

Minutes
Control Protocols Working Group
Thursday 25 January 2024
Wyndham Anaheim, Anaheim, CA

Chairpersons:

Milton Davis; Doug Fleenor Design, Inc.; P; MP (presiding)
Michael Lay; Candela Controls, Inc; A; DR

Recording secretaries:

Karl Ruling and Richard Nix (ESTA)

Attendees:

Christian Allabauer; Christian Allabauer; O; G
Dennis Armijo; Insight Lighting; P; MP
Seb Barresi; Royal National Theatre; O; U
Paul Beasley; Walt Disney Company; P; U
Marcus Bengtsson; Original Syndicate; P; U
Scott M. Blair; Megapixel; P; CP
Eric Bloom; Westview Productions; P; DR
Florian Burtcher; Neutrik AG; A; MP
John David (Javid) Butler; HDR Consulting LLC; P; DE
David Butler; David Butler; I; U
Edward R. Condit; Edward R. Condit; O; U
Larry Dew; W.A. Benjamin Electric Co.; P; DE
Tom Drozd; Encore Global; O; DR
Thierry Dupont; Robert Juliat; P; MP
Bev Aurora Fremin; Bev Aurora Fremin; O; U
Michael Giardina; ADJ Products, LLC; A; MP
Andrew Grant; Royal National Theatre; O; U
Wayne David Howell; Robe Lighting s.r.o.; P; MP
John Huntington; I.A.T.S.E. Local 1; A; U
Leroy "Tripp" Oliver, III; Mainstage Theatrical Supply, Inc.; O; DR
Michael Karlsson; LumenRadio AB; P; MP
Sam Kearney; Tait Towers Manufacturing LLC; A; MP
Chris Kennedy; Chauvet Lighting; A; MP
Paul Kleissler; Environmental Lights; P; MP
Hans Lau; I.A.T.S.E. Local 728; P; U
Kevin Linzey; Vectorworks, Inc; A; CP
Kevin Loewen; Acuity Brands Inc.; P; MP
Daniel Lupfer; Dr. Phillips Performing Arts Center; P; U
Vangelis Manolis; AtlaBase Ltd.; O; CP
Daniel Murfin; Tait Towers Manufacturing LLC; P; MP
Maya Nigrosh; Maya Nigrosh; I; G
Philip Nye; Philip Nye; I; G
Jim Ohrberg; Candela Controls, Inc.; A; DR
Jason Potterf; Cisco; P; MP
Mark Primrose; CHAUVET & Sons Inc.; P; MP
Gary Pritchard; LSC Control Systems Pty Ltd; O; MP
Dietmar Rottinghaus; Neutrik AG; P; MP
Lukas Runge; Lukas Runge; I; U
Nick Saiki; ADJ Products, LLC; P; MP
Ford Sellers; Chauvet Lighting; O; MP
Shawn Silverman; Lighting Infusion LLC; P; DE
Red Walter; ADJ Products, LLC; A; MP
Peter Willis; Howard Eaton Lighting Ltd.; P; CP
Vincent Worley; The Light Source Inc.; P; MP

Visitors:

Jesse Adams; Rosebrand

1 Opening remarks

Milton Davis called the meeting to order at 10:11 PST. He apologized for the delay, which was because of the necessity of taking attendance. He reminded people online to stay muted unless speaking and that the microphones on the meeting room tables are live, so avoid drumming and making noise.

2 Anti-trust and patent statements

2.1 Reading of the anti-trust statement

Milton Davis read the following statement aloud to the assembly:

ESTA and its members take seriously their obligation to comply with all applicable antitrust laws. Therefore, during this meeting and during all ESTA 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 or will not 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 an ESTA meeting, please bring your concern to ESTA management. An easy to read pamphlet describing the antitrust laws is available from the ESTA staff.

2.2 Reading of the call for patents

Milton Davis read the following statement aloud to the assembly:

ESTA intends not to publish any standard that contains protected intellectual property, unless that information can be licensed by anyone for a reasonable fee. ESTA uses a process of open patent and copyright disclosures to implement its intent. ESTA 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 protected 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.

3 Attendance and Membership

3.1 Requirements for membership

Milton Davis read the following statement aloud to the assembly:

Membership is open to all parties who are affected by the work of the group; membership in ESTA is not a requirement, but there is a \$100/person/year participation fee to help fund the costs of running the Technical Standards Program. New applications shall not be processed until the TSP fee has been paid. Voting members are required to attend meetings and vote on letter ballots. Any principal member and alternate that both miss three consecutive meetings or that miss three consecutive letter ballots will have their membership status changed to observer. This action will be taken at the beginning of the first meeting after such inaction and will be recorded in the minutes of that meeting.

3.2 Introduction of attendees

Milton Davis asked those in the room introduced themselves. They did.

