

Minutes Control Protocols Working Group

Thursday, 20 March 2008
Hilton Americas Houston
Houston, Texas.

Chairmen: Tracy Underhill; Electronics Diversified LLC; P; MP
Michael Lay; Strand Lighting (Royal Philips Electronics); P; MP

Recording secretary: Karl G. Ruling; ESTA

Members attending:

Jean-Francois Canuel; Spectrum Manufacturing Inc. (A.C. Lighting Ltd.); P; CP
Arnold Tang; Arnold Tang Productions; O/P; U (change of voting status late in the meeting)
Edward A. (Ted) Paget; Vortek Rigging Division (Daktronics Inc.); P; G
Ulrich Kunkel; E3 Engineering & Education for Entertainment, representing the DIN NVBF Committee; P; U
Doug Fleenor; Doug Fleenor Design, Inc.; P; MP
Daniel W. Antonuk; Electronic Theatre Controls, Inc.; P; MP
Steve Terry; Electronic Theatre Controls, Inc.; A; MP
Philip Nye; Engineering Arts; P; G
Scott M. Blair; High End Systems Inc.; P; MP
Alan Martello; Horizon Control Inc.; P; MP
Edwin S. Kramer; I.A.T.S.E. Local 1; P; U
John Huntington; City Tech, Ent Tech Department, representing I.A.T.S.E. Local 1; A; U
Roger Lattin; I.A.T.S.E. Local 728; P; U
John (Javid) D. Butler; Integrated Theatre, Inc.; P; CP
Rick Leinen; Colortran (Leviton Manufacturing Co., Inc.); P; MP
Tyrone Mellon Jr.; Lex Products Corp.; P; CP
Gary Pritchard; LSC Lighting Systems (Aust) PTY Ltd; O; MP
Stuart Cotts; Oregon Shakespeare Festival; P; U
Robert Armstrong; Pathway Connectivity Inc.; A; MP (joined late in the meeting)
Kevin Loewen; Pathway Connectivity Inc.; P; MP
Ron Bonner; PLASA; P; G
Robert Tooker; Production Resource Group; A; DR
Hans Lau; Sand Network Systems, Inc.; P; MP
Kimberly Corbett; Schuler Shook; P; G
Kehang Wu; Shure Inc.; O/A; G (changed voting status late in the meeting)
Dominic Vincenty; TPS (Television Production Service); O; DR
Mitch Hefter; Entertainment Technology (Royal Philips Electronics), representing USITT; P; U
Eric Cornwell; West Side Systems; O; U

Visitors: None

1 Opening remarks

Michael Lay called the meeting to order and welcomed everyone at 09:01. He then turned the meeting over to Tracy Underhill.

2 Attendance

2.1 Introductions of those present and circulation of attendance sheet

Karl Ruling explained how to fill in the blue attendance sign-in sheet. The sheet was circulated while those present introduced themselves.

2.2 Determination of a quorum

Tracy Underhill asked for voters to raise a hand. He counted the upraised hands, and then announced that a quorum was present and business could be conducted.

2.3 Recognition of alternate voting members

Tracy Underhill reminded voters that if two representatives from a company or organization were present, only one may vote on any particular question.

3 Membership

3.1 Requirements for membership

Tracy Underhill read the following statement aloud to the assembly:

"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 Processing of new membership requests and reaffirmation of members with new companies

Michael Lay of Strand Lighting had submitted an application so that the new ownership of his company could be recognized. Strand Lighting had been owned by Genlyte LLC, but Genlyte had been purchased by Royal Philips Electronics, so Royal Philips Electronics was now the new parent company for Strand Lighting.

Ted Paget moved the Michael Lay's application be accepted. The motion was seconded and then approved with a unanimous show of hands.

The full consensus body, including those not present, for the meeting, until the new membership applications and voting status changes in 9.1 under New Business, was:

Name	Company	Representing	Voting status	Int. cat.
Jean-Francois Canuel	Spectrum Manufacturing Inc.	A.C. Lighting Ltd.	P	CP
Wayne David Howell	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	P	CP
Simon Hobday	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	A	CP
Edward A. (Ted) Paget	Vortek Rigging Division	Daktronics Inc.	P	G
Ulrich Kunkel	E3 Engineering & Education for Entertainment	DIN, NVBF Committee	P	U
Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	P	MP
Ken Wagner	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP
Milton Davis	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP
Daniel W. Antonuk	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	P	MP
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	MP
Tracy Underhill	Electronics Diversified LLC	Electronics Diversified LLC	P	MP
Philip Nye	Engineering Arts	Engineering Arts	P	G
Robert Goddard	Goddard Design Co.	Goddard Design Co.	P	MP
Scott M. Blair	High End Systems Inc.	High End Systems Inc.	P	MP
Tom Grimes	High End Systems, Inc.	High End Systems, Inc.	A	MP
Alan Martello	Horizon Control Inc.	Horizon Control Inc.	P	MP
Gary Douglas	Horizon Control Inc.	Horizon Control Inc.	A	MP
Robert Bell	Horizon Control Inc.	Horizon Control Inc.	A	MP
Peter Willis	Howard Eaton Lighting Ltd.	Howard Eaton Lighting Ltd.	P	CP
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
John Huntington	City Tech, Ent Tech Department	I.A.T.S.E. Local 1	A	U

