

Minutes
Control Protocols Working Group

Saturday, 27 July 2002
Dallas/Ft. Worth Airport Marriott South
Ft. Worth, TX

Chairman: Steve Terry; Electronic Theatre Controls; alternate; producer

Recording secretary: Karl G. Ruling, ESTA

Members attending: Arnold Tang; Arnold Tang Productions; principal; user
Wayne David Howell; Artistic Licence (UK) Ltd.; principal; producer
George Kindler; Pelton Marsh Kinsella (Carter & Burgess, Inc.); principal; user
Doug Fleenor; Doug Fleenor Design, Inc.; principal; producer
Ken Wagner; Doug Fleenor Design, Inc.; alternate; producer (joined at this meeting)
Ed Jones; Edwin Jones Co., Inc.; principal; producer
Daniel W. Antonuk; Electronic Theatre Controls, Inc.; principal; producer
Tracy Underhill; Electronics Diversified Inc.; principal; producer
James Johnson; Electronics Diversified Inc.; alternate; producer (joined at this meeting)
Alfred Langguth; Embedded Controls by Design, LLC; principal; producer
Philip Nye; Engineering Arts; principal; general interest
Robert Goddard; Goddard Design Co.; principal; producer
Tom Grimes; High End Systems, Inc.; principal; producer (joined at this meeting)
Peter Willis; Howard Eaton Lighting Ltd.; principal; producer
Edwin S. Kramer; I.A.T.S.E. Local 1; principal; user
Roger Lattin; I.A.T.S.E. Local 728; principal; user
Rick Leinen; Colortran (Leviton Manufacturing Co., Inc.); principal; producer
Klaus Amling; Licht-Technik; observer; producer (joined at this meeting)
Gary Douglas; Pathway Connectivity Inc.; principal; producer
Kevin Loewen; Pathway Connectivity Inc.; alternate; producer (joined at this meeting)
Tim Cox; PLASA; principal; general interest
Scott M. Blair; individual; general interest
Richard Lawrence; Strand Lighting Ltd.; principal; producer
Michael Lay; Strand Lighting (Strand Lighting Ltd.); alternate; producer
Brian Dowd; TMB; principal; user
Mitch Hefter; Entertainment Technology (Genlyte Thomas Group) representing USITT; principal; user
Charles Reese; Vari-Lite, Inc.; principal; producer
Michael Gonzales; Wrightson, Johnson, Haddon & Williams, Inc.; observer; user
Mark Jensen; Wybron, Inc.; principal; producer (joined at this meeting)

Visitors: None

1 Opening remarks

Steve Terry called the meeting to order at 09:03. He conveyed Steve Carlson's apologies. Carlson's son has had a serious automobile accident, and Carlson is not able to be at this meeting because he needs to be at home.

Terry also said that he will have to leave before the meeting is scheduled to end. He suggested that the group should select a chairman to serve in his absence.

2 Attendance and membership

2.1 Introductions of those present and taking attendance

Terry asked those present to introduce themselves, which they did. A yellow attendance sheet was circulated.

2.2 Determination of quorum

Steve Terry asked for a show of hands of the principals. He stated that a majority of the voting body was present, and that we clearly had a quorum.

2.3 Recognition of alternate voting members

The principals for Mike Lay and Steve Terry were present, so neither would be voting on behalf of their companies.

2.4 Requirements for membership

Steve Terry reminded those present that working group membership is open to all who are affected by the work of the group. ESTA membership is not a requirement. However, those who wish to be voting members need to be committed to attending meetings and to responding to letter ballots in a timely fashion.

2.5 Processing of new membership requests

Steve Terry read the applications aloud:

Ken Wagner; Doug Fleenor Design; alternate; producer
Klaus Amling; Licht-Technik; observer; producer
James Johnson; Electronics Diversified; alternate; producer
Ken Loewen; Pathway Connectivity Inc.; alternate; producer
Mark G. Jensen; Wybron, Inc.; principal; producer
Tom Grimes; High End Systems, Inc.; principal; producer
Joost van Eenbergen; ELC Lighting; observer; producer

Roger Lattin moved that the applications be accepted. The motion was seconded. The motion was approved by a unanimous show of hands.

