

Minutes
Control Protocols Working Group
Thursday, 29 January 2015
Web-Conference by WebEx

Presiding Chairperson: Kimberly Corbett Oates; Schuler Shook; P; DE

Recording Secretaries: Karl G. Ruling and Erin Grabe; PLASA NA; exf; G

Members present:

Daniel W. Antonuk; Electronic Theatre Controls, Inc.; P; MP
Scott M. Blair; Full Throttle Films/ VER; P; DR
Ian Campbell; Doug Fleenor Design, Inc.; A; MP
Milton Davis; Doug Fleenor Design, Inc.; A; MP
Casey Diers; DesignLab Chicago, Inc.; A; DR (logged in at about 13:30)
Bill Ellis; andela Controls, Inc.; P; DE
Andrew Frazer; Stellascapes.com; P; MP
Robert Goddard; Goddard Design Co.; P; MP
Mitch Hefter; USITT; P; U
Bill Hewlett; Hewlett Electronics; O; CP
John Huntington; City Tech, Ent Tech Department; I.A.T.S.E. Local 1; A; U
Eric Johnson; O; G
Peter Kirkup; LumenRadio AB; A; MP
Paul Kleissler; City Theatrical, Inc.; P; MP
Ulrich Kunkel; E3 Engineering & Education for Entertainment GmbH; DIN, NVBF Committee; P; U
Michael Lay; Philips Color Kinetics; Royal Philips; P; MP
Kevin Loewen; Pathway Connectivity Inc.; Acuity Brands Inc.; P; MP
Joshua Moyerman; Stellascapes.com; A; MP
John Musarra; O; U
Peter Newman; Open Lighting Project; A; G
Simon Newton; Open Lighting Project; P; G
Maya Nigrosh; Electronic Theatre Controls, Inc.; A; MP
Edward A. (Ted) Paget; Electronic Theatre Controls, Inc.; A; MP
Jason Potterf; Cisco; P; MP
Ralph Stillinger; Strand Lighting; Royal Philips; O; MP
Dane Styczynski; Dept. Of Theatre and Drama; University of Wisconsin - Madison; A; DE
Christopher Tilton; Westlake Reed Leskosky; O; DE

Visitors present:

None.

1 Opening remarks

The meeting was called to order at noon by Kimberly Corbett Oates. Jason Potterf went through a brief tutorial on WebEx system controls and meeting etiquette.

2 Attendance

2.1 Introductions of those present and circulation of attendance sheet

Kimberly Corbett Oates went down the list of attendees in WebEx and each person did a self-introduction.

2.2 Determination of a quorum

By a poll of the group and voice votes, Kimberly Corbett Oates announced that quorum was present, enough voters to pass a motion needing a supermajority.

2.3 Recognition of alternate voting members

By a poll of the group, four alternates were present and voting in lieu of their principals.

2.4 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
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
Ulrich Kunkel	DIN, NVBF Committee	P	U
Doug Fleenor	Doug Fleenor Design, Inc.	P	MP
Milton Davis	Doug Fleenor Design, Inc.	A	MP
Ian Campbell	Doug Fleenor Design, Inc.	A	MP
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
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
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

Name	Representing	Voting Status	Interest Category
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
Peter Kirkup	LumenRadio AB	A	MP
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
Eckart Steffens	Soundlight, the DMX Company	P	CP
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	3
Designer		DE	3
Dealer or rental company		DR	3
General interest		G	3
Mass-market producer		MP	9
User		U	5
Total votes possible:			26

3 Membership

3.1 Requirements for membership

The following statement was read aloud to the assembly by Kimberly Corbett Oates:

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 are currently no voters in jeopardy of a change in voting status.

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

As of 29 January 2015, the following application has been received and logged:

Derek R. Flickinger; Interactive Homes, Inc.; O; U

Kevin Loewen added that Philip Nye should be removed as Alternate voter for Acuity Brands since he is leaving the company

Scott Blair moved to approve the applications. The motion was seconded and carried by poll and voice votes.

4 Approval of the minutes from the previous meeting

See *CPmin11-2014.pdf*.

Scott Blair proposed clarification in item 8.9 of the November draft minutes: "Michael Lay requested that Peter Willis send the draft through the reflector."

Scott Blair moved to approve the draft minutes with the correction. Seconded and approved by poll and voice votes, with four abstentions.

5 Patents

5.1 Reading of the call for patents

The following statement was read aloud to the assembly by Kimberly Corbett Oates:

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.

Karl Ruling discussed the new patent and the licensing letter that PLASA received from ETRI. The group discussed the fact that neither patent was revealed to the CPWG during the call for patents. There was further concern from the group that the licensing letter provided would not be sufficient to cover continuations or transfers of the patent.

Simon Newton suggested adding a rule to the TSP's "Policies and Procedures" asking people to reveal patent applications.

6 Reading of the anti-trust statement

The following statement was read aloud to the assembly by Kimberly Corbett Oates:

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 noted that a copy of the pamphlet can be emailed out to anyone on request.

7 Approval of agenda

Scott Blair moved to approve the agenda as drafted. The motion was seconded and approved by poll and voice vote, with 1 abstention.

