

Minutes
Control Protocols Working Group

Thursday, 18 March 2004
Westin Long Beach
Long Beach, California

Chairman: Steve Terry; Electronic Theatre Controls, Inc.; A; MP
Tracy Underhill; Electronics Diversified Inc.; P; MP

Recording secretary: Karl G. Ruling; ESTA

Members attending: Tim Bachman; A.C.T Lighting, Inc.; P; DR (joined at this meeting)
Arnold Tang; Arnold Tang Productions; P; U
Wayne David Howell; Artistic Licence (UK) Ltd.; P; CP
Tobin Neis; Barbizon Companies; P; DR
Doug Fleenor; Doug Fleenor Design, Inc.; P; MP
Daniel W. Antonuk; Electronic Theatre Controls, Inc.; P; MP
Philip Nye; Engineering Arts; P; G
Robert Goddard; Goddard Design Co.; P; MP
Scott M. Blair; High End Systems Inc.; P; MP (new company representation at this meeting)
Tom Grimes; High End Systems, Inc.; A; MP
Alan Martello; Horizon Control Inc.; P; MP
Edwin S. Kramer; I.A.T.S.E, Local 1; P; U
Roger Lattin; I.A.T.S.E. Local 728; P; U
Richard Thornton Brown; Zero 88 Ltd.; i Light Group PLC; P; MP (new voting status at this meeting)
Ole Bystrup; Martin Professional A/S; P; MP
Edward R. Condit; On Location Lighting Systems; O; DR
Stuart Cotts; Oregon Shakespeare Festival; O; U
Gary Douglas; Pathway Connectivity Inc.; P; MP
Kevin Loewen; Pathway Connectivity Inc.; A; MP
Hans Lau; Sand Network Systems; P; MP
Loren Wilton; Showman Systems; O; CP (joined at this meeting)
Jon R. Farley; Sixteenth Avenue Systems; O; CP
Michael Gonzales; Spectrum Lighting Inc.; P; DR
Michael Lay; Strand Lighting (Strand Lighting Ltd.); A; MP
Mitch Hefter; Entertainment Technology (Genlyte Thomas Group), representing USITT; P; U
Charles Reese; VLPS; P; MP

Visitors: None.

1 Opening remarks

The meeting was called to order by Steve Terry at 09:00. He and Tracy Underhill welcomed the attendees.

2 Attendance

2.1 Introductions of those present and circulation of attendance sheet

A chartreuse attendance sign-in sheet was circulated while those present introduced themselves.

2.2 Determination of a quorum

Steve Terry asked for a show of hands of voting members. He did a quick count and then announced that a quorum was present.

2.3 Recognition of alternate voting members

Mike Lay announced that he would be voting for Strand Lighting because Richard Lawrence was not present. Several companies had principal and alternate voting members present, so Steve Terry reminded them that only one could vote at a time on a question.

3 Membership

3.1 Requirements for membership

Steve Terry reminded the assembly that membership in the working group is open to all who are affected by the work of the group. 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

The applications for the following people were read aloud by Steve Terry:

Tim Bachman of A.C.T Lighting, Inc. applied as a principal in the dealer/rental company category
Erwin Rol, an independent software engineer, applied as an observer in the general interest category
Scott M. Blair, formerly with his own firm, Lite Speed Design, had been rehired by High End Systems Inc. and applied as the principal in the mass-market producer interest category. This would move the existing principal, Tom Grimes, to alternate voting status.

Loren Wilton of Showman Systems applied as an observer in the custom-market producer category.
Richard Thornton Brown of Zero 88 Ltd. (part of the i Light Group PLC) asked to be moved back to principal voting status from observer.

Bob Goddard moved that the applications, including Richard Thornton Brown's, be accepted. The motion was seconded. The motion was approved by a unanimous show of hands.