Name	Company	Representing	Voting status	Int. cat.
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Alan M. Rowe	IATSE Local 728	I.A.T.S.E. Local 728	A	U
Dennis Grow	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
John (Javid) D. Butler	Integrated Theatre, Inc.	Integrated Theatre, Inc.	P	CP
Michael (Mike) Whetstone	Integrated Theatre, Inc.	Integrated Theatre, Inc.	A	CP
Rick Leinen	Colortran	Leviton Manufacturing Co., Inc.	P	MP
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	A	MP
Tyrone Mellon Jr.	Lex Products Corp.	Lex Products Corp.	P	CP
Stuart Cotts	Oregon Shakespeare Festival	Oregon Shakespeare Festival	P	U
Kevin Loewen	Pathway Connectivity Inc.	Pathway Connectivity Inc.	P	MP
Dave Higgins	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP
Ron Bonner	PLASA	PLASA	P	G
Charles Reese	Production Resource Group	Production Resource Group	P	DR
Robert Tooker	Production Resource Group	Production Resource Group	A	DR
Michael Lay	Strand Lighting	Royal Philips Electronics	P	MP
Hans Lau	Sand Network Systems, Inc.	Sand Network Systems, Inc.	P	MP
Yngve Sandboe	Sand Network Systems, Inc.	Sand Network Systems, Inc.	A	MP
Kimberly Corbett	Schuler Shook	Schuler Shook	P	G
Mark Manthei	Shure Inc.	Shure Inc.	P	G
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)	USITT	P	U
		Total votes possible	26	
		Votes by interest category	5	CP
			10	MP
			1	DR
			5	U
			5	G

4 Approval of the minutes from the previous meeting

See CP/2008-1001, file name CPmin01-2008.pdf.

Steve Terry moved that the draft minutes of the previous meeting be accepted as written. The motion was seconded and then approved with a show of hands.

5 Reading of the call for patents

Tracy Underhill 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 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."

No protected intellectual property was brought to the attention of the assembly.

6 The reading of the anti-trust statement

Tracy Underhill read the following statement aloud to the assembly:

"The ESTA Board of Directors, the Technical Standards Committee, and the leadership of this working group will reject or nullify any actions that unlawfully restrain trade. Anyone who feels

that such an action is being or has been taken is requested to bring that matter to the attention of the chair immediately. Anyone who feels that actions in restraint of trade have been taken and not properly annulled is requested to notify the TSC chair or ESTA president immediately.

"ESTA legal counsel has informed us that violations of the anti-trust laws can have serious consequences. Individuals engaged in certain unlawful conduct can be found criminally liable. An individual convicted of a criminal violation of the Sherman Act may be fined as much as \$1,000,000 and imprisoned for up to ten years. An easy to read pamphlet describing restraint of trade issues is available from the Technical Standards Manager."

Karl Ruling, the Technical Standards Manager, held up one of the easy-to-read pamphlets. No restraint of trade issues were brought to the attention of the assembly.

7 Approval of agenda

It was suggested that we should discuss session ideas for conferences and trade shows under Other Business. Ted Paget moved that the agenda with this addition be accepted. The motion was seconded and then approved with a show of hands.

8 Old business

8.1 ANSI E1.3-2001 (R2006)

No news. No action needed.

8.2 E1.11/DMX512-A Recommended Practice

Steve Terry reported that on Monday (March 17) Adam Bennette had issued draft 15 to the review task group. He said that the document "is pretty far along." One thing that he had noticed was that PLASA is listed as the holder of the copyright. This is a hold-over from the original version. He questioned how this affects the publication and sales.

Tracy Underhill said that Ron Bonner and Mitch Hefter should sort out any issues related to the copyright and publication of the recommended practice.

8.3 BSR E1.11 - 20xx (revision of ANSI E1.11 - 2004)

Karl Ruling reported on first review letter ballot. He said that a few ballots were still outstanding, and that the ballot period closes at the end of today (20 March).

8.4 BSR E1.20-20xx, Remote Device Management (revision of ANSI E1.20 - 2006)

There was discussion of the progress with the revision project. Ruling said that he'd filed the PINS announcing the start of the project with ANSI, and that the working group had a list of errors and descriptions of how they should be changed, but what he needed for a public review document was a document that said specifically what was going to be changed in the standard to correct the errors.

There was a discussion of whether the way forward should be by waiting for the revision document to be submitted at a meeting, and then to entertain a motion on it, or for someone to make a motion on the unseen document now. The appropriate next step would be for a first public review of the revisions, and the vote on that must be by letter ballot, in any case, so voters will have 28 days to review the document, and there will be a recirculation of the written objections if any one has any.

Steve Terry moved that the revision document be offered for a first public review. The motion was seconded. The motion will be decided by letter ballot. The ballot and revision document will sent to the working group voters whenever Scott Blair gets it done and submits it to the Technical Standards Manager.