Michael Lay read out the names of people on-line and they introduced themselves.

3.3 Determination of a quorum

There are currently 43 voting members. A quorum is 15, and a supermajority is 22.

Richard Nix confirmed, both requirements have been met.

3.4 Processing of new membership and status change requests

3.4.1 New applications

Michael Giardina; ADJ Products, LLC; A; MP (new application)
Paul Measom; Lightswitch; O; DE (new application)
Philip Nye; Philip Nye; I; G (new application)
Maya Nigrosh; Maya Nigrosh; I; G (change of representation)
Dan Nagle; Crescit Software, Inc.; P; CP (new application)
Bill Kirby; Crescit Software, Inc.; O; CP (change of interest category to match Dan Nagle)

Scott Blair moved to accept the applications, but with those applying as voting members but not present be accepted as Observers, and those who have not paid their fees to be rejected. The motion was seconded. The motion was approved without objection.

3.4.2 Changes to Observer status due to lack of attendance

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

There are none.

3.4.3 Automatic status changes

The following individuals have been removed from the TSP due to participation fee non-payment:

David Yellin; Sumolight, GmbH

Richard Nix said that some other observer members have been removed for the same reason, but their removal has no impact on the voting during this meeting.

3.4.4 Consensus body

This is the consensus body after all of today's meeting actions have been taken:

| Name | Representing | Status | Int cat |
|------------------|---|--------|---------|
| Nick Saiki | ADJ Products, LLC | P | MP |
| Red Walter | ADJ Products, LLC | A | MP |
| Michael Giardina | ADJ Products, LLC | A | MP |
| Bill Ellis | Candela Controls, Inc. | P | DR |
| Jim Ohrberg | Candela Controls, Inc. | A | DR |
| Michael Lay | Candela Controls, Inc | A | DR |
| Andrew Mulkey | Candela Controls, Inc. | A | DR |
| Mark Primrose | CHAUVET & Sons Inc. | P | MP |
| Chris Kennedy | CHAUVET & Sons Inc. | A | MP |
| Jason Potterf | Cisco | P | MP |
| Dan Nagle | Crescit Software, Inc | P | CP |
| David Butler | David Butler | I | U |
| Milton Davis | Doug Fleenor Design, Inc. | P | MP |
| Daniel Lupfer | Dr. Phillips Performing Arts Center | P | U |
| Ulrich Kunkel | E3 Engineering & Education for Entertainment GmbH | P | U |
| Tracy S. Fitch | Electronic Theatre Controls, Inc. | P | MP |
| Steve Terry | Electronic Theatre Controls, Inc. | A | MP |
| Michael Lichter | Electronic Theatre Controls, Inc. | A | MP |
| Paul Kleissler | Environmental Lights | P | MP |
| Adam Seidman | Environmental Lights | A | MP |
| Robert Goddard | Goddard Design Co. | P | MP |
| Liang Zhiguang | Guangzhou Haoyang Electronic Co., Ltd. | P | CP |

| | | | |
|------------------------------------|---------------------------------------|-----------|----|
| John David (Javid) Butler | HDR Consulting LLC | P | DE |
| Peter Willis | Howard Eaton Lighting Ltd. | P | CP |
| Michael Howe | Michael Howe | I | U |
| Edwin S. Kramer | I.A.T.S.E. Local 1 | P | U |
| John Huntington | I.A.T.S.E. Local 1 | A | U |
| Hans Lau | I.A.T.S.E. Local 728 | P | U |
| Alan M. Rowe | I.A.T.S.E. Local 728 | A | U |
| Matthew Ardine | I.A.T.S.E. Local 728 | A | U |
| David Kane | I.A.T.S.E. Local 728 | A | U |
| Shepherd Dick | Image Engineering | P | CP |
| Dennis Armijo | Insight Lighting | A | MP |
| Shawn Silverman | Lighting Infusion LLC | P | DE |
| Sam Molitoriss | Lightwright LLC | P | MP |
| Michael Karlsson | LumenRadio AB | P | MP |
| Stijn Geysen | Luminex Lighting Control Equipment | P | MP |
| Rene Berhorst | MA Lighting | P | MP |
| Scott M. Blair | Megapixel | P | CP |
| Dietmar Rottinghaus | Neutrik AG | P | MP |
| Florian Burtcher | Neutrik AG | A | MP |
| Maya Nigrosh | Maya Nigrosh | I | G |
| Philip Nye | Philip Nye | I | G |
| Marcus Bengtsson | Original Syndicate | P | U |
| Wayne David Howell | Robe Lighting s.r.o. | P | MP |
| Thierry Dupont | Robert Juliat | P | MP |
| Joe Izzard | Royal National Theatre | P | U |
| Lukas Runge | Lukas Runge | I | U |
| Jon Hole | Signify | P | MP |
| Daniel Murfin | Tait Towers Manufacturing LLC | P | MP |
| Jim Love | Tait Towers Manufacturing LLC | A | MP |
| Julian Hoare | Tait Towers Manufacturing LLC | A | MP |
| Sam Kearney | Tait Towers Manufacturing LLC | A | MP |
| Vincent Worley | The Light Source Inc. | P | MP |
| Phong Ho | The Light Source Inc. | A | MP |
| Tracy Underhill | Triple C Lighting & Controls | P | G |
| Mitch Hefter | USITT | P | U |
| Jeremy Powell | Vectorworks, Inc | P | CP |
| Kevin Linzey | Vectorworks, Inc | A | CP |
| Larry Dew | W.A. Benjamin Electric Co. | P | DE |
| Paul Beasley | Walt Disney Company | P | U |
| Eric Bloom | Westview Productions | P | DR |
| Total possible votes: | | 42 | |
| Votes by interest category; | Custom market producer (CP): | 6 | |
| | Designer (DE): | 3 | |
| | Dealer or rental company (DR): | 2 | |
| | General interest (G): | 3 | |
| | Mass market producer (MP): | 17 | |
| | User (U): | 11 | |