The full consensus body during this meeting, including those not present, was thus:

Name	Company	Representing (This is the primary sort field.)	Voting status	Int. cat.
Tim Bachman	A.C.T Lighting, Inc.	A.C.T Lighting, Inc.	P	DR
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
Tobin Neis	Barbizon Companies	Barbizon Companies	P	DR
George Kindler	Pelton Marsh Kinsella	Carter & Burgess, Inc.	P	G
Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	P	MP
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
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	MP
Tracy Underhill	Electronics Diversified Inc.	Electronics Diversified Inc.	P	MP
James Johnson	Electronics Diversified Inc.	Electronics Diversified Inc.	A	MP
Alfred Langguth	Embedded Controls by Design, LLC	Embedded Controls by Design, LLC	P	MP
Phillip 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
Steve Carlson	High Speed Design, Inc.	High Speed Design, Inc.	P	MP
Alan Martello	Horizon Control Inc.	Horizon Control Inc.	P	MP
Robert Bell	Horizon Control Inc.	Horizon Control Inc.	A	MP
Peter Willis	Howard Eaton Lighting Ltd.	Howard Eaton Lighting Ltd.	P	CP
Richard Thornton Brown	Zero 88 Ltd.	i Light Group PLC	P	MP
Edwin S. Kramer	I.A.T.S.E, Local 1	I.A.T.S.E. Local 1	P	U

Name	Company	Representing (This is the primary sort field.)	Voting status	Int. cat.
John Huntington	I.A.T.S.E. Local 1	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
Dennis Grow	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
Alan M. Rowe	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
Rick Leinen	Colortran	Leviton Manufacturing Co., Inc.	P	MP
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	A	MP
John (Javid) D. Butler	Mainstage Theatrical Supply - South	Mainstage Theatrical Supply	P	DR
Ole Bystrup	Martin Professional A/S	Martin Professional A/S	P	MP
Gary Douglas	Pathway Connectivity Inc.	Pathway Connectivity Inc.	P	MP
Dave Higgins	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP
Kevin Loewen	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP
James Eade	PLASA	PLASA	P	G
Tony Douglas-Beveridge	PLASA	PLASA	A	G
Hans Lau	Sand Network Systems	Sand Network Systems	P	MP
Michael A. (Sandy) Twose	Sand Network Systems	Sand Network Systems	A	MP
Yngve Sandboe	Sand Network Systems	Sand Network Systems	A	MP
Michael Gonzales	Spectrum Lighting Inc.	Spectrum Lighting Inc.	P	DR
Richard Lawrence	Strand Lighting Ltd.	Strand Lighting Ltd.	P	MP
Michael Lay	Strand Lighting	Strand Lighting Ltd.	A	MP
Brian Dowd	TMB (NJ)	TMB	P	U
Mitch Hefter	Entertainment Technology (Genlyte Thomas Group)	USITT	P	U
Charles Reese	VLPS	VLPS	P	MP
Mark Jensen	Wybron, Inc.	Wybron, Inc.	P	MP
		Total votes possible	30	
		Votes by interest category	16	MP
			2	CP
			4	DR
			5	U
			3	G

4 Approval of the minutes from the previous meeting

Eddie Kramer, moved that the draft minutes of the previous meeting be approved as written. The motion was seconded. The motion was approved on a show of hands with the majority voting in favor. There were five abstentions and no negative votes.

5 Reading of the call for patents

Tracy Underhill read the following aloud to the assembly:

"ESTA intends to publish no standard that contains protected intellectual property, unless that property can be licensed by anyone for a reasonable fee. ESTA uses a process of open patent disclosure to implement this intent. ESTA does not conduct patent searches and does not warrant that its standards contain no protected intellectual property.

"In keeping with the open disclosure policy, I ask if anyone present wishes to notify the working group of the existence of a patent or copyright that might protect material in a standard being developed by the working group. You need not be the holder of the patent or copyright in order to notify the working group of its existence."

There was a discussion of some of the patents that had previously been identified. No new patents relevant to any of the current projects were brought to the attention of the assembly.

