the minutes of the previous meeting as drafted. The motion was seconded and approved by voice vote and WebEx poll, with two abstentions.

5 Patents

5.1 Reading of the NEW call for patents

The following statement was read aloud to the assembly by Maya Nigrosh:

PLASA intends not to publish any standard that contains protected intellectual property, unless that information can be licensed by anyone for a reasonable fee. PLASA uses a process of open patent and copyright disclosures to implement its intent. PLASA does not conduct patent or copyright searches and does not warrant that its standards contain no protected intellectual property.

In keeping with the open disclosures policy, I ask if anyone present wishes to notify this working group of the existence of a patent, patent application, copyright, or other intellectual property that might protect material in a standard being developed by this working group. You need not be the holder of the patent or copyright to notify this working group of its existence.

Nothing was reported.

6 Reading of the anti-trust statement

The following statement was read aloud to the assembly by Maya Nigrosh:

PLASA and its members take seriously their obligation to comply with all applicable antitrust laws. Therefore, during this meeting and during all PLASA events, all discussions will be limited to those subjects that are permitted by the antitrust laws. All members should refrain from any discussion or mention of competitively sensitive subjects such as the current or future prices charged for any member product or services, current or future marketing plans or strategies, and current or future costs, including employee salaries. There also must be no agreement on the suppliers or customers that members will do business with or the markets in which members will conduct business.

Violations of the antitrust laws can have serious consequences. If you have any questions or concerns about anything that is discussed at a PLASA meeting, please bring your concern to PLASA management. An easy to read pamphlet describing the antitrust laws is available from the PLASA staff.

Karl Ruling and Erin Grabe held up the pamphlet. Nothing was reported.

7 Approval of agenda

Maya Nigrosh added the following topics to the agenda:

E1.3

E1.20

E1.27-1

E1.30-1, EPI 23

Peter Willis asked to add an item regarding the current status of PLASA EU and NA.

Mike Lay spoke briefly and noted that the separation was amicable, but that details were still being worked out.

Simon Newton asked to add an agenda item at 9.3 dealing with a new product.

Scott Blair moved to approve the agenda as amended. The motion was seconded and approved by voice vote and WebEx poll, with no objections or abstentions.

8 Old business

8.1 Standards, Guides & Recommended Practice Maintenance

Any news or action needed on any of the following documents? This is a placeholder in the agenda, so we don't forget to maintain them. Documents prefaced with an asterisk (*) are on the agenda for discussion.

* ANSI E1.3 – 2001 (R2011), Entertainment Technology - Lighting Control Systems - 0 to 10V Analog Control Specification & Application Guide For ANSI E1.3 – 2004 Lighting Control Systems 0 to 10V Analog Control Specifications. (Revision, reaffirmation or withdrawal by 2016)

ANSI E1.11 – 2008 (R2013), Entertainment Technology - USITT DMX512-A, Asynchronous Serial Digital Data Transmission Standard for Controlling Lighting Equipment and Accessories. (Revision, reaffirmation, or withdrawal by 2018)

ANSI E1.17 – 2010 Entertainment Technology - Architecture for Control Networks (ACN) (Revision, reaffirmation, or withdrawal by 2015)

* ANSI E1.20 - 2010, Remote Device Management over USITT DMX512. (Revision, reaffirmation or withdrawal by 2016)

* ANSI E1.27-1 – 2006 (R2011), Entertainment Technology - Standard for Portable Control Cables for Use with USITT DMX512/1990 and E1.11 (DMX512-A) Products. (Revision, reaffirmation or withdrawal by 2016)

ANSI E1.27-2 – 2009 (R2014), Entertainment Technology - Recommended Practice for Permanently Installed Control Cables for Use with ANSI E1.11 (DMX512-A) and USITT DMX512/1990 Products. (Revision, reaffirmation, or withdrawal by 2019)

* ANSI E1.30-1 - 2010, EPI 23, Device Identification Subdevice. (Revision, reaffirmation or withdrawal by 2016)

ANSI E1.30-3 – 2009 (R2014), EPI 25, Time Reference in ACN Systems Using SNTP and NTP. (Revision, reaffirmation, or withdrawal by 2019)

* ANSI E1.30-4 – 2010, EPI 26, Device Description Language (DDL) Extensions for DMX512 and E1.31 Devices. (Revision, reaffirmation, or withdrawal by 2015)

* ANSI E1.30-7 – 2009, EPI 29, Allocation of Internet Protocol Version 4 Addresses to ACN Hosts. (Revision, reaffirmation, or withdrawal by 2014)

ANSI E1.30-10 – 2009 (R2014), EPI 32, Identification of Draft Device Description Language Modules. (Revision, reaffirmation, or withdrawal by 2019)