Voting status key: P = Principal voter; A = Alternate voter; I = Individual voter

4 Approval of the minutes from the last meeting

[See CPmin10-2023r1_DRAFT.pdf]

Javid Butler moved to approve the draft minutes. The motion was seconded. The motion was approved with one abstention.

5 Approval of agenda

[See CPagnd01-2024_Draft.pdf]

Javid Butler moved to approve the agenda. The motion was seconded. The motion was approved.

6 Old Business

6.1 Standards, Guides & Recommended Practice Maintenance

This is a placeholder in the agenda, so we don't forget to maintain them. Documents prefaced with an asterisk () are on the agenda elsewhere for reports or action.*

ANSI E1.3 – 2001 (R2021), 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 20 May 2026)

*BSR E1.11 – 202x, Entertainment Technology - USITT DMX512-A, Asynchronous Serial Digital Data Transmission Standard for Controlling Lighting Equipment and Accessories. (Open for revision)

*ANSI E1.17 – 2015 (R2020) Entertainment Technology - Architecture for Control Networks (ACN) (Revision, reaffirmation, or withdrawal by 23 March 2025)

*BSR E1.20 - 20xx, Remote Device Management over USITT DMX512. (In public review cycle)

ANSI E1.27-1 – 2006 (R2021), Entertainment Technology - Standard for Portable Control Cables for Use with USITT DMX512/1990 and E1.11 (DMX512-A) Products. (Revision, reaffirmation or withdrawal by 20 May 2026)

ANSI E1.27-2 – 2009 (R2019), 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 21 July 2024)

ANSI E1.30-1 – 2010 (R2021), EPI 23, Device Identification Subdevice. (Revision, reaffirmation or withdrawal by 20 May 2026)

ANSI E1.30-3 – 2009 (R2019), EPI 25, Time Reference in ACN Systems Using SNTP and NTP. (Revision, reaffirmation or withdrawal by 21 July 2024)

ANSI E1.30-4 – 2010 (R2021), EPI 26, Device Description Language (DDL) Extensions for DMX512 and E1.31 Devices. (Revision, reaffirmation, or withdrawal by 27 May 2026)

ANSI E1.30-10 – 2009 (R2019), EPI 32, Identification of Draft Device Description Language Modules. (Revision, reaffirmation or withdrawal by 21 July 2024)

ANSI E1.30-11 - 2019, EPI 33, Transport of root PDUs over TCP (Published on 25 June 2019. Revision, reaffirmation or withdrawal by 22 March 2024)

*ANSI E1.31 - 2018, Lightweight streaming protocol for transport of DMX512 using ACN (Revision, reaffirmation, or withdrawal by 31 August 2023)

ANSI E1.33 – 2019, Transport of ANSI E1.20 (RDM) in an E1.31 environment (Revision, reaffirmation or withdrawal by 28 May 2024)

ANSI E1.37-1 – 2012 (R2022), Additional Message Sets for ANSI E1.20, Remote Device Management. (Revision, reaffirmation, or withdrawal by November 2027)

ANSI E1.37-2 – 2015 (R2021), Additional Message Sets for ANSI E1.20 (RDM) – Part 2, IPv4 & DNS Configuration Messages. (Revision, reaffirmation, or withdrawal by 24 June 2026)

*BSR E1.37-4 – 201x, Remote Device Management over DMX512 Networks – File Transfer Control with Firmware Upload capabilities. (currently in comment resolution cycle from first public review in 2018)

*BSR E1.37-5 – 20xx, General Purpose Messages for ANSI E1.20 RDM

ANSI E1.37-7 - 2019, Additional Message Sets for ANSI E1.20 (RDM) - Gateway and Splitter Configuration (Published on 05 July 2019. Revision, reaffirmation or withdrawal by 04 May 2024)

*BSR E1.37-8, Additional Message Sets for ANSI E1.20 (RDM) – IPv6 & Improved IPv4 Configuration Messages.