6 The reading of the anti-trust statement

The following was read aloud to the assembly by Tracy Underhill:

"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 \$100,000 and imprisoned for up to three years. An easy to read pamphlet describing restraint of trade issues is available from the Technical Standards Manager."

No restraint of trade issues were brought to the attention of the assembly.

7 Approval of agenda

Roger Lattin asked to add an invitation to tour some movie studio production facilities under other business.

Scott Blair moved that the draft agenda so amended be accepted. The motion was seconded. The motion was approved with a unanimous show of hands

8 Old business

8.1 E1.11 DMX512-A

Mitch Hefter moved that the working group accept the comment resolutions (CP/2004-1000r1) as written. The motion was seconded. The motion was approved with a show of hands, with 20 voting in favor, none against, and chairman Tracy Underhill abstaining.

Eddie Kramer moved that the working group declare that no substantive changes have been made to the draft standard in implementing these comment resolutions. The motion was seconded. There was discussion. The discussion centered around whether any product that were built to the previous version of the standard would have to be changed to conform to the new version of the standard. The consensus was that it was highly unlikely that a product that conformed E1.11 (CP/1998-1031r7), the version that was last offered for public review, would fail to conform to E1.11 (CP/1998-1031r8), and that no product that did not conform to that version of the draft standard would conform to the new one. The only change was that the most recent version is easier to understand.

Kramer's motion was accepted by a supermajority of the working group on a roll call vote:

Name	Company	Representing (This is the primary sort field.)	Voting status	Int. cat.	Yes	No	Abstain
Tim Bachman	A.C.T Lighting, Inc.	A.C.T Lighting, Inc.	P	DR	X		
Arnold Tang	Arnold Tang Productions	Arnold Tang Productions	P	U	X		
Wayne David Howell	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	P	CP	X		
Simon Hobday	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	A	CP			
Tobin Neis	Barbizon Companies	Barbizon Companies	P	DR	X		
George Kindler	Pelton Marsh Kinsella	Carter & Burgess, Inc.	P	G			
Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	P	MP			X
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	X		
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	MP			
Tracy Underhill	Electronics Diversified Inc.	Electronics Diversified Inc.	P	MP	X		
James Johnson	Electronics Diversified Inc.	Electronics Diversified Inc.	A	MP			
Alfred Langguth	Embedded Controls by Design, LLC	Embedded Controls by Design, LLC	P	MP			
Philip Nye	Engineering Arts	Engineering Arts	P	G	X		
Robert Goddard	Goddard Design Co.	Goddard Design Co.	P	MP	X		

Name	Company	Representing (This is the primary sort field.)	Voting status	Int. cat.	Yes	No	Abstain
Scott M. Blair	High End Systems Inc.	High End Systems Inc.	P	MP	X		
Tom Grimes	High End Systems, Inc.	High End Systems, Inc.	A	MP			
Steve Carlson	High Speed Design, Inc.	High Speed Design, Inc.	P	MP			
Alan Martello	Horizon Control Inc.	Horizon Control Inc.	P	MP	X		
Robert Bell	Horizon Control Inc.	Horizon Control Inc.	A	MP			
Peter Willis	Howard Eaton Lighting Ltd.	Howard Eaton Lighting Ltd.	P	CP			
Richard Thornton Brown	Zero 88 Ltd.	i Light Group PLC	P	MP	X		
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U	X		
John Huntington	I.A.T.S.E. Local 1	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	X		
Dennis Grow	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U			
Alan M. Rowe	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U			
Rick Leinen	Colortran	Leviton Manufacturing Co., Inc.	P	MP			
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	A	MP			
John (Javid) D. Butler	Mainstage Theatrical Supply - South	Mainstage Theatrical Supply	P	DR			
Ole Bystrup	Martin Professional A/S	Martin Professional A/S	P	MP	X		
Gary Douglas	Pathway Connectivity Inc.	Pathway Connectivity Inc.	P	MP	X		
Dave Higgins	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP			
Kevin Loewen	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP			
James Eade	PLASA	PLASA	P	G			
Tony Douglas- Beveridge	PLASA	PLASA	A	G			
Hans Lau	Sand Network Systems	Sand Network Systems	P	MP	X		
Michael A. (Sandy) Twose	Sand Network Systems	Sand Network Systems	A	MP			
Yngve Sandboe	Sand Network Systems	Sand Network Systems	A	MP			
Michael Gonzales	Spectrum Lighting Inc.	Spectrum Lighting Inc.	P	DR	X		
Richard Lawrence	Strand Lighting Ltd.	Strand Lighting Ltd.	P	MP			
Michael Lay	Strand Lighting	Strand Lighting Ltd.	A	MP	X		
Brian Dowd	TMB (NJ)	TMB	P	U			
Mitch Hefter	Entertainment Technology (Genlyte Thomas Group)	USITT	P	U	X		
Charles Reese	VLPS	VLPS	P	MP	X		
Mark Jensen	Wybron, Inc.	Wybron, Inc.	P	MP			
		Total votes possible	30		20	0	1
		Votes by interest category	16	MP	11	0	1
			2	CP	1	0	0
			4	DR	3	0	0
			5	U	4	0	0
			3	G	1	0	0