8.5 E1.17 Multipurpose Control Network Protocol Suite

It's published, but there are problems with it. Parts of the document are impossible to search, and Dan Antonuk has been compiling a list of errata. See the minutes of the March 2007 meeting.

Dan Antonuk moved that we start a project to revise ANSI E1.17. The motion was seconded. The motion was approved by a unanimous show of hands.

Dan Antonuk then moved that the E1.17 errata and revision documents be offered for a first public review. The motion was seconded. The motion will be decided by letter ballot.

8.6 E1.27-X, cabling

8.6.1 ANSI E1.27-1-2006 (portable DMX512/E1.11 cabling)

No news, said Javid Butler. No action needed.

8.6.2 BSR E1.27-2 (permanent DMX512/E1.11 cabling)

8.6.2.1 Continuation of the motion to make it a recommended practice

(See 8.6.2 in the minutes of the January meeting.)

There was further discussion. Steve Terry moved the previous question, and the debate ended with support of more than 2/3rds the working group present.

The motion from the previous meeting was read aloud:

"Ted Paget moved that the permanent cabling document take the form of a recommended practice rather than a standard and that the method of publishing the recommended practice be determined at a later date."

By a show of hands, 14 voted Yes, 3 voted No, and 5 abstained. The motion passed with a simple majority.

8.6.2.2

Philip Nye moved that public review comment 1 be accepted, thus abandoning the project. The motion was seconded. Tracy Underhill read comment 1 aloud to the meeting:

General Withdraw the draft and do not proceed with an ESTA DMX512 permanent cabling standard.

Substantiation: The scope and content of this document are fatally flawed. In its current form, the document attempts to be both prescriptive and permissive at the same time. The standard attempts to define and specify a cable plan for permanent installation in a building, but it wanders at various points into requirements for the actual equipment connecting to that cable plan.

Here is the problem: We have at least 21 years of worldwide installed base of DMX512 cable plans. These installations include a huge variety of successful engineering solutions, many of which are not covered by this draft standard or are in direct conflict with the content of the draft. It is fine to state that "compliance with this standard is strictly voluntary", but that is not how the entertainment industry operates in 2007. The appearance of this standard will make its contents the de facto "right" way to install a cable plan, not simply "one option you have for installing a cable plan". By being overly prescriptive in certain areas, it limits the available engineering solutions, without fundamentally improving system interoperability, reliability, simplicity, or cost effectiveness.

For instance, the number of pairs wired to a DMX512 connector is specified in section 6. We will address the specifics of this in a subsequent comment, but it highlights one of the major problems with issuing this type of prescriptive standard 21 years after DMX512 was adopted. We have been waiting 21 years for a standardized use of pins 4 and 5 to emerge, yet none has surfaced. So, the standard prescribes an approach that is, for all intents and purposes, at odds with

the reality of the vast majority of installed systems. As an example of this, ETC, which is one of the largest manufacturers and system installers in the world, has provided only one pair on DMX connectors in more than 25 thousand installations worldwide. So, as written, the standard is attempting to define a “new and better” cable plan, which is grossly at odds with a very high percentage of current practice.

The *raison d’être* for E1.27 as a separate standard is that the E1.11 Task Group and the ESTA CPWG could not achieve consensus on many of the very issues that are contentious in the current draft. In an effort to break a logjam of more than five years that was preventing a sorely needed revision of DMX512, the CPWG voted to remove all references to cabling from E1.11. The problem is that many of those issues that created the logjam for E1.11 have simply been transferred to the draft of E1.27-2. The likelihood of achieving consensus on these issues has not improved, and causes the draft to be a weak document in attempting to be prescriptive and permissive simultaneously, presumably in an attempt to build a consensus that will be difficult or impossible to achieve.

There is no good solution to this. The unfortunate reality is that this is simply an area where a standard does not belong 21 years after the adoption of DMX512. The failure of this type of content to achieve consensus in any version of E1.11 proves this point.

Dan Antonuk
Electronic Theatre Controls

There was discussion of the merits of the motion, which included the following arguments.

Javid Butler defended the document, and argued that the removal of the requirement for pins 4 and 5 to be wired, which was done at the last meeting, removed the major objection to the document.

Mitch Hefter said that Adam Bennette's recommended practice document removes most of the need of the BSR E1.27-2 document. Eddie Kramer said that Adam Bennette's book is not a substitute for a document from ESTA.

Steve Terry spoke in favor of Philip Nye's motion. He argued that whatever the document says it will contradict some accepted practice that works. He questioned who it might benefit.

Nye asked if there are some universally condemned bad practices against which we might publish an edict. Nye questioned whether the people doing bad cabling schemes would read this document. They are more likely to read Bennette's document or nothing at all.

Javid Butler said that there are some people writing specifications that need this guidance.

Doug Fleenor said he would like to see what the document would look like as an RP before voting to abandon the product.

Rob Tooker said that every day or week at PRG they see people who don't understand the protocol, particularly where DMX512 is being used in architectural applications.

Dan Antonuk spoke in favor of Javid's work on this document, which has largely been done alone. The CPWG, if it chooses to continue with this project, must give him better support, he argued. None of our documents are so easy to write that they can be done by one person.