* ANSI E1.31, Lightweight streaming protocol for transport of DMX512 using ACN (Revision, reaffirmation, or withdrawal by 2014)

ANSI E1.37-1 - 2012, Additional Message Sets for ANSI E1.20, Remote Device Management. (Revision, reaffirmation, or withdrawal by 2017)

* ANSI E1.37-2 - 2014, Additional Message Sets for ANSI E1.20 (RDM) – Part 2, IPv4 & DNS Configuration Messages. (Revision, reaffirmation, or withdrawal by 2019)

* ANSI E1.45-2013, Unidirectional Transport of IEEE 802 data frames over ANSI E1.11 (DMX512-A) (Revision, reaffirmation, or withdrawal by 2018)

Application Guide for ANSI E1.3 - 2001, Lighting Control Systems 0 to 10V Analog Control Specification

Recommended Practice for Ethernet Cabling Systems in Entertainment Lighting Applications

Supplement to the Recommended Practice for Ethernet Cabling in Entertainment Lighting Applications

8.2 ANSI E1.3 – 2001 (R2011), Entertainment Technology - Lighting Control Systems - 0 to 10V Analog Control Specification & Application Guide For ANSI E1.3 – 2004 Lighting Control Systems 0 to 10V Analog Control Specifications

Peter Willis moved to reaffirm the standard. The motion was seconded. Milton Davis spoke and said that the standard doesn't work with LEDs and that it should say so. There was, however, no desire among the group to revise the standard. Bill Ellis says an external reference on the website referencing the NEMA standard and noting that the standard is for controlling current sink devices, not current sourcing. The consensus of the group was that this would be acceptable. By unanimous show of hands and WebEx poll results, the motion carried. A letter ballot will be issued with a concurrent public review.

8.3 ANSI E1.20 - 2010, Remote Device Management over USITT DMX512

Simon Newton moved that the group revise the document. The motion was seconded and approved by a show of hands and WebEx polling, with one abstention from Paul Beasley.

8.4 ANSI E1.27-1 – 2006 (R2011), Entertainment Technology - Standard for Portable Control Cables for Use with USITT DMX512/1990 and E1.11 (DMX512-A) Products

Milton Davis moved to reaffirm ANSI E1.27-1. The motion was seconded and unanimously approved by a show of hands and WebEx votes in favor. A letter ballot will be issued with a concurrent public review.

8.5 ANSI E1.30-1 - 2010, EPI 23, Device Identification Subdevice

Simon Newton moved to reaffirm ANSI E1.30-1. The motion was seconded and approved by a unanimous show of hands and WebEx votes. A letter ballot will be issued with a concurrent public review.

8.6 ANSI E1.30-4 – 2010, EPI 26, Device Description Language (DDL) Extensions for DMX512 and E1.31 Devices

Erin Grabe noted that ANSI E1.30-4 was published soon after the agenda was distributed.

8.7 BSR E1.30-7 – 2009 (R201x), EPI 29, Allocation of Internet Protocol Version 4 Addresses to ACN Hosts

From the E1.30-7 task group:

After 2 years of arduous work the task group has decided that the best course of action is to officially ignore this document as the industry has done since publication. Therefore we are recommending that the CPWG should withdraw the EPI 29 document [ANSI E1.30-7 - 2009].

See DraftResols_E1-30-7.pdf

NOTE: From James Eade, read by Erin Grabe.

I'm afraid I need to give my apologies for the CPWG meeting as I'll now be travelling abroad for an urgent client meeting. I don't have any specific comments or items for the agenda, but in the discussions regarding item 8.5: BSR E1.30-7 – 2009 (R201x), EPI 29, Allocation of Internet Protocol Version 4 Addresses to ACN Hosts I wondered whether it might be worth having it generally available on the TSP site as guidance rather than a standard?

IPv4 won't die off any time soon and is still used in many LANs. So while it may not be state-of-the-art and warrant a Standard, it could still be useful.

Scott Blair noted the unanimous agreement among the task group members for withdrawal of the standard and noted that the draft resolutions advise the commenters of the intended action. Scott Blair moved to accept the comment resolutions as drafted. The motion was seconded and approved with three abstentions and two opposed. Approval of revised resolutions by interest category were as follows: In favor – CP 1, DE 2, DR 3, G, 1, MP 7, U 4. Opposed – CP 1, G 1. Abstained – DE 1, MP 1.

Scott Blair then moved that the standard be withdrawn. The motion was seconded. Simon Newton said that using this standard is a bad idea. Karl Ruling clarified that, if withdrawn, the standard would say that it was not recommended for use, but it would still be available. The motion carried with two abstentions from Peter Willis and Kimberly Corbett Oates. A letter ballot will be sent to the working group with concurrent public review.

