

Minutes
Control Protocols Working Group
Saturday, 25 July 2015, 9:00 a.m. - 1:00 p.m.
D/FW Marriott Solana
Westlake, TX

Presiding co-chairs:

Michael Lay; Philips Color Kinetics; Royal Philips; P; MP
Maya Nigrosh; Electronic Theatre Controls, Inc.; A; 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
Lee Bloch; Bloch Design Group, Inc.; O; G
Milton Davis; Doug Fleenor Design, Inc.; A; MP
Casey Diers; DesignLab Chicago, Inc.; A; DR
James Eade; ABTT; O; G
Bill Ellis; Candela Controls, Inc.; P; DE
Andrew Frazer; Stellasces.com; P; MP
Robert Goddard; Goddard Design Co.; P; MP
Mitch Heffer; Mitch Heffer; USITT; P; U
John Huntington; City Tech, Ent Tech Department; I.A.T.S.E. Local 1; A; U
Michael Karlsson; LumenRadio AB; P; MP
Peter Kirkup; O; G
Paul Kleissler; City Theatrical, Inc.; P; MP
Edwin S. Kramer; I.A.T.S.E. Local 1; P; U
Roger Lattin; I.A.T.S.E. Local 728; P; U
Kevin Loewen; Pathway Connectivity Inc.; Acuity Brands Inc.; P; MP
Tyrone Mellon, Jr.; Lex Products Corp.; P; CP
John Musarra; O; U
Peter Newman; Open Lighting Project; A; G
Simon Newton; Open Lighting Project; P; G
Jason Potterf; Cisco; Cisco; P; MP
Larry Schoeneman; DesignLab Chicago, Inc.; P; DR
Martin Searancke; Dream Solutions Ltd.; O; MP
Dane Styczynski; Dept. Of Theatre and Drama; University of Wisconsin - Madison; A; DE
James Tomlinson; Team Tomlinson; O; G
Ken Vannice; Ken Vannice LLC; I; G
Peter Willis; Howard Eaton Lighting Ltd.; P; CP

1 Opening remarks

The meeting was called to order at 9:18 by Michael Lay. Maya Nigrosh was welcomed as the new co-chair.

2 Attendance

2.1 Introductions of those physically present and circulation of attendance sheet

A salmon colored sign-in sheet was passed around while self-introductions of those physically present took place.

2.2 Introductions of those present via WebEx

Those present via WebEx were called out by Maya Nigrosh to introduce themselves.

2.3 Determination of a quorum

By a show of raised hands and polling of online voting members a supermajority was announced present by Michael Lay.

2.4 Recognition of alternate voting members

Dane Styczynski and Milton Davis were recognized.

3 Membership

3.1 Requirements for membership

The following statement was read aloud to the assembly by Michael Lay:

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

The following voters have missed the previous two meetings and will be moved to observer status if this meeting is also missed:

Sang-Kyu Lim; Electronics and Telecommunications Research Institute; P; G
Hyun Jong Kim; Electronics and Telecommunications Research Institute; A; G
Il Soon JANG; Electronics and Telecommunications Research Institute; A; G
Charles Reese; Production Resource Group; P; DR
Eckart Steffens; Soundlight, the DMX Company; P; CP

The above voters were not present, so Michael Lay announced that all were moved to observer status.

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

As of 30 June 2015, the following applications were received and logged:

Nicolai Gubi Schmidt; Gobo & Highlight A/S; O; DR
Kristen Kuipers; Newcomb & Boyd; O; DE
Peter Kirkup; O; G (new employer D3)
James Tomlinson; Team Tomlinson; O; G
Brian McKelvey; O; G
Ulrich Kunkel; Change of representation from DIN to E3; P; U

Roger Lattin moved to approve to applications and changes in status. The motion was seconded and approved by a unanimous show of hands and affirmative online votes.

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	Interest category
Kevin Loewen	Acuity Brands Inc.	P	MP
Robert Bell	Acuity Brands Inc.	A	MP
Gary Douglas	Acuity Brands Inc.	A	MP
Maurits van der Hoorn	Acuity Brands Inc.	A	MP
Bill Ellis	Candela Controls, Inc.	P	DE
Jason Potterf	Cisco	P	MP

Name	Representing	Voting status	Interest category
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
Casey Diers	DesignLab Chicago, Inc.	A	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
Simon Newton	Open Lighting Project	P	G
Peter Newman	Open Lighting Project	A	G
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

Name	Representing	Voting status	Interest category
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	2
General interest		G	2
Mass-market producer		MP	9
User		U	5
Total votes possible:			23

4 Approval of the minutes from the previous meeting

See *CPmin03-2015.pdf*.

