

Minutes
Control Protocols Working Group
Saturday 22 July 2023
Marriott D/FW Westlake, Westlake, TX

Chairpersons:

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

Recording secretaries:

Richard Nix and Karl Ruling (ESTA)

Attendees:

Robert Barbagallo; Solotech Inc.; O; U
Paul Beasley; Walt Disney Company; P; U
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
Justyn Butler; JBOTS; O; CP
John David (Javid) Butler; HDR Consulting LLC; P; DE
Tom Drozd; Encore Global; O; DR
Thierry Dupont; Robert Juliat; P; MP
Tracy S. Fitch; Electronic Theatre Controls, Inc.; P; MP
Robert Goddard; Goddard Design Co.; P; MP
Robert Haycock; Robert Haycock; O; U
Mitch Hefter; USITT; P; U
Phong Ho; The Light Source; A; 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
Joe Izzard; Royal National Theatre; P; U
Sam Kearney; Tait Towers Manufacturing LLC; A; MP
Chris Kennedy; Chauvet Lighting; O; MP
Edwin S. Kramer; I.A.T.S.E. Local 1; P; U
Ulrich Kunkel; E3 Engineering & Education for Entertainment GmbH; P; U
Hans Lau; I.A.T.S.E. Local 728; P; U
Kevin Linzey; Vectorworks, Inc; A; CP
Kevin Loewen; Acuity Brands Inc.; P; MP
Jim Love; Tait Towers Manufacturing LLC; A; MP
Kevin Matz; Company 235, LLC; O; U
Andreas Modschiedler; Adam Hall GmbH; O; MP
Sam Molitoriss; Lightwright LLC; P; MP
Maya Nigrosh; Sonos; P; MP
Jason Potterf; Cisco; P; MP
Dietmar Rottinghaus; Neutrik AG; P; MP
Nick Saiki; ADJ Products, LLC; P; MP
Ford Sellers; Chauvet Lighting; O; MP
Andrew Sherar; Lightmoves Pty Ltd; O; DR
Shawn Silverman; Lighting Infusion LLC; P; DE
Scott Tusing; Angry Otter Lighting, LLC; O; U
Red Walter; ADJ Products, LLC; A; MP
Peter Willis; Howard Eaton Lighting Ltd.; P; CP
Liang Zhiguang; Guangzhou Haoyang Electronic Co., Ltd.; P; CP

1 Opening remarks

Michael Lay called the meeting to order at 9:03, welcoming everyone and thanking them for taking time to attend. He reminded all online participants to please keep their microphones muted when not speaking, use the “raise hand” feature for voting, and for all participants to raise hands when requesting to speak.

2 Anti-trust and patent statements

2.1 Reading of the anti-trust statement

Michael Lay 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.

Richard Nix held up a copy of the pamphlet for all to see. Michael Lay asked the assembly if anyone had any anti-trust concerns. None were expressed.

2.2 Reading of the call for patents

Michael Lay 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.

Michael Lay asked the assembly if anyone had anything to disclose. No one did.

3 Attendance and Membership

3.1 Requirements for membership

Michael Lay 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. 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

Everyone introduced themselves. Paul Beasley was calling from Shanghai. Zhiguang Liang was calling from Guangzhou, China. Ulrich Kunkel was connected from northern Germany. Mike Howe was in Tokyo.

3.3 Determination of a quorum

There are currently 36 voting members. A quorum is 13, and a supermajority is 19. May jump to 40, q=14, s=21

Richard Nix said that both requirements had been met.