The complete voting body, including those not present, was thus:

Name	Company	Representing	Voting status	Int. cat.
John Sellers	AIM Northwest	AIM Northwest	P	G
Arnold Tang	Arnold Tang Productions	Arnold Tang Productions	P	U
Wayne David Howell	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	P	P
Tobin Neis	Barbizon Companies	Barbizon Companies	P	U
George Kindler	Pelton Marsh Kinsella	Carter & Burgess, Inc.	P	U
Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	P	P
Milton Davis	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	P
Ken Wagner	Doug Fleenor Design	Doug Fleenor Design	A	P
Ed Jones	Edwin Jones Co., Inc.	Edwin Jones Co., Inc.	P	P
Daniel W. Antonuk	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	P	P
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	P
Tracy Underhill	Electronics Diversified Inc.	Electronics Diversified Inc.	P	P
Scott Rempel	Electronics Diversified Inc.	Electronics Diversified Inc.	A	P
James Johnson	Electronics Diversified Inc.	Electronics Diversified Inc.	A	P
Alfred Langguth	Embedded Controls by Design, LLC	Embedded Controls by Design, LLC	P	P
Philip Nye	Engineering Arts	Engineering Arts	P	G
Robert Goddard	Goddard Design Co.	Goddard Design Co.	P	P
Tom Grimes	High End Systems	High End Systems	P	P
Steve Carlson	High Speed Design, Inc.	High Speed Design, Inc.	P	P
Peter Willis	Howard Eaton Lighting Ltd.	Howard Eaton Lighting Ltd.	P	P
Richard Thornton Brown	Zero 88 Ltd.	i Light Group PLC	P	P
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
Edward Paget	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	P	G

Rick Leinen	Colortran	Leviton Manufacturing Co., Inc.	P	P
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	A	P
Tim Bachman	Leviton/Colortran	Leviton Manufacturing Co., Inc.	A	P
Gary Douglas	Pathway Connectivity Inc.	Pathway Connectivity Inc.	P	P
Dave Higgins	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	P
Ken Loewen	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	P
Tim Cox	PLASA	PLASA	P	G
Tony Douglas-Beveridge	PLASA Standards Office	PLASA	A	G
Robert Barbagallo	Proximo Inc.	Proximo Inc.	P	U
Paul F. Mardon	Pulsar Ltd.	Pulsar Ltd.	P	P
Steve Unwin	Pulsar Ltd.	Pulsar Ltd.	A	P
Scott M. Blair	Scott M. Blair	Scott M. Blair	I	G
David George	Spectrum Manufacturing Inc.	Spectrum Manufacturing Inc.	P	P
Richard Lawrence	Strand Lighting Ltd.	Strand Lighting Ltd.	P	P
Michael Lay	Strand Lighting	Strand Lighting Ltd.	A	P
Brian Dowd	TMB (NJ)	TMB	P	U
Mitch Hefter	Entertainment Technology (Genlyte Thomas Group)	USITT	P	U
Charles Reese	Vari-Lite, Inc.	Vari-Lite, Inc.	P	P
Eckart Steffens	SOUNDLIGHT	VPLT	P	G
Mark G. Jensen	Wybron, Inc.	Wybron, Inc.	P	P
			6	G
			8	U
			18	P
			32	Total

3 Approval of the minutes from the previous meeting

Mitch Hefter moved that the minutes be approved as written. Seconded. Unanimous by show of hands, except for one abstention by a member who was not at the meeting and who, therefore, did not feel qualified to judge the accuracy of the draft minutes.

4 Reading of the call for patents

The call for patents was read aloud by Steve Terry:

"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."

No protected items were reported.

5 The reading of the anti-trust statement

The anti-trust statement was read by Steve Terry:

"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."

Ruling held up the pamphlets to show that they were available. No anti-trust actions were reported.

At this point in the meeting Steve Terry informed the group that he had resigned as co-chairman of Technical Standards Committee. He explained that if he or any other working group chairman also serves as the head of the TSC, there would be a conflict of interest if unresolved working group issues are brought to the TSC. Therefore, in the interests maintaining the proper oversight function of the TSC, he has resigned from the position of co-chairman. Paul Vincent is continuing to lead the TSC, but without a co-chair at this time.