*BSR E1.59, Object Transform Protocol

*BSR E1.63 Network Advertisement of Entertainment Protocols

*BSR E1.68, Recommended Practice to address DMX512 compliance and interoperability (now in comment resolution)

*BSR E1.73-X, Next Generation Entertainment Control Model: Uniform Device Representation (UDR)

*BSR E1.77, Secure Authentication for ESTA Streaming Protocols

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

Withdrawn standards

E1.45 - 2013 (W2015), Unidirectional Transport of IEEE 802 data frames over ANSI E1.11 (DMX512A)

E1.30-7 - 2009 (W2016), EPI 29, Allocation of Internet Protocol Version 4 Addresses to ACN Hosts

6.2 BSR E1.11, USITT DMX512-A (Currently in revision)

No comments were received during its first public review. Anticipate a motion to approve as an American National Standard.

Javid Butler reported that no public review comments were received. He said that Mitch Hefter asked him to report and make the appropriate motions.

Javid Butler moved that the revised E1.11 be accepted as an American National Standard. The motion was seconded. The question will be decided by letter ballot.

Michael Lay offered “a big shout-out to Mitch Hefter.” Hefter was involved in the original USITT project; he stepped in to move this revision forward.

Milton Davis will write a Protocol story about this.

6.3 BSR E1.20 – 201x, Remote Device Management over USITT DMX512

Progress report, Wayne Howell or Scott Blair. Reflector: e1.20@esta.org

[see Review 4.2 resolution.pdf and BSR_E1-20_201x-6 524.pdf]

The task group has provided revised comment resolutions, with an updated draft standard revision, for working group consideration.

Wayne Howell moved that the comment resolutions be accepted (1) and the revised standard offered for public review (2). The motion was seconded. Approved unanimously.

Peter Willis thanked the task group for their work. Wayne Howell echoed his thanks.

Peter Willis, one of the public review commenters, stated that he approved the resolutions to his comments.

A BSR8 will be filed, with a public review soon to follow.

6.4 BSR E1.31 - 201x, Lightweight streaming protocol for transport of DMX512 using ACN, (Currently in reaffirmation process)

Maya Nigrosh (leader), Richard Thompson, Shawn Silverman, Sam Kearney, Paul Beasley (Co-leader), Kevin Loewen, Dan Murfin.

[see BSR_E1.31_RPR CmmntResols_TGDraft.pdf and BSR E1.31-202x_2014-1009r7.pdf]

The task group has returned draft resolutions to the most recent reaffirmation public review comments, along with a revised draft of the standard. Resolution #2 appears to constitute a substantive change, thus changing the reaffirmation to a revision.

Maya Nigrosh reported. They had comments. They have resolutions. She moved to approve the comment resolutions. The motion was seconded and approved without objection or abstention. She then moved to send the revision to public review. A PINS will be filed for the revision (originally filed as a reaffirmation), then a BSR8 will be filed after the 30-day PINS waiting period, with the public review following soon thereafter.

6.5 BSR E1.31-1, Per-slot priority extension for E1.31

Maya Nigrosh (co-leader), Richard Thompson (co-leader)

Any news or action?

Maya Nigrosh explained the scope of this draft. They are not writing anything new. They are codifying an existing practice, already used by ETC. Anything “new” would become part of the NextGen project. Maya said that ETC has agreed to release their technology for this purpose, and has issued a letter to that effect. Karl Ruling said that we have no issue as long as ETC has not filed patents, and it would still be good to have ETC’s letter on file.

Paul Beasley asked to be appointed to the task group. Milton made it so. Wayne Howell also asked to be added. Milton made it so.

6.6 BSR E1.37-4, Remote Device Management over DMX512 Networks – File Transfer Control with Firmware Upload capabilities

Paul Beasley or Larry Dew. Reflector: e137@esta.org, a general E1.37-x reflector.

From the draft October minutes:

Larry Dew reported great progress on draft implementations at the Plugfest that is currently ongoing. He said that there will be a draft document for CPWG review very soon.

Any news or action?

Paul Beasley reported. They have been doing testing and are making progress. The prototype works for uploading firmware and downloading other files of various types. The document describing this is technically accurate but needs clean-up as a written document. He hopes to have a document for consideration at the next meeting. He thanked all who have been assisting in this process.

