## Accredited Standards Committee\*

## X3, Information Technology

Doc. No.: X3T10/96-235r1

Date: September 20, 1996

Project: Ref. Doc.:

Reply to: John Lohmeyer

To: Membership of X3T10

From: Ralph Weber, Secretary X3T10

John Lohmeyer, Chair X3T10

Subject: Minutes of X3T10 Plenary Meeting #17

Natick, MA -- September 12, 1996

#### Agenda

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  - 8.7 SCSI-3 Serial Bus Protocol (SBP) Status (Project 992-D) [Roberts]
  - 8.8 SCSI-3 Fiber Channel Protocol (FCP) Status (Project 993-D) [Snively]
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  - 8.13 SCSI-3 Graphics Commands (SGC) Status {Project 998-D} [Tewell]
  - 8.14 SCSI-3 Medium Changer Commands (SMC) Status (Project 999-D) [Oetting]
  - 8.15 SCSI-3 Controller Commands (SCC) Status (Project 1047-D) [Penokie]
  - 8.16 Multimedia Command Set (MMC) Status (Project 1048-D) [Roberts]
  - 8.17 SCSI-3 Fast-20 Parallel Interface (Fast-20) {Project 1071-D} [Lamers]
  - 8.18 SCSI Parallel Interface 2 (SPI-2) {Project 1142-D} [Ham]
  - 8.19 SCSI Enhanced Parallel Interface (EPI) Technical Report (Project 1143-D) [Ham]
  - 8.20 SCSI Fibre Channel Protocol 2 (FCP-2) {Project 1144-D} [Snively]
  - 8.21 Boot Considerations Technical Report (Project 1154-DT) [???]
  - 8.22 SCSI Serial Bus Protocol 2 (SBP-2) {Project 1155-D} [Johansson]
  - 8.23 SCSI Architecture Model 2 (SAM-2) {Project 1157-D [Monia]
  - 8.24 SCSI-3 Enclosure Commands (SES) {Project 1212-D} [Snively]

- 8.25 SCSI Controller Commands 2 (SCC-2) {Project 1225-D} [Penokie]
- 8.26 High Availability Profile (HAP) Technical Report (Project 1224-DT) [Hagerman]
- 8.27 Multimedia Command Set 2 (MMC-2) Status (Project xxxx-D) [Roberts]

#### 9. Old Business

- 9.1 Change to Device Identification VPD Page (96-214) [DeKoning]
- 9.2 Security Initialization Proposal for SBC (96-186) [Weber/Lohmeyer]

#### 10. New Business

- 10.1 Letter Ballot Results on Forwarding MMC to First Public Review (96-030) [Lohmeyer]
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- 10.3 Letter Ballot Results on Forwarding SPI Amendment #1 to First Public Review (96-037) [Lohmeyer]
- 10.4 Five-year review of X3.91M:1987[R1992] Storage Module Interfaces (SMD-E)
- 10.5 Five-year review of X3.146:1986[R1992] Streaming Cartridge and Cassette Tape Drives Device-level Interface
- 10.6 Forwarding SPC-2 Project Proposal (96-225r0) [Weber]
- 10.7 SBC Density Codes 02h and 07h to be Reserved [Milligan]
- 10.8 READ(6) Mandatory [Milligan]
- 10.9 RESERVE(6) & RELEASE(6) Obsolete Field Requirements (96-237) [Milligan]
- 10.10 RESERVE ELEMENT(6) & RELEASE ELEMENT(6) Third-Party Support [Oetting]

#### 11. ISO

- 11.1 ISO Report [Milligan]
- 11.2 Results of Letter Ballot on recommending that X3.232:1996 (CAM) be submitted to ISO/IEC JTC 1 for Fast Track (96- ) [Milligan]

#### 12. Liaison Reports

- 12.1 X3T11 Liaison Report [Cummings]
- 12.2 X3T13 Liaison Report [Milligan]
- 12.3 SFF Industry Group [Allan]
- 12.4 IEEE 1394 [Johansson]
- 12.5 IEEE P1285 Status
- 12.6 PCMCIA Report []
- 12.7 SCSI Trade Association (STA) [Jones/Grantham]
- 13. Review of Action Items
- 14. Meeting Schedule
  - 14.1 Authorization of Working Group Meetings
- 15. Adjournment

## **Results of Meeting**

#### 1. Opening Remarks

John Lohmeyer, the X3T10 Chair, called the meeting to order at 1:00 p.m., Thursday September 12, 1996. He thanked Charles Monia of Digital for hosting the meeting.

John said that X3 Subgroup Membership forms and the X3T10 Mailing Subscription form were available on the document table. He said that people should use the X3 forms to insure the X3 Secretariat has the latest membership information. These forms should be mailed directly to the X3 Secretariat.

As is customary, the people attending introduced themselves and a copy of the attendance list was circulated. Copies of the draft agenda and general information on X3T10 were made available to those attending.

#### 2. Approval of Agenda

The draft agenda was approved with the following additions:

10.6 Forwarding SPC-2 Project Proposal (96-225r0) [Weber]

10.7 SBC Density Codes 02h and 07h to be Reserved [Milligan]

10.8 READ(6) Mandatory [Milligan]

10.9 RESERVE(6) & RELEASE(6) Obsolete Field Requirements (96-237) [Milligan]

10.10 RESERVE ELEMENT(6) & RELEASE ELEMENT(6) Third-Party Support [Oetting]

## 3. Attendance and Membership

The membership requirements were reviewed. X3 rules permit one vote per organization. An individual from a new organization must attend two out of three consecutive plenary meetings. He/she may apply for voting membership the second meeting via a letter to the Chair of X3T10. The individual may vote at the second plenary meeting. Working group meetings do not count toward attendance requirements.

Organizations must also pay the X3 Service Fee (\$300) to maintain membership. The ANSI International Program Fee (also \$300) is billed at the same time.

The Chair said he had sent letters to 18 people from 7 organizations informing them that their membership was in jeopardy due to non-attendance (see 96-028r0) and that their membership would be terminated if they did not attend this meeting. All organizations were represented at this meeting except:

Amphenol Interconnect BusLogic Cirrus Logic Inc.

All members from the non-attending organizations were changed to observer status. First alternates were dropped from the list.

The X3T10 membership during the meeting was 49 organizations down from 52 organizations last time. Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current X3T10 membership list.

## 4. Approval of Minutes - July Meeting Colorado Springs, CO (X3T10/96-203r1)

The minutes were approved as written.

#### 5. Document Distribution

Members who have any problems with their mailing subscription should deal directly with Katrina Gray (kgray@itic.nw.dc.us) (202) 626-5741.

Larry Lamers requested that all documents for the next mailing be in his hands in electronic format by 10:30 a.m. on Thursday September 19, 1996. Documents received after this time will go into a subsequent mailing.

Larry Lamers reminded the committee of the requirements for document submission to be included in the committee mailing. Since X3T10 meets its document archiving requirements by including the X3 Secretariat on the mailing list, documents included in the mailing must be suitable for archiving. This means that native-format electronic originals with proper identification must be submitted. Document X3T10/95-147 contains the list of requirements for submissions. Document X3T10/95-361r0 contains instructions for expeditious delivery of documents to Larry.

The electronic copies can be emailed directly to Larry (at Ijlamers@corp.adaptec.com), placed on the SCSI BBS (719-533-7950), or they can be ftp'd to ftp.symbios.com and placed in the /pub/standards/io/incoming directory. In the latter two cases, please also send an email to Larry (at Ijlamers@aol.com) informing him of the exact file name and location of the file.

As usual, minutes are also available on the SCSI BBS (719-533-7950) and will be distributed to the SCSI Reflector.

To be added to the SCSI Reflector, send an email to majordomo@symbios.com with the line 'subscribe scsi' in the message body. The X3 Secretariat maintains a World Wide Web page at http://www.x3.org. Symbios Logic maintains a World Wide Web page on behalf of X3T10 at http://www.symbios.com/x3t10.

The current document register is enclosure (3).

#### 6. Call for Patents

This is a regular agenda item to identify any potential patent issues with developing standards.