Arnold Tang spoke on the proliferation of proprietary documents describing cabling. He said he felt that the industry needs an authority, and that authority needs to be the publisher of E1.11, which is ESTA.

Kimberly Corbett spoke of the problem that she has in writing specs. Without a standard she has to refer to the manufacturer's wiring recommendations, which she says doesn't give much guidance.

Dimming systems sometimes get sent to a theatrical contractor, who, she says, can do it right, but sometimes are given to the low-bidder electrical contractor, who often doesn't have a clue.

The question was decided by a roll call ballot:

Name	Company	Representing	Voting status	Int. Cat.	Yes	No	Abstain
Jean-Francois Canuel	Spectrum Manufacturing Inc.	A.C. Lighting Ltd.	P	CP	Y		
Wayne David Howell	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	P	CP			
Simon Hobday	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	A	CP			
Edward A. (Ted) Paget	Vortek Rigging Division	Daktronics Inc.	P	G		Y	
Ulrich Kunkel	E3 Engineering & Education for Entertainment	DIN, NVBF Committee	P	U	Y		
Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	P	MP		Y	
Milton Davis	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP			
Ken Wagner	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP			
Daniel W. Antonuk	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	P	MP	Y		
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	MP			
Tracy Underhill	Electronics Diversified LLC	Electronics Diversified LLC	P	MP		Y	
Philip Nye	Engineering Arts	Engineering Arts	P	G	Y		
Robert Goddard	Goddard Design Co.	Goddard Design Co.	P	MP			
Scott M. Blair	High End Systems Inc.	High End Systems Inc.	P	MP		Y	
Tom Grimes	High End Systems, Inc.	High End Systems, Inc.	A	MP			
Alan Martello	Horizon Control Inc.	Horizon Control Inc.	P	MP		Y	
Robert Bell	Horizon Control Inc.	Horizon Control Inc.	A	MP			
Gary Douglas	Horizon Control Inc.	Horizon Control Inc.	A	MP			
Peter Willis	Howard Eaton Lighting Ltd.	Howard Eaton Lighting Ltd.	P	CP			
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U		Y	
John Huntington	City Tech, Ent Tech Department	I.A.T.S.E. Local 1	A	U			
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U		Y	
Dennis Grow	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U			
Alan M. Rowe	IATSE Local 728	I.A.T.S.E. Local 728	A	U			
John (Javid) D. Butler	Integrated Theatre, Inc.	Integrated Theatre, Inc.	P	CP		Y	
Michael (Mike) Whelstone	Integrated Theatre, Inc.	Integrated Theatre, Inc.	A	CP			
Rick Leinen	Colortran	Leviton Manufacturing Co., Inc.	P	MP		Y	
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	A	MP			
Tyrone Mellon Jr.	Lex Products Corp.	Lex Products Corp.	P	CP		Y	
Stuart Cotts	Oregon Shakespeare Festival	Oregon Shakespeare Festival	P	U		Y	
Kevin Loewen	Pathway Connectivity Inc.	Pathway Connectivity Inc.	P	MP		Y	
Dave Higgins	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP			
Ron Bonner	PLASA	PLASA	P	G	Y		
Charles Reese	Production Resource Group	Production Resource Group	P	DR			
Robert Tooker	Production Resource Group	Production Resource Group	A	DR		Y	
Michael Lay	Strand Lighting	Royal Philips Electronics	P	MP			Y
Hans Lau	Sand Network Systems, Inc.	Sand Network Systems, Inc.	P	MP		Y	
Yngve Sandboe	Sand Network Systems, Inc.	Sand Network Systems, Inc.	A	MP			
Kimberly Corbett	Schuler Shook	Schuler Shook	P	G		Y	
Mark Manthei	Shure Inc.	Shure Inc.	P	G			
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)	USITT	P	U		Y	
			Total votes		5	16	1
			Votes by interest categories	5	CP	1	2
				10	MP	1	7
				1	DR		1
				5	U	1	4
				5	G	2	2

The motion failed with 5 voting Yes, 16 voting No, and 1 abstaining.

The sense of the group was that we need to have a modified E1.27-2 document by the July working group meeting. This document would be written as a recommended practice, with less stringent wording than the last public review document had.

8.7 **BSR E1.30, Application level equipment interoperability for control of commonly encountered entertainment technology devices using E1.17**

Karl Ruling said that the letter ballot for the first public review of a series of documents making up parts of BSR E1.30 was still open, and that he would accept the paper ballots here. Many were handed to him.

Ruling reminded voters that principals and alternates can vote with equal weight but that only one vote per voting entity (company or organization) counts. If he receives multiple ballots and they do not agree, he will accept a principal's ballot over any alternate, and, if multiple alternates vote but no principal, the last vote over the previous ones, but he will contact the voters to ask them to sort it out and to come to a single, unified vote.