Mitch Hefter moved that most recent draft of E1.11 (CP/1998-1031r8) be accepted as an American National Standard. The motion was seconded.

Hefter's motion had been anticipated before the meeting. Karl G. Ruling, the Technical Standards Manager, had solicited absentee ballots from any voting members who would not be at the meeting but who might want to vote on this motion, if it were offered. Thus, all voting members of the consensus body had been offered an opportunity to vote on this motion. John (Javid) Butler and Steve Carlson had submitted absentee ballots, and their votes are recorded below.

Name	Company	Representing (This is the primary sort field.)	Voting status	Int. cat.	Yes	No	Abstain
Tim Bachman	A.C.T Lighting, Inc.	A.C.T Lighting, Inc.	P	DR	X		
Arnold Tang	Arnold Tang Productions	Arnold Tang Productions	P	U	X		
Wayne David Howell	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	P	CP	X		
Simon Hobday	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	A	CP			
Tobin Neis	Barbizon Companies	Barbizon Companies	P	DR	X		
George Kindler	Pelton Marsh Kinsella	Carter & Burgess, Inc.	P	G			
Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	P	MP	X		
Milton Davis	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP			
Ken Wagner	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP			

Name	Company	Representing (This is the primary sort field.)	Voting status	Int. cat.	Yes	No	Abstain
Daniel W. Antonuk	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	P	MP	X		
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	MP			
Tracy Underhill	Electronics Diversified Inc.	Electronics Diversified Inc.	P	MP	X		
James Johnson	Electronics Diversified Inc.	Electronics Diversified Inc.	A	MP			
Alfred Langguth	Embedded Controls by Design, LLC	Embedded Controls by Design, LLC	P	MP			
Philip Nye	Engineering Arts	Engineering Arts	P	G	X		
Robert Goddard	Goddard Design Co.	Goddard Design Co.	P	MP	X		
Scott M. Blair	High End Systems Inc.	High End Systems Inc.	P	MP	X		
Tom Grimes	High End Systems, Inc.	High End Systems, Inc.	A	MP			
Steve Carlson	High Speed Design, Inc.	High Speed Design, Inc.	P	MP	X		
Alan Martello	Horizon Control Inc.	Horizon Control Inc.	P	MP	X		
Robert Bell	Horizon Control Inc.	Horizon Control Inc.	A	MP			
Peter Willis	Howard Eaton Lighting Ltd.	Howard Eaton Lighting Ltd.	P	CP			
Richard Thornton Brown	Zero 88 Ltd.	i Light Group PLC	P	MP	X		
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U	X		
John Huntington	I.A.T.S.E. Local 1	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	X		
Dennis Grow	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U			
Alan M. Rowe	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U			
Rick Leinen	Colortran	Leviton Manufacturing Co., Inc.	P	MP			
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	A	MP			
John (Javid) D. Butler	Mainstage Theatrical Supply - South	Mainstage Theatrical Supply	P	DR	X		
Ole Bystrup	Martin Professional A/S	Martin Professional A/S	P	MP	X		
Gary Douglas	Pathway Connectivity Inc.	Pathway Connectivity Inc.	P	MP	X		
Dave Higgins	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP			
Kevin Loewen	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP			
James Eade	PLASA	PLASA	P	G			
Tony Douglas- Beveridge	PLASA	PLASA	A	G			
Hans Lau	Sand Network Systems	Sand Network Systems	P	MP	X		
Michael A. (Sandy) Twose	Sand Network Systems	Sand Network Systems	A	MP			