A document is available from ANSI, "Procedures for the Development and Coordination of American National Standards", at no charge. This document is also on the WWW at http://www.x3.org/help/ansi\_sdo.html. Annex I contains the ANSI patent policy.

#### 7. Review of Old Action Items

- John Lohmeyer will communicate to the X3 Secretariat X3T10's acceptance of the ANSI edits on the SSA documents as non-substantive changes. *Complete*.
- 153) John Lohmeyer will request the X3 Secretariat to pay the invoice in 96-218. Complete.
- 154) George Penokie will prepare SIP revision 10. Complete.
- 155) John Lohmeyer will forward SIP revision 10 to X3 for further processing toward second public review and will respond to the public review comment. *Complete.*
- 156) Ron Roberts will modify SBP to conform to the new ANSI references policy. Complete.
- 157) Ralph Weber will prepare SPC revision 10. *Complete*.
- John Lohmeyer will forward SPC revision 10 to X3 for further processing toward first public review. Complete.
- 159) John Lohmeyer will request the X3 Secretariat to pay the invoice in 96-217. Complete.
- 160) George Penokie will work with the ANSI editor to bring the normative references in SCC into conformance with the ANSI references policy. *Complete.*
- 161) John Lohmeyer will inform the X3 Secretariat that X3T10 accepts the changes to SCC as non-substantive. *Complete*.
- John Lohmeyer will conduct a letter ballot to approve forwarding of MMC revision 8 to first public review. *Complete*.
- Larry Lamers, John Lohmeyer and Gene Milligan will notify the membership of X3T10 and X3T13 that the Boot Considerations TR project might be dropped. *Carryover*.
- 164) John Lohmeyer will request the X3 Secretariat to pay the invoice in 96-215. Complete.
- John Lohmeyer will forward the MMC-2 project proposal (96-185r0) to X3 for further processing. *Complete.*
- Gene Milligan will document the action taken by this plenary meeting with respect to the checking of the RESERVE(6) and RELEASE(6) obsolete fields be made mandatory in some future version of SPC. *Complete.*
- 167) Larry Lamers will assign a X3T10 document number to the document presently known as 1142. Overtaken by events.
- 168) Gary Stephens will draft a letter to X3 OMC for consideration at the September X3T10 meeting requesting a revision in the project proposal for project 1142. *Complete*.
- 169) John Lohmeyer will resend the CD letter ballot comments (Fast-20, SBP, SCC, SAM, SPI) to the technical editors. *Complete.*

- The technical editors for the recently completed CD ballots will come to the next working group meetings prepared to respond to any substantive changes required by the CD ballot comments. *Complete.*
- 170) John will inform the X3 Secretariat of X3T10's enthusiastic agreement with ANSI's proposed normative references policy. *Complete*.
- John will forward 95-146r2 to X3 PPC as an additional definition of X3T10 procedures, specifically for electronic processing of committee actions. *Complete*.

## 8. Subgroup and/or Project Status Reports

## 8.1 Project Status Summary and X3/OMC Liaison [Lohmeyer]

John Lohmeyer said that the current X3T10 project status summary was included in the X3T10 Information Packages and will be included in the mailing as usual.

John noted that OMC had formed a special ad hoc group to "to determine the interest of X3 TCs in copy protection in a general-purpose computing system to protect analog and digital video content against unauthorized copying, specifically in the areas of linear motion pictures and DVD technology." John had attended a meeting of this group on August 6th and of OMC on September 11th. He briefly informed the TC about the activities and actions at these meetings. He noted that the ad-hoc group will be meeting one more time. Please see X3T10/96-231 for the convener's report of the August 6th ad hoc group meeting.

#### 8.2 X3T10.1 Task Group Report [Lamers]

Larry Lamers, the X3T10.1 chair, made an oral report to the committee and provided the following electronic report for the minutes:

## X3T10.1 Report Larry Lamers, Chair X3T10.1

X3T10.1 met in Ithaca, NY on Wednesday, August 28, 1996 with 17 people present. Membership is now at 13 voting organizations of which 12 were in attendance.

The first-generation SSA documents (PH1, TL1, and S2P) will complete X3 ballot on October 4, 1996

A motion was taken to reconsider a prior motion on including the AMP HSSDC as an option in SSA-PH2. The motion to reconsider passed as well as the reconsidered motion so the connector will be included as an option.

A forwarding motion is planned for October 1996 for all three second generation drafts.

A motion was taken on the electronic distribution of the mailing. ".. that X3T10.1 membership has no reservations regarding the discontinuance of a paper mailing starting in 1997." The motion carried 11:0:0.

The next plenary meeting of X3T10.1 will be October 30, 1996, in Lahaina, HI at the Maui Marriott on Kaanapali Beach, hosted by IBM. The meeting will begin at 3:00 p.m. on Wednesday.

Attendees should contact Mark Cunningham for reservations at:

Tel: 808-667-8215 Fax: 808-667-8181

The long-term schedule for X3T10.1 plenary meetings is: February 26, 1997 in Austin, TX hosted by IBM.
June 25, 1997 in Monterey, CA hosted by VLSI/Solution Technology.
October 1, 1997 in Stuttgart, Germany hosted by ITT Cannon.
February 25, 1998 in Austin TX hosted by IBM.

## 8.3 SCSI-3 Parallel Interface (SPI) Status (Project 855-D) [Lamers]

Larry Lamers reported that the incorrect figures were in the proof copy of SPI. Therefore, SPI needs another turn of the proof copy prior to publication. Larry noted that several problems have been identified in the ISO review of SPI. He informed the TC that he had included the ISO review comments in his review comments on the SPI Amendment.

## 8.4 SPI Amendment (SPIAmnd) {Project 0855-D} [Johansson/Lamers]

Larry Lamers reviewed the activities of the working group regarding the SPI amendment. See 96-234.

## 8.5 SCSI-3 Interlocked Protocol (SIP) Status (Project 856-D) [Penokie]

John Lohmeyer reported that SIP starts first public review on 13 September and ends public review on 12 November.

#### 8.6 SCSI Common Access Method -3 (CAM-3) Status {Project 990-D} [Dallas]

Bill Dallas reported on his review of the serial bus architectures and the services that they provide. He describe the purpose of the review as being preparation so that CAM-3 can abstract the several serial buses in a general fashion. He also briefly described other architectural changes under consideration for CAM-3 and how they might be reflected in the next CAM-3 draft.

## 8.7 SCSI-3 Serial Bus Protocol (SBP) Status (Project 992-D) [Roberts]

Ron Roberts described the changes in SBP to meet the new requirements regarding normative references. Ron Roberts moved that X3T10 accept the changes described in 96-246 as non-substantive changes to conform to the new ANSI normative references policy. Peter Johansson seconded the motion. The motion passed 30:0:0:19=49.

Ron Roberts took an action item to complete SBP revision 22a, which will incorporate 96-246 into revision 22, and deliver it to Larry for the mailing. John Lohmeyer took an action item forward SBP revision 22a to X3 for further processing (final X3 approval).

#### 8.8 SCSI-3 Fiber Channel Protocol (FCP) Status {Project 993-D} [Snively]

Bob Snively reported that FCP has been published. John noted that this item will be removed from future agendas.

#### 8.9 SCSI-3 Architecture Model (SAM) Status (Project 994-D) [Monia]

Charles Monia reported that he has discussed SAM with the ANSI editors but he had no proof that SAM has been published, yet.

#### 8.10 SCSI-3 Primary Commands (SPC) Status (Project 995-D) [Weber]

John Lohmeyer reported that SPC starts first public review on 13 September and ends public review on 12 November.

## 8.11 SCSI-3 Block Commands (SBC) Status (Project 996-D) [Milligan]

In the absence of Gene Milligan, John Lohmeyer reported that SBC was discussed at length during the general SCSI working group meeting (see 96-234). He also noted that Gene plans a full-day page-by-page review of SBC on 8 November (the Friday of the next plenary week). After the page-by-page review, John expects a request to issue a letter ballot on forwarding SBC for first public review.

## 8.12 SCSI-3 Stream Commands (SSC) Status (Project 997-D) [Lappin]

In the absence of Ted Lappin, Erich Oetting reported that the SSC/SMC working group discussed serial issues regarding tapes (see 96-244). The group also discussed allowing more than 256 partitions on a tape. It was noted that allowing more than 256 partitions would require new SCSI commands.