Eddie Kramer had voted No on several of the EPIs because of errors in the documents, specifically:

EPI 23 - P2&3 the table of contents -bad formatting
P9 Bad reference
>[DMPaddBehavior] Error: no bibliography entry: DMPaddBehavior found
>in Standards:/references.docbook

EPI 24 - P2 Missing table of contents
P9 Bad reference
>[DMPaddBehavior] Error: no bibliography entry: DMPaddBehavior found
>in Standards:/references.docbook

EPI 26 - P2 Wrong Copyright
>Copyright © 2007 Philip Nye, Engineering Arts
>(UK) <http://www.engarts.com/> . All rights reserved

EPI 28 - P2 Missing table of contents
P9 Bad reference
>[DMPaddBehavior] Error: no bibliography entry: DMPaddBehavior found
>in Standards:/references.docbook

EPI 30 - P12 Bad reference
>[DMPaddBehavior] Error: no bibliography entry: DMPaddBehavior found
>in Standards:/references.docbook

EPI 31 - P2 Missing table of contents
P7 Bad reference
>[DMPaddBehavior] Error: no bibliography entry: DMPaddBehavior found
>in Standards:/references.docbook

P7 Missing reference - There is none for MIDI - does one belong here?

Kramer's objections were discussed. He was assured by Dan Antonuk and Philip Nye that the errors would be corrected and would not be in the public review documents. Kramer changed his vote to Yes. All the other ballots returned by this time had been Yes.

8.8 **BSR E1.31, Lightweight streaming protocol for transport of DMX512 using ACN**

Dan Antonuk reported that Charles Reese was frustrated that E1.31 is not done. He is unhappy that it has been delayed by tying it to E1.33. Reese would really like the task group to focus on getting E1.31 done immediately, and then focus on E1.33. Antonuk asked that the action taken at the last meeting of merging the E1.33 and E1.31 projects be revisited. There was discussion of the advantages and disadvantages of merging the projects.

Steve Terry moved that the motion of the previous meeting (adding the goals of E1.33 to the E1.31 project) be reversed, and that the revised draft standard only incorporate the transmission of DMX512 data, not RDM messages, as was the original purpose of the E1.31 project. The motion was seconded, and then passed on a show of hands, with 17 voting Yes, 3 voting No, and 2 abstaining. This was a supermajority.

Dan Antonuk moved that we offer the resolutions and revised E1.31 standard for a vote for the acceptance of the resolutions and a public review of the revised draft standard. The documents that were the subject of these motions had not been submitted to the working group, so he offered that the vote shall be by letter ballot or at the next meeting, whichever would result in a decision sooner. The motion was seconded. The motion will be decided by letter ballot or by a roll call vote at the next meeting, to be determined by the timing of the availability of the documents.

8.9 BSR E1.33-200x, Extensions to E1.31 for Transport of ANSI E1.20 (RDM)

This was discussed under item 8.8. The actions there made this an active, independent project again.

8.10 BSR E1.37-200x—Additional Message Sets for ANSI E1.20, Remote Device Management

Scott Blair reported that Peter Willis is working on this.

9 New business

9.1 Late changes to the membership

It was noticed that Kehang Wu was in attendance, but had not been able to vote on behalf of Shure because of his observer status. With Wu's permission, Philip Nye moved that Kehang Wu be made an alternate voter for Shure. The motion was seconded and then approved with a show of hands.

Robert Armstrong submitted an application to join as an alternate voter for Pathway Connectivity. Kevin Loewen moved that his application be accepted. The motion was seconded and then approved with a show of hands.

Arnold Tang asked to be moved from observer to principal voting status. Javid Butler so moved. The motion was seconded and then approved with a show of hands.

The complete voting body from this point on was:

Name	Company	Representing	Voting status	Int. cat.
Jean-Francois Canuel	Spectrum Manufacturing Inc.	A.C. Lighting Ltd.	P	CP
Arnold Tang	Arnold Tang Productions	Arnold Tang Productions	P	U
Wayne David Howell	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	P	CP
Simon Hobday	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	A	CP
Edward A. (Ted) Paget	Vortek Rigging Division	Daktronics Inc.	P	G
Ulrich Kunkel	E3 Engineering & Education for Entertainment	DIN, NVBF Committee	P	U
Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	P	MP
Ken Wagner	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP
Milton Davis	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP
Daniel W. Antonuk	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	P	MP
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	MP
Tracy Underhill	Electronics Diversified LLC	Electronics Diversified LLC	P	MP
Philip Nye	Engineering Arts	Engineering Arts	P	G
Robert Goddard	Goddard Design Co.	Goddard Design Co.	P	MP
Scott M. Blair	High End Systems Inc.	High End Systems Inc.	P	MP
Tom Grimes	High End Systems, Inc.	High End Systems, Inc.	A	MP