Peter Willis said that the download was requested from users in the field. They wanted to be able to download configuration data before doing an upload. The actual load for the protocol to do this is minimal.

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

Maya Nigrosh/Scott Blair. Reflector: e137@esta.org, a general E1.37-x reflector.

By the time of this meeting, the ExC letter ballot to approve as ANS may have closed.

Scott Blair asked about the status. Richard Nix said the Executive Committee has approved it. Blair said he was ready to update the PID values and the front matter boilerplate wording.

6.8 BSR E1.37-8, Additional Message Sets for ANSI E1.20 (RDM) – IPv6 & Improved IPv4 Configuration Messages.

Scott Blair/Dan Murfin. Reflector: e137-8@esta.org

Any news or action?

Dan Murfin reported that the document is in reasonably good shape. Moving into final editorial stage. Hopes to have it done for the March meetings.

6.9 BSR E1.63 Network Advertisement of Entertainment Protocols

Jason Potterf/Kevin Loewen. Reflector: NAEP@esta.org

Any news or action?

Jason Potterf reported. They are working on a draft and expect to have something soon.

6.10 BSR E1.68-202x, Recommended Practice for Compliance and Interoperability in DMX512-A Systems (Currently in revision)

No comments were received during its public review. Anticipate a motion to approve as an American National Standard.

Javid Butler moved that BSR E1.68 be approved as an American National Standard. The motion was seconded. The question will be decided by letter ballot.

Javid will write a Protocol story about this.

6.11 BSR E1.73-1, Next Generation Entertainment Control Model: Uniform Device Representation (UDR)

Dan Murfin/Sam Kearney Reflector: NextGenLibrary@esta.org

Any news or action?

Dan Murfin reported on all 6 subparts. The PR comments generated a lot of good thoughts about direction. They'll get to the PR comment resolutions over the next few months.

6.12 BSR E1.73-2 Core Definitions for E1.73-1 Next Generation Entertainment Control Model: Uniform Device Representation (UDR)

6.13 BSR E1.73-3 Intensity/Color Definitions for E1.73-1 Next Generation Entertainment Control Model: Uniform Device Representation (UDR)

6.14 BSR E1.73-4 Motion Definitions for E1.73-1 Next Generation Entertainment Control Model: Uniform Device Representation (UDR)

6.15 BSR E1.73-5 Gobo Definitions for E1.73-1 Next Generation Entertainment Control Model: Uniform Device Representation (UDR)

6.16 BSR E1.73-6 Shape Definitions for E1.73-1 Next Generation Entertainment Control Model: Uniform Device Representation (UDR)

6.17 Next Gen Study Group (Overall) and Next Gen Transport study group

Jason Potterf/Maya Nigrosh. Reflectors: nextgencontrolprotocol@esta.org and NextGenTransport@esta.org

Any news or action?

Jason Potterf reported that different transports are being developed in the networking world. Some of these are excellent for handling a wide variety of data, including video and video-related meta-data. We could move our protocols onto these transports. A question is “How can we make it easy to migrate our protocols to whatever new transports arise?”

6.18 BSR E1.77, Secure Authentication for ESTA Streaming Protocols

Kevin Loewen/Paul Beasley. Reflector: CPWG_Secure@esta.org

Any news or action?

Kevin Loewen said there is nothing to report, because there has been little progress since last meeting. Paul Beasley said his recollection was that there is significant feedback against the direction this is headed. Kevin agreed, saying there are different opinions on what “Secure” means, and whether we can ever make a “secure” protocol, but something is better than nothing.

6.19 BSR E1.59 - 2021, Object Transform Protocol

Dan Murfin and Maya Nigrosh. Reflector: e159@esta.org

Any news or action?

Dan Murfin reported. They are making progress. Marcus Bengsston reported on work being done with SMPTE to carry necessary metadata. He will bring what they are writing into this group for incorporation into OTP.

6.20 ANSI E1.17 – 2015 (R2020), Entertainment Technology – Architecture for Control Networks (ACN)

From the draft October meeting minutes:

Note from an implementer: not all the documents are “bundled” into the download zip file.

Sam Kearney will verify the zip file contents.

Sam Kearney had no report, but said he would work on it for the next meeting.

6.21 Task group leader coordination

Scott Blair is the official scheduling liaison for meetings between the CPWG task groups and meeting schedulers. Laura Hoepker (laura.hoepker@esta.org) handles face-to-face meetings when we meet at an ESTA event. Richard Nix handles meetings scheduled using ESTA's WebEx account—only ESTA's WebEx account. Task groups are free to use their own WebEx accounts, Zoom, Teams, Meet, or something else.