## 8.13 SCSI-3 Graphics Commands (SGC) Status (Project 998-D) [Tewell]

In light of the fact that there has been no progress on Project 998-D for more than a year, John Lohmeyer moved and Roger Cummings seconded that X3T10 recommend to X3 that Project 998-D be withdrawn. The motion passed 29:0:0:20=49.

John Lohmeyer took an action to inform the X3 Secretariat that X3T10 recommends Project 998-D be withdrawn.

#### 8.14 SCSI-3 Medium Changer Commands (SMC) Status {Project 999-D} [Oetting]

Erich Oetting reported that SSC/SMC discussed world wide identifiers in medium changers and on individual pieces of media (see 96-244). He also described the action regarding RESERVE ELEMENT(6) and RELEASE ELEMENT(6) that will be requested later in this meeting.

#### 8.15 SCSI-3 Controller Commands (SCC) Status (Project 1047-D) [Penokie]

George Penokie reported that he has developed a prototype of the normative references section in an X3T10 committee standard, 96-241r1. He asked all technical editors to review it.

George reported that the ISO CD letter ballot was based on SCC revision 6. However, SCC had undergone domestic revisions (all editorial) and was now at revision 6c. George noted that document 96-239 contains a detailed description of the differences between revision 6 and 6c. George recommended that the response to the ISO CD comments include these changes.

George Penokie moved that the IR take the necessary actions to recommend the inclusion of the changes in 96-239 into the ISO version of SCC. The motion passed 29:0:0:20=49.

Gene Milligan, the IR, was given an action item to take the necessary actions to recommend the inclusion of the changes in 96-239 into the ISO version of SCC.

## 8.16 Multimedia Command Set (MMC) Status (Project 1048-D) [Roberts]

Ron Roberts reported that the working group processed 5 technical and numerous editorial comments on MMC. He stated that a revised draft of MMC will be available before the next working group meeting. He requested a MMC working group on November 5 and 6 in Palm Springs, CA.

#### 8.17 SCSI-3 Fast-20 Parallel Interface (Fast-20) {Project 1071-D} [Lamers]

Larry Lamers reported that Fast-20 has been published. John noted that this item will be removed from future agendas.

## 8.18 SCSI Parallel Interface - 2 (SPI-2) {Project 1142-D} [Ham]

Bill Ham reported on the activities of the SPI-2 working group (96-232) and distributed copies of SPI-2 revision 11 (prepared based on the actions of the working group).

Gary Stephens asked about the status of merging SIP into SPI-2. John Lohmeyer noted that such an action was still open to discussion and asked the committee to defer action on the topic until after the stabilization vote.

Larry Lamers moved that X3T10 approve the stabilization of the technical content in SPI-2 revision 10 as revised by the SPI-2 working group. Ken Hallam seconded the motion. The motion passed 27:0:0:22=49.

John noted that a document containing the stabilized technical content of SPI-2 will be made available on the X3T10 web site and through other mechanisms suitable to general distribution of the information.

The committee reviewed the proposal to amend the SPI-2 project proposal (96-221). It was read aloud to the committee. The amendment proposal was revised based on the committee's discussion.

Bill Ham moved that X3T10 approve 96-221 as revised and thereby agree to revise the scope of project 1142-D to include SIP. Erich Oetting seconded the motion. The motion passed 25:3:0:21=49. Gerry Houlder, Gary Stephens, and Dal Allan stated that their no votes were in support of the separation of the SIP and SPI layers because of its similarity to the FCP and FC-PH layers.

John Lohmeyer took an action item to forward 96-221 as revised to X3 (to revise the scope of project 1142-D to include SIP).

## 8.19 SCSI Enhanced Parallel Interface (EPI) Technical Report (Project 1143-D) [Ham]

Bill Ham reported that no progress has been made on EPI, but he expressed hope for additional progress in the near future. John Lohmeyer announced that EPI topics will be discussed Tuesday morning during the general SCSI working group.

## 8.20 SCSI Fibre Channel Protocol - 2 (FCP-2) {Project 1144-D} [Snively]

Bob Snively reported that sufficient work items have accumulated for FCP-2 and work will begin soon, after the major work on SES is complete.

## 8.21 Boot Considerations Technical Report (Project 1154-DT) [???]

John Lohmeyer reported that work on this project is on hold for one more meeting cycle. He noted that no new project editor has been identified for the project.

## 8.22 SCSI Serial Bus Protocol - 2 (SBP-2) {Project 1155-D} [Johansson]

Peter Johansson reported that work is proceeding quickly on the asynchronous portions of SBP-2. The isochronous portions of the document are on hold until the asynchronous work is mostly complete. The working group is meeting about every other week (dates and locations for the next three meetings are in section 14 of these minutes).

#### 8.23 SCSI Architecture Model - 2 (SAM-2) {Project 1157-D [Monia]

Charles Monia moved that revision 0.1 of SAM-2 be accepted as the working draft for project 1157-D. John Lohmeyer seconded the motion. The motion passed 25:0:0:24=49.

## 8.24 SCSI-3 Enclosure Commands (SES) {Project 1212-D} [Snively]

Bob Snively reported that the letter ballot had closed with a significant number of comments. He promised a comments and resolutions document for the mailing. The committee agreed that Bob should update the normative references in accordance with 96-241.

#### 8.25 SCSI Controller Commands - 2 (SCC-2) {Project 1225-D} [Penokie]

George Penokie announced that the SCC-2 project has received a project number, 1225-D. He indicated that a revision 0 of the document will be prepared for the November mailing. He reviewed the activities of the SCC working group (see 96-248).

### 8.26 High Availability Profile (HAP) Technical Report {Project 1224-DT} [Hagerman]

John Lohmeyer reported that the project has been assigned number 1224-DT. Charles Monia reported that a draft of the technical report was distributed and discussed briefly at the general SCSI working group meeting.

#### 8.27 Multimedia Command Set - 2 (MMC-2) Status (Project xxxx-D) [Roberts]

John Lohmeyer reported that the MMC-2 project proposal was accepted by OMC and will now go to X3 letter ballot for approval. Ron Roberts described the probable new contents MMC-2 to be DVD.

#### 9. Old Business

## 9.1 Change to Device Identification VPD Page (96-214) [DeKoning]

Bob Snively moved that 96-214 be approved for inclusion in a future version of SPC. Charles Monia seconded the motion. The motion passed 24:2:0:23=49.

### 9.2 Security Initialization Proposal for SBC (96-186) [Weber/Lohmeyer]

Ralph Weber moved that 96-186r1 be accepted for inclusion in SBC. Paul Aloisi seconded the motion. John Lohmeyer noted that this motion requires a 2/3rds vote to pass since SBC is stabilized. The motion passed 27:0:0:22=49.

#### 10. New Business

## 10.1 Letter Ballot Results on Forwarding MMC to First Public Review (96-030) [Lohmeyer]

John reported that the letter ballot on forwarding MMC to first public review passed 45:3:0:4. The detailed results can be found in 96-038.

#### 10.2 Letter Ballot Results on Forwarding SES to First Public Review (96-036) [Lohmeyer]

John reported that the letter ballot on forwarding SES to first public review passed 44:2:0:6. The detailed results can be found in 96-038.

# 10.3 Letter Ballot Results on Forwarding SPI Amendment #1 to First Public Review (96-037) [Lohmeyer]

John reported that the letter ballot on forwarding SPI Amendment #1 to first public review passed 44:0:0:8. The detailed results can be found in 96-038.

John reported that Eastman Kodak is in jeopardy of losing their membership if they fail to return the next set of letter ballot(s). He also listed several companies that would be in jeopardy if they should fail to return the CAM letter ballot, which closes 9/16/96.

## 10.4 Five-year review of X3.91M:1987[R1992] Storage Module Interfaces (SMD-E)

Gary Stephens moved that X3T10 recommend to X3 that X3.91M:1987 be withdrawn. Ed Gardner seconded the motion. The committee discussed the availability of the standard, should the motion to withdraw pass. Ken Hallam and Bob Snively described instances where SMD devices are still maintained in the field.

