

Minutes
Control Protocols Working Group
Saturday, January 22, 2000
Dallas/ Ft. Worth Airport Marriott
Irving, TX

Chairman: Steve Carlson, Rosco/Entertainment Technology (Rosco Laboratories); Principal; User
Steve Terry; PRG Lighting Division (PRG); Principal; User

Recording secretary: Karl G. Ruling; ESTA

Members attending: Peter Willis; Andera Ltd.; Principal; Producer
Wayne David Howell; Artistic Licence (UK) Ltd.; Principal; Producer
Tim Bachman; Barbizon Light (Barbizon Companies); Principal; User
Lee J. Bloch; Bloch Design Group Inc.; Principal; Gen. Interest
David George; Christie Lites Manufacturing Ltd.; Principal; Producer
Doug Fleenor; Doug Fleenor Design, Inc.; Principal; Producer
Ed Jones; Edwin Jones Co.; Principal; Producer
Greg Heinzle; Electronic Theatre Controls, Inc.; Alternate; Producer
Tracy Underhill; Electronics Diversified Inc.; Principal; Producer
Robert Goddard; Goddard Design Co.; Principal; Producer
Michael (Sandy) Twose; Gray Interfaces; Alternate; Producer
Trevor Forrest; Helvar Lighting Control ; Principal; Producer
Lary Cotten; High End Systems; Principal; Producer
Scott Blair; High End Systems; Alternate; Producer
Edwin S. Kramer; IATSE, Local 1; Principal; User
Edward Paget; Jones & Phillips Associates, Inc.; Principal; Gen. Interest
Rick Leinen; NSI Corporation (Leviton Manufacturing Co., Inc.); Principal;
Producer
Geoffrey O. Thompson; IEEE 802.3 (Nortel Networks); Observer; Gen. Interest
Tim Cox; PLASA; Principal; Gen. Interest
George Kindler; Thoughtful Designs (PRG); Alternate; User
Steve Unwin; Pulsar Ltd.; Alternate; Producer
Milton Davis; Strand Lighting (Strand Lighting Ltd.); Alternate; Producer
Richard Lawrence; Strand Lighting Ltd. (Strand Lighting Ltd.); Principal; Producer
Jerry Gorrell; Theatre Safety Programs; Principal; Gen. Interest
Colin Waters; TMB Associates; Observer; User
Mitch Hefter; Rosco/Entertainment Technology (USITT); Principal; User
Richard Thornton Brown; Zero 88 Ltd.; Alternate; Producer

Visitors: David Law; 3Com
Louis Bradfield, Bally's Las Vegas

1 Opening remarks

Steve Terry called the meeting to order at 9:04 a.m.

2 Attendance and membership

2.1 Introductions of those present

Those attending introduced themselves, proceeding clockwise around the table, starting with Steve Terry.

2.2 Determination of quorum (10 needed)

The large room was full. Steve Terry announced the presence of a quorum.

2.3 Recognition of alternate voting members

Terry asked if there were alternates present with their principal. They raised their hands. Terry reminded them that they may not vote unless the principal defers to them.

2.4 Requirements for membership

The group was reminded that membership is open to all who are affected by the work of the group. Voting membership is open to all who will attend and vote regularly.

2.5 Processing of new membership requests

Rob Johnson of Interactive Technologies had applied as an observer, producer.
Tad Trylski representing himself had applied as an observer, user.

Ted Paget moved that the applications be accepted. Mitch Hefter seconded. By show of hands, the motion was accepted unanimously, with none opposed and no abstentions.

3 Approval of the minutes from the previous meeting

Mitch Hefter moved the minutes be accepted as written. Wayne Howell seconded the motion. Unanimous by show of hands.

4 Call for patents

The chairs read the following:

"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."

Terry revealed that a patent has been granted to Light and sound design for the transmission of MIDI over Ethernet. Terry says that PRG will license this for a nominal fee. What nominal means is being decided. Hoping this will lead to an avalanche of rational thinking in the industry. Shortly will have a published policy.