E1.11: Mitch Hefter

BSR E1.20: Scott Blair/Wayne Howell

E1.31-1: Maya Nigrosh/Richard Thompson

E1.37-x: Video Walls Scott Blair

BSR E1.37-4: Paul Beasley/Larry Dew

BSR E1.37-5: Maya Nigrosh/Scott Blair

BSR E1.37-8 Scott Blair/Dan Murfin

BSR E1.59: Dan Murfin/Maya Nigrosh

E1.63 NAEP: Jason Potterf/Kevin Loewen

E1.68: Javid Butler/Wayne Howell

E1.73: Dan Murfin/Sam Kearney

E1.77: Kevin Loewen/Paul Beasley

Next Gen Study Group: Jason Potterf/Maya Nigrosh

Plugfest Marketing Task Group: Michael Lay

NAMM Education Task Group: Milton Davis

Next Gen Transport study group: Maya Nigrosh/Jason Potterf

Protocol Security study group: Kevin Loewen/Paul Beasley

GitHub study group: Jason Potterf

E1.11: Mitch Hefter

6.22 Email reflectors

Maya Nigrosh

Maya Nigrosh said the interim solution is working, until we can make the change over to a different mail service. It doesn't need to be on the agenda.

7 New business

7.1 New project request: Uni-directional Machine Control

[See Uni-Directional_Machine_Controls_ProjectRequest – signed.pdf]

The project request originates from a Stage Machinery Working Group member, who has requested this be sent to this working group for discussion. The SMWG will consider it at their meeting, immediately following this meeting. The TSC will consider it on Sunday.

Jesse Adams spoke about this possible new project. He explained the scope, and asked for input from the working group, perhaps even to the point of joining any new task groups that might be formed if the project is approved. The Stage Machinery Working Group uses control protocols in different ways than the CPWG views them, so perspective from CPWG would be very useful. Comments were made in the chat. Peter Willis noted that SIP for DMX already exist and may be useful. Tripp Oliver says he has field experience with this and is interested in helping. Likewise from Shawn Silverman and Wayne Howell. Paul Beasley said they use a 2-part system – one part is for cueing, the other part is for safety.

Javid Butler offered to help. Paul Beasley asked if the plan was to make a new protocol or to offer advise on using existing protocols. Jesse Adams talked about the risk-assessment approach being taken with Stage Machinery Working Group's standard. He's anticipating a similar approach here. Paul Beasley said he'd attend the Stage Machinery meeting later today.

7.2 Documents due for action in 2024.

Paul Beasley moved to reaffirm E1.30-11. It was seconded. A BSR8 will be filed. A reaffirmation will commence. The letter ballot will commence after the close of public review, if there are no actionable PR comments.

8 Other business and announcements

8.1 National Electrical Code (NEC) update

Jason Potterf, Mitch Hefter, or Bill Ellis

Jason Potterf reported that Mitch Hefter and Bill Ellis are at an NFPA 70 meeting now. He reported that his committee has met, but not a lot was on the table for us to be concerned about.

The big news is that the NEC will be reorganized by the Code Correlating Committee. The fundamental table of contents has not changed in over 100 years.

8.2 Illuminating Engineering Society (IES) update

Bill Ellis or Mitch Hefter

No report.

8.3 Institute of Electrical and Electronics Engineers (IEEE) update

Jason Potterf

Jason Potterf reported. There is a lot of activity and discussion regarding various protocols. He spoke about all of them. He said an interesting question would be if existing installed DMX cable could be used for some of these versions of Ethernet.

There is some interest in asymmetrical data rate transmission: faster sending from a device but slower receiving for that device. This would allow a streaming source to send a lot of data fast, but receive its instructions for control more slowly. This would allow it to use less power. This project is at very early stages.

8.4 Society of Motion Picture and Television Engineers (SMPTE) Rapid Industry Solutions

Scott Blair or Marcus Bengtsson

Scott Blair reported. They are currently looking at how to publish the metadata, JSON seems to be the favored methodology at this time. PTP for Camera data.

Marcus Bengtsson reported on other topics. They have been trying to meet every two weeks, so it continues to be rapid development.

8.5 Plugfests – USA

[see [Plugfest_2023_Survey_Data_Rev_02.pdf](#)]

Milton Davis reported on the survey data, and mentioned the article he had written. As of now there is no date scheduled for Plugfest because Fall meeting contracts are still in negotiation.

8.6 Plugfests – Europe

The PLASA-hosted PlugFest returns to Lille, France from 16-19 April 2024. Register your interest to be the first to know when tickets go on sale via <https://www.plasa.org/plugfest/>.

Peter Willis sent an update. It's been posted to the listfile page. It contains a link for information. There was other general discussion. The PlugFest is now sold out, Wayne Howell reported.

There was discussion of why the US PlugFest is free but the European one has a fee. Karl Ruling explained that the US Plugfest is paid for by the hotel sleeping room rentals. When attendees book a room at the Westlake Marriott, the hotel makes money and provides the PlugFest space.