3.4 Processing of new membership and status change requests

3.4.1 New applications

Sam Molitoriss; Lightwright, LLC; P; MP (new application) A
Kenny Cohen; Lightwright, LLC; A; MP (new application)
Mike Howe; Mike Howe (or I.A.T.S.E. Local 728, tbc); I (or A); U (new application, applied as Individual but works for Local 728, may need to come in as Observer) Y
Gavin Nel; Robe Lighting s.r.o. O; MP (new application)
Dietmar Rottinghaus; Neutrik AG Lichtenstein; P; MP (new application) Y
Florian Burtscher; Neutrik AG Lichtenstein; A; MP (new application)
Paul Kleissler, City Theatrical, LLC; P; MP (change of representation/company name)
Adam Seidler, City Theatrical, LLC; A; MP (change of representation/company name)
Red Walter; ADJ Products, LLC; A; MP (new application)
Nick Saiki; Elation Lighting, Inc (ADJ Products); P; MP; (new application) A

Mitch Hefter moved to approve the applications. The motion was seconded, and carried without objection or abstentions

There was discussion about City Theatrical's recent change of ownership. Their name has changed slightly, but they are now owned by Environmental Lights. [TSM note: Environmental Lights will be shown in the consensus table moving forward]

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:

Wayne Howell; Robe Lighting

Wayne was present, so no change.

3.4.3 Consensus body

This is the consensus body after all meeting actions have been taken:

Name	Representing	Status	Int cat
Robert Bell	Acuity Brands Inc.	A	MP
Maurits van der Hoorn	Acuity Brands Inc.	A	MP
Kevin Loewen	Acuity Brands Inc.	P	MP
Red Walter	ADJ Products, LLC	A	MP
Nick Saiki	ADJ Products, LLC	P	MP
Jim Ohrberg	Candela Controls, Inc.	A	DR
Michael Lay	Candela Controls, Inc	A	DR
Andrew Mulkey	Candela Controls, Inc.	A	DR
Bill Ellis	Candela Controls, Inc.	P	DR
Jim Bogdanowicz	CHAUVET & Sons Inc.	A	MP
Mark Primrose	CHAUVET & Sons Inc.	P	MP

Name	Representing	Status	Int cat
Jason Potterf	Cisco	P	MP
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
Steve Terry	Electronic Theatre Controls, Inc.	A	MP
Michael Lichter	Electronic Theatre Controls, Inc.	A	MP
Tracy S. Fitch	Electronic Theatre Controls, Inc.	P	MP
Paul Kleissler	Environmental Lights	P	MP
Adam Seidman	City Theatrical, Inc.	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
John Huntington	I.A.T.S.E. Local 1	A	U
Edwin S. Kramer	I.A.T.S.E. Local 1	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
Hans Lau	I.A.T.S.E. Local 728	P	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
Kenny Cohen	Lightwright LLC	A	MP
Michael Karlsson	LumenRadio AB	P	MP
Stijn Geysen	Luminex Lighting Control Equipment	P	MP
Rene Berhorst	MA Lighting	P	MP
Leroy "Tripp" Oliver, III	Mainstage Theatrical Supply, Inc.	P	DR
Scott M. Blair	Megapixel	P	CP
Michael Howe	Michael Howe	I	U
Florian Burtcher	Neutrik AG	A	MP
Dietmar Rottinghaus	Neutrik AG	P	MP
Matt Didon	ON LX Limited	P	CP
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
Jon Hole	Signify	P	MP
Maya Nigrosh	Sonos	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

Name	Representing	Status	Int cat
Daniel Murfin	Tait Towers Manufacturing LLC	P	MP
Phong Ho	The Light Source Inc.	A	MP
Vincent Worley	The Light Source Inc.	P	MP
Mitch Hefter	USITT	P	U
Kevin Linzey	Vectorworks, Inc	A	CP
Jeremy Powell	Vectorworks, Inc	P	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:		40	
Votes by interest category;	Custom market producer (CP):	6	
	Designer (DE):	3	
	Dealer or rental company (DR):	3	
	General interest (G):	0	
	Mass market producer (MP):	19	
	User (U):	9	

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

4 Approval of the minutes from the last meeting

[See CPmin04-2023_DRAFT.pdf]

Javid Butler moved to approve the minutes. The motion was seconded and carried without objection or abstentions.