Name	Company	Representing	Voting status	Int. cat.
Alan Martello	Horizon Control Inc.	Horizon Control Inc.	P	MP
Gary Douglas	Horizon Control Inc.	Horizon Control Inc.	A	MP
Robert Bell	Horizon Control Inc.	Horizon Control Inc.	A	MP
Peter Willis	Howard Eaton Lighting Ltd.	Howard Eaton Lighting Ltd.	P	CP
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
John Huntington	City Tech, Ent Tech Department	I.A.T.S.E. Local 1	A	U
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Alan M. Rowe	IATSE Local 728	I.A.T.S.E. Local 728	A	U
Dennis Grow	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
John (Javid) D. Butler	Integrated Theatre, Inc.	Integrated Theatre, Inc.	P	CP
Michael (Mike) Whetstone	Integrated Theatre, Inc.	Integrated Theatre, Inc.	A	CP
Rick Leinen	Colortran	Leviton Manufacturing Co., Inc.	P	MP
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	A	MP
Tyrone Mellon Jr.	Lex Products Corp.	Lex Products Corp.	P	CP
Stuart Cotts	Oregon Shakespeare Festival	Oregon Shakespeare Festival	P	U
Robert Armstrong	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP
Kevin Loewen	Pathway Connectivity Inc.	Pathway Connectivity Inc.	P	MP
Dave Higgins	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP
Ron Bonner	PLASA	PLASA	P	G
Charles Reese	Production Resource Group	Production Resource Group	P	DR
Robert Tooker	Production Resource Group	Production Resource Group	A	DR
Michael Lay	Strand Lighting	Royal Philips Electronics	P	MP
Hans Lau	Sand Network Systems, Inc.	Sand Network Systems, Inc.	P	MP
Yngve Sandboe	Sand Network Systems, Inc.	Sand Network Systems, Inc.	A	MP
Kimberly Corbett	Schuler Shook	Schuler Shook	P	G
Mark Manthei	Shure Inc.	Shure Inc.	P	G
Kehang Wu	Shure Inc.	Shure Inc.	A	G
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)	USITT	P	U
		Total votes possible	27	
		Votes by interest category	5	CP
			10	MP
			1	DR
			6	U
			5	G

9.2 Performance testing of lighting control devices

Tracy Underhill spoke on the possible need for testing standards to demonstrate compliance with California Title 24 energy saving requirements. This might be something for this working group to undertake. No motion was offered.

9.3 Recommendation that TSC make standards freely available.

Alan Martello moved that the CPWG ask that the TSC to reconsider selling the standards and to consider offering them in a non-printable, non-downloadable form for free on the web. The motion was seconded. There was discussion.

Mitch Hefter suggested putting the scopes and tables of contents on the website for free. Ted Paget supported this idea, and pointed out the loss of revenue that would result in giving away the standards for free. Ruling said that the sales of TSP documents brings in about \$12,000 annually.

Javid Butler pointed out that the ASHRAE 90.1 standard can be read but not downloaded or printed, with the use of a RealRead Viewer plug-in. He finds this useful in his work, and thinks this is a good compromise.

Eddie Kramer pointed out that IEEE for a period of time made 802.3 for free because a major manufacturer donated money equal to the projected loss of revenue. There was discussion of allowing companies to underwrite the free distribution of ESTA standards. The companies would donate to the TSP an amount equal to the lost revenue resulting from the free give-away.

The motion was approved with a show of hands.

10 Other business—LDI session ideas.

A hands-on networking class was discussed.

11 Schedule for future meetings

Tracy Underhill announced that the next meeting is scheduled for Saturday, 19 July 2008, from 09:00 to 13:00, at Pace University in New York City.

12 Changes to observer status due to lack of attendance

Voting members who have missed the previous two meetings and were moved to observer status: None.

13 Adjournment.

Steve Terry moved that the meeting adjourn. The motion was seconded. The motion was accepted with a unanimous show of hands. Tracy Underhill declared the meeting adjourned at 12:19.