Bob Snively moved that the motion be changed to read "reaffirmed", instead of "withdrawn". George Penokie seconded the motion to amend. The motion to amend passed 23:1:4:21=49.

The amended motion to recommend reaffirmation of SMD-E passed 26:2:0:21=49. Explaining his no vote, Gary Stephens expressed the belief SMD has seen no development for five years and should be withdrawn. Larry Lamers said his no vote was an attempt to reduce the work load.

John Lohmeyer took an action item to inform X3 of the X3T10 recommendation to reaffirm X3.91M:1987 (SMD-E).

## 10.5 Five-year review of X3.146:1986[R1992] Streaming Cartridge and Cassette Tape Drives - Device-level Interface

John Lohmeyer described the standard as being essentially QIC-2 and other aspects of the history of the standard.

Ed Gardner moved that X3T10 recommend to X3 that X3.146:1986 be withdrawn. Gary Stephens seconded the motion. Bob Snively moved to postpone consideration until the November meeting. Peter Johansson seconded the motion to postpone consideration. The motion to postpone passed 13:5:4. John announced that the topic will appear under old business at the November meeting.

#### 10.6 Forwarding SPC-2 Project Proposal (96-225r0) [Weber]

Based on the recommendation of the working group, Ralph Weber moved that the SPC-2 project proposal be forwarded to X3 for further processing. Erich Oetting seconded the motion. The motion passed 27:0:0:22=49.

John Lohmeyer took an action item to forward the SPC-2 Project Proposal (96-225r0) to X3 for further processing.

#### 10.7 SBC Density Codes 02h and 07h to be Reserved [Milligan]

George Penokie moved density codes 02h and 07h be made reserved in SBC. Jeff Williams seconded the motion. Ken Hallam described the supposed usage of the two density codes and explained why making the density codes reserved will not be a hardship on anyone in the industry. John Lohmeyer noted that this motion requires a 2/3rds vote to pass since SBC is stabilized. The motion passed 29:0:0:20=49.

#### 10.8 READ(6) Mandatory [Milligan]

Charles Monia moved to reconsider the motion of the last plenary making READ(6) optional. Vit Novak seconded the motion. The motion passed 23:3:2:21=49.

Larry Lamers moved that the original motion be amended to change "optional" to "mandatory". John Lohmeyer seconded the motion to amend. The motion to amend passed 25:2:1:21=49. As amended, the motion read, "... make READ(6) mandatory in SBC." John Lohmeyer noted that this motion requires a 2/3rds vote to pass since SBC is stabilized. The amended motion failed 21:6:0:22=49 because less than half of the total committee membership voted in favor.

Based on the information in 96-229r0, George Penokie moved that READ(6) be made mandatory in a future version of SBC. Jeff Williams seconded the motion. The motion passed 19:6:1:23=49.

## 10.9 RESERVE(6) & RELEASE(6) Obsolete Field Requirements (96-237) [Milligan]

Ed Gardner moved that 96-237r1 be accepted for inclusion in a future version of SPC. (Revision 1 omits the incorrect phrase about PERSISTENT RESERVATIONS.) Bob Snively seconded the motion. The motion passed 27:0:0:22=49.

### 10.10 RESERVE ELEMENT(6) & RELEASE ELEMENT(6) Third-Party Support [Oetting]

Erich Oetting moved the third-party fields be made obsolete in RESERVE ELEMENT(6) and RELEASE ELEMENT(6) and that the text in 96-237r1 be applied to SMC. Jeff Williams seconded the motion. Erich noted that the effect of the motion is to treat RESERVE ELEMENT(6) and RELEASE ELEMENT(6) in SMC in the same way that RESERVE (6) and RELEASE(6) are treated in SPC. The motion passed 25:0:1:23=49.

#### 11. ISO

## 11.1 ISO Report [Milligan]

Gene Milligan, the X3T10 International Representative, provided the following electronic report:

## September ISO Report

The letter ballot to fast track X3.232:1996 SCSI CAM closes Monday, 16 September 1996.

The sixtieth General Meeting of the IEC with all their Technical Committees is underway in Dresden from 9 September through 20 September 1996. In addition to the component specification groups the audio, video and multimedia systems and equipment Technical Committee 100 is meeting 17 September through 20 September.

The IR has sent IR96019 a liaison statement to IEC TC 100 on the behalf of SC 25/WG 4 which summarizes the history of SC 25 and points out that: SC 25 has for many years been responsible for peripheral interface standards; that the published standards for this group range from those for flexible disk drives to high performance disk drives as well as a diverse variety of peripherals including tape drives and CD drives; and been responsible for the development and publication of Fibre Distributed Data Interfaces.

It also points out that at the last meeting SC 25 noted that IEC TC 100 had undertaken the international standardization of the IEEE 1394 High Performance Serial Bus. Since this interface has been proposed as an interface for traditional peripherals SC 25 had expected that it would be submitted to SC 25/WG 4 for international standardization. Although it had been proposed as a traditional peripheral interface, SC 25 recognizes that the early adoption was actually in what might be termed non-traditional peripherals such as digital recorders.

Because of the early proposals for the High Performance Serial Bus interface SC 25/WG 4 has had an active project 25.13.11.07 - SCSI-3 Serial Bus Protocol (SBP). The SBP document has recently completed a CD ballot. A follow on SBP-2 to extend the protocol is under advance d consideration to extend the application of the High Performance Serial Bus.

With the long term work of SC 25/WG 4 SC 25 urges TC 100 to keep the SC 25 work in mind, consider routing appropriate projects to SC 25, and in particular maintain proactive liaison with SC 25/WG 4.

An updated list of international documents is attached to this report.

DOC_NO	ORIG_DATE	DESCRIPTION
=========	=======	
IS11518-2	96/00/00	HIPPI-FP
IS11518-3	96/00/00	HIPPI-LE
IS11518-6	96/00/00	HIPPI-SC