5 Approval of agenda

[See CPagnd07-2023_Draft.pdf]

Javid Butler moved to approve the agenda. The motion was seconded and approved without objection or abstentions.

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 E1.59, Object Transform Protocol

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

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 – 202x, Entertainment Technology - USITT DMX512-A, (open for revision)

Progress report, Mitch Hefter (leader)

[See BSR E1-11_202x R0 2023 0711.pdf]

Mitch Hefter reported the task group has met a couple of times, including yesterday, there are some key points they will seek feedback on, they are about 80% finished and expect to have a draft ready for PR1 consideration at the October meeting. He read a list of key change discussion items.

- Data Handling / Loss of Data (8.7 / 9.2 / 10.5.3)
 - Recommend manufacturer declare if NSC packets have less than 512 Data Slots. Add options or classes of behavior for use in required Declaration of Handling of Loss of Data per 9.2 Loss of Data, and 10.5.3 Loss of Data Declaration. This added clarity may also prove useful in simplifying compliance with the requirements for emergency lighting control.
- Connections: 7.3 NCC - 8P8C (RJ45). Minor relaxation to cover permanently installed product (e.g., architectural fixtures) of NCC.
- 8.11 Table 7 – Receiver SPACE for BREAK.
 - Receiver Space for BREAK – minor edits to clarify & added note allowing accepting timings outside the ranges in the table if not disallowed elsewhere.
- 10.4 Ground/Isolation Marking
 - Added Power Supply Referenced (PSR) marking – example: DC Power Supply and PoE source.
- RDM/alternate start code
 - B1 – Noted RDM is EF1
 - D1 – Added RDM ASC to table of Reserved ASCs. Possible note to refer to TSP web site for most current listing so we don't have to pen E1.11 anytime we add to this table.

Good work, said Mike Lay.

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

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

Wayne Howell reported, they've been working hard to resolve public comments. 57 comments, addressed about 45 so far (11 left, about half are considered contentious). They are trying hard to get resolutions finished by October's meetings.

He asked the working group for direction in how to solve a problem with a specific resolution. The task group has all but unanimously agreed to reject a specific comment, but the commenter – also a task group member - refuses to accept the resolution.

Peter Willis said he is the commenter, adding that the issue is in backward-compatibility/forward compatibility. He contends that rejection of the specific comment creates inconsistencies in backward compatibility.

Mike Lay asked if anyone from the task group wanted to respond. Wayne Howell noted comment 32 as the topic of this discussion, which addresses new, mandated PIDs. The Task Group previously discussed this in two separate meetings - once with the commenter, once without. The task group thinks the new PID adds value, and moves us away from the current philosophy of having to try something first.

Dan Murfin added that this topic has been discussed for nearly four years, and that the task group had committed to do their best to ensure backward compatibility, but with no guaranty of being able to fully do so.

Peter Willis said he didn't mind the PID or its added value, his issue is a mandate to use it regardless if the legacy transponder can support it. If the legacy transponder cannot support it, then the controller must still deal with it in the old way.

Scott Blair said they have the exact same issue in E1.37-5, and have had the same lengthy debates. They've decided that these changes are necessary to improve both the user experience and functionality of the system. These are consensus standards, not unanimous standards, and we keep getting hung up on trying to reach unanimous agreement. As a group we need to move forward.

Javid Butler asked how this impacts lightweight processors. Peter Willis said mandating the PID would mean that lightweight processors would need to be updated. He said his issue is more concerned with the absence of guidance on how the controller should handle these issues, and feels that he didn't think the group intends to break legacy responders, which is what he thinks this new PID implementation would do.

Maya Nigrosh agreed with the essence of Scott Blair's comment.

Bob Goddard asked if the issue creates site-oddities in equipment because the equipment can't support it, or does it functionally break the equipment. Wayne Howell said it doesn't break functionality, it just brings it out of compliance. Bob said he doesn't see this as an issue to spend much time on, and asked if an informative note that the change may make legacy systems malfunction would be helpful. Wayne Howell said that the statement that the change would break legacy systems was factually incorrect. It's simply a non-issue technically.