Membership and Contact Information as of Friday, 18 April 2008

Name	Company	Representing (This is the sort field.)	Voting status	Int. Cat.
Jean-Francois Canuel	Spectrum Manufacturing Inc.	A.C. Lighting Ltd.	P	CP
Tim Bachman	A.C.T Lighting, Inc.	A.C.T Lighting, Inc.	O	DR
Andre Broucke	ADB - TTV Technologies	ADB-TTV Group	O	MP
John Sellers	AIM Northwest	AIM Northwest	O	G
Arnold Tang	Arnold Tang Productions	Arnold Tang Productions	P	U
Wayne David Howell	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	P	CP
Simon Hobday	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	A	CP
Steve Friedlander	Auerbach Pollock Friedlander	Auerbach Pollock Friedlander	O	U
J. B. Toby	Avolites Ltd.	Avolites Ltd.	O	MP
Richard Salzedo	Avolites Ltd.	Avolites Ltd.	O	MP
Shahid Anwar	Avolites Ltd.	Avolites Ltd.	O	MP
Barbara Wohlsen	Barbara Wohlsen	Barbara Wohlsen	O	U
Tobin Neis	Barbizon Companies	Barbizon Companies	O	DR
Jiantong Wu	Beijing Special Engineering Design & Research Institute	Beijing Special Engineering Design & Research Institute	O	G
Bernardo Benito Rico	Ben-Ri Electronica S.A.	Ben-Ri Electronica S.A.	O	MP
Lee J. Bloch	Bloch Design Group, Inc.	Bloch Design Group, Inc.	O	G
Soo-Myong Chung	Bloch Design Group, Inc.	Bloch Design Group, Inc.	O	G
Bill Ellis	Candela Controls, Inc.	Candela Controls, Inc.	O	U
Will Wagner	Carallon Ltd.	Carallon Ltd.	O	MP
Steve Roberts	Carr & Angier	Carr & Angier	O	G
Bob Toms	Catalyst Microsystems LLC	Catalyst Microsystems LLC	O	G
Marty Lazarus	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	O	G
Chuck Seifried	Phoenix Civic Plaza	City of Phoenix	O	U
Larry Dunn	City Theatrical, Inc.	City Theatrical, Inc.	O	CP
Fabiano Pina	Clay Paky S.P.A.	Clay Paky S.P.A.	O	MP
Yehuda Shukram	Compulite Systems	Compulite Systems	O	MP
Dietmar Rottinghaus	Connex GmbH	Connex GmbH	O	G
Edward A. (Ted) Paget	Vortek Rigging Division	Daktronics Inc.	P	G
David Bertenshaw	David Bertenshaw	David Bertenshaw	O	G
Larry Schoeneman	Designlab Chicago, Inc.	Designlab Chicago, Inc.	O	DR
Ulrich Kunkel	E3 Engineering & Education for Entertainment	DIN, NVBF Committee	P	U
Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	P	MP
Ken Wagner	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP
Milton Davis	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP
Gary Dove	Dove Systems	Dove Systems	O	MP
Jerry Durand	Durand Interstellar, Inc.	Durand Interstellar, Inc.	O	CP
Jussi Kallioinen	Eastway Sound & Lighting	Eastway Sound & Lighting	O	U
Edward R. Condit	Edward R. Condit	Edward R. Condit	O	G
Ed Jones	Edwin Jones Co., Inc.	Edwin Jones Co., Inc.	O	CP
Joost van Eenbergen	ELC Lighting	ELC Lighting	O	MP
Bill Fehrmann	Electrol Engineering, Inc.	Electrol Engineering, Inc.	O	MP
Daniel W. Antonuk	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	P	MP
Adam Bennette	Electronic Theatre Controls Ltd.	Electronic Theatre Controls, Inc.	O	MP
Anders Ekvall	Transtechnik Lichtsysteme GmbH	Electronic Theatre Controls, Inc.	O	MP
Hans Leiter	ETC GmbH	Electronic Theatre Controls, Inc.	O	MP
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	MP
Tracy Underhill	Electronics Diversified LLC	Electronics Diversified LLC	P	MP
Ralph Weber	ENDL Texas	ENDL Texas	O	G
Philip Nye	Engineering Arts	Engineering Arts	P	G
Eric Johnson	Eric Johnson	Eric Johnson	O	MP
Erwin Rol	Erwin Rol Software Engineering	Erwin Rol	O	G
Robert Goddard	Goddard Design Co.	Goddard Design Co.	P	MP
Sierk Janszen	Ground Zero	Ground Zero	O	U
Trevor Forrest	Helvar Lighting Control	Helvar Lighting Control	O	MP
Bill Hewlett	Hewlett Electronics	Hewlett Electronics	O	CP
Scott M. Blair	High End Systems Inc.	High End Systems Inc.	P	MP
Tom Grimes	High End Systems, Inc.	High End Systems, Inc.	A	MP
Steve Carlson	High Speed Design, Inc.	High Speed Design, Inc.	O	MP
Alan Martello	Horizon Control Inc.	Horizon Control Inc.	P	MP
Gary Douglas	Horizon Control Inc.	Horizon Control Inc.	A	MP