Carlson asked Geoff Thompson to offer a few words about IEEE patent licensing policy. Thompson reported that Xerox had a \$1,000 licensing fee for Ethernet. (That patent has since expired.) Companies are now asking for from \$10,000 or \$50,000. These are flat fees, as nobody wants to be in the business of collecting per-unit royalties. He cautioned that failure to pay licensing fees often happens, but that the failure to pay the fees often winds up as part of a later legal battle.

The Anti-Trust Statement was also read:

"The ESTA Board of Directors, the Technical Standards Committee, and the leadership of this Working Group will reject or nullify any actions that restrain trade. Anyone who feels that an action restraining trade is being or has been taken is requested to bring the 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 any member of this working group may be found individually liable for any action that restrains trade taken by this working group. An individual convicted of a violation of the Sherman Act may be fined as much as \$100,000 and be imprisoned for up to three years. An easy to read pamphlet describing restraint of trade is available from the Technical Standards Committee."

5 Approval of agenda

Ted Paget moved that the agenda be accepted as written. Eddie Kramer seconded the motion. Unanimous by voice vote.

6 Old business

6.1 BSR E1.3

6.1.1 Public review comment resolution report

Comment resolutions (CP/2000-1001) provided by Steve Unwin had been distributed to the working group in advance of the meeting. Steve Unwin moved that the comment resolutions be accepted. The motion was seconded. Acceptance was unanimous by show of hands. None opposed. None abstained. With 24 voting members present out of a voting body of 31, this constituted a clear supermajority and the resolutions were accepted.

The sense of the group was that a revised document should now be drafted for the next meeting. During that time Karl Ruling will inform the commentators of the official disposition of their comments, their right to object, and their right to appeal.

6.1.2 Analog application guide

Karl Ruling offered a general plea for more pin-out information. He said the document won't be finished until the standard is finished.

6.2 BSR E1.11

6.2.1 Interim ASC vote results

Karl Ruling reported that per the voting requirements set by the TSC, the motion failed. Sixteen people had voted out of a possible 31, and 12 of those votes were "accept." This did not constitute a supermajority.

There was a discussion of the merits of charging for start code or manufacturer ID registration. IEEE charges \$2,500 for an Ethernet ID.

Bob Goddard moved that we lift the moratorium on issuing primitive start codes and that we register the pending start codes. Ted Paget seconded the motion. The motion was accepted unanimously by a show of hands, save for one abstention.

Peter Willis moved that the applications for pending manufacturers IDs be accepted as applications for pending primitive start codes. The motion was seconded. The motion was accepted unanimously by a show of hands, save for one abstention.

Bob Goddard moved that the primitive start codes to be issued shall not fall in any of the areas now listed in the E1.11 draft standard as reserved. Ted Paget seconded. Unanimous by show of hands and no abstentions.

Ed Jones moved that we agree that there is a value to the manufacturers IDs and that a fee for them be set at a future time. Ted Paget seconded the motion. The motion failed by a simple majority show of hands.

6.2.3 BSR E1.11 public comment report

Mitch Hefter reported that 350 comments had been received. Hefter said the task group may want to divide the document into parts so that the comments can be handled expeditiously. Hefter outlined the hot issues revealed from the responses from the request for comments.

Carlson pointed out that the request for comment process, since it is not a formal public review, does not require a comment by comment resolution. Asked how the working group could help the task group.

The task group asked for guidance from the working group in deciding what the appropriate balance is between interoperability and backward compatibility. There are incompatibility issues built into the existing standard. Backward compatibility carries those incompatibility issues into the new standard. There was a lengthy discussion of how serious the incompatibility issues are and how they might be resolved.

Doug Fleenor moved we recess for lunch. The motion was seconded. The motion failed in a show of hands.

Wayne Howell asked for a straw poll on whether it would be acceptable for DMX2000 to be backwards compatible with DMX512/1990 only pins 1, 2, and 3 only on a five pin connector. By show of hands, three "yes" and four "no," with 17 abstentions.