Yngve Sandboe	Sand Network Systems	Sand Network Systems	A	MP			
Michael Gonzales	Spectrum Lighting Inc.	Spectrum Lighting Inc.	P	DR	X		
Richard Lawrence	Strand Lighting Ltd.	Strand Lighting Ltd.	P	MP			
Michael Lay	Strand Lighting	Strand Lighting Ltd.	A	MP	X		
Brian Dowd	TMB (NJ)	TMB	P	U			
Mitch Hefter	Entertainment Technology (Genlyte Thomas Group)	USITT	P	U	X		
Charles Reese	VLPS	VLPS	P	MP	X		
Mark Jensen	Wybron, Inc.	Wybron, Inc.	P	MP			
		Total votes possible	30		23	0	0
			16	MP	13	0	0
			2	CP	1	0	0
		Votes by interest category	4	DR	4	0	0
			5	U	4	0	0
			3	G	1	0	0

8.2 E1.20 Remote Device Management

Scott Blair reported on the task group's progress drafting proposed comment resolutions. Changes have been made to the draft standards document in response to the comments as they suggested them. Bulk data movement commands will be moved into a second document, leaving the most important, common commands in the main document. Blair made a plea for more help from the rest of the task group because Blair will have less time to devote to RDM, since he has been rehired full-time by High End Systems.

There was a long discussion of restricting the manufacturer IDs for RDM to a 15-bit range to make a neat translation to software MAC addresses. There was some disagreement that this was the best way to proceed.

8.3 E1.17 Multipurpose Control Network Protocol Suite

Dan Antonuk reported that the last public review had generated many comments, so he has broken them up and distributed them to the task group for comments on the comments. The task group is agreeing on well over 90% of the comments.

There was discussion of how the project could move forward without having to wait until the next meeting.

Dan Antonuk moved that when the draft resolutions are finished and a draft standards document is ready, that the two be sent to the working group for resolution approval and a new public review vote by letter ballot. This would only be done if the letter ballot process could result in a completed vote before the next meeting. The motion was seconded. The motion was approved by a show of hands of the majority of the working group, with all voting in favor, except for one who voted No.

8.4 E1.27-1 Portable cabling

Ruling reported that the draft standard is in public review.

8.5 Other E1.27 projects

Javid Butler was not present, but Tracy Underhill read aloud some questions Butler had asked him to put to the working group.

Butler asked for help from the group on deciding if flexible conduit is adequate as an RF shield. The NEC does not recognize flexible conduit as a protective ground, so this has raised this question. There was discussion, and the sense of the group is that we are not concerned about the ability of the conduit to handle fault currents, as the NEC committee is, but the possibility that the metallic sheath, by being a coil, might serve as a transmitting or receiving aerial was a concern. Therefore, the consensus was that a bonding wire should be used and run the full length of the flexible conduit.

Butler also had a question about specifying a minimum distance between the cable and possible interference sources. The consensus was that no specific distance should be specified because the sources of interference are undefined. Any statement about distances between interference sources and data cable should be simply that the distance should be great enough to avoid interference.