JTC1N3862	96/01/15	NWI Proposal SCSI Specs for OMC Reader/Writer
1N3854	96/01/16	Proposed cooperative agreement with ISO/TC184
		Industrial Automation
ITCN377	96/01/29	1995 Preliminary Financial Results of IPF
ITCN378	96/01/29	Statement of 1995 Revenue & Expenses for IPF
ITCN379	96/01/31	Estimate of Revenue & Expense 1995-1997 IPF
1N3864	96/02/05	Minutes of IEC/TC100 Multimedia Systems & Eq.
1N3939	96/02/14	SC26 Report
IR96001	96/02/15	Letter to Vecchis with EIA docs for IEC docs
SC25N280	96/02/25	Registration form & info for June SC 25 meet
IR96002	96/02/27	Recommended vote NWI N 3862 SCSI OMC US Contribution on Re-engineering
1N3992 1N3990	96/02/27 96/02/27	SC 1 Report to JTC 1 March Plenary
25N281	96/02/27	Draft Agenda
1N4033	96/02/27	Status report on ITU-T and JTC 1 Cooperation
1N4034	96/03	Comments on ECMA 234 API for Windows
1N4040	96/03	JTC 1 Presentation Standards route for
111 10 10	00,00	Consortia & Fora
1N4030	96/03	New Zealand comments on Living Standards
1N4051	96/03	ISO/CS Creation & Maintenance of Web Pages
1N4O41	96/03	Report on Modified DIS Procedures
1N4039	96/03	Draft Policy Distribution of ISO Documents
		Electronically for the presentation of Stds
1N4043	96/03	SC25 Secretariat report to JTC 1 Plenary
1N4032	96/03	Japan comments on 1N3886 US response to
		ISO/TMB Concerns on Modified DIS Procedure
1N4011	96/03/04	JTC 1 Meeting Calendar
IR96003	96/03/20	Recommended Vote SPI Yes with Comments
IR96004	96/03/22	Sending CD9314-13, 20, 21, 26, & 4 to Pattay
IR96005	96/04/01	Recommended Vote SBP Yes with Comments
IR96006	96/04/01	Recommended Vote SAM Yes
IR96007	96/04/01	Recommended Vote SCC Yes
IR96008	96/04/01	Recommended YES FCP Rev 10
IR96009	96/04/03	Recommended YES FDDI SMT-2-CS
IR96010	96/04/03	Recommended YES FDDI SMT-2-IS
IR96011	96/04/03	Recommended YES FDDI SMT-2-PS
IR96011 IR96009	96/04/03 96/04/04	Vote on N268 CD9314-29 FDDI SMT-2-PS Vote on N268 CD9314-27 FDDI SMT-2-CS
IR96010	96/04/04	Vote on N268 CD9314-27 FDDI SMT-2-03
Pattay	96/04/04	Authorize printing of IS11518-2, -3, -6 HIPPI
WG4N653	96/04/15	Draft WG3 Liaison Letter to IEC concerns CAT6
WG4N653	96/04/15	Liaison Cat 6 to IEC/SC46C,D.48B SC6&WG4 from WG3
WG4N654	96/04/29	WG 4 Draft Minute - Montreal
SC25N286	96/05/03	Periodic review IEC 847 & 948; 9314-3, 6915,
	, ,	9318-2, 3, & 4, and 6951
SC25N283	96/05/03	CD9314-9 FDDI LCF-PMD results
SC25N290	96/05/03	CD9314-25 FDDI SMT-ATS results
SC25N291	96/05/03	CD9314-10 FDDI TP-PMD results
SC25N292	96/05/03	CDxxxx-9 SPI results
SC25N293	96/05/03	CDxxxx-11 SBP results
SC25N294	96/05/03	CDxxxx-yy Fast-20 reults
SC25N295	96/05/03	CDxxxx-1 SAM results
SC25N296	96/05/03	CDxxxx-z SCC results
SC25N297	96/05/03	CD9314-27 FDDI SMT-2-CS results
SC25N298	96/05/03	CD9314-28 FDDI SMT-2-IS
SC25N299	96/05/03	CD9314-29 FDDI SMT-2-PS
SC25N300	96/05/03	Document List N251-300
SC25N305	96/05/03	WG4 Draft Agenda Answers to N231 FDDI SONET Survey
SC25N306 SC25N307	96/05/03 96/05/03	Voting results on various SC25 Projects
	90100100	
TR96012	96/05/21	
IR96012 SC25TAG	96/05/21 96/05/23	Technical Experts for the WG 4 Meeting Notification to ANSI of Delegation
SC25TAG	96/05/23	Notification to ANSI of Delegation
SC25TAG IR96013	96/05/23 96/06/10	Notification to ANSI of Delegation Text for DIS 9314-4 FDDI SMF-PMD
SC25TAG	96/05/23	Notification to ANSI of Delegation
SC25TAG IR96013 IR96020	96/05/23 96/06/10 96/08/15	Notification to ANSI of Delegation Text for DIS 9314-4 FDDI SMF-PMD LB to fast track X3.232:1996 SCSI CAM
SC25TAG IR96013 IR96020 IR96014	96/05/23 96/06/10 96/08/15 96/08/27	Notification to ANSI of Delegation Text for DIS 9314-4 FDDI SMF-PMD LB to fast track X3.232:1996 SCSI CAM Editor's report and DIS 9314-6 FDDI SMT Text

IR96016b	96/09/02	Yes vote with comment CD 9314-20 FDDI PMD-ATS
IR96017	96/09/02	Yes vote CD 9314-21 FDDI PHY-ATS
IR96018	96/09/02	Yes vote CD 9314-26 FDDI MAC-ATS
IR96019	96/09/02	Liaison statement to IEC TC 100

# 11.2 Results of Letter Ballot on recommending that X3.232:1996 (CAM) be submitted to ISO/IEC JTC 1 for Fast Track (96- ) [Milligan]

John Lohmeyer reported that this agenda item is premature because the letter ballot will not close until 16 September 1996.

## 12. Liaison Reports

### 12.1 X3T11 Liaison Report [Cummings]

Roger Cummings, X3T11 Chair, delivered an oral report and provided the following electronic report:

X3T11 met on August 7, 1996 with 87 people in attendance. No organizations lost membership. Berg, QLogic, and SRB Consulting were added as a new member organizations, and CNT returned as a member organization. The membership of Hirose was extended to the October 1996 meeting by a vote of F53-O00-DNV18. The membership of X3T11 is now 71 organizations.

Public Reviews ended on July 9, 1996 for the SBCON (X3.296) and FC-PH-2 (X3.297) projects. Comments were received from Siemens (and IBM after the deadline) on SBCON, and comments were received from Hewlett Packard, Symbios Logic, and X3T11 on FC-PH-2. Comments were also received from the ANSI editor on both drafts. All comments were reviewed, and responses were discussed. New drafts for both projects are expected to be available for the next Plenary meeting.

It was reported that first Public Reviews for the Revised HIPPI-SC, HIPPI - ATM and HIPPI Serial projects will close on September 17, 1996, and that comments on all three drafts have been received by the ANSI editor. HIPPI-ATM and HIPPI Serial have been assigned the numbers X3.299 and X3.300 respectively.

It was reported that the HIPPI-6400 Physical (HIPPI-6400-PH) and HIPPI Multiple Physical (HIPPI-MP) Project Proposals had been approved, and assigned numbers 1213-D and 1214-D respectively.

Bob Dugan of IBM identified three additional patents which relate to FC-SB & SBCON. The contact for information on the patents is: Walter Willigan, IBM, 500 Columbus Ave., Thornwood, NY 10594.

An X3T11 Letter Ballot on FC-PH-3, Revision 8.8, for a first Public Review closed with F52-O02-DNV13. Comments were also received with 5 For ballots. A new draft is expected at the next Plenary.

A proposal was received from the Fibre Channel Loop Community (FCLC), requesting the assignment of a code point to allow them to establish a service to provide unique FC identifiers. A motion to approve this was proposed, but a motion to postpone consideration until the next Plenary was approved by F30-O07-A04-DNV30.

X3T11 accepted the dpANS used for the FC-GS Public Review, with the addition of the accepted changes resulting from the ANSI editor comments (Revision 3.1), as the final version for Project 1050-D by a rollcall vote of F50-O00- DNV21, meeting the two-thirds rule.

A postponed motion to deleted all references to FC-SL (Slotted Loop) from the draft for the FC-AL-2 project was approved by F22-O06-A12-DNV31.

Project proposals were approved for further processing as follows:

HIPPI-6400-SC (Switch Control), F45-O00-DNV26 Jitter Specification Methodology, F44-O00-DNV27 FC-SL (Slotted Loop), F47-O00-DNV24 FC-FLA TR (Fabric Loop Attachment), F46-O00-DNV25 FC-SB Revised, F46-O00-DNV25 FC-PH/DAM:2, F46-O00-DNV25

All of the above votes met the two-thirds rule.

A motion to approve Honolulu, HI and Hitachi as the site and host of the August 1997 meeting, and the meeting dates for 1998, was approved.

The next meeting of X3T11 is being hosted by hosted by Chuck Brill of AMP during the week of October 6-11, 1996 at the Tradewinds Hotel in St. Petersburg Beach, Florida. The rate is \$115 and group name ANSI/ASC-X3T11/AMP. The phone number is (813)367-6461. The Plenary meeting is on Wednesday, October 9. Interim study and ad hoc meetings are approved for:

9/11-12 HIPPI-6400 Albuquerque, NM 9/13 Jitter Natick, MA 9/24-25 FC-FLA Dallas, TX

## 12.2 X3T13 Liaison Report [Milligan]

Gene Milligan provided the following electronic report:

## X3T13 Liaison Report

The X3T13 Plenary meeting #3 was held August 2, 1996 in San Jose, CA. Among other business items:

The ATA-2 - Project 0948D has completed its X3 letter ballot and is at the ANSI Board of Standards Review (BSR) for review of the procedures followed in its development and publication as an ANS.

OMC has reviewed the request to withdraw the ATAPI Project 1120-D. They have recommended the project be withdrawn. An X3 letter ballot to approve the withdrawal should have closed this week.

X3T13 approved the pre-edit changes for the ATA-3 dpANS under Project 2008D as non-substantive. They also accepted a public review comment adding the 8-bit register transfer timing requirements with the observation that X3T13 views it as a non-substantive editorial correction restoring the continuing ATA requirement and authorized the Chair to request a press release noting the restoration of this omitted requirement.