Steve Terry suggested the task group develop a decision tree to explore all the options of what could be left in the draft standard, what could be taken out, and what would be lost with each deletion.

Mitch Hefter moved we end the discussion. The motion was seconded. "Accept" votes were more than 2/3rds of the assembled voting body, so the discussion ended.

6.2.2 IEC update

Mitch Hefter said he had little to report. The draft of E1.11 was not ready for submittal to the IEC, so he would not be attending the next IEC subcommittee meeting.

Hefter reported that nothing much had changed on the issue over the DIN version of DMX. The revisions requested have not been made. USITT has expressed its unhappiness, but will not pursue the matter further at this time.

6.3 Publishing DMX on Cat 5 report

Sandy Twose reported that studies had been done on what happens when standard DMX cable is connected to Cat 5. There are minimal reflectance from the impedance mismatch.

Twose reported that Rosco/ET talk-back signals work fine on Cat 5 up to at least 1,000 feet. In general, there seems to be no serious problems with DMX over Cat 5.

In discussion it was agreed that reflections might become an issue if multiple portable cables and Cat 5 segments are daisy-chained together. There will be some reflections at each of the connectors, so the additive effects could be bad. It was noted that there are some reflections at each connector with the conventional DMX cabling.

6.4 Report of ACN task group

Steve Carlson reported no additional news since the last meeting at Orlando in November. The task group would meet and work some more this weekend.

6.5 Report on IEEE 802.3 DTE Power via MDI project & other IEEE matters

Steve Carlson reported that Cisco Systems has gone in a different direction than expected, so this has slowed work on the DTE power project. Carlson explained the potential advantages of supplying power to remote data terminal equipment. The group had been leaning toward putting power on the unused pairs. This assumes that technically non-compliant installations, which often did not terminate the unused pairs, would not be supported. Cisco Systems is now arguing to support non-compliant installations, ones in which the unused pairs are not connected at the ends. This would implicitly force the power back on to the signal pairs, which might impact signal quality, with particular negative results at higher data rate Ethernet systems.

Carlson reported no news on the 10 gigabit Ethernet project.

6.6 Standard for moving lamp personalities

Wayne Howell reported no progress so far, because the DMX project has taken all his available time. He has also realized that this projects overlaps with the ACN project. He suggested that his group put the project on hold until ACN deals with automated luminaire personalities. The consensus of the group seemed to be that was that this was reasonable, although no formal motions were offered in support of Howell's plan.

7 New business

Color Kinetics patent issues: Wayne Howell and Karl G. Ruling described the claims of the Color Kinetics international patent application. Ruling argued that it is relevant to the work of this group because it claims the remote control of addressable LED units. He urged people to do patent searches, no matter how trivial or obvious the technology of interest might be. Steve Carlson pointed out, as a stellar example of a trivial and obvious patent, US. Patent #5,443,036 "Method of exercising a cat." This patent claims a patent on exercising an unrestrained cat by means of shining the light from a laser pointer on an opaque surface just beyond the cat's reach, and then redirecting this beam to cause the cat to run and chase the dot of light.

Carlson cautioned that patent issues will have more and more of an impact on our industry in the future.

8 Other business

None.

9 Schedule for future meetings

Steve Carlson announced that the next meeting would be Thursday, March 23, 2000, from 9:00 a.m. to 5:00 p.m. at the Adams Mark Hotel in Denver, in conjunction with the USITT Conference and Stage Expo.

Mitch Hefter reminded people that ESTA is not handling room reservations. Reservations are being done through the USITT Housing Bureau, so people should book through that organization.

10 Adjournment

Tim Bachman moved the meeting adjourn. The motion was seconded. Unanimous by voice vote. Steve Carlson declared the meeting adjourned at 12:31 p.m.