8.8 BSR E1.30-11, EPI 33

Simon Newton said that E1.30-11 will have to change, but that it will have to wait for E1.33.

8.9 BSR E1.31 with Universe Synchronization and Universe Discovery

This document was in public review until 28 September. See E1-31_2ndRevwCmmntSummry.pdf.

Maya Nigrosh spoke and said that comments received were excellent and would all be considered. A new document will be circulated to the task group and then to the working group, when available.

8.10 BSR E1.33, Transport of ANSI E1.20 (RDM) in an E1.31 environment

This document was in public review until 28 September. See E1-33_4thRevwCommntSummry.pdf.

Scott Blair said that about 125 comments were received. He noted that the comment scope was more narrow than in previous reviews, but that timing will be everything. Resolutions will be drafted and distributed asap.

8.11 BSR E1.37-2 - 20xx, Additional Message Sets for ANSI E1.20 (RDM) – Part 2, IPv4 & DNS Configuration Messages

Erin Grabe noted that ANSI E1.37-2 was published soon after the agenda was distributed.

8.12 BSR E1.37-4, Firmware updates via ANSI E1.20, RDM

The task group meets on Sunday, 25 October from 14:00 - 17:00.

Peter Willis said that not much progress had been made since July. He noted that the task group will be discussing additional PIDs to allow wireless type links to report their characteristics.

8.13 BSR E1.37-5, General Purpose Messages for ANSI E1.20 RDM

Draft resolutions from the first review, a revised draft standard, a written summary of the task group's dilemma on dealing with Start Code Filtering in the project, and some market research information on Start Code Filtering are being offered for your consideration. See E1.37-5_IssueSmmryForOct2015CPWG.pdf, BSRE1-37-5_FrstRvwDraftResols.pdf, BSR_E1-37-5_GeneralPurposePIDs_CP-2014-1049r1.pdf, and Start Code Filtering Market Research.pdf.

Simon Newton reported that there was discussion at the task group level of removing Start Code Filtering (SCF) from the document. Some market research was done on splitters doing or not doing start code filtering. Peter Willis spoke against removal of SCF, because people aren't asking for the PID, they're asking for a solution to the problem. He noted possible flaws with the market research, including that some companies might not have gotten the information to the right people. Scott Blair noted that few, if any, have implemented SCF, and the ones they found were all or nothing with regard to SCF.

Eric Johnson noted that the task group did their best to find a variety of splitters, and that the group welcomes corrections to the document because it belongs to the working group as a whole. He noted that there is no consensus among the task group on how to implement SCF, and supports pulling it from the document because it's holding up publication. Simon Newton added that removal of SCF will not prevent manufacturer from implementing manufacturer PIDs to do custom SCF.

Peter Willis said that manufacturer PIDs are not the solution. He also noted that some of the resolutions proposed do not align with the revised draft.

The working group took a 10 minute break while the task group revised the resolutions to share with the group.

After the 10 minute break, the task group proposed revising the resolutions to comment 10, comment 56, and comment 1. The resulting document was modified and marked as r1. Scott Blair moved to accept the revised resolutions. The motion was seconded and approved with opposition from Peter Willis and an abstention from Jonathan Kemble. Approval of revised resolutions by interest category were as follows: In favor – CP 1, DE 3, DR 3, G 1, MP 8, U 4. Opposed – CP 1. Abstained – MP 1.

Simon Newton moved to offer the document for another public review. The motion was seconded and approved with Peter Willis opposed and no abstentions.

8.14 E1.37-x, Additional Message Sets for ANSI E1.20, LED walls and video displays

From the draft July minutes:

Scott Blair reported that this project is waiting for E1.33. It was noted that the project has not been filed as an ANS project yet because we have nothing on it other than the 12-word title.

No further update said Scott Blair.

8.15 Withdrawal of ANSI E1.45-2013, Unidirectional Transport of IEEE 802 data frames over ANSI E1.11 (DMX512-A)

Karl Ruling noted that notice of final action was received from ANSI with a date of 8 October 2015, announced and published in the 16 October issue of ANSI Standards Action. It has been marked withdrawn and reposted to the TSP site, it has been removed from the ANSI e-store, and the IHS e-store. It is withdrawn.

8.16 European Plugfest

From the draft July minutes:

[Peter Willis] noted that another Plugfest is planned for April 2016.

Hamish Dumbreck noted that the 2016 EU Plugfest and Developers conference was booked for Gatwick Manor, near Gatwick Airport in the UK, the same venue as used for several previous sessions. The EU Plugfest is scheduled for 20-22 April, a Wednesday through Friday, and will run along same format as previously. Whether the Plugfest is under PLASA or ESTA, Hamish said that it is happening. Peter Willis spoke to John Simpson's support of the Plugfest and that it be done under the PLASA banner.