Scott Blair moved to approve the minutes of the previous meeting. The motion was seconded. Then some amendments were offered:

Combine the E1.20 task groups listed as "E1.20" and "E1.20 improvements" into one item.

BSR E1.37-2 should be attributed to Simon Newton rather than Scott Blair.

Salt Lake City USITT "is" planned.

Peter Willis asked that the attendance show who is attending by WebEx. Karl Ruling noted that this would require additional manual clerical work; there are no fields in our database to note how a person attends.

By a show of hands and affirmative online votes, the minute of the March meeting were approved as amended, with no abstentions and no objections.

5 Patents

5.1 Reading of the call for patents

The following statement was read aloud to the assembly by Michael Lay:

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 or 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 revealed.

Simon Newton asked about adding "patent applications" to the above statement. Erin Grabe said it was on the Technical Standards Council agenda to be discussed.

6 Reading of the anti-trust statement

The following statement was read aloud to the assembly by Michael Lay:

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.

Erin Grabe held up the pamphlet. Nothing was revealed.

7 Approval of agenda

Michael Lay Add an announcement at item 9.4 of the summer meetings in 2016.

Scott Blair asked about task group meetings for January, a back-up plan, to be added as item 9.5.

Peter Willis asked to discuss the success of the WebEx system, item 9.6.

Scott Blair moved to approve the agenda as amended. The motion was seconded and approved unanimously by show of hands and online votes.

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 E1.17 - 2015, Architecture for Control Networks

It's published! No news or action at this time.

8.3 E1.20 improvements

Peter Kirkup reported and said that he does not feel that he has time now, due to his change of employment, to continue leading the project. Michael Lay appointed Simon Newton to take over the leadership.

Michael Lay asked about how many items were on the list. Peter Kirkup replied that it was about 84 items—some major and some minor.

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

See E1-30-4_2010_2005-1007r6.pdf, updated by Michael Lay and task group. There are two No with reasons on the motion to reaffirm this standard (Acuity Brands and the Walt Disney Company).

Michael Lay pointed out the corrected typos and updated formatting of the standard. Simon Newton moved that we offer it for reaffirmation with a second letter ballot. That motion was seconded and there was some

discussion. Bob Goddard questioned whether it was a valuable standard. The reaffirmation question will be decided by letter ballot.

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

Kevin Loewen reported on the task group's progress. There was discussion of perhaps incorporating IPv6, but that is not used widely within entertainment lighting. The consensus was that we will need to address IPv6 soon, but not in this document or in BSR E1.37-2 at this time.

Michael Lay appointed Jason Potterf to lead a study on the impact of IPv6 on our projects. Jason Potterf suggested that we try using Cisco's Spark to collaborate.

Michael Lay directed anyone interested in this IPv6 topic to email Jason Potterf to indicate interest.

8.6 BSR E1.30-11, EPI 33

Simon Newton said this project is still waiting for E1.33.

8.7 BSR E1.31 with Universe Synchronization and Universe Discovery

See *BSR_E1-31-201x_2014-1009r1.pdf* and *BSR_E-131_DraftResols.pdf*.

Maya Nigrosh noted the draft resolutions and asked the working group to approve them.

Simon Newton moved that the comment resolution document be accepted. The motion was seconded and approved by a unanimous show of hands and affirmative online votes. With the working group leaders abstaining, that vote by interest category was 2 CP, 2 DE, 2 DR, 2 G, 8 MP, 4 U, for a total of 20.

Bob Goddard moved that the revised draft, *BSR_E1-31-201x_2014-1009r1.pdf* be offered for public review. That motion was seconded and approved by a unanimous show of hands and affirmative online votes.

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

See *E1-33_ThrdRvw_DRAFT_Resols_r1.pdf* and *BSR_E1-33-201x_2010-1032r3.pdf*. Also provided by the task group is a copy showing tracked changes, *BSR_E1-33-201x_2010-1032r3_TrackedChanges.pdf*.