Peter Willis asked if the PID mandates apply to both controller and responder, or only to the controller. Dan Murfin said the main thing is to agree we're not changing the direction.

Karl Ruling said that "asked and answered" is an acceptable answer. Backwards compatibility is nice, but it's often impractical.

Mitch Hefter asked for additional clarification: if you don't support this particular parameter, do the lights stop working, or do they keep working? They keep working.

Wayne Howell moved to have the working group instruct the E1.20 task group to proceed with their consensus decision on how to resolve comment 32, and allow it to ignore repeat comments on this issue in future review cycles. The motion was seconded. The vote was taken by role call vote, as noted in the consensus voting table below. The vote results were: 21 Yes, 1 No, 6 Abstain. The motion carried.

Name	Representing	Status	Int cat	Not present	Vote 'Yes'	Vote 'No'	Abstain
Robert Bell	Acuity Brands Inc.	A	MP				
Maurits van der Hoorn	Acuity Brands Inc.	A	MP				
Kevin Loewen	Acuity Brands Inc.	P	MP		X		
Red Walter	ADJ Products, LLC	A	MP				
Nick Saiki	ADJ Products, LLC	P	MP				X
Jim Ohrberg	Candela Controls, Inc.	A	DR				
Michael Lay	Candela Controls, Inc.	A	DR				X
Andrew Mulkey	Candela Controls, Inc.	A	DR				
Bill Ellis	Candela Controls, Inc.	P	DR				
Jim Bogdanowicz	CHAUVET & Sons Inc.	A	MP	X			
Mark Primrose	CHAUVET & Sons Inc.	P	MP	X			
Jason Potterf	Cisco	P	MP		X		
Milton Davis	Doug Fleenor Design, Inc.	P	MP		X		

Name	Representing	Status	Int cat	Not present	Vote 'Yes'	Vote 'No'	Abstain
Daniel Lupfer	Dr. Phillips Performing Arts Center	P	U	X			
Ulrich Kunkel	E3 Engineering & Education for Entertainment GmbH	P	U				X
Steve Terry	Electronic Theatre Controls, Inc.	A	MP				
Michael Lichter	Electronic Theatre Controls, Inc.	A	MP				
Tracy S. Fitch	Electronic Theatre Controls, Inc.	P	MP		X		
Paul Kleissler	Environmental Lights	P	MP	X			
Adam Seidman	Environmental Lights	A	MP	X			
Robert Goddard	Goddard Design Co.	P	MP				X
Liang Zhiguang	Guangzhou Haoyang Electronic Co., Ltd.	P	CP				X
John David (Javid) Butler	HDR Consulting LLC	P	DE		X		
Peter Willis	Howard Eaton Lighting Ltd.	P	CP			X	
John Huntington	I.A.T.S.E. Local 1	A	U		X		
Edwin S. Kramer	I.A.T.S.E. Local 1	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				
Hans Lau	I.A.T.S.E. Local 728	P	U		X		
Shepherd Dick	Image Engineering	P	CP	X			
Dennis Armijo	Insight Lighting	A	MP	X			
Shawn Silverman	Lighting Infusion LLC	P	DE		X		
Sam Molitoriss	Lightwright LLC	P	MP				X
Michael Karlsson	LumenRadio AB	P	MP	X			
Stijn Geysen	Luminex Lighting Control Equipment	P	MP	X			
Rene Berhorst	MA Lighting	P	MP	X			
Leroy "Tripp" Oliver, III	Mainstage Theatrical Supply, Inc.	P	DR	X			
Scott M. Blair	Megapixel	P	CP		X		
Michael Howe	Michael Howe	I	U		X		
Florian Burtcher	Neutrik AG	A	MP				
Dietmar Rottinghaus	Neutrik AG	P	MP		X		
Matt Didon	ON LX Limited	P	CP	X			
Marcus Bengtsson	Original Syndicate	P	U	X			
Wayne David Howell	Robe Lighting s.r.o.	P	MP		X		
Thierry Dupont	Robert Juliat	P	MP		X		
Joe Izzard	Royal National Theatre	P	U		X		
Jon Hole	Signify	P	MP	X			
Maya Nigrosh	Sonos	P	MP		X		
Jim Love	Tait Towers Manufacturing LLC	A	MP				
Julian Hoare	Tait Towers Manufacturing LLC	A	MP				
Sam Kearney	Tait Towers Manufacturing LLC	A	MP				
Daniel Murfin	Tait Towers Manufacturing LLC	P	MP		X		