6 Approval of agenda

Steve Terry suggested that we add a new business point after the ACN/RDM task group reports called ACN/RDM coordination. He also suggested that we strike 7.4 (IEEE Report) and 7.5 (letter to Geoff Thompson) because there will be no reports due to Carlson's absence.

Mitch Hefter moved that the agenda with these changes be accepted. The motion was seconded. The motion was accepted with a unanimous show of hands.

7 Old business

7.1 E1.11

Mitch Hefter reported that the document is in public review. The closing date is 24 September.

7.2 E1.20 Remote Device Management with DMX512

Scott Blair reported that the task group is working on a third version of the draft standard. The task group is now breaking it into two documents: transport and messaging. This will allow another person to help Scott Blair format and edit the document. Blair also reported that RDM prototype gear is here at the Marriott to try it out Sunday (tomorrow).

Steve Terry asked for a time-line for deliverables. Scott Blair replied that he wasn't sure if RDM will be solid by LDI, but that he thinks something for comment by the working group or suitable for a public request for comments is possible by January 2003.

7.3 E1.17 Task Group report

Dan Antonuk reported that a fourth document, the ACN overview document, had been sent to the CPWG reflector last night. The CPWG now has drafts of the overview, device management protocol, packet format, and transport layer documents. He said that the task group hopes to respond to working group comments, make changes, and be ready for a vote for public review by LDI. Antonuk asked for CPWG comments to be sent to the task group by the end of second week of September.

Wayne Howell asked if source code would go out with the review documents. Dan Antonuk said that was possible.

Dan Antonuk gave a brief explanation of the protocol suite and what the components do.

There was a discussion of whether parts of the suite can be sent to public review without the rest. Karl Ruling said that this was possible. There was also the question whether something that has been sent to public review and that has not received comments that resulted in substantive changes must then be published even though the rest of the suite is not ready for publication. Ruling said, No. There was also a discussion of the idea of sending a part of the suite out for public review with an explanatory document that explains the missing pieces.

There was a discussion of how to make sure that the suite actually allows interoperability. Ideas for doing this included (1) using a reference platform, (2) giving the standard to two different people and having them independently make devices and seeing if the devices can talk to each other, and (3) developing real source code that manufacturers can use in real products. The latter would help jump-start the acceptance of ACN. However, if reference source code is used, that raises the issue of who maintains this reference source code and takes care of the bugs. There was also a discussion of what the appropriate language would be for reference source code.

Steve Terry asked that the minutes to show that a significant amount of work has been done on ACN, and that the working group thanks the ACN task group for their effort.

7.4 ACN/RDM coordination

Steve Terry started the discussion of ACN and RDM coordination by clarifying what "gateway" had meant in the TSC's directive of February 2002. In that statement, the term "gateway" was used in a metaphorical sense and not a technical one. It was not the TSC's intention that RDM serve as a protocol converter that allows the full ACN command and data set to be transmitted to DMX devices. It is the intention of the TSC that RDM be devised so that it will be useful for enhancing the utility of ACN networks. The technical details of this implementation are the purview of the CPWG and its task groups.

Terry then asked Gary Douglas to comment on his proposal, which had been distributed to the RDM task group by email. Among other things in that proposal, Gary Douglas had proposed that the RDM and ACN projects be joined in one task group. He also had argued that the physical medium for RDM should be the second data link of DMX (the link that uses pins 4 & 5). Douglas was asked if his comments about the use of 4 & 5 still stand. Gary said that he has determined that the RDM task group has carefully considered the use of 2 & 3 versus 4 & 5, and that he is satisfied with the group's diligence.

It was suggested that an email reflector should be set up for ACN/RDM coordination issues.

There was a discussion of the DMP features of ACN that could be used in RDM. There was disagreement on whether these features could be used in RDM without excessively burdening DMX devices. Using ACN concepts in RDM would make the ACN-DMX/RDM converter boxes simpler, but would put a larger burden on the controlled device at the end of the line. Would the burden be too large? There was disagreement on whether the burden would really increase. Finally, it was pointed out that this could be decided on the technical merits.