Scott Blair happily reported that a complete document now existed and was ready to be considered for public review.

Scott Blair moved that the comment resolutions be accepted. The motion was seconded. There was some discussion. It was said that some of comments were dismissed because the discovery method was radically changed, and so they are no longer relevant. Simon Newton spoke in favor of the new method and the resolutions. With the exception of Peter Willis (CP) and the working group leaders who abstained, all the other voters voted "Yes." The vote by interest category thus was 1 CP, 2 DE, 2 DR, 2 G, 8 MP, 4 U, for a total of 19.

Scott Blair moved that the document be offered for public review. The motion was seconded and there was some discussion. Andrew Frazer expressed a concern for how well LLRP in this protocol might work with structured networks in permanent installations. Jason Potterf, Simon Newton, and Scott Blair all said that LLRP will work in those situations, that they had been considered. Dan Antonuk expressed support for the new version. It is radically simpler than the old version, and easier to implement.

With the exception of one "No" vote, all other voters voted "Yes." The motion carried.

[The group took a brief break.]

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

No comments were received during the 45-day public review period. See BSR-E1-37-2_CmmntSmmry.pdf.

Simon Newton moved that the draft standard be accepted as an American National Standard. The motion was seconded. There was a brief discussion. It will be decided by letter ballot.

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

Peter Willis reported on the work done, including discussions at the European Plugfest. Discussions have focused on how intermediary devices will handle messages between the controller and responder, and what responsibility they will have—if any—for massaging the messages. The task group has been meeting by WebEx, but will ask for meeting time at LDI.

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

Simon Newton reported. Slot messages and slot descriptions are being worked on and PIDs are mostly done. He noted that there might be a document for consideration at LDI.

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

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.

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

Draft resolutions were created, see DraftResolsToObjections_WithdrawalOfANSI-E1-45_CPVote.pdf.

The documents were distributed in a timely manner and there was no need for further discussion. Mitch Hefter moved that the draft resolutions be accepted. The motion was seconded. The motion passed with one “No” vote from Peter Willis (CP), and two abstentions from online voters [Andrew Frazer (MP) and Paul Beasley (U)]. All others voted in the affirmative: 1 CP, 2 DE, 2 DR, 2 G, 7 MP, 3 U, for a total of 17 Yes.

8.14 European Plugfest

The European Plugfest was held 22-24 of April 2015. Any news or action?

Peter Willis reported. New companies were represented, including Pulsar of Cambridge, which had been against RDM in the past. Chauvet was also there, and many others.

The Plugfest in Europe needs to be cost-neutral for PLASA. Peter Willis spoke of some of the PLASA EU website update issues: it was hard to get news of the event posted. He noted that another Plugfest is planned for April 2016.

8.15 Texas Plugfest

The Texas Plugfest is 24 -27 July 2015, in conjunction with the July meetings. Any news or action?

Scott Blair reported some newcomers, such as Chauvet, and some new people from Philips. Most of the task group meetings were moved to on-line WebEx meetings, which allowed more time for the Plugfest.

He noted that there are a lot of mature products out there, and they need less de-bugging. However, when E1.33 is implemented, he expects that there will be an increase in equipment needing plugfest time.

8.16 Task group leader coordination

Changes were noted as approved in the March minutes agenda item.

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

9 New business

9.1 CPWG leadership

Michael Lay remains co-chair through November 2016.

Michael Lay noted that the CPWG voted Maya Nigrosh to take Kimberly Corbett Oates' co-chair seat for a two-year term. The recommendation by the group was forwarded to the TSC for approval at their meeting on Sunday, 26 July 2015.

9.2 PLASA fund raising

Karl Ruling spoke on the need for funds. He noted that the Technical Standards Program can no longer be supported by PLASA, as they have been doing, and as ESTA before them did.

9.3 Streaming ACN

From the draft March minutes:

Dane Styczynski suggested that E1.31 might be used to monitor the status of multiple stage scenery automation systems ... [and] noted that he plans to have a proposal for this group to consider by the next meeting.

There was a brief discussion on this topic, but no proposal at this time.