Name	Representing	Status	Int cat	Not present	Vote 'Yes'	Vote 'No'	Abstain
Phong Ho	The Light Source Inc.	A	MP		X		
Vincent Worley	The Light Source Inc.	P	MP				
Mitch Hefter	USITT	P	U		X		
Kevin Linzey	Vectorworks, Inc	A	CP				
Jeremy Powell	Vectorworks, Inc	P	CP		X		
Larry Dew	W.A. Benjamin Electric Co.	P	DE	X			
Paul Beasley	Walt Disney Company	P	U		X		
Eric Bloom	Westview Productions	P	DR		X		
Total votes possible:			40				
Total votes present for role call:			28		Yes	No	Abstain
Vote results:			Motion carried		21	1	6

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

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

The working group must decide which action to take at this meeting.

Maya Nigrosh reported that they recommend reaffirming this standard. There is a need to provide for prioritizing slot priority, but that would be another standard built on the ETC protocol. She recommended starting a new project for START code DD - DD is the ETC START Code that does this now, and ETC is willing to release their START code for this. She said the task group also has a recommendation that the NexGen task group implement support for it. Jason Potterf said he thought it was already addressed in Next Gen.

Michael Lay asked Maya Nigrosh and Richard Thompson to submit a project request, if desired.

Maya moved to reaffirm E1.31. The motion was seconded. A BSR8 will be filed, with a public review following soon thereafter. The motion will be answered by letter ballot after the public review closes.

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

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

Paul Beasley reported, they are making good progress, and are moving forward with 1-to-1, not 1-to-many, only valid for firmware transfers, not for other file transfers. They are making the standard as lean as possible while still keeping it useful. They might have it ready by October.

6.6 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.

Scott Blair reported, they've been meeting regularly, there were 25 PR comments, all are now resolved. The document is updated, but they couldn't make the 2-week deadline for this meeting, so it will be sent to the working group in October. There has been one contentious comment, it is the same as discussed earlier in this meeting.

Peter Willis noted that Michael Karlsson had previously supported his point of view.

6.7 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

Dan Murfin reported, he has a document to edit, they are meeting this evening. They have about 1/3 of the PIDs already in the list, and he is adding the text descriptions.

Peter Willis asked if the intent of this standard was to completely deprecate E1.37-2. Dan said yes.

6.8 BSR E1.68 Recommended Practice to address DMX512 compliance and interoperability

Javid Butler/Wayne Howell. Reflector: ProtocolsCompliance@esta.org.

Javid Butler reported. Based on Mitch's previous report on E1.11 they now have a clear direction, and will have a draft ready for the October meeting.

6.9 BSR E1.63 Network Advertisement of Entertainment Protocols

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

Jason Potterf reported, saying this has been idle for so long that he thought they needed a forcing function to move forward. He suggested scheduling a TG meeting for October to see if they want to move forward.

Mike Lay called for a 10-minute break at 10:26.

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

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

Dan Murfin reported, making good progress. He noted the key highlights of their progress.

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

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

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

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

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

Jason Potterf reported that the task group plans to use off-the-shelf protocols rather than inventing something new. They need to understand our security goals. This needs to support security natively, rather than as an add-on.