8.6 Leadership nomination ad hoc committee

Dan Antonuk reported that the ad hoc committee recommends that the working group make a recommendation to the TSC that the co-chairs have two-year terms, with no term limits, and that the terms be staggered. The working group's choice of co-chairs would be decided by secret ballot held at the ETS-LDI meeting. Assuming the TSC approves, the new co-chair would take the chairmanship at the January meeting.

There was discussion of how to nominate people and conduct the vote. The goal is to suggest to the TSC a candidate that is acceptable to the majority of the working group, and not a simple plurality, but there is the desire to do this while taking a minimal amount of time at a meeting. Philip Nye volunteered that an ad hoc committee of himself, Willis, Antonuk, and Blair prepare some written proposals on how to run the nominating process and the vote.

A straw poll was held in which the question was whether changing the leadership with two-year alternating terms was a good idea? The majority was in favor, but there was continued discussion of the optimum length of the term.

9 New business

Mitch Hefter asked if the approved E1.11 standard should be taken to the IEC to be processed as an IEC standard. He was not sure if the IEC had kept this project alive, since it has been several years since we proposed that it be an IEC standard. There was a discussion of whether we want to pursue an IEC standard with this. There was a discussion of the possibility of translating this into German or other non-English languages.

Wayne Howell moved that we not take the document forward to the IEC at this time, but that we reconsider this in two years. The motion was seconded. The motion was accepted by a show of hands with a supermajority of the consensus body with everyone present voting Yes except for two who voted to abstain.

Bob Goddard moved that we investigate translating E1.11 into one or more non-English languages by working with other trade associations, where possible. The motion was seconded. The motion was approved by a show of hands, with all voting in favor except for one abstention. Hans Lau volunteered and James Eade and Karl Ruling were appointed to be on this committee.

Mitch Hefter asked if the E1.11 recommended practice task group wants to get busy? Wayne Howell suggested that a recommended practice should include E1.20. Tracy Underhill asked that the task group reach out to dealer members and to system installers.

There was a discussion of revising the Ethernet recommended practice documents. Should these documents be revised or withdrawn? There was discussion of this and using CAT cable in mixed installations using DMX and Ethernet. Switches are also becoming a problem, and guidance is needed on that. The consensus was that if anyone wants to start a new guidance or how-to document project, that he should bring a proposal to the group at the next meeting.

Roger Lattin proposed creating a bibliography of useful control protocols books. Gary Douglas volunteered to collect the bibliography. Working group members were directed to send their favorite book references to him.

10 Other business

10.1 Roger Lattin offered to take interested people on a tour of the Paramount back lot electrical systems. He noted that the 120/240 VDC system is being abandoned, so this might be the last time to see such a system.

10.2 Arnold Tang reported that Primedia Exhibitions has decided to have the Interconnectivity Pavilion be part of the New Product Breakfast at ETS-LDI. The implication of this is that Primedia Exhibitions is not likely to be offering free space on the trade show floor for this project, as they did at the last ETS-LDI.

11 Schedule for future meetings

Steve Terry announced that the next meeting would be Saturday, 17 July 2004 at the Dallas/Ft. Worth Airport Marriott South in Ft. Worth, Texas from 09:00 to 18:00. The next meeting is scheduled for Thursday, 21 October 2004 at some hotel in Las Vegas. The venue is still to be determined.

12 Changes to observer status due to lack of attendance

Edwin S. Kramer; IATSE Local 1 had been in danger of losing voting status because of too many consecutively missed meetings, but Kramer was present, so he had satisfied the attendance requirement. No voting members were moved to observer status at this meeting.

13 Adjournment

Mitch Hefter moved that the meeting adjourn. The motion was seconded. The motion was approved by a show of hands. Steve Terry declared the meeting adjourned at 11:46.