9.4 Summer meetings

It was announced that the meetings will be held in conjunction with NATEAC, the North America Theatre Engineering and Architecture Conference. A show of hands for likely participants indicates that it would be attended and a meeting would be successful.

9.5 January meeting back-up plan

Scott Blair reported that we might not have January 2016 face-to-face meetings so we need a back-up plan for the Plugfest if there are no meetings. Jason Potterf spoke to the value of having the plugfests to test interoperability. Cisco might be able to offer a space in Austin. Roger Lattin offered to see if an IATSE Local will offer space in the LA area. Michael Lay closed the topic by saying that we will await a decision from the TSC on the January meeting schedule.

9.6 WebEx

Peter Willis reported that he was not happy with the WebEx experience in March. He said that it wasn't good in March, and that it's not good now. He added that it needs to be better.

Maya Nigrosh read some of the comments from those on-line, such as:

11:33:20 AM from Milton Davis to Everyone: I'm feeling pretty connected.
11:33:41 AM from John Musarra to Everyone: I am definitely getting benefit from this
11:33:54 AM from Michael Karlsson to Everyone: For me WebEx is the only option for me to attend some of these meeting... As today for instance...
11:34:21 AM from Paul Beasley to Everyone: I have greatly appreciated the webEx opportunities. There is no way I would have been able to fly in from Shanghai to attend this meeting.

11:34:28 AM from James Eade to Everyone: I'm fine, the sound isn't great, but I'd much rather this than spending the best part of half a day on a plane each way.
11:35:22 AM from John Huntington to Everyone: I wouldn't have participated at all today if not for webex--no funding for flights...
11:35:48 AM from John Musarra to Everyone: The conferencing provides context, which people who might otherwise just read the minutes won't get

There was further discussion on how to improve the WebEx experience, including funding for better equipment, such as another camera, better microphones, improved audio, and increasing the visibility for those in the room to those online.

Simon Newton praised Erin Grabe for her work on putting together the WebEx system.

10 Other business & announcements

10.1 Above & Beyond Awards

Michael Lay reminded that group that the nomination site is open year round at tsp.plasa.org/AboveandBeyond.

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

Bill Ellis is now calling the kit, "The Island of Lost Toys," as the kit has been doing nothing but collecting dust. There have been few requests for the RDM training kit. He will be working on a DMX512 class for IATSE.

There was discussion on the ways to promote the kit. One solution was to get the kit listed as a resource on the PLASA website.

10.3 TSP sessions at LDI 2015

Michael Lay noted that the following CPWG-related sessions will be held at LDI in October:

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

Roger Lattin asked for a new PowerPoint template. One will be provided, said Erin Grabe.

11 Future meetings

Michael Lay noted that the following meetings are planned and that some are on the website at <http://na.plasa.org/news/meetings.php>:

The next meeting is scheduled to be held in conjunction with LDI on 22 October, from 9:00 to 13:00.

The July 2016 meetings are being held in conjunction with NATEAC at the Roosevelt Hotel in New York City, which runs from 14-18 July 2016.

USITT 2016 is planned to be held in Salt Lake City, USITT 2017 is planned for St. Louis, and USITT 2018 is planned for Fort Lauderdale.

12 Adjournment

From WebEx, Milton Davis moved that the meeting adjourn. The motion was seconded and approved by voice votes and online poll. Michael Lay declared the meeting adjourned at noon.

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
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

Name	Company	Representing	Voting status	Int cat
Sang-II Choi	Kyungpook National University	Kyungpook National University	O	G
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
Casey Diers	DesignLab Chicago, Inc.	DesignLab Chicago, Inc.	A	DR
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

Name	Company	Representing	Voting status	Int cat
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
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	Stellascapes.com	Stellascapes.com	P	MP
Steve Friedlander	Auerbach Pollock Friedlander	Auerbach Pollock Friedlander	O	U
Ed Garstkiewicz	Harting Inc., North America	Harting KGAA	O	G
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

Name	Company	Representing	Voting status	Int cat
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
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
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

Name	Company	Representing	Voting status	Int cat
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
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
Claude Ostyn	Full Throttle Films/ VER	Full Throttle Films/ VER	A	DR

Name	Company	Representing	Voting status	Int cat
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	O	DR
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

Name	Company	Representing	Voting status	Int cat
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
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

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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
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
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