Minutes
Control Protocol Working Group
November 21, 1996
Omni Rosen Hotel
Orlando, FL

Steve Carlson and Steve Terry, Presiding Co-Chairs
Karl G. Ruling, Acting Secretary
In Attendance: Bruce Lehnus, BMI Supply
                        Dave Higgins, Gray Interfaces
                        David Bertenshaw, Strand Lighting
                        Doug Fleenor, Doug Fleenor Design
                        Ed Arend, Electronics Diversified Inc.
                        Ed Prasser, Electronic Theatre Controls
                        Edward Paget, Jones and Phillips
                        Gary Dove, Dove Systems
                        George Sabbi, BASH Theatrical Lighting
                        Jerry Gorrell, USITT
                        Lary Cotten, High End Systems
                        Milton Davis, Strand Lighting (alternate D. Bertenshaw)
                        Mitch Hefter, Rosco/ET (alternate to Steve Carlson)
                        Nils Thorjusen, Flying Pig Systems
                        Peter Brooks, Zero 88
                        Rick Leinen, NSI Corporation
                        Robert Goddard, Goddard Design
                        Scott Rempel, Electronics Diversified (alternate to Ed Arend)
                        Tim Bachman, Barbizon Light
                        Tony Douglas-Beveridge, PLASA
                        Dexter McNeil, Goddard Design (alternate, voted in at this meeting
                        Ed Brewer, LeHigh Electric (visiting)

1. Opening Remarks

    The meeting was called to order by Steve Carlson at 9:15 am.

2. Attendance and Membership

    2.1. Introductions of Those Present
            Those attending introduced themselves.

    2.2. Requirements for Membership
            Carlson reviewed the requirements for membership and noted that to be a voting
            member one needs to attend each meeting.

2.3. Processing of New Membership Requests
> Andre Broucke of ADB in Belgium voted in as an observer, not a principal, because of his stated difficulty attending meetings in the United States.
> Dexter McNeil accepted unanimously as an alternate to Bob Goddard representing the Goddard Design Co.
> Ed Jones unanimously voted as principal for Edwin Jones Co.

3. Approval of Minutes from the Previous Meeting
> Prasser/Fleenor M/S, unanimous

4. Call for Patents and Anti-Trust Statement

Carlson read the anti-trust statement:

"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."

Carlson issued the call for patents:

"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 disclosures 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 that might protect material in a standard being developed by the working group. You need not be the holder of the patent in order to notify the working group of its existence."

Rick Leinen noted that Colortran has filed for a patent in the Ethernet area. The patent is still pending.

5. Approval of Agenda
> Agenda approved without modification

6. DMX Channel Usage Reporting
> Ruling reported on the addition of information about new Martin products, the High End Studio Color, Show Pro products, and Studio Due products. He stated his intention to add links to the Vari-Lite web site for color information on the VL5 line, and to add tables for new Amptown moving lights.

Ruling noted that he has abandoned the use of percentage values on some of the tables and used decimal values in the range from 0 to 255 instead. This opened a discussion of the translation tables used by manufacturers to convert from percentages to DMX one-byte values. By consensus it was agreed that a representative translation table should be posted at the ESTA web site.

Action Item: Manufacturers are to send their translation tables to Karl Ruling, who will then report on them at the next working group meeting. A representative table will be selected at that time.

7. DMX Start codes registry

Discussion of posting alternate DMX512 start codes on the ESTA web site with links to an USITT page where requests for alternate start codes can be logged/registered. Terry noted that the informal alternate start code assignment tables that now exist list codes claimed by companies who are no longer in the entertainment lighting field. These codes could be returned to the pool of available codes. Hefter, Goddard, and Gorrell (members of USITT, the organization that drafted the DMX512 standard) will address these issues, and then this working group will decide how to link to information about alternate start codes, preferably on an USITT web site.

8. Ethernet Cabling

The Recommended Practice is available and was first sold at the PLASA trade show. Principal members of the working group get one copy gratis.

9. 100MBPS Ethernet

9.1 Cabling practices

Carlson and Prasser reported on their mini-task group meeting at San Jose State University on July 27 and 28 with Howard Frasier from Sun Microsystems and the IEEE 802.3u committee, and Geoff Thompson from Bay Networks and the IEEE 802.3 committee. Carlson reported that most of the 27th was spent in a Q&A session with Frasier and Thompson, and that it was extremely productive.

Carlson and Prasser have begun working on a draft recommended practice for 100Mbit Ethernet cabling, which was presented as a V 0.3 draft for review and comment by the working group.

The working group established a task group consisting of Tim Bachman, David Bertenshaw, Ed Prasser, Steve Carlson, George Sabbi, and Steve Terry to begin working on a draft of version 2.0 of the recommended practice for Ethernet cabling systems. The document will focus on a cabling and architecture of 100Mbit/sec systems, but will briefly describe repeaters and switchers as these are important for managing collision domains. Task group meeting set for Saturday,

January 18, 1997 at Dallas/Ft. Worth Airport Marriott in Irving, Texas. Ruling will provide a Word version of the text of the existing RP for the task group members.

Good books on Ethernet cabling were discussed:
David Bertenshaw recommended PC Week Switched and Fast Ethernet, second edition. Breyer and Riley. ISBN 1-56276-426-8.

Steve Carlson recommended Premises Cabling by Donald J. Sterling, Jr. ISBN 0-8273-7244-2. The publisher's web site is at http://www.delmar.com.

9.2 Common Protocol

David Bertenshaw put the Strand ShowNet V1.0 "Specification For Transport Of Output Data On ShowNet (DMX Over Ethernet)" on the table for informational purposes. The protocol uses UDP (User Datagram Protocol), an alternative to TCP, which also runs on IP. The document describes the transmission of output data to devices such as dimmers and color scrollers.

A task group was established, consisting of Ed Prasser, Dave Bertenshaw, Rick Leinen, Steve Carlson, and Dexter McNeil, to work on a draft ESTA standard for the transmission of output data over Ethernet LANs. The immediate goal is to restore to Ethernet networks the mix-and-match functionality we now have with DMX512. David Bertenshaw will give the task group before the next working group meeting the latest version of Strand ShowNet's specification for transport of command data and the new specification for transport of output data .

10. Other Business

Doug Fleenor asked that the working group write a standard for 0-10V analog connector pinouts and impedances. Tabled until the working group meeting at the USITT conference, at which time Doug Fleenor will present a draft standard. This draft standard will be distributed to the working group at least two weeks ahead of time, as required by the P&P.

11. Schedule for Future Meetings

The Ethernet task group working on version 2.0 of the Ethernet cabling RP will meet all day January 18, 1997 and on the morning of January 19 at the Dallas/Ft. Worth Airport Marriott in Irving, Texas. There will be no working group meeting until the meeting at the USITT Conference in Pittsburgh, the week of the 17 of March 1997.

12. Adjournment

Adjourned at 2:20 p.m.