Control Protocols Working Group Membership and Contact Information as of 19 April 2004

Name	Company	Representing	Voting status	Int. cat.
Tim Bachman	A.C.T Lighting, Inc.	A.C.T Lighting, Inc.	P	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
Raymond Wynn	AVL Systems Pty Ltd.	AVL Systems Pty Ltd.	O	MP
J. B. Toby	Avolites Ltd.	Avolites Ltd.	O	MP
Shahid Anwar	Avolites Ltd.	Avolites Ltd.	O	MP
Richard Salzedo	Avolites Ltd.	Avolites Ltd.	O	MP
Barbara Wohlsen	Barbara Wohlsen	Barbara Wohlsen	O	U
Tobin Neis	Barbizon Companies	Barbizon Companies	P	DR
Bernardo Benito Rico	Ben-Ri Electronica S.A.	Ben-Ri Electronica S.A.	O	MP
Lee J. Bloch	Blue Sky Design, Ltd.	Blue Sky Design, Ltd.	O	G
Soo-Myong Chung	Blue Sky Design, Ltd.	Blue Sky Design, Ltd.	O	G
Bradley Klinkrad	Bradley Klinkrad	Bradley Klinkrad	O	G
Ted Fregon	Bytecraft Pty. Ltd.	Bytecraft Pty. Ltd.	O	MP
Bill Ellis	Candela Controls, Inc.	Candela Controls, Inc.	O	U
George Kindler	Pelton Marsh Kinsella	Carter & Burgess, Inc.	P	G
Rick Szjarto	Cast Software	Cast Group of Companies, Inc.	O	CP
Marty Lazarus	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	O	G
Larry Dunn	City Theatrical, Inc.	City Theatrical, Inc.	O	CP
Fabiano Pina	Clay Paky S.P.A.	Clay Paky S.P.A.	O	MP
Woody Smith	Coemar USA Inc.	Coemar USA Inc.	O	MP
Ohad Ashery	Compulite Systems	Compulite Systems	O	MP
Simeon Aladjem	Compulite Systems	Compulite Systems	O	MP
Yehuda Shukram	Compulite Systems	Compulite Systems	O	MP
Dietmar Rottinghaus	Connex GmbH	Connex GmbH	O	G
Jason Friedman	Creative Realities, Inc.	Creative Realities, Inc.	O	G
David Bertenshaw	David Bertenshaw	David Bertenshaw	O	G
Bob Toms	Design Advantage LLC	Design Advantage LLC	O	G
Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	P	MP
Milton Davis	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP
Ken Wagner	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	MP
Gary Dove	Dove Systems	Dove Systems	O	MP
Jussi Kallioinen	Eastway Sound & Lighting	Eastway Sound & Lighting	O	U
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
Hans Leiter	Transtechnik Lichtsysteme GmbH & Co. KG	Electronic Theatre Controls, Inc.	O	MP
Anders Ekvall	Transtechnik Lichtsysteme GmbH	Electronic Theatre Controls, Inc.	O	MP
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	MP
Tracy Underhill	Electronics Diversified Inc. (Colorado)	Electronics Diversified Inc.	P	MP
James Johnson	Electronics Diversified Inc.	Electronics Diversified Inc.	A	MP
Alfred Langguth	Embedded Controls by Design, LLC	Embedded Controls by Design, LLC	P	MP
Philip Nye	Engineering Arts	Engineering Arts	P	G
Erwin Rol	Erwin Rol	Erwin Rol	O	G
Robert Goddard	Goddard Design Co.	Goddard Design Co.	P	MP
Sierk Janszen	Ground Zero	Ground Zero	O	U
Liao Wei Min	GuangZhou HeDong Electronic Co., Ltd.	GuangZhou HeDong Electronic Co., Ltd.	O	G
Alan P. Symonds	Harvard College	Harvard University	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.	P	MP
Alan Martello	Horizon Control Inc.	Horizon Control Inc.	P	MP
Robert Bell	Horizon Control Inc.	Horizon Control Inc.	A	MP