CPWG Membership Roster at the End of the 22 January 2000 Meeting

Name	Company	Vot. Stat.	Int. Cat.
John Sellers	AIM Northwest	P	G
Tony de Rijk	Amazing Controls! Inc.	P	P
Peter Willis	Andera Ltd.	P	P
Wayne David Howell	Artistic Licence (UK) Ltd.	P	P
Steve Friedlander	Auerbach & Associates, Inc.	O	U
Sierk Janszen	Avenger Showcontrol	O	P
J. B. Toby	Avolites Ltd.	O	P
Richard Salzedo	Avolites Ltd.	O	P
Shahid Anwar	Avolites Ltd.	O	P
Tobin Neis	Barbizon Companies	A	U
Tim Bachman	Barbizon Light	P	U
Bernardo Benito Rico	Ben-Ri Electronica S.A.	O	P
Lee J. Bloch	Bloch Design Group Inc.	P	G
Soo-Myong Chung	Bloch Design Group Inc.	A	G
Murray Mason	Bytecraft Pty. Ltd.	O	P
Ted Fregon	Bytecraft Pty. Ltd.	O	P
Bill Ellis	Candela Controls, Inc.	O	U
Marty Lazarus	Chicago Spotlight, Inc.	O	G

Name	Company	Parent Co./Org Represented	e-mail	Vot. Stat.	Int. Cat.
David George	Christie Lites Manufacturing Ltd	Christie Lites Manufacturing Ltd	dlgeorge@idirect.com	P	P
Tal Miron	Compulite R & D	Compulite R & D	tal@compulite.com	O	P
Fred Lindauer	Compulite R&D	Compulite R & D		O	P
Jason Friedman	Creative Realities, Inc.	Creative Realities, Inc.	JasonF@creative-realities.com	O	G
Mikael Fahl	Dataton AB	Dataton AB	fahl@dataton.se	O	P
David Bertenshaw	David Bertenshaw	David Bertenshaw	drb@bertenshaw.demon.co.uk	O	P
Doug Fleenor	Doug Fleenor Design, Inc.	Doug Fleenor Design, Inc.	doug@dfd.com	P	P
Gary Dove	Dove Systems	Dove Systems		O	P
Jussi Kallioinen	Eastway Sound & Lighting	Eastway Sound & Lighting	jussi_kallioinen@hotmail.com	O	U
Ed Jones	Edwin Jones Co.	Edwin Jones Co.		P	P
Bill Fehrmann	Electrol Engineering, Inc.	Electrol Engineering, Inc.		O	P
Bill Florac	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.		O	P
Bruce Lehnus	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	BLehnus@aol.com	O	P
Dennis Varian	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.		A	P
Ed Prasser	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	eprasser@etcconnect.com	P	P
Greg Heinzle	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	gheinzle@etcconnect.com	A	P

Name	Company	Parent Co./Org Represented	Vot. Stat.	Int. Cat.
Jon Ide	Electronic Theatre Controls, Inc.	Electronic Theatre Controls, Inc.	A	P
Adam Bennette	Electronic Theatre Controls Ltd.	Electronic Theatre Controls, Inc.	O	P
Paul Bennett	Electronics Diversified Inc.	Electronics Diversified Inc.	O	P
Scott Rempel	Electronics Diversified Inc.	Electronics Diversified Inc.	A	P
Tracy Underhill	Electronics Diversified Inc. (Colorado)	Electronics Diversified Inc.	P	P
Philip Nye	Engineering Arts	Engineering Arts	P	G
Paul K. Ericson	Ericson Lighting Design	Ericson Lighting Design	O	U
Dexter McNeil	Goddard Design Co.	Goddard Design Co.	A	P
Robert Goddard	Goddard Design Co.	Goddard Design Co.	P	P
Dave Higgins	Gray Interfaces	Gray Interfaces	P	P
Michael (Sandy) Twose	Gray Interfaces	Gray Interfaces	A	P
Trevor Forrest	Helvar Lighting Control	Helvar Lighting Control	P	P
Lary Cotten	High End Systems	High End Systems	P	P
Scott Blair	High End Systems	High End Systems	A	P
Edwin S. Kramer	IATSE, Local 1	I.A.T.S.E. Local 1	P	U
John Huntington	IATSE Local 1	IATSE Local 1	A	U
Rob Johnston	Interactive Technologies, Inc.	Interactive Technologies, Inc.	O	P
Larry Schoeneman	Interesting Products, Inc.	Interesting Products, Inc.	O	G