Wayne Howell suggested that attendance at the American PlugFest would be more certain—people who booked a space would show up—if they had to pay for it. This has been their experience in Europe.

8.7 Above & Beyond Awards

Information on the Above & Beyond Awards is available at http://tsp.esta.org/tsp/news/award_recipients.html.

Milton noted the link and encouraged everyone to consider nominating someone. Paul Beasley advised people to write what they want to say off-line and paste it in. If you write it on the page and refresh the page, everything you wrote is gone.

8.8 USITT Engineering Achievement Award

Michael Lay said that Karl Ruling is getting a Distinguished Achievement Award at the USITT Conference. Richard Nix reported that the award will be given at 12:30 pm on March 21. *[TSM note: the schedule has since been revised: The award is from 15:30-16:30 Pacific Time on Thursday 21 March]*

9 Schedule for future meetings

The full meeting schedule may be found at <http://www.esta.org/ESTA/meetings.php>.

Spring meetings will be held in conjunction with USITT, in Seattle, WA. During the week of 18 March 2024.

Summer meetings will be held in NYC, co-locating with the NATEAC convention, during the week of 08 July 2024.

Fall meetings will likely return to Westlake, TX.

Michael Lay reminded everyone of the short time frame between now and USITT. He also mentioned that Karl Ruling will receive an award at USITT on Thursday.

10 Adjournment

Milton Davis declared the meeting adjourned at 12:18 PM.

Control Protocols Working Group members, contact information, and email reflectors as of 25 January 2024

| Name | Representing | Status | Int cat |
|---------------------------|--|--------|---------|
| Christian Allabauer | Christian Allabauer | O | G |
| Matthew Ardine | I.A.T.S.E. Local 728 | A | U |
| Dennis Armijo | Insight Lighting | P | MP |
| Nick Ballhorn-Wagner | Electronic Theatre Controls, Inc. | O | MP |
| Robert Barbagallo | Solotech Inc. | O | U |
| Seb Barresi | Royal National Theatre | O | U |
| Paul Beasley | Walt Disney Company | P | U |
| Marcus Bengtsson | Original Syndicate | P | U |
| Justin Bennett | University of the Incarnate Word | O | U |
| Rene Berhorst | MA Lighting | P | MP |
| Scott M. Blair | Megapixel | P | CP |
| Eric Bloom | Westview Productions | P | DR |
| Thomas Bretgeld | Bretgeld Engineering GmbH | O | CP |
| Florian Burtcher | Neutrik AG | A | MP |
| John David (Javid) Butler | HDR Consulting LLC | P | DE |
| David Butler | David Butler | I | U |
| Jean-Francois Canuel | A.C. Lighting Ltd. | O | CP |
| Steve Carlson | High Speed Design, Inc. | O | MP |
| Yongzhi Chen | Guangzhou Haoyang Electronic Co., Ltd. | O | CP |
| Anthony Chiappone | Chauvet Lighting | O | MP |
| Martin Chisnall | Martin Chisnall | O | U |
| Edward R. Condit | Edward R. Condit | O | U |
| Gareth Conner | Creative Conners, Inc. | O | MP |
| Chris Conti | PRG | O | DR |
| Milton Davis | Doug Fleenor Design, Inc. | P | MP |
| Jeremy Day | Lumenpulse Group | O | MP |
| Larry Dew | W.A. Benjamin Electric Co. | P | DE |
| Shepherd Dick | Image Engineering | P | CP |
| Tom Drozd | Encore Global | O | DR |
| Hamish Dumbreck | James Embedded Systems Engineering | O | MP |
| Thierry Dupont | Robert Juliat | P | MP |
| Bill Ellis | Candela Controls, Inc. | P | DR |
| Tracy S. Fitch | Electronic Theatre Controls, Inc. | P | MP |
| Trevor Forrest | Helvar Lighting Control | O | MP |
| Bev Aurora Fremin | Bev Aurora Fremin | O | U |
| Stijn Geysen | Luminex Lighting Control Equipment | P | MP |