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

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

Kevin Loewen reported that they had a good task group meeting the previous Thursday. They hope to have something for October's meeting.

6.16 BSR E1.59 - 2021, Object Transform Protocol

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

Dan Murfin reported, they are making good progress, stressing that it's critical for us to align our work with SMPTE and their camera tracking work. Having to coordinate with them slows the process, but that coordination is essential. We need to plan to carry the data that they say must be carried.

Blair said that the SMPTE group is working on virtual production workflow. They are defining the data fields. We are working on the transport of those data fields.

Michael Lay expressed concern with how their input coming from non-working group members impacts the ANSI process. Karl Ruling said the issue is with copyrights. Dan assured everyone that they are aware of these concerns, and have been very careful. They have looked at our drafts, but they are not putting words in it.

6.17 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 and Wayne Howell

E1.37-x: Video Walls Scott Blair

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

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

BSR E1.37-8 Scott Blair and Dan Murfin

BSR E1.59: Dan Murfin and Maya Nigrosh

E1.63 NAEP: Jason Potterf and Kevin Loewen

E1.68: Javid Butler and Wayne Howell

E1.73: Dan Murfin and Sam Kearney

E1.77: Kevin Loewen and Paul Beasley

Next Gen Study Group: Jason Potterf and Maya Nigrosh

Plugfest Marketing Task Group: Michael Lay

NAMM Education Task Group: Milton Davis

Next Gen Transport study group: Maya Nigrosh and Jason Potterf

Protocol Security study group: Kevin Loewen and Paul Beasley

GitHub study group: Jason Potterf

6.18 Email reflectors

Maya Nigrosh

No report.

7 New business

8 Other business and announcements

8.1 National Electrical Code (NEC) update

Jason Potterf, Mitch Hefter, or Bill Ellis to report.

Mitch Hefter reported that NFPA (NEC) - Proposals for 2026 edition of the NEC are open now through 5pm EDT Sept 7, 2023. (Go to nfpa.org/70 for more info.) Panel meetings to address the proposals will be in Charleston, SC January 15 – 26. The meetings for Code Panel 15 are Jan 24 through 26, and overlapping with NAMM 1/25-28)

Jason added that the public proposal deadline is the last chance to introduce anything new. Do it now or wait three years.

8.2 Illuminating Engineering Society (IES) update

Bill Ellis or Mitch Hefter to report.

Mitch Hefter said there's no real news to report. Annual conference in a couple of weeks.

8.3 Institute of Electrical and Electronics Engineers (IEEE) update

Jason Potterf to report.

Jason Potterf reported. Ethernet is now 50 years old – the 50th anniversary was last month. It's interesting how ethernet has changed over the years, breaking backward compatibility many times. "Ethernet" began as a marketing brand for a series of incompatible standards.

He gave an update on the work being done for faster networks and multi-drop networks (daisy-chain), with 20 to 30 node networks over tens of meters. Bridges could be used to link to sections using technology supporting longer runs. Key points were:

- 802.3 DF will be capable of 800Mb -1.6Tb bandwidth.
- 802.3 DG single pair technology is moving along, with many industrial application. 10 Mb has been out for a while.
- 802.3 DA continues to make slow progress. Powering for multidrop networks is a challenge. Working out basics of segment length and number of drops.
- Nothing to report on 802.11.

He said Steve Carlson is retiring from 802.3 chairmanship, and his consulting work, moving on to the next chapter of his life.

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

Scott Blair or Marcus Bengtsson to report.

Scott Blair reported. They covered a lot of overlap in Dan Murfin's report. The other groups continue to be active. He'll try to have a more detailed report for October's meeting.

8.5 Plugfests

8.5.1 Europe

Plans are well advanced for the next European Plugfest to be held in April 2024, in Lille France. The event will be launched at PLASA London in September with announcement of dates, and details of a new extended format. Register your interest on the PLASA website.

Wayne Howell said this year's event was very successful.