Name	Company	Representing (This is the sort field.)	Voting status	Int. Cat.
Robert Bell	Horizon Control Inc.	Horizon Control Inc.	A	MP
Peter Willis	Howard Eaton Lighting Ltd.	Howard Eaton Lighting Ltd.	P	CP
Paul J. Clark	HxDx	HxDx	O	CP
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
John Huntington	City Tech, Ent Tech Department	I.A.T.S.E. Local 1	A	U
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Alan M. Rowe	IATSE Local 728	I.A.T.S.E. Local 728	A	U
Dennis Grow	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
Gian Carlo C. Bartolotti	Ibeam SP / Banco de Eventos	Ibeam SP / Banco de Eventos	O	U
Geoffrey O. Thompson	Nortel Networks, Inc.	IEEE 802.3/Nortel Networks	O	G
John (Javid) D. Butler	Integrated Theatre, Inc.	Integrated Theatre, Inc.	P	CP
Michael (Mike) Whetstone	Integrated Theatre, Inc.	Integrated Theatre, Inc.	A	CP
Rob Johnston	Interactive Technologies, Inc.	Interactive Technologies, Inc.	O	MP
David Timmins	Jands Electronics	Jands Electronics	O	MP
Helge Hoffmann	JB Lighting	JB Lighting	O	MP
Christopher Purpura	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	O	G
Josh Gubler	Josh Gubler	Josh Gubler	O	CP
John Mehlretter	Lehigh Electric Products Co.	Lehigh Electric Products Co.	O	MP
Mark T. Kraft	Lehigh Electric Products Co.	Lehigh Electric Products Co.	O	MP
Rick Leinen	Colortran	Leviton Manufacturing Co., Inc.	P	MP
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	A	MP
Lars Wernlund	Lewlight	Lewlight	O	MP
Tyrone Mellon Jr.	Lex Products Corp.	Lex Products Corp.	P	CP
Klaus Amling	Licht-Technik	Licht-Technik	O	P
Andrew Sherar	Lightmoves PLC	Lightmoves PLC	O	MP
Avraham Mendall Mor "Avi"	Lightswitch	Lightswitch	O	U
Simon Alpert	Lighttech Event Technologies	Lighttech Event Technologies	O	CP
Gary Pritchard	LSC Lighting Systems (Aust) PTY Ltd	LSC Lighting Systems PTY Ltd	O	MP
Bart Swinnen	Luminex LCE	Luminex LCE	O	MP
Jim Holladay	Luxence	Luxence	O	G
Daniel Weiermann	Mainstage Theatrical Supply - Milwaukee	Mainstage Theatrical Supply	O	DR
Flemming Jensen	Martin Professional A/S	Martin Professional A/S	O	G
Torben Kaas Rasmussen	Martin Professional A/S	Martin Professional A/S	O	G
Hiroshi Kita	Marumo Electric Co., Ltd.	Marumo Electric Co., Ltd.	O	MP
Stuart Cotts	Oregon Shakespeare Festival	Oregon Shakespeare Festival	P	U
David A. Boller	Organic Machines LLC	Organic Machines LLC	O	CP
William Benner	Pangolin Laser Systems	Pangolin Laser Systems	O	MP
Kevin Loewen	Pathway Connectivity Inc.	Pathway Connectivity Inc.	P	MP
Dave Higgins	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP
Robert Armstrong	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP
Ron Bonner	PLASA	PLASA	P	G
James Eade	PLASA	PLASA	O	G
Mac Perkins	PNTA Inc.	PNTA Inc.	O	G
Charles Reese	Production Resource Group	Production Resource Group	P	DR
Robert Tooker	Production Resource Group	Production Resource Group	A	DR
Paul F. Mardon	Pulsar Ltd.	Pulsar Ltd.	O	MP
Steve Unwin	Pulsar Ltd.	Pulsar Ltd.	O	MP
Stephen J. Tyrrell	Quantum Logic	Quantum Logic	O	MP
Douglas Franz	QVC Network	QVC Network	O	U
Sean Harding	Rhode Island College	Rhode Island College	O	U
Charlie Richmond	Richmond Sound Design Ltd.	Richmond Sound Design Ltd.	O	CP
Martin Farnik	Robe Show Lighting s.r.o.	Robe Show Lighting s.r.o.	O	MP
Michael Lay	Strand Lighting	Royal Philips Electronics	P	MP
Hans Lau	Sand Network Systems, Inc.	Sand Network Systems, Inc.	P	MP
Yngve Sandboe	Sand Network Systems, Inc.	Sand Network Systems, Inc.	A	MP
Kimberly Corbett	Schuler Shook	Schuler Shook	P	G
Mick Martin	ShowCAD Control Systems	ShowCAD Control Systems	O	MP
Loren Wilton	Showman Systems	Showman Systems	O	CP
Mark Manthei	Shure Inc.	Shure Inc.	P	G
Kehang Wu	Shure Inc.	Shure Inc.	A	G

Name	Company	Representing (This is the sort field.)	Voting status	Int. Cat.
Jon R. Farley	Sixteenth Avenue Systems	Sixteenth Avenue Systems	O	CP
Robert Barbagallo	Solotech Inc.	Solotech Inc.	O	U
Michael Gonzales	Spectrum Lighting Inc.	Spectrum Lighting Inc.	O	DR
Ujjal Kar	Standard Robotics & Lighting	Standard Robotics & Lighting	O	G
Paul K. Ericson	Syska Hennessy Group Lighting Design	Syska Hennessy Group Lighting Design	O	U
Stephen Bickford	T. Kondos Associates	T. Kondos Associates	O	U
Tad Trylski	Tad Trylski	Tad Trylski	O	U
Klas Dalbjorn	Labgruppen AB	TC Group	O	MP
Dominic Vincenty	TPS	Television Production Service	O	DR
Pete Baselici	The Watt Stopper	The Watt Stopper	O	MP
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	O	G
Colin Waters	TMB	TMB	O	U
Mitch Hefter	Entertainment Technology (Royal Philips Electronics)	USITT	P	U
Torrey Bievenour	Vision Quest Lighting	Vision Quest Lighting	O	G
Eckart Steffens	SOUNDLIGHT	VPLT	O	G
Eric Cornwell	West Side Systems	West Side Systems	O	U
John Sondericker III	Wybron, Inc.	Wybron, Inc.	O	MP
Paul Kenneth McEwan	Zero 88 Lighting Limited	Zero 88 Lighting Ltd.	O	MP

Key to codes:

P principal voting member
A alternate voting member
I individual voting member
O observer, non-voting

MP mass-market producer interest category
CP custom-market producer interest category
DR dealer or rental company interest category
U user interest category
G general-interest interest category