Name	Company	Parent Co./Org Represented	Vot. Stat.	Int. Cat.
David Timmins	Jands Electronics	Jands Electronics	O	P
Edward Paget	Jones & Phillips Associates, Inc.	Jones & Phillips Associates, Inc.	P	G
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
Ken Vannice	NSI Corporation	Leviton Manufacturing Co., Inc.	A	P
Rick Leinen	NSI Corporation	Leviton Manufacturing Co., Inc.	P	P
Andrew Sherar	Lightmoves PLC	Lightmoves PLC	O	P
Gary Pritchard	LSC Lighting Systems PTY Ltd	LSC Lighting Systems PTY Ltd	O	P
Gerard Cohen	Martin Professional Inc.	Martin Professional A/S	O	P
Tracy Schwenk	Martin Professional Inc.	Martin Professional A/S	O	P
Hiroshi Kita	Marumo Electric Co., Ltd.	Marumo Electric Co., Ltd.	O	P
Geoffrey O. Thompson	IEEE 802.3 / Nortel Networks	Nortel Networks	O	G
David A. Boller	Organic Machines LLC	Organic Machines LLC	O	P
William Benner	Pangolin Laser Systems	Pangolin Laser Systems	O	P
Tim Cox	PLASA	PLASA	P	G
Tony Douglas-Beveridge	PLASA Standards Office	PLASA	A	G
Steve Terry	PRG Lighting Division	PRG	P	U
George Sabbi	PRG Lighting Group	PRG	A	U
George Kindler	Thoughtful Designs	PRG	A	U

Name	Company	Parent Co./Org Represented	Vot. Stat.	Int. Cat.
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
Stephen J. Tyrrell	Quantum Logic	Quantum Logic	O	P
Charlie Richmond	Richmond Sound Design Ltd.	Richmond Sound Design Ltd.	O	P
Jon Farley	Rosco/Entertainment Technology	Rosco Laboratories	O	P
Steve Carlson	Rosco/Entertainment Technology	Rosco Laboratories	P	P
Mick Martin	Showcad Control Systems	Showcad Control Systems	O	P
Andre Broucke	ADB - TTV Technologies	Siemens	O	P
Milton Davis	Strand Lighting	Strand Lighting Ltd.	A	P
Richard Lawrence	Strand Lighting Ltd.	Strand Lighting Ltd.	P	P
Tad Trylski	Tad Trylski	Tad Trylski	O	U
Jerry Gorrell	Theatre Safety Programs	Theatre Safety Programs	P	G
Thom Weaver	Thom Weaver	Thom Weaver	O	G
Colin Waters	TMB Associates	TMB Associates	O	U
Brian Dowd	TMB Associates (NJ)	TMB Associates	P	U
Achim Russ	Transtechnik GmbH	Transtechnik GmbH	O	P
Anders Ekvall	Transtechnik GmbH	Transtechnik GmbH	O	P
Hans Leiter	Transtechnik GmbH	Transtechnik GmbH	O	P

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

Name	Company	Parent Co./Org Represented	Vot. Stat.	Int. Cat.
Mitch Hefter	Rosco/Entertainment Technology	USITT	P	U
Paul Vincent	Vincent Lighting Systems	Vincent Lighting Systems	O	G
Eckart Steffens	SOUNDLIGHT	VPLT	P	G
Ken Wagner	Walt Disney Imagineering	Walt Disney	O	U
John Sondericker III	Wybron, Inc.	Wybron, Inc.	P	P
Keny Whitright	Wybron, Inc.	Wybron, Inc.	A	P
Peter Brooks	Zero 88 Ltd.	Zero 88 Ltd.	P	P
Richard Thornton Brown	Zero 88 Ltd.	Zero 88 Ltd.	A	P

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