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.

Kimberly Corbett Oates asked the group if there were any other docs to be discussed, other than those marked.

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

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 BSR E1.17 - 20x, Architecture for Control Networks

Kimberly Corbett Oates reminded the group that the current draft standard is in public review through the end of the day 2 March 2015.

Michael Lay asked if any comments had been received yet, and Erin Grabe said there were none.

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

Kimberly Corbett Oates reminded the group that the working group letter ballot and public review will time out at the end of the day 16 March 2015. She asked members who haven't voted yet to vote.

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

Scott Blair reported that the group met at LDI. He asked about withdrawing the current EPI, in lieu of drastic changes that need to be made. Karl Ruling advised that withdrawal is not necessary. The original motion was to reaffirm this standard, but that revision is all that is necessary.

Kevin Loewen moved that the project be revised, instead of reaffirmed. The motion was seconded and approved by poll and voice vote, with 15 in favor and one abstention.

8.5 BSR E1.30-11, EPI 33

From the draft November minutes:

Simon Newton proposed that the group should hold off on action this until BSR E1.33 is further along, seeing as how E1.30-11 was written to support E1.33. Michael Lay said that unless there were objections, this would be held until the next meeting.

Simon Newton reported no news. The project still will be held for action on BSR E1.33.

8.6 BSR E1.31 with Universe Synchronization and Universe Discovery

From the draft November minutes:

Maya Nigrosh reported that the task group needs to continue to work, and that they are hopeful they will be done by the end of this meeting cycle.

Maya Nigrosh reported that the group had a good meeting at LDI and is scheduled to meet again at USITT. The Task Group will have a document to consider in March by the end of February. July would be the earliest that the working group could see a draft.

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

From the draft November minutes:

Scott Blair reported that he and Jason Potterf are working on the revision and that they intend to have a document for this group to consider by January 2015.

Scott Blair began a report on this project and handed the floor to Jason Potterf. Jason Potterf thinks that the protocol needs some simplification, for ease of implementation and to encourage adoption. He will be hosting task group meetings, beginning in February, with a new architecture designed for greater simplicity.

8.8 ANSI E1.37-2 - 2014, Additional Message Sets for ANSI E1.20 (RDM) – Part 2, IPv4 & DNS Configuration Messages

Simon Newton moved that we start a revision of this project to include the errata. The motion was seconded and approved by poll and voice vote. Simon Newton to send the TSP staff an editable version of the document.

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

Scott Blair reported that nothing had been sent to the reflector, which was to be done per the minutes of the November meeting.

Eric Johnson said that Peter Willis has a document that is worthy of discussion that just needs to get it out to the reflector.

Joshua Moyer asked to be added to the reflector for this project.

A discussion was held concerning a change in the leadership of the project, if nothing is forthcoming from Peter Willis.

Michael Lay will email Peter Willis again, and note that he (a) needs to send the document to the task group and (b) that the frustration concerning the distribution of the draft document is high.

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

Karl Ruling explained that there was a problem with the timing of the publication of this draft to public review. ANSI had issue with the PINS form, which turned out to not be a problem, but the delayed *Standards Action* publication moved the review end date from 2 March to 9 March 2015.

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

Scott Blair reported no news or action.

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

A PINS form was filed with ANSI that began a 30-day notification period, which ends on 25 January 2015. The letter ballot and concurrent public review will be initiated after that date.

The letter ballot and public review began on 26 January and will end at the end of the day on 23 March 2015.

Karl Ruling noted that the letter ballot is open for withdrawing the standard. There was further discussion as to whether the existing letter covers any continuation or any subsequent patents. A wikipedia link (http://en.wikipedia.org/wiki/Reasonable_and_non-discriminatory_licensing) was shared that offers a discussion of reasonable and non-discriminatory.

Voters were encouraged to examine the comments and reasons being offered on the letter ballot. Votes may be changed as often as necessary through the end of the ballot date.

8.13 Soundlight Plugfest

Kimberly Corbett Oates informed the group that the next Soundlight Plugfest is scheduled to take place on 9 February 2015 in Wennigsen, Germany. Participation is free, if you register. To register, or for more information, write to plugfest@soundlight.de.

8.14 European Plugfest

Kimberly Corbett Oates informed the group that the next European Plugfest will be 22-24 of April 2015. To register, visit <http://www.plasa.org/rdm>.

Peter Kirkup reported that the registration site is open, but that the registration form is buggy. He suggested we wait a day or two, until the form is fixed, before registering.

8.15 Texas Plugfest

Kimberly Corbett Oates reminded the group that the next Plugfest in Texas will be 23-25 July 2015, in conjunction with the July meetings.

Eric Johnson will write a press release for Karl Ruling to work with and send out.

There was some discussion of moving the task group meetings to non-Plugfest times, by teleconferencing or shifting the task group meetings, to allow for more time at the Plugfest. Bob Goddard spoke in favor of virtual meetings before the Plugfest so that the face-to-face meetings will deal only with the issues that require face-to-face.