Steve Terry had to leave the meeting. An election was held in which an acting chairman was selected. Brian Dowd, Mitch Hefter, and Tracy Underhill were nominated from the floor. Tracy Underhill won the election by a show of hands. Tracy Underhill took over as acting chairman at 11:25.

Bob Goddard moved that the CPWG reaffirm its support of the RDM task group to autonomously continue its development of RDM over DMX networks. The motion was seconded. By show of hands, 15 voted in favor, and four against with three abstentions. The motion carried.

Gary Douglas moved that there shall be structured coordination between the ACN and RDM task groups by there being at least one scheduled meeting between the task groups at each meeting cycle. The motion was seconded. The motion was accepted by a unanimous show of hands.

8 New business

None.

9 Other business

Roger Lattin reported that he had access to a meeting room at the Hilton Resort in Las Vegas. He offered its use to any task group that might need it during the LDI meeting cycle.

Ruling noted that the following voting members had now missed three or more meetings in a row, and would now be observers:

Robert Barbagallo; Proximo
Eckart Steffens; Soundlight, representing VPLT

10 Schedule for future meetings

Karl Ruling read the LDI meeting schedule. The meetings will all be at the Las Vegas Hilton.

Day	Time	Group	number people	AV supplied
Tuesday, 15 October	09:00 – 17:00	BSR E1.17 ACN task group	10	Flipchart / Screen
Wednesday, 16 October	09:00 – 17:00	BSR E1.17 ACN task group	10	Flipchart / Screen
Thursday, 17 October	09:00 – 18:00	Control Protocols WG meeting	40	Flipchart / Whiteboard / Screen
	13:00 – 18:00	BSR E1.11 DMX task group	18	Flipchart / Screen
Monday, 21 October	08:00 – 18:00	BSR E1.11 DMX task group	12	Flipchart / Screen
	09:00 – 18:00	BSR E1.20 RDM task group	12	None
Tuesday, 22 October	09:00 – 18:00	BSR E1.20 RDM task group	12	None

Ruling asked when the RDM-ACN coordination meeting should take place. Tracy Underhill directed Scott Blair and Dan Antonuk to work out when the coordination meeting shall be.

Ruling also read the January meeting schedule. The meetings will all be at the current hotel, the Dallas/Ft. Worth Airport Marriott South.

Day	Time	Group	number people	AV supplied
Friday, 17 January 2003	09:00 – 18:00	BSR E1.17 ACN task group	10	Flipchart / Screen
	18:00 – 23:00	BSR E1.20 RDM task group	12	None
Saturday, 18 January 2003	09:00 – 18:00	Control Protocols WG Meeting	40	Flipchart / Whiteboard / Screen
	13:00 – 18:00	BSR E1.17 ACN task group	18	Flipchart / Screen
	13:00 – 18:00	BSR E1.20 RDM task group	18	None
Sunday, 19 January 2003	09:00 – 18:00	BSR E1.17 ACN task group	18	Flipchart / Screen
	09:00 – 18:00	BSR E1.20 RDM task group	12	None

Mitch Hefter said that the DMX task group will need to meet to resolve more comments before January 18, but when? The issue was tabled for discussion later.

Ruling also reported that the meeting schedule for USITT had not been decided yet, but that the USITT Conference and Stage Expo is scheduled for 19 March through 22 March 2003. The Conference will be in Minneapolis, MN.

11 Adjournment

Doug Fleenor moved that the meeting adjourn. The motion was seconded. The motion was approved unanimously with a show of hands. Tracy Underhill declared the meeting adjourned at 12:21.