8.17 Texas Plugfest

Karl Ruling noted that the latest issue of Standards News ran notice of the Plugfest. He noted that the Plugfest was on previously posted to the online meeting schedule, but that it was not there now. Barring a room not being available, the Plugfest will happen.

8.18 Task group leader coordination

Any changes or additions to the list below?

BSR E1.30-7 Kevin Loewen and Scott Blair

BSR E1.30 No single leader; Generic group

BSR E1.31 Maya Nigrosh

BSR E1.37-4 Peter Willis

E1.20 Simon Newton

BSR E1.33 Dan Antonuk and Scott Blair

BSR E1.30-11, EPI 33 Simon Newton

BSR E1.37-2 Simon Newton

BSR E1.37-5 Simon Newton

E1.37-x Video Walls Scott Blair

Karl Ruling noted that no plasa.org email reflectors will work after a short period of time. If any task group is using a plasa.org email reflector, please send notice to staff for conversion to an esta.org reflector.

8.19 Positional data task group

Dan Lisowski said that he intended to have a proposal, but that the desire exists to further look into using ACN to transmit positional data, using E1.44 as a basis, by creating a streaming data/client server request via ACN. He asked that a task group formally be appointed to explore the topic. Maya Nigrosh and Michael Lay appointed Scott Blair, John Musarra, Paul Beasley, Sean Sill, Simon Newton, Eric Johnson, Kevin Loewen, Ulrich Kunkel, and Andrew Frazer. Dan Lisowski and Maya Nigrosh to co-chair the task group.

Michael Lay noted that the group should not at this time mandate any particular vehicle over another, but rather they should investigate and report findings to the working group.

9 New business

9.1 TSP participation fee

Maya Nigrosh offered the group a brief summary of the letter from the TSC co-chairs and asked if there were any questions. There were none.

9.2 IPv6 Task Group Report

Jason Potterf to report on his review of any potential IPv6 impact on CPWG standards work.

Maya Nigrosh read Jason Potterf's following comments:

The CPWG has historically produced standards that explicitly define operation over IPv4 networks and do not make provisions for IPv6. The good news is that there are no significant impediments to their operation over IPv6 networks, as the higher-level TCP and UDP protocols that convey our CPWG protocols are compatible with IPV6.

The bad news is that we have a significant number of documents (17+) that explicitly specify IPV4 operation or configuration parameters. There are at least 11 documents that deal with multicast, which will require us to specify certain parameters to enable interoperability with IPv6. These details should be easily specified, and parameters easily chosen as the mapping of IPv4 operation to IPv6 is a well understood process in the networking industry.

I welcome TSP staff and CPWG feedback on how best to proceed with fixing this. In progress standards should be asked to adopt IPv6 support prior to publication. Published standards require re-opening, or publication of addendums to "patch" them into IPv6 compatibility. This work would best be done by the original task group members, but could also be addressed by a special IPv6 compliance task group for published standards without standing task groups.

Michael Lay asked that Jason Potterf submit a formal work plan of CPWG standards requiring IPV6 upgrades that indicates priority (High Priority, Low Priority, Can Wait for Reaffirmation) and approximate amount of time to revise.

9.3 Pledge a Product to the TSP

Simon Newton introduced a new, open-source product he is assembling. As it is compatible with CPWG protocols, Open Lighting Project is pledging a portion of the proceeds to benefit the Technical Standards Program. Erin Grabe noted that the TSC had recently discussed such a program, similar to the Behind the Scenes' Pledge a Product initiative, and thanked Simon Newton for the support.

As there was some confusion about whether Simon Newton's agenda addition was for a new "project" or a new "product," there was trepidation by some as the topic got underway. As this new "product" is open-source, no pricing was stated, and the point of Simon Newton's announcement was the support of the TSP, there had been no violation of anti-trust. Anyone with additional concerns is encouraged to bring them to the staff's attention.

9.4 Other new business

No other new business.

10 Other business & announcements

10.1 Above & Beyond Awards

Maya Nigrosh noted that the nomination site is open year round at tsp.plasa.org/AboveandBeyond. It was noted that there is no online list of past winners. Erin Grabe said that this was on the radar to implement.

10.2 PLASA DMX512/RDM Educational Kit - "Train the Trainer" Session

Bill Ellis noted no further update, but asked for support in getting the kit scheduled for demonstration.

10.3 TSP sessions at LDI 2015

Maya Nigrosh that the following CPWG-related sessions are being held here at LDI:

The Technician's Took Kit, Roger Lattin, October 22, 3:30pm-5:30pm, 2 ETCP Renewal Credits

The Open Lighting Project. Open Source software for the Entertainment Industry; Simon Newton and Sean Sill; October 23, 11:00-12:30

So Much More Than DMX: How sACN Just Got Even Better; Maya Nigrosh, Scott Blair, Simon Newton, October 24, 3:30pm-5:00pm, .75 ETCP Renewal Credits

10.4 USITT sessions

Maya Nigrosh noted that she's running a session at USITT 2016, similar to sessions she and Peter Willis have done in years past. She invited all interested parties to participant, and join her in showing off the cool stuff that we're doing with our standards.