ATA/ATAPI-4 rev 5 under Project 1153D was accepted as the working draft.

X3T13 added a cache flush command to ATA/ATAPI-4.

Power management according to the type of feature set supported, was made mandatory.

Device segmentation was incorporated into ATA-4 which creates a private data area for hosts.

The next plenary meeting of X3T13 will be October 25, 1996 at the Sheraton Princess Kaiulani Hotel, in Honolulu, HI, hosted by Quantum. For reservations call 808-922-5811.

The plenary authorized the following ad hoc meetings:

X3T13 Working Group on August 21-23, 1996 at the Seagate Facility in San Jose.

X3T13 Working Group on September 25-27, 1996 at the Windsor Hotel in Irvine, CA hosted by Phoenix Technologies.

X3T13 Working Group on October 23-24, 1996 at the Sheraton Hotel in Honolulu, HI hosted by Quantum.

#### 12.3 SFF Industry Group [Allan]

Dal Allan provided the following report:

The SCA-2 connector dimensions were optimized to resolve remaining technical and editorial issues. Bill Ham expects to have the SCA-2 specification ready for balloting to be published.

Bill Ham expects to have the VHDCI specification ready for balloting to be published.

Harvey Waltersdorf will pursue the standardization of 2-56 screws in IEC and the Power Connector is on what is hoped to be its last letter ballot. The relationship between standards organization at EIA was described.

The letter ballot on ATA Unitized Connector proposals indicated that it is desirable to produce specifications for both alternatives.

The letter ballot on backplane hole sizes resulted in a strong preference for the same size as used for thru hole connectors.

Bill Ham expects to have a preliminary specification for HSSDC (High Speed Serial Data Connector) at the next meeting, and is hopeful that a vendor will provide technical support to document the HSS DB9 used in the Fibre Channel MIA (Media Interface Attachment).

No new specifications were submitted for consideration as either Information Specifications or Projects. However, a product of the VHDCI effort is to begin a revision which will include more choices of pin sizes. The microSCSI idea will be pursued as a specification of the pin allocations for a 40-pin connector. The STA supports this project as a definition, and it is possible that the cable plant guide being produced by STA will recommend the use of a particular connector configuration.

## 12.4 IEEE 1394 [Johansson]

Peter Johansson reported that the 1394-1995 standard is available from IEEE. The 1394.a PAR has been resubmitted with minor editorial changes. 1394.1 is focused on bridges and has been approved by IEEE. 1394.2 covers a not-upward-compatible serial bus and has been approved by IEEE. After a brief discussion, Peter agreed to provide reflector subscription information for the various 1394-related reflectors:

P1394a uses p1394@sun.com (administered by bob.snively@sun.com)

Chair: Peter Johansson (pjohansson@aol.com)

P1394.1 uses p1394.bridges@sun.com (administered by bob.snively@sun.com)

Chair: Dick Scheel (dicks@lsi.sel.sony.com)

P1394.2 uses p1394.2@sun.com (administered by bill.vanloo@eng.sun.com)

Chair: Bill Van Loo (bill.vanloo@eng.sun.com)

There are FTP sites for some of the IEEE groups where working drafts, etc. are maintained. Contact the chair(s) for more information. Another useful point of contact is the web page maintained by the 1394 Trade Association at http://www.firewire.org.

#### 12.5 IEEE P1285 Status

No report was available.

#### 12.6 PCMCIA Report []

No report.

#### 12.7 SCSI Trade Association (STA) [Jones/Grantham]

Louis Grantham provided the following electronic report:

There was *STA* meeting today, 9/12/96 and planned to meet each month during the week of X3T10 and X3T11. *STA* will have a SCSI Interface Technology Center at Comdex in the Las Vegas convention center. Articles are written for each Computer Technology Review issue and other publications on SCSI technologies and applications.

STA plans to take the Ultra2 SCSI Seminar to Asia early 1997. The STA Technical Liaison Committee met 9/11/96 and received input from X3T10 members. There will be continued effort to increase communications between X3T10 and STA through this forum. The next meeting will commence at the adjournment of the SCSI-3 Working Group Wednesday November 6 (5 PM) and will adjourn by 7 PM. An agenda will be distributed on the reflector.

#### 13. Review of Action Items

- Larry Lamers, John Lohmeyer and Gene Milligan will notify the membership of X3T10 and X3T13 that the Boot Considerations TR project might be dropped.
- John Lohmeyer will add an agenda item to discuss the SCSI Roadmap, the standards family bibliography, and the definition of SCSI vs. SCSI-3 at the next General SCSI Working Group meeting.
- 173) Ron Roberts will complete SBP revision 22a and deliver it to Larry for the mailing.
- 174) John Lohmeyer will forward SBP revision 22a to X3 for further processing for X3 letter ballot.
- 175) John Lohmeyer will inform the X3 Secretariat that X3T10 recommends Project 998-D be withdrawn.
- 176) John Lohmeyer will forward 96-221 as revised to X3 (to revise the scope of SPI-2 to include SIP).
- 177) John Lohmeyer will inform X3 of the X3T10 recommendation to reaffirm X3.91M:1987 (SMD-E).
- 178) John Lohmeyer will forward the SPC-2 Project Proposal (96-225r0) to X3 for further processing.
- 179) Gene Milligan will take the necessary actions to recommend the inclusion of the changes in 96-239 into the ISO version of SCC.

#### 14. Meeting Schedule

The next plenary meeting of X3T10 will be November 7, 1996, in Palm Springs, CA at the Hyatt Regency Suites Palm Springs (619-322-9000), hosted by Adaptec, Inc. The meeting will begin at 1:00 p.m. on Thursday.

The meeting list for the next plenary week is:

## November '96 Meeting Map (9/12/96 Version)

Monday 11/4	8	9 10 +=====							-	-	7	-	9	
		SPI An	ınd,	SPI-2	2, &	SES	doc	. re	viev	(*)	)			(20)
Tuesday 11/5		9 10 +=====		12							7 ====	8 ==+		
		SCSI-3 WG (EPI topics are Tuesday am)									(40)			
		MMC V	VG									·		(20)
			RAB W	/G	R	4Β				т				(25)
Wednesday 11/6		9 10 +=====			1	_				6	7	8		
		SCSI	-3 WG	i					S	ГАТес	ch			(40)
									(20)					
+=======+====+========================						i						(40)		
		+   RAB +											-+    +	(25)
Thursday 11/7	8	9 10				2	3	4	5	6	7	8		
		SFF			 +===				====			==+		(40)
		+=====			X	3T10	Ple	nary	Mee	etino	9			(70)
		SSC,	SMC	WG								т		(15)
		=+===== STA 												(30)
Friday 11/8	8	9 10	11	12	1	2	3	4	5					
		SBC Doc	cumen	t Rev	iew									(10)
	+	=+=====   X3T1	l Jit	ter S	tudy	y Gr	oup			====	=+			(35)

Meetings marked with == are X3T10-authorized meetings. Meetings marked with -- are authorized by other groups and may change without notice.

<sup>\*</sup> The SES document review is scheduled to begin at 1:30 p.m.

Meeting Map Abbreviation Key:
Amnd: Amendment

CAM: Common Access Method

CAM-3: Next generation CAM for SCSI-3

Diskboys: Industry group studying disk attachment via IEEE 1394
EPI: SCSI Enhanced Parallel Interface (Technical Report)
Fast-20: Synchronous Data Transfer at 20 Megatransfers/second
FC-AL: Fibre Channel - Arbitrated Loop (an X3T11 project)
FCLC: Fibre Channel Loop Community (not an X3 activity)

I/F: Interface

HAP: High Availability Profile (Technical Report)

High Avail.: High Availability LB: Letter Ballot

MMC: SCSI-3 Multimedia Commands (CD-ROM)

PH: Physical (Connectors, Cables, Transceivers, etc.)