8.5.2 USA

Save the date: Plugfest 2023 is scheduled for October 5 thru October 8 2023 at the Marriott Dallas/Fort Worth Westlake. If you are planning on attending, please email plugfest@esta.org to pre-register.

8.7 NAMM Presentations

Milton Davis reported, the planning process has started already. Anyone have suggestions or interest please contact Milton. He said that we're looking for 6-8 hours of educational programming, noting that there is a small stipend for presenters, and the presentations help ESTA a lot with NAMM.

8.8 Above & Beyond Awards

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

9 Schedule for future meetings

The full meeting schedule may be found at <http://www.esta.org/ESTA/meetings.php>. Fall meetings will return to Westlake again during the week of 2 October, for the fall meetings. The October meeting will include the Plugfest. Winter meetings will be held in conjunction with NAMM Show 2023, during the week of 22 January 2024, In Anaheim, CA.

Michael Lay said the cutoff date for documents is around the middle of September for 07 October meeting, date TBC.

Scott Blair asked for task groups needing meeting space to send it to him as soon as possible—today if you know today. Several task group leaders spoke up at this meeting, telling Scott what meetings they need.

10 Adjournment

Having reached the end of the agenda, Michael Lay declared the meeting adjourned at 11:27, thanking everyone for the huge amount of work being done. Keep up the good work!

Control Protocols Working Group members as of 22 July 2023

Name	Representing	Status	Int cat
Cameron Affleck	Cameron Affleck	O	U
Christian Allabauer	Christian Allabauer	O	G
Ali Alnajjar	Carallon Ltd.	O	MP
Matthew Ardine	I.A.T.S.E. Local 728	A	U
Dennis Armijo	Insight Lighting	A	MP
Benjamin Eagen Arrigo	Benjamin Eagen Arrigo	O	U
Nick Ballhorn-Wagner	Electronic Theatre Controls, Inc.	O	MP
Robert Barbagallo	Solotech Inc.	O	U
Paul Beasley	Walt Disney Company	P	U
Robert Bell	Acuity Brands Inc.	A	MP
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
Jim Bogdanowicz	CHAUVET & Sons Inc.	A	MP
Thomas Bretgeld	Bretgeld Engineering GmbH	O	CP
Florian Burtcher	Neutrik AG	A	MP
Justyn Butler	JBOTS	O	CP
John David (Javid) Butler	HDR Consulting LLC	P	DE
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
Jon Chuchla	Audio Visual Systems, Inc.	O	G
Kenny Cohen	Lightwright LLC	A	MP
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
Al DeMayo	LiteGear, Inc.	O	MP
Steve Denim	Electronic Theatre Controls, Inc.	O	MP
Larry Dew	W.A. Benjamin Electric Co.	P	DE
Matthew Dews	Matthew Dews	O	MP
Shepherd Dick	Image Engineering	P	CP
Matt Didon	ON LX Limited	P	CP
Rich Dionne	Purdue University	O	DE
Gary Douglas	Phospec Industries, Inc.	O	MP
Tucker Downs	ROE Visual USA	O	MP
Tom Drozd	Encore Global	O	DR