Dan Lisowski said that the speaker info will close very soon, and asked people to get speaker info to him or to Maya Nigrosh immediately.

11 Future meetings

11.1 January 2016 meetings

Maya Nigrosh noted that the January meetings are scheduled for Thursday through Sunday, 28-31 January 2016 at the D/FW Marriott Solana in georgic Westlake, TX.

Hamish Dumbreck noted that if a meeting were to be removed from the quarterly cycle, it should be the July meeting. Erin Grabe noted that there are no currently known plans to remove any face-to-face meeting cycles.

11.2 USITT 2016

Maya Nigrosh noted that the March 2016 meetings will be held in conjunction with the 2016 USITT Conference, scheduled to be held in Salt Lake City, UT, 16-19 March 2016.

11.3 July 2016 meetings in conjunction with NATEAC

Maya Nigrosh noted that the July 2016 meetings will be held in conjunction with NATEAC in New York City. Meeting dates are tentatively scheduled for 14-18 July, while the conference dates are 17-18 July 2016. Information on the conference is available at <http://www.nateac.org/>.

Roger Lattin added that a Plugfest in NY at CityTech would be great. Scott Blair noted that, if anything, an educational seminar instead of normal Plugfest might work. The group consensus was that a formal Plugfest would be difficult given NYC's transportation options and given the current informal format of the Plugfest. The group will look into options for July.

11.4 LDI 2016

It was noted that LDI dates for 2016 were exactly 52 weeks from the 2015 schedule.

11.5 USITT 2017 & 2018

Maya Nigrosh noted that USITT 2017 is scheduled to be held in St. Louis, MO. USITT 2018 is scheduled to be held in Ft. Lauderdale, FL. Anyone wishing to participate in sessions at these conferences should contact Dan Lisowski.

12 Adjournment

Simon Newton moved to adjourn. The motion was seconded by many people. Hearing no abstentions or objections, Maya Nigrosh declared the meeting adjourned at 11:19 PDT.

Name	Company	Representing	Voting status	Int cat
Christian Allabauer	Lighting Innovations, Hermann Sorger GmbH	Lighting Innovations, Hermann Sorger GmbH	O	CP
Simon Alpert	Lighttech Event Technologies	Lighttech Event Technologies	O	CP
Klaus Amling	Licht-Technik	Licht-Technik	O	MP
Daniel W. Antonuk	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	P	MP
Matthew Ardine	IATSE Local 728	IATSE Local 728	O	U
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	U
Paul Beasley	Walt Disney Imagineering	Walt Disney Company	P	U
Robert Bell	Acuity Brands Lighting	Acuity Brands Inc.	A	MP
Marcus Bengtsson	LumenRadio AB	LumenRadio AB	A	MP
Adam Bennette	Electronic Theatre Controls Ltd.	Electronic Theatre Controls, Inc.	O	MP
David Bertenshaw	David Bertenshaw	David Bertenshaw	O	G
Stephen Bickford	T. Kondos Associates	T. Kondos Associates	O	U
Torrey Bievenour	Vision Quest Lighting	Vision Quest Lighting	O	G
Scott M. Blair	Full Throttle Films/ VER	Full Throttle Films/ VER	P	DR
Lee J. Bloch	Bloch Design Group, Inc.	Bloch Design Group, Inc.	O	G
David A. Boller	Organic Machines LLC	Organic Machines LLC	O	CP
Ron Bonner	PLASA Technical Resources Office	PLASA EU	O	G
Brent Boulnois	Candela Controls, Inc.	Candela Controls, Inc.	A	DR
Stef Bressers	MagicFX B.V.	MagicFX B.V.	O	MP
André Broucke	André Broucke	André Broucke	O	G
Ken Bruns	Lumenpulse Lighting Inc.	Lumenpulse Lighting Inc.	O	MP
Justyn Butler	JBOTS	JBOTS	O	CP
Ian Campbell	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP
Jean-Francois Canuel	Spectrum Manufacturing Inc.	A.C. Lighting Ltd.	O	CP
Steve Carlson	High Speed Design, Inc.	High Speed Design, Inc.	O	MP
Sang-Il Choi	Kyungpook National University	Kyungpook National University	O	G