9 New business

9.1 TSP financial status

Karl Ruling spoke to the financial state of the TSP and explained, again, that the program cannot be self-sufficient. In years past, ESTA, and then PLASA after it, funded the deficit in the TSP, because selling standards would never fill that gap. The Technical Standards Program needs donations from the industry that benefits from it.

9.2 E1.20 Bucket List

Peter Kirkup got a list of 50+ items but hasn't sorted them out yet. He mentioned that he hopes to have a prioritized list by the March USITT meeting. The items are primarily bug fixes and small tweaks, not big changes. Peter said that after the task group looks at a completed list of the ambiguities, clarifications, and places where a conscious change is intended, they will present to the working group a plan to consider revising the document.

Peter Newman and Milton Davis requested to be added to the RDM reflector.

Peter Kirkup reiterated to the group that fixes and tweaks to E1.20 should be submitted immediately.

10 Other business & announcements

10.1 Loss of TSP member

Kimberly Corbett Oates informed that group that the Texas Scenic Company reported the passing of our colleague, Rigging Working Group member Jyle Nogee. Jyle had over 15 years of experience in the theatre industry and founded Houston-based Theatre Design Services before joining Texas Scenic in March of 2014, where he served as head of the rigging inspection group. Nogee was also an ETCP Certified Theatre Rigger.

A moment of silence for Jyle Nogee was observed.

10.2 Above & Beyond Awards

Kimberly Corbett Oates noted that the nomination site is open year round at tsp.plasa.org/AboveandBeyond.

Michael Lay said that the awards probably will be given in March, but that he needs to check with Lori Rubinstein on that.

10.3 PLASA DMX512/RDM Educational Kit - “Train the Trainer” Session

Bill Ellis says that the kit is on his agenda. He is also doing the RDM session in three weeks at Focus Orlando.

10.4 TSP sessions at USITT 2015

On 18 March 2015 at 6pm, members of the TSP will be presenting, “I’ve got my Halloween Fog Machine, They are all the same, right?” And on 19 March 2015 at 1pm, “PLASA Standards—Where are they? What are they? How do I use them?”

Kimberly Corbett Oates noted these sessions, as well as, a session on the Open Lighting Project by Simon Newton. She then noted that sessions for USITT 2016 in Salt Lake should be submitted soon, as they are determined this March at USITT in Cincinnati.

10.5 TSP sessions at LDI 2015

Kimberly Corbett Oates informed the group that information on PLASA sessions at LDI 2015 are due by the USITT Conference in March. We would like to increase the technical level of our sessions this year, and have two to three available slots for the CPWG. Ideas can be submitted to erin.grabe@plasa.org. The schedule and all details will be confirmed at or before our next meeting

Erin Grabe told the group to volunteer or be volunteered.

10.6 E-Meeting poll

Jason Potterf asked attendees to participate in a poll of how well the meeting worked. 52% of those who voted, voted that the online meeting was equivalent to a face-to-face meeting, and 8% thought it was superior to an in-person meeting. 28% thought it was acceptable, but preferred to meet in-person.

11 Next meeting

Kimberly Corbett Oates reminded that group that the next meeting is scheduled to be on 19 March 2015, from 9am-12pm EST at the Hilton Cincinnati Netherland Plaza. A full schedule of meetings can be found at <http://na.plasa.org/news/meetings.php>.

12 Adjournment

Bill Ellis moved to adjourn. The motion was seconded. Hearing no objections, Kimberly Corbett declared the meeting adjourned at 13:27.

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
BenDarrington	Wireless Solutions Sweden AB	Wireless Solutions Sweden AB	O	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
Milton Davis	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP
Jeremy Day	Philips Color Kinetics	Royal Philips	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
Bill Ellis	Candela Controls, Inc.	Candela Controls, Inc.	P	DE

Name	Company	Representing	Voting Status	Int. Cat.
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	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
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

Name	Company	Representing	Voting Status	Int. Cat.
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	A	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
Reza Khanmalek	Spectrum Manufacturing Inc.	A.C. Lighting Ltd.	O	CP
Hyun Jong Kim	ETRI	Electronics and Telecommunications Research Institute	A	G
Peter Kirkup	LumenRadio AB	LumenRadio AB	A	MP
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
Ulrich Kunkel	E3 Engineering & Education for Entertainment GmbH	DIN, NVBF Committee	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

Name	Company	Representing	Voting Status	Int. Cat.
Jon Lenard	Applied Electronics	Applied Electronics	O	MP
Maarten Lepelaars	eldoLED	eldoLED	O	MP
Sang-Kyu Lim	ETRI	Electronics and Telecommunications Research Institute	P	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
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
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

Name	Company	Representing	Voting Status	Int. Cat.
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
Gordan Rancic	Phoenix Service srl	Phoenix Service srl	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
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
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
Yehuda Shukram	Compulite Systems	Compulite Systems	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	P	CP

Name	Company	Representing	Voting Status	Int. Cat.
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
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

Name	Company	Representing	Voting Status	Int. Cat.
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
Barbara Wohlsen	Barbara Wohlsen	Barbara Wohlsen	O	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
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

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