Plenary: Full Committee Meeting

RAB: RAID Advisory Board (not an X3 activity)
RAID: Redundant Array of Independent Devices

SBC: SCSI-3 Block Commands
SBP: SCSI-3 Serial Bus Protocol

SCC: SCSI-3 Controller Commands (RAID) SCSI: Small Computer System Interface

SES: SCSI Enclosure Services SPC: SCSI-3 Primary Commands

STA: SCSI Trade Association (not an X3 activity)
STATech: STA Technical Meeting (X3T10 members invited)

SFF: SFF Industry Group (not an X3 activity)

SG: Study Group

SMC: SCSI-3 Medium Changer Commands

SPI-2: Second Generation SCSI-3 Parallel Interface

SSA: Serial Storage Interface

SSC: SCSI-3 Stream Commands (includes Tape)

SSWGs: Specific-Subject Working Groups

VHDCI Very High Density Cabled Interconnect WG: Working Group (same as Ad Hoc Group)

X3T10: Lower Level Interfaces Technical Committee

X3T10.1: SSA Task Group of X3T10

## Several other X3T10 events are also planned:

Event	Day/Date	Location/contact
SPI-2 Working Group	Thu 10/10/96	St Petersburg Beach, FL / Brill
SPI-2 Working Group	Thu 12/5/96	Bloomington, MN / Truestedt
SBP-2 Working Group	Mon-Tue 9/23-24/96	Irvine, CA / McLean
SBP-2 Working Group	Thu-Fri 10/10-11/96	Redmond, WA / McLean
SBP-2 Working Group	Mon-Tue 11/11-12/96	Irvine, CA / McLean

#### For more information about X3T10 activities, please contact the following people:

Activity	Contact	Telephone/Email
CAM-3	Bill Dallas	(603) 881-2508 dallas@wasted.enet.dec.com
EPI & SPI-2	Bill Ham	(508) 841-2629

FCP-2	Robert Snively	ham@subsys.enet.dec.com (415) 336-5332 Bob.Snively@eng.sun.com
GPP	Gary Stephens	(602) 321-1725 6363897@mcimail.com
SAM & SAM-2	Charles Monia	(508) 841-6757 monia@starch.enet.dec.com
SBC	Gene Milligan	(405) 324-3070 gene milligan@notes.seagate.com
SBP and MMC	Ron Roberts	(916) 677-5714 rkroberts@aol.com
SBP - 2	Pete McLean	(303) 678-2149 pete mclean@maxtor.com
or	Peter Johansson	(510) 531-5472 pjohansson@aol.com
SIP, SCC	George Penokie	(507) 253-5208 gop@rchvmp3.vnet.ibm.com
SMC	Erich Oetting	(303) 673-2178 Erich Oetting@Stortek.com
SPC	Ralph Weber	(214) 733-3594 roweber@acm.org
SSA-PH1,-PH2,-TL1,-TL2	Larry Lamers	(408) 957-7817 ljlamers@aol.com
SSA-S2P & -S3P	John Scheible	(512) 823-8208 Scheible@vnet.ibm.com
SSC	Edward Lappin	(303) 447-7718 tedl@exabyte.com
Other Activities	John Lohmeyer	(719) 533-7560 john.lohmeyer@symbios.com

## The long-term X3T10 meeting week schedule is:

Date	Location	Host/Comments
Jan 8-12, 199 Mar 11-15, 199 May 6-10, 199 Jul 15-19, 199 Sep 9-13, 199 Nov 4-8, 199 Jan 6-10, 199 Mar 10-14, 199 May 5-9, 199 Jul 14-18, 199 Sep 8-12, 199	Newport Beach, CA Ft. Lauderdale, FL Colorado Springs, CO Natick, MA (near Boston) Palm Springs, CA Dallas, TX San Diego, CA Natick, MA (near Boston) Colorado Springs, CO Nashua, NH	Digital Adaptec Quantum QLogic Digital Symbios Logic Unitrode
Jan 5-9, 199 Mar 9-13, 199 May 4-8, 199	e firm; locations and hosts are 98 Dallas, TX 98 San Diego, CA 98 Colorado Springs, CO 98 Portland, ME 98 St. Petersburg Beach, FL	accepted, but tentative Quantum QLogic Symbios Logic Digital AMP

## 14.1 Authorization of Working Group Meetings

John noted that the working group meetings are required to operate under the same voting procedures as does X3T10 (that is, one vote per organization) and the results of a working group are not binding on the parent

committee. This later requirement is why we have traditionally only used non-binding straw polls in working group meetings. Any issue where the voting rules would make a difference should be deferred to the plenary group. Nonetheless, task groups and ad hoc groups should strive to achieve consensus prior to bringing issues to X3T10.

George Penokie moved that X3T10 authorize the X3T10-related meetings and events in the list above. Chuck Brill seconded the motion. The motion passed unanimously.

## 15. Adjournment

The meeting was adjourned at 5:05 p.m. on Thursday September 12, 1996.

## Meeting Attendees -- Enclosure (1)

Name	s	Organization	Electronic Mail Address
Mr. Norm Harris	P	Adaptec, Inc.	nharris@eng.adaptec.com
Mr. Lawrence J. Lamers	Α	Adaptec, Inc.	ljlamers@aol.com
Mr. Edward Fong	Р	Amdahl Ćorp.	esf10@amail.amdahl.com
Mr. Charles Brill	Р	AMP, Inc.	cebrill@amp.com
Mr. Ron Roberts	Α	Apple Computer	rkroberts@aol.com
Mr. Douglas Wagner	Р	Berg Electronics	jpxw76a@prodigy.com
Mr. Bob Gannon	0	C&M Corp.	bobg848740@aol.com
Mr. Dennis Lang	A	Circuit Assembly Corp.	dennisl@ca-online.com
Mr. Edward Haske	Р	CMD Technology	haske@cmd.com
Mr. Peter Johansson Mr. Louis Grantham	P P	Congruent Software, Inc. Dallas Semiconductor	pjohansson@aol.com grantham@dalsemi.com
Mr. Charles Monia	P	Digital Equipment Corp.	monia@shr.dec.com
Mr. William Dallas		Digital Equipment Corp.	dallas@wasted.enet.dec.
			com
Mr. Douglas Hagerman		Digital Equipment Corp.	hagerman@starch.enet.dec. com
Dr. William Ham		Digital Equipment Corp.	ham@subsys.enet.dec.com
Mr. Roger Cummings	Р	Distributed Processing Tech.	cummings_roger@dpt.com
Mr. Robert Reisch	Р	Eastman Kodak Co.	reisch@kodak.com
Mr. I. Dal Allan	Ρ	ENDL	dal_allan@mcimail.com
Mr. Gary R. Stephens	Ρ	FSI Consulting Services	6363897@mcimail.com
Mr. Andy Chen	Α	Fujitsu Computer Prods Amer	achen@fcpa.fujitsu.com
Mr. J. R. Sims	Р	Hewlett Packard Co.	robsims@depeche.lvld.hp.
Mr. George Penokie	Ρ	IBM Corp.	gop@rchvmp3.vnet.ibm.com
Mr. Dan Colegrove	A#	IBM Corp.	colegrove@vnet.ibm.com
Mr. Geoffrey Barton	Ρ	Iomega Corp.	glbarton@iomega.com
Mr. Dennis Moore	P	KnowledgeTek, Inc.	dmoore@netcom.com
Mr. Dean Wallace	Р	Linfinity Micro	75671.3443@compuserve.com
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Sep 17, 1996 - X3T10 Document Register - Enclosure (3)

X3T10/96-001R0 Date: 11/20/95 Author: J. Lohmeyer [SY-96-01] Agenda for X3T10 Meeting #14 (Mar '96)

X3T10/96-002R0 Date: 11/20/95 Author: J. Lohmeyer [SY-96-01] X3T10 Project Summary - January '96

X3T10/96-003R0 Date: 11/20/95 Author: J. Lohmeyer [SY-96-01] Jeopardy letter for Mar '96 meeting

X3T10/96-004R1 Date: 1/4/96 Author: J. Lohmeyer [SY-96-01] Summary of Letter Ballot Results on ATA-3 (95-044) and SIP (95-045)

X3T10/96-005R0 Date: 11/20/95 Author: J. Lohmeyer [SY-96-01] Response to Public Review Comment #1 on SBP