Name	Company	Representing	Voting status	Int cat
Jon Chuchla	Audio Visual Systems, Inc.	Audio Visual Systems, Inc.	O	G
Soo-Myong Chung	Bloch Design Group, Inc.	Bloch Design Group, Inc.	O	G
Paul J. Clark	HxDx	HxDx	O	CP
Edward R. Condit	Edward R. Condit	Edward R. Condit	O	G
Fraser Connolly	Artistic Licence Engineering Ltd.	Artistic Licence Holdings	O	DE
Eric Cornwell	West Side Systems	West Side Systems	O	U
Stuart Cotts	Oregon Shakespeare Festival	Oregon Shakespeare Festival	O	U
Klas Dalbjorn	Labgruppen AB	TC Group	O	MP
Ben Darrington	Wireless Solutions Sweden AB	Wireless Solutions Sweden AB	O	MP
Milton Davis	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP
Jeremy Day	Lumenpulse Lighting Inc.	Lumenpulse Lighting Inc.	O	MP
Gilray Densham	CAST Software	CAST Group Inc	O	MP
Larry Dew	W.A. Benjamin Electric Co.	W.A. Benjamin Electric Co.	O	DE
Gary Douglas	Acuity Brands Lighting	Acuity Brands Inc.	A	MP
Gary Dove	Dove Systems	Dove Systems	O	MP
Tucker Downs	Tucker Downs	Tucker Downs	O	U
Yongshun Duan	Macostar Physics Application Technology Development (Wuhan) Ltd.	Macostar International Ltd.	O	CP
Hamish Dumbreck	JESE Ltd.	James Embedded Systems Engineering	O	MP
Lauren E. Dunn	Lauren E. Dunn (Larry)	Lauren E. Dunn (Larry)	O	DE
Jerry Durand	Durand Interstellar, Inc.	Durand Interstellar, Inc.	O	CP
James Eade	ABTT	ABTT	O	G
Andrew Eales	Wellington Institute of Technology	Rhodes University	O	U
Matthew Earnshaw	acdc LED Ltd.	acdc LED Ltd.	O	MP
Bill Ellis	Candela Controls, Inc.	Candela Controls, Inc.	P	DE
Paul K. Ericson	Sparling	Sparling & IES	O	DE
Jon R. Farley	Sixteenth Avenue Systems	Sixteenth Avenue Systems	O	CP
Martin Farnik	Robe Show Lighting s.r.o.	Robe Show Lighting s.r.o.	O	MP

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Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	P	MP
Derek R. Flickinger	Interactive Homes, Inc.	Interactive Homes, Inc.	O	U
Trevor Forrest	Helvar Lighting Control	Helvar Lighting Control	O	MP
Howard Forryan	Harting Ltd.	Harting KGAA	O	G
Randy L. Fox	Walt Disney Company	Walt Disney Company	A	U
Andrew Frazer	Stellasces.com	Stellasces.com	P	MP
Steve Friedlander	Auerbach Pollock Friedlander	Auerbach Pollock Friedlander	O	U
Ed Garstkiewicz	Harting Inc., North America	Harting KGAA	O	G
Philip Gartner	AusChristmasLighting	AusChristmasLighting	O	U
Robert Goddard	Goddard Design Co.	Goddard Design Co.	P	MP
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	O	G
Erin Grabe	PLASA NA	PLASA NA	exf	G
Tom Grimes	High End Systems, Inc.	Barco	O	MP
Dennis Grow	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
Rob Halliday	Rob Halliday	Rob Halliday	O	U
Sean Harding	High Output, Inc.	High Output, Inc.	O	G
Mitch Hefter	Mitch Hefter	USITT	P	U
Douglas Heriot	Douglas Heriot	Douglas Heriot	O	MP
Bill Hewlett	Hewlett Electronics	Hewlett Electronics	O	CP
Jeremy Hochman	Full Throttle Films/ VER	Full Throttle Films/ VER	A	DR
Harrison Hohnholt	City Theatrical, Inc.	City Theatrical, Inc.	A	MP
Jim Holladay	Luxence	Luxence	O	G
Maurits van der Hoorn	Pathway Connectivity	Acuity Brands Inc.	A	MP
Wayne David Howell	Artistic Licence Engineering Ltd.	Artistic Licence Holdings	O	DE
John Huntington	City Tech, Ent Tech Department	I.A.T.S.E. Local 1	A	U
Il Soon JANG	ETRI	Electronics and Telecommunications Research Institute	O	G
Sierk Janszen	Kiss Box	Ground Zero	O	U