Control Protocols Working Group members as of 22 July 2023

Name	Representing	Status	Int cat
Hamish Dumbreck	James Embedded Systems Engineering	O	MP
Thierry Dupont	Robert Juliat	P	MP
James Eade	ABTT	O	G
Bill Ellis	Candela Controls, Inc.	P	DR
Paul K. Ericson	Stantec	O	DE
Tracy S. Fitch	Electronic Theatre Controls, Inc.	P	MP
Trevor Forrest	Helvar Lighting Control	O	MP
Harrison Freni	Infinitus Lux, LLC	O	U
Stijn Geysen	Luminex Lighting Control Equipment	P	MP
Robert Goddard	Goddard Design Co.	P	MP
Nicolas Goerg	Rosco Laboratories	O	CP
David Gooch	Chauvet Lighting	O	MP
Sean Goossen	LiteGear, Inc.	O	MP
Jerry Gorrell	Theatre Safety Programs	O	G
Robert Graham	Wenger Corporation	O	DR
Andrew Grant	Royal National Theatre	O	U
Matt Halberstadt	Electronic Theatre Controls, Inc	O	MP
Sean Harding	Port Lighting Systems	O	G
Nick Harper	Nick Harper	O	G
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
Maurits van der Hoorn	Acuity Brands Inc.	A	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.	P	DR
Joe Izzard	Royal National Theatre	P	U
Quinten James	QtoCue Lighting Design	O	U
Eric Johnson	Eric Johnson	O	G
Rob Johnston	Interactive Technologies, Inc.	O	MP
John Valus Jr.	Lex TM3	O	CP
David Kane	I.A.T.S.E. Local 728	A	U
Michael Karlsson	LumenRadio AB	P	MP
Sam Kearney	Tait Towers Manufacturing LLC	A	MP
Jonathan Kemble	Jonathan Kemble	O	G
Chris Kennedy	Chauvet Lighting	O	MP
Bill Kirby	Crescit Software, Inc.	O	G
Paul Kleissler	Environmental Lights	P	MP

Control Protocols Working Group members as of 22 July 2023

Name	Representing	Status	Int cat
Lucas Korytkowski	Insight Lighting	O	MP
Edwin S. Kramer	I.A.T.S.E. Local 1	P	U
Christian Krueger	Blizzard Lighting LLC	O	MP
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
Hans Leiter	Electronic Theatre Controls, Inc.	O	MP
Jon Lenard	Applied Electronics	O	MP
Michael Lichter	Electronic Theatre Controls, Inc.	A	MP
Kevin Linzey	Vectorworks, Inc	A	CP
Kevin Loewen	Acuity Brands Inc.	P	MP
Jim Love	Tait Towers Manufacturing LLC	A	MP
Rob Love	Insight Lighting	O	MP
Daniel Lupfer	Dr. Phillips Performing Arts Center	P	U
Vangelis Manolis	AtlaBase Ltd.	O	CP
Kevin Matz	Company 235, LLC	O	U
David McCulloch	David McCulloch	O	U
John Mehlretter	Lehigh Electric Products Co.	O	MP
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
Gavin Nel	Robe Lighting s.r.o.	O	MP
Maya Nigrosh	Sonos	P	MP
Jim Ohrberg	Candela Controls, Inc.	A	DR
Jaxon Patterson	Insight Lighting	O	MP
Soren Sterdorff Peglau	Brother, Brother and Sons	O	MP
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
Charles Reese	Production Resource Group	O	DR
Jake Rhodes	Altman Lighting	O	MP
Dietmar Rottinghaus	Neutrik AG	P	MP
Alan M. Rowe	I.A.T.S.E. Local 728	A	U
Nick Saiki	ADJ Products, LLC	P	MP
Yngve Sandboe	Sand Network Systems, Inc.	O	MP
Jessica Sanders	Villain Lighting LLC	O	U
Max Schweiner	Electronic Theatre Controls, Inc.	O	MP

Control Protocols Working Group members as of 22 July 2023

Name	Representing	Status	Int cat
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
Tom Steer	Electronic Theatre Controls, Inc	O	MP
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
Robert Timmerman	Signify	O	MP
Scott Tusing	Angry Otter Lighting, LLC	O	U
Tracy Underhill	Triple C Lighting & Controls	O	G
Carlo Venturati	Clay Paky S.P.A.	O	MP
Will Wagner	Carallon Ltd.	O	MP
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
Loren Wilton	Showman Systems	O	CP
Sebastian Wissmann	Inoage GmbH	O	MP
Vincent Worley	The Light Source Inc.	P	MP
David Yellin	Sumolight GmbH	O	MP
Jeong Sik Yoo	Ghost LX	O	DE
Liang Zhiguang	Guangzhou Haoyang Electronic Co., Ltd.	P	CP