Control Protocols Working Group Membership as of 2002-08-22

Name	Company	Representing (sort field)	Votin g status	Int. cat.
John Sellers	AIM Northwest	AIM Northwest	P	G
Arnold Tang	Arnold Tang Productions	Arnold Tang Productions	P	U
Wayne David Howell	Artistic Licence (UK) Ltd.	Artistic Licence (UK) Ltd.	P	P
Steve Friedlander	Auerbach & Associates, Inc.	Auerbach & Associates, Inc.	O	U
J. B. Toby	Avolites Ltd.	Avolites Ltd.	O	P
Shahid Anwar	Avolites Ltd.	Avolites Ltd.	O	P
Richard Salzedo	Avolites Ltd.	Avolites Ltd.	O	P
Barbara Wohlsen	Barbara Wohlsen	Barbara Wohlsen	O	U
Tobin Neis	Barbizon Companies	Barbizon Companies	P	U
Bernardo Benito Rico	Ben-Ri Electronica S.A.	Ben-Ri Electronica S.A.	O	P
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
Bradley Klinkradt	Bradley Klinkradt	Bradley Klinkradt	O	G
Ted Fregon	Bytecraft Pty. Ltd.	Bytecraft Pty. Ltd.	O	P
Bill Ellis	Candela Controls, Inc.	Candela Controls, Inc.	O	U
George Kindler	Pelton Marsh Kinsella	Carter & Burgess, Inc.	P	U
Marty Lazarus	Chicago Spotlight, Inc.	Chicago Spotlight, Inc.	O	G
Jason Friedman	Creative Realities, Inc.	Creative Realities, Inc.	O	G
David Bertenshaw	David Bertenshaw	David Bertenshaw	O	P
Bob Toms	Design Advantage LLC	Design Advantage LLC	O	G
Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	P	P
Milton Davis	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	P
Ken Wagner	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	A	P
Gary Dove	Dove Systems	Dove Systems	O	P
Jussi Kallioinen	Eastway Sound & Lighting	Eastway Sound & Lighting	O	U
Ed Jones	Edwin Jones Co., Inc.	Edwin Jones Co., Inc.	P	P
Jost van Eenbergen	ELC Lighting	ELC Lighting	O	P
Bill Fehrmann	Electrol Engineering, Inc.	Electrol Engineering, Inc.	O	P
Adam Bennette	Electronic Theatre Controls Ltd.	Electronic Theatre Controls, Inc.	O	P
Hans Leiter	Transtechnik GmbH	Electronic Theatre Controls, Inc.	O	P
Steve Terry	Electronic Theatre Controls	Electronic Theatre Controls, Inc.	A	P
Daniel W. Antonuk	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	P	P
Paul Bennett	Electronics Diversified Inc.	Electronics Diversified Inc.	O	P
Tracy Underhill	Electronics Diversified Inc.	Electronics Diversified Inc.	P	P
James Johnson	Electronics Diversified Inc.	Electronics Diversified Inc.	A	P
Alfred Langguth	Embedded Controls by Design, LLC	Embedded Controls by Design, LLC	P	P
Phillip Nye	Engineering Arts	Engineering Arts	P	G
Robert Goddard	Goddard Design Co.	Goddard Design Co.	P	P
Sierk Janszen	Ground Zero	Ground Zero	O	U
Alan P. Symonds	Harvard College	Harvard University	O	U
Trevor Forrest	Helvar Lighting Control	Helvar Lighting Control	O	P
Bill Hewlett	Hewlett Electronics	Hewlett Electronics	O	P
Tom Grimes	High End Systems, Inc.	High End Systems, Inc.	P	P
Steve Carlson	High Speed Design, Inc.	High Speed Design, Inc.	P	P
Peter Willis	Howard Eaton Lighting Ltd.	Howard Eaton Lighting Ltd.	P	P
John Huntington	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	A	U
Edwin S. Kramer	I.A.T.S.E. Local 1	I.A.T.S.E. Local 1	P	U
Roger Lattin	I.A.T.S.E. Local 728	I.A.T.S.E. Local 728	P	U
Richard Thornton Brown	Zero 88 Ltd.	i Light Group PLC	P	P
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	P
Larry Schoeneman	Interesting Products, Inc.	Interesting Products, Inc.	O	G
David Timmins	Jands Electronics	Jands Electronics	O	P
Helge Hoffmann	JB Lighting	JB Lighting	O	P
Edward Paget	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	P	G