Name	Company	Representing	Voting status	Int cat
Eric Johnson	Eric Johnson	Eric Johnson	O	G
Rob Johnston	Interactive Technologies, Inc.	Interactive Technologies, Inc.	O	MP
Tyrone Mellon_Jr.	Lex Products Corp.	Lex Products Corp.	P	CP
Jussi Kallioinen	Eastway Sound & Lighting	Eastway Sound & Lighting	O	U
Tae Gyu Kang	ETRI	Electronics and Telecommunications Research Institute	O	G
Michael Karlsson	LumenRadio AB	LumenRadio AB	P	MP
Jonathan Kemble	High End Systems	Barco	P	MP
Hyun Jong Kim	ETRI	Electronics and Telecommunications Research Institute	O	G
Peter Kirkup	Peter Kirkup	Peter Kirkup	O	G
Hiroshi Kita	Marumo Electric Co., Ltd.	Marumo Electric Co., Ltd.	O	MP
Phil Klapwyk	IATSE Local 891	IATSE Local 891	O	U
Paul Kleissler	City Theatrical, Inc.	City Theatrical, Inc.	P	MP
Mark T. Kraft	Lehigh Electric Products Co.	Lehigh Electric Products Co.	O	MP
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
Kristen Kuipers	Newcomb & Boyd	Newcomb & Boyd	O	DE
Ulrich Kunkel	E3 Engineering & Education for Entertainment GmbH	E3 Engineering & Education for Entertainment GmbH	P	U
Jason Kyle	JPK Systems Ltd.	JPK Systems Ltd.	O	MP
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Hans Lau	LumenRadio AB	LumenRadio AB	A	MP
Michael Lay	Philips Color Kinetics	Royal Philips	P	MP
Rick Leinen	Leviton Manufacturing Co., Inc.	Leviton Manufacturing Co., Inc.	O	MP
Hans Leiter	ETC GmbH	Electronic Theatre Controls, Inc.	O	MP
Jon Lenard	Applied Electronics	Applied Electronics	O	MP
Maarten Lepelaars	eldoLED	eldoLED	O	MP
Sang-Kyu Lim	ETRI	Electronics and Telecommunications Research Institute	O	G
Joshua Liposky	Lex Products Corp.	Lex Products Corp.	A	CP
Dan Lisowski	Dept. Of Theatre and Drama	University of Wisconsin - Madison	P	DE

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Kevin Loewen	Pathway Connectivity Inc.	Acuity Brands Inc.	P	MP
Mark Manthei	Shure Inc.	Shure Inc.	O	G
Paul F. Mardon	Pulsar Ltd.	Pulsar Ltd.	O	MP
Mick Martin	ShowCAD Control Systems	ShowCAD Control Systems	O	MP
Paul Kenneth McEwan	Zero 88	Cooper Controls Ltd.	O	MP
Brian McKelvey	Brian McKelvey	Brian McKelvey	O	G
John Mehlretter	Lehigh Electric Products Co.	Lehigh Electric Products Co.	O	MP
Jeff T. Miller	Worldwide Standards and Auditing	Walt Disney Company	O	U
Avraham "Avi" Mendall Mor	Lightswitch	Lightswitch	O	U
Joshua Moyerman	Stellascapes.com	Stellascapes.com	A	MP
John Musarra	John Musarra	John Musarra	O	U
Tobin Neis	Barbizon Companies	Barbizon Companies	O	DR
Peter Newman	Open Lighting Project	Open Lighting Project	A	G
Simon Newton	Open Lighting Project	Open Lighting Project	P	G
Dan T. Nguyen	LynTec	LynTec	O	MP
Maya Nigrosh	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	A	MP
Andrew Nikel	City Theatrical, Inc.	City Theatrical, Inc.	A	MP
Kimberly Corbett Oates	Schuler Shook	Schuler Shook	P	DE
Jim Ohrberg	Candela Controls, Inc.	Candela Controls, Inc.	A	DR
Claude Ostyn	Full Throttle Films/ VER	Full Throttle Films/ VER	A	DR
Lars F. Paape	Scientific Algorithms and Embedded Systems	Scientific Algorithms and Embedded Systems	O	U
Edward A. (Ted) Paget	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	A	MP
Ben Peoples	Pittsburgh Hoist & Sandbag Company	Pittsburgh Hoist & Sandbag Company	O	CP
Jason Potterf	Cisco	Cisco	P	MP
Gary Pritchard	LSC Lighting Systems (Aust) PTY Ltd	LSC Lighting Systems PTY Ltd	O	MP
Torben Kaas Rasmussen	Martin Professional A/S	Martin Professional A/S	O	G
Charles Reese	Production Resource Group	Production Resource Group	P	DR