Name	Company	Representing	Voting status	Int. cat.
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	I.A.T.S.E. Local 1	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
Dennis Grow	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
Alan M. Rowe	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	A	U
Richard Thornton Brown	Zero 88 Ltd.	i Light Group PLC	P	MP
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
Rob Johnston	Interactive Technologies, Inc.	Interactive Technologies, Inc.	O	MP
Larry Schoeneman	Interesting Products, Inc.	Interesting Products, Inc.	O	G
David Timmins	Jands Electronics	Jands Electronics	O	MP
Helge Hoffmann	JB Lighting	JB Lighting	O	MP
Edward Paget	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	O	G
Christopher Purpura	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	O	G
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
William L. Maiman	Lex Products Corp.	Lex Products Corp.	O	MP
Klaus Amling	Licht-Technik	Licht-Technik	O	P
Andrew Sherar	Lightmoves PLC	Lightmoves PLC	O	MP
Simon Alpert	Lighttech Event Technologies	Lighttech Event Technologies	O	CP
Gary Pritchard	LSC Lighting Systems PTY Ltd	LSC Lighting Systems PTY Ltd	O	MP
Bart Swinnen	Luminex LCE	Luminex LCE	O	MP
J. P. Steiner	Lutron Electronics	Lutron Electronics	O	MP
Jim Holladay	Luxence	Luxence	O	G
John (Javid) D. Butler	Mainstage Theatrical Supply - South	Mainstage Theatrical Supply	P	DR
Ole Bystrup	Martin Professional A/S	Martin Professional A/S	P	MP
Hiroshi Kita	Marumo Electric Co., Ltd.	Marumo Electric Co., Ltd.	O	MP
Petri Laine	Obelux Oy	Obelux Oy	O	CP
Edward R. Condit	On Location Lighting Systems	On Location Lighting Systems	O	DR
Stuart Cotts	Oregon Shakespeare Festival	Oregon Shakespeare Festival	O	U
David A. Boller	Organic Machines LLC	Organic Machines LLC	O	CP
William Benner	Pangolin Laser Systems	Pangolin Laser Systems	O	MP
Gary Douglas	Pathway Connectivity Inc.	Pathway Connectivity Inc.	P	MP
Dave Higgins	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP
Kevin Loewen	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	MP
James Eade	PLASA	PLASA	P	G
Tony Douglas-Beveridge	PLASA Standards Office	PLASA	A	G
Mac Perkins	PNTA Inc.	PNTA Inc.	O	G
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
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
Hans Lau	Sand Network Systems	Sand Network Systems	P	MP
Michael A. (Sandy) Twose	Sand Network Systems	Sand Network Systems	A	MP
Yngve Sandboe	Sand Network Systems	Sand Network Systems	A	MP
Kenneth Mockler	Sceno Plus	Sceno Plus	O	U
Mick Martin	ShowCAD Control Systems	ShowCAD Control Systems	O	MP
Loren Wilton	Showman Systems	Showman Systems	O	CP
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.	P	DR
Ujjal Kar	Standard Robotics & Lighting	Standard Robotics & Lighting	O	G
Richard Lawrence	Strand Lighting Ltd.	Strand Lighting Ltd.	P	MP
Michael Lay	Strand Lighting	Strand Lighting Ltd.	A	MP
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
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	O	G
Brian Dowd	TMB (NJ)	TMB	P	U

Name	Company	Representing	Voting status	Int. cat.
Colin Waters	TMB	TMB	O	U
Matt Stroud	University of Texas at Austin	University of Texas at Austin	O	G
Jason Potterf	University of Texas at Austin	University of Texas at Austin	O	G
Mitch Hefter	Entertainment Technology (Genlyte Thomas Group)	USITT	P	U
Torrey Bievenour	Vision Quest Lighting	Vision Quest Lighting	O	G
Charles Reese	VLPS	VLPS	P	MP
Eckart Steffens	SOUNDLIGHT	VPLT	O	G
Eric Cornwell	West Side Systems	West Side Systems	O	U
Mark Jensen	Wybron, Inc.	Wybron, Inc.	P	MP
John Sondericker III	Wybron, Inc.	Wybron, Inc.	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