Name	Company	Representing (sort field)	Voting status	Int. cat.
John Mehlretter	Lehigh Electric Products Co.	Lehigh Electric Products Co.	O	P
Mark T. Kraft	Lehigh Electric Products Co.	Lehigh Electric Products Co.	O	P
Rick Leinen	Colortran	Leviton Manufacturing Co., Inc.	P	P
Ken Vannice	Colortran	Leviton Manufacturing Co., Inc.	A	P
Tim Bachman	Leviton/Colortran	Leviton Manufacturing Co., Inc.	A	P
Klaus Amling	Licht-Technik	Licht-Technik	O	P
Andrew Sherar	Lightmoves PLC	Lightmoves PLC	O	P
Gary Pritchard	LSC Lighting Systems PTY Ltd	LSC Lighting Systems PTY Ltd	O	P
J. P. Steiner	Lutron Electronics	Lutron Electronics	O	P
Jim Holladay	Luxence	Luxence	O	G
Hiroshi Kita	Marumo Electric Co., Ltd.	Marumo Electric Co., Ltd.	O	P
David A. Boller	Organic Machines LLC	Organic Machines LLC	O	P
William Benner	Pangolin Laser Systems	Pangolin Laser Systems	O	P
Dave Higgins	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	P
Gary Douglas	Pathway Connectivity Inc.	Pathway Connectivity Inc.	P	P
Kevin Loewen	Pathway Connectivity Inc.	Pathway Connectivity Inc.	A	P
Tony Douglas-Beveridge	PLASA	PLASA	A	G
Tim Cox	PLASA	PLASA	P	G
Mac Perkins	PNTA	PNTA Inc.	O	G
Robert Barbagallo	Proximo Inc.	Proximo Inc.	O	U
Paul F. Mardon	Pulsar Ltd.	Pulsar Ltd.	P	P
Steve Unwin	Pulsar Ltd.	Pulsar Ltd.	A	P
Stephen J. Tyrrell	Quantum Logic	Quantum Logic	O	P
Douglas Franz	QVC Network	QVC Network	O	U
Charlie Richmond	Richmond Sound Design Ltd.	Richmond Sound Design Ltd.	O	P
Kenneth Mockler	Sceno Plus	Sceno Plus	O	U
Scott M. Blair	Scott M. Blair	Scott M. Blair	I	G
Mick Martin	ShowCAD Control Systems	ShowCAD Control Systems	O	P
Andre Broucke	ADB - TTV Technologies	Siemens	O	P
Jon R. Farley	Sixteenth Avenue Systems	Sixteenth Avenue Systems	O	P
David George	Spectrum Manufacturing Inc.	Spectrum Manufacturing Inc.	P	P
Ujall Kar	Standard Robotics & Lighting	Standard Robotics & Lighting	O	G
John Mitchell	Sterling Technical Services	Sterling Technical Services	O	U
Richard Lawrence	Strand Lighting Ltd.	Strand Lighting Ltd.	P	P
Michael Lay	Strand Lighting	Strand Lighting Ltd.	A	P
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
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	O	G
Colin Waters	TMB	TMB	O	U
Brian Dowd	TMB	TMB	P	U
Anders Ekvall	AVAB Scandinavia	Transtech GmbH	O	P
Mitch Hefter	Entertainment Technology (Genlyte Thomas Group)	USITT	P	U
Charles Reese	Vari-Lite, Inc.	Vari-Lite, Inc.	P	P
Eckart Steffens	SOUNDLIGHT	VPLT	O	G
Eric Cornwell	West Side Systems	West Side Systems	O	U
Michael Gonzales	Wrightson, Johnson, Haddon & Williams, Inc.	Wrightson, Johnson, Haddon & Williams, Inc.	O	U
John Sondericker III	Wybron, Inc.	Wybron, Inc.	O	P
Mark Jensen	Wybron, Inc.	Wybron, Inc.	P	P
		Voters	18	P
			7	U
			5	G
		Observers	29	P
			17	U
			12	G

Voting Status

- P Principal voting representative for a company or organization
- A Alternate voting representative for a company or organization
- I Individual representing no organization other than himself or herself
- O Observer, non-voting

Interest Categories

P Producer (manufacturer) of control devices or products

U User of control devices or products

G General interest in control devices or products