Name	Company	Representing	Voting status	Int cat
Charlie Richmond	Richmond Sound Design Ltd.	Richmond Sound Design Ltd.	O	CP
Bernardo Benito Rico	Ben-Ri Electronica S.A.	Ben-Ri Electronica S.A.	O	MP
Steve Roberts	Carr & Angier	Carr & Angier	O	G
Erwin Rol	Erwin Rol Software Engineering	Erwin Rol	O	G
Dietmar Rottinghaus	Connex GmbH	Connex GmbH	O	MP
Alan M. Rowe	IATSE Local 728	I.A.T.S.E. Local 728	A	U
Karl G. Ruling	PLASA NA	PLASA NA	exf	G
Richard Salzedo	Avolites Ltd.	Avolites Ltd.	O	MP
Yngve Sandboe	Sand Network Systems, Inc.	Sand Network Systems, Inc.	O	MP
Nicolai Gubi Schmidt	Gobo & Highlight A/S	Gobo & Highlight A/S	O	DR
Larry Schoeneman	DesignLab Chicago, Inc.	DesignLab Chicago, Inc.	P	DR
Martin Searancke	Dream Solutions Ltd.	Dream Solutions Ltd.	O	MP
John Sellers	AIM Northwest	AIM Northwest	O	G
Ford Sellers	Chauvet Lighting	Chauvet Lighting	O	MP
Andrew Sherar	Lightmoves PLC	Lightmoves PLC	O	MP
Sean Sill	Open Lighting Project	Open Lighting Project	O	G
Ashley Simper	TMB	TMB	O	DR
Storm K. Staley	Stormwerx	Stormwerx	O	U
Eckart Steffens	Soundlight, the DMX Company	Soundlight, the DMX Company	O	CP
Ralph Stillinger	Strand Lighting	Royal Philips	O	MP
Dane Styczynski	Dept. Of Theatre and Drama	University of Wisconsin - Madison	A	DE
Bart Swinnen	Luminex LCE	Luminex LCE	O	MP
Arnold Tang	Arnold Tang Productions	Arnold Tang Productions	O	U
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	MP
Geoffrey O. Thompson	Nortel Networks, Inc.	IEEE 802.3/Nortel Networks	O	G
Christopher Tilton	Westlake Reed Leskosky	Westlake Reed Leskosky	O	DE
Robert Timmerman	Philips Color Kinetics	Royal Philips	O	MP

Name	Company	Representing	Voting status	Int cat
David Timmins	Jands Electronics	Jands Electronics	O	MP
Victoria Tisdale	Colby College	Google Summer of Code 2013	O	G
J. B. Toby	Avolites Ltd.	Avolites Ltd.	O	MP
James Tomlinson	Team Tomlinson	Team Tomlinson	O	G
Bob Toms	Catalyst Microsystems LLC	Catalyst Microsystems LLC	O	G
Robert Tooker	Robert Tooker	Robert Tooker	O	U
Tad Trylski	Tad Trylski	Tad Trylski	O	U
Stephen J. Tyrrell	Quantum Logic	Quantum Logic	O	MP
Tracy Underhill	4U Consulting	4U Consulting	O	G
Steve Unwin	Pulsar Ltd.	Pulsar Ltd.	O	MP
Samuli Valo	Picturall Ltd.	Picturall Ltd.	O	MP
Ken Vannice	Ken Vannice LLC	Ken Vannice LLC	I	G
Carlo Venturati	Clay Paky S.P.A.	Clay Paky S.P.A.	O	MP
Will Wagner	Carallon Ltd.	Carallon Ltd.	O	MP
Oliver Waits	Avolites Ltd.	Avolites Ltd.	O	MP
John Warwick	Philips Color Kinetics	Royal Philips	O	MP
Colin Waters	TMB	TMB	O	DR
Ralph Weber	ENDL Texas	ENDL Texas	O	G
Lars Wernlund	Capture Visualisation AB	Capture Visualisation AB	O	MP
Michael (Mike) Whetstone	Integrated Theatre, Inc.	Integrated Theatre, Inc.	O	CP
Peter Willis	Howard Eaton Lighting Ltd.	Howard Eaton Lighting Ltd.	P	CP
Loren Wilton	Showman Systems	Showman Systems	O	CP
Adam De Witt	Adept Anomaly	Adept Anomaly	I	U
C. S. Wong	Macostar International Ltd.	Macostar International Ltd.	O	CP
Jiantong Wu	Beijing Special Engineering Design & Research Institute	Beijing Special Engineering Design & Research Institute	O	G
Kehang Wu	Shure Inc.	Shure Inc.	O	G
David Yellin	LightMinded Industries, Inc.	LightMinded Industries, Inc.	O	MP

Name	Company	Representing	Voting status	Int cat
Larry Zoll	Zoll Design & Consulting, LLC	Zoll Design & Consulting, LLC	O	U

Voting Status Key: P = Principal voter, A = Alternate voter, I = Individual voter, O = Observer member, exf = Ex Officio member (staff)

Interest Category Key: CP = Custom-market producer, DE = Designer, DR = Dealer or rental company, G = General interest, MP = Mass-market producer, U = User