Control Protocols Working Group members, contact information, and email reflectors as of 25 January 2024

| | | | |
|---------------------------|---|---|----|
| Michael Giardina | ADJ Products, LLC | A | MP |
| Robert Goddard | Goddard Design Co. | P | MP |
| Sean Goossen | LiteGear, Inc. | O | MP |
| Robert Graham | Wenger Corporation | O | DR |
| Andrew Grant | Royal National Theatre | O | U |
| Matt Halberstadt | Electronic Theatre Controls, Inc | O | MP |
| Robert Haycock | Robert Haycock | O | U |
| Mitch Hefter | USITT | P | U |
| Phong Ho | The Light Source Inc. | A | MP |
| Julian Hoare | Tait Towers Manufacturing LLC | A | MP |
| Jon Hole | Signify | P | MP |
| Michael Howe | Michael Howe | I | U |
| Wayne David Howell | Robe Lighting s.r.o. | P | MP |
| John Huntington | I.A.T.S.E. Local 1 | A | U |
| Leroy "Tripp" Oliver, III | Mainstage Theatrical Supply, Inc. | O | DR |
| Joe Izzard | Royal National Theatre | P | U |
| Quinten James | QtoCue Lighting Design | O | U |
| Eric Johnson | Eric Johnson | O | G |
| David Kane | I.A.T.S.E. Local 728 | A | U |
| Sam Kearney | Tait Towers Manufacturing LLC | A | MP |
| Jonathan Kemble | Jonathan Kemble | O | G |
| Chris Kennedy | CHAUVET & Sons Inc. | A | MP |
| Paul Kleissler | Environmental Lights | P | MP |
| Edwin S. Kramer | I.A.T.S.E. Local 1 | P | U |
| Christian Krueger | Blizzard Lighting LLC | O | MP |
| Terry Kuhn | Terry Kuhn | O | U |
| Ulrich Kunkel | E3 Engineering & Education for Entertainment GmbH | P | U |
| Jason Kyle | JPK Systems Ltd. | O | MP |
| Hans Lau | I.A.T.S.E. Local 728 | P | U |
| Michael Lay | Candela Controls, Inc | A | DR |
| Jon Lenard | Applied Electronics | O | MP |
| Michael Lichter | Electronic Theatre Controls, Inc. | A | MP |
| Kevin Linzey | Vectorworks, Inc | A | CP |
| Jim Love | Tait Towers Manufacturing LLC | A | MP |
| Daniel Lupfer | Dr. Phillips Performing Arts Center | P | U |
| Vangelis Manolis | AtlaBase Ltd. | O | CP |
| Kevin Matz | Company 235, LLC | O | U |

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| | | | |
|-----------------------|------------------------------------|---|----|
| Paul Measom | Lightswitch | O | DE |
| Andreas Modschiedler | Adam Hall GmbH | O | MP |
| Sam Molitoriss | Lightwright LLC | P | MP |
| Andrew Mulkey | Candela Controls, Inc. | A | DR |
| Daniel Murfin | Tait Towers Manufacturing LLC | P | MP |
| John Musarra | John Musarra | O | U |
| Dan Nagle | Crescit Software, Inc. | P | CP |
| Gavin Nel | Robe Lighting s.r.o. | O | MP |
| Maya Nigrosh | Maya Nigrosh | I | G |
| Philip Nye | Philip Nye | I | G |
| Jim Ohrberg | Candela Controls, Inc. | A | DR |
| Jason Potterf | Cisco | P | MP |
| Jeremy Powell | Vectorworks, Inc | P | CP |
| Mark Primrose | CHAUVET & Sons Inc. | P | MP |
| Gary Pritchard | LSC Control Systems Pty Ltd | O | MP |
| Dietmar Rottinghaus | Neutrik AG | P | MP |
| Alan M. Rowe | I.A.T.S.E. Local 728 | A | U |
| Lukas Runge | Lukas Runge | I | U |
| Nick Saiki | ADJ Products, LLC | P | MP |
| Max Schweiner | Electronic Theatre Controls, Inc. | O | MP |
| Adam Seidman | Environmental Lights | A | MP |
| Ford Sellers | Chauvet Lighting | O | MP |
| Andrew Sherar | Lightmoves Pty Ltd | O | DR |
| Shawn Silverman | Lighting Infusion LLC | P | DE |
| Sam Smallman | Artificers | O | CP |
| Bart Swinnen | Luminex Lighting Control Equipment | O | MP |
| Steve Terry | Electronic Theatre Controls, Inc. | A | MP |
| Richard Thompson | Electronic Theatre Controls, Inc | O | MP |
| Christopher B. Tilton | About the Stage, LLC | O | DE |
| Scott Tusing | Angry Otter Lighting, LLC | O | U |
| Tracy Underhill | Triple C Lighting & Controls | P | G |
| Red Walter | ADJ Products, LLC | A | MP |
| Colin Waters | TMB | O | DR |
| Ralph Weber | ENDL Texas | O | G |
| Peter Willis | Howard Eaton Lighting Ltd. | P | CP |
| Sebastian Wissmann | Inoage GmbH | O | MP |
| Vincent Worley | The Light Source Inc. | P | MP |

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| | | | |
|----------------|--|---|----|
| Liang Zhiguang | Guangzhou Haoyang Electronic Co., Ltd. | P | CP |
|----------------|--|---|----|

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