X3T10/96-006R0 Date: 11/20/95 Author: J. Lohmeyer [SY-96-01] Response to Public Review Comment #2 on SBP

X3T10/96-007R0 Date: 11/29/95 Author: J. David Cabello [SY-96-01] ltr to John Lohmeyer re Compaq patent position on SMART proposed standard

X3T10/96-008R0 Date: 1/5/96 Author: L. Lamers [SY-96-01] Letter Ballot forwarding SSA-PH1 to 1PR

X3T10/96-009R0 Date: 1/5/96 Author: L. Lamers [SY-96-01] Letter Ballot forwarding SSA-TL1 to 1PR

X3T10/96-010R0 Date: 1/5/96 Author: L. Lamers [SY-96-01] Letter Ballot forwarding SSA-S2P to 1PR

X3T10/96-011R0 Date: 1/10/96 Author: J. Lohmeyer [SY-96-01] Jeopardy Letter - Letter Ballots

X3T10/96-012R0 Date: 1/17/96 Author: J. Lohmeyer [SY-96-01] Letter Ballot forwarding SPC to 1PR

X3T10/96-013R0 Date: 1/17/96 Author: J. Lohmeyer [SY-96-01] ltr to Richard Gibson, Chair ITCC, re IPF

X3T10/96-014R0 Date: 2/2/96 Author: Gene Milligan [SY-96-01] Letter Ballot on recommended response to NWI N 3862

X3T10/96-015R0 Date: 2/6/96 Author: J. Lohmeyer [SY-96-02] Agenda for X3T10 Meeting #15 (May '96)

X3T10/96-016R0 Date: 2/6/96 Author: J. Lohmeyer [SY-96-02] X3T10 Project Summary - March '96

X3T10/96-017R0 Date: 2/6/96 Author: J. Lohmeyer [SY-96-02] Jeopardy letter for May '96 meeting

X3T10/96-018R1 Date: 2/13/96 Author: J. Lohmeyer [SY-96-02] Letter Ballot Results on forwarding SSA-PH1 (96-008) & SSA-TL1 (96-009)

X3T10/96-019R0 Date: 2/16/96 Author: J. Lohmeyer [SY-96-02] Letter Ballot Results on forwarding SSA-S2P (96-010)

X3T10/96-038R0

Results of letter ballots 96-030, 96-036, and 96-037

Date: 3/12/96 Author: J. Lohmeyer [SY-96-02] X3T10/96-020R1 Letter Ballot Results on forwarding SPC (96-012) X3T10/96-021R0 Date: 2/29/96 Author: J. Lohmeyer [SY-96-02] Letter from R. Gibson, Chair ITCC, re IPF X3T10/96-022R0 Date: 4/3/96 Author: J. Lohmeyer [SY-96-03] Agenda for X3T10 Meeting #15 (July '96) X3T10/96-023R0 Date: 4/3/96 Author: J. Lohmeyer [SY-96-03] X3T10 Project Summary - May '96 X3T10/96-024R0 Date: 4/3/96 Author: J. Lohmeyer [SY-96-03] Jeopardy letter for July '96 meeting X3T10/96-025R0 Date: 4/3/96 Author: J. Lohmeyer [SY-96-03] X3T10 Annual Report (April 1995 -- March 1996) X3T10/96-026R0 Date: 5/31/96 Author: J. Lohmeyer [SY-96-04] Agenda for X3T10 Meeting #16 (Sept '96) X3T10/96-027R0 Date: 5/31/96 Author: J. Lohmeyer [SY-96-04] X3T10 Project Summary - July '96 X3T10/96-028R0 Date: 5/31/96 Author: J. Lohmeyer [SY-96-04] Jeopardy letter for Sept '96 meeting X3T10/96-029R0 Date: 5/31/96 Author: J. Lohmeyer [SY-96-04] ltr to Gene Milligan, X3T13 Chair, re X3T13/96-009 Date: 7/24/96 Author: J. Lohmeyer [SY-96-04] X3T10/96-030R0 Letter Ballot on forwarding MMC to 1PR Date: 7/30/96 Author: J. Lohmeyer [SY-96-05] X3T10/96-031R0 Agenda for X3T10 Meeting #17 (Nov '96) X3T10/96-032R0 Date: 7/30/96 Author: J. Lohmeyer [SY-96-05] X3T10 Project Summary - Sept '96 Date: 7/30/96 Author: J. Lohmeyer [SY-96-05] X3T10/96-033R0 Jeopardy letter for Nov '96 meeting Date: 7/30/96 Author: J. Lohmeyer [SY-96-05] X3T10/96-034R0 Response to 1PR Comment #1 on SIP (to Ron Silletti, IBM) X3T10/96-035R0 Date: Author: J. Lohmeyer [SY-96-05] Letter Ballot Jeopardy Letter - September '96 X3T10/96-036R0 Date: 7/31/96 Author: J. Lohmeyer [SY-96-05] Letter Ballot on forwarding SES to 1PR X3T10/96-037R0 Date: 7/31/96 Author: J. Lohmeyer [SY-96-05] Letter Ballot on forwarding SPI Admendment #1 to 1PR

Date: 9/4/96 Author: J. Lohmeyer [SY-96-05]

X3T10/96-101R0

Minutes of MMC Working Group - 12/95 X3T10/96-102R0 Date: 12/16/95 Author: J. Lohmeyer [SY-96-01] Minutes of SPI-2 Working Group - 12/95 X3T10/96-103R0 Date: 12/16/95 Author: W. Bridgewater [SY-96-01] Proposed Change for Setup Time Budget Date: 12/16/95 Author: J. McGrath [SY-96-01] X3T10/96-104R0 Request for full SCSI support with LVDS Date: 12/16/95 Author: J. McGrath [SY-96-01] X3T10/96-105R0 Request for SPI (Fast-40/LVDS) Stabilization X3T10/96-106R0 Date: 1/4/96 Author: J. Lohmeyer [SY-96-01] Minutes of SPI-2 Working Group - 1/96 X3T10/96-107R0 Date: 1/4/96 Author: J. Lohmeyer [SY-96-01] Minutes of EPI Working Group - 1/96 X3T10/96-108R0 Date: 1/4/96 Author: J. Lohmeyer [SY-96-01] Minutes of SCSI-3 Working Group - 1/96 X3T10/96-109R0 Date: 1/4/96 Author: R. Roberts [SY-96-01] Minutes of MMC Working Group - 1/96 X3T10/96-110R0 Date: 1/4/96 Author: Weber/Lohmeyer [SY-96-01] Minutes of X3T10 Plenary Meeting #13 X3T10/96-111R0 Date: 1/5/96 Author: J. Emard [SY-96-01] X3T10 Actions Regarding ANSI/ITCC IPF Payments and X3 TC Membership X3T10/96-112R0 Date: 1/9/96 Author: J. McGrath [SY-96-01] SIP and Command Queuing X3T10/96-113R0 Date: 1/9/96 Author: G. Penokie [SY-96-01] Minutes of SCC working group - 1/96 X3T10/96-114R1 Date: 1/10/96 Author: T. Lappin [SY-96-01] Granularity of Block Size for Tape X3T10/96-115R0 Date: 1/10/96 Author: T. Lappin [SY-96-01] Minutes of SMC/SSC Working Group - 1/95 X3T10/96-116R0 Date: 1/10/96 Author: K. Hallam [SY-96-01] Clarification of WRITE BUFFER X3T10/96-117R0 Date: 1/11/96 Author: P. Kornitski [SY-96-01] Invoice for ATA-2 Pre-edit X3T10/96-118R1 Date: 1/11/96 Author: Johansson/Lamers/Lohmeyer [SY-96-01] Project Proposal for SPI Amendment X3T10/96-119R0 Date: 1/11/96 Author: D. Allan [SY-96-01] ANSI International Participation Fee Levy X3T10/96-120R0 Date: 1/11/96 Author: G. Penokie [SY-96-01]

Date: 12/14/95 Author: R. Roberts [SY-96-01]

Resolution of Comments on SIP

X3T10/96-121R0 Date: 1/23/96 Author: G. Houlder [SY-96-01] Addition of software write protect to Mode Page Ah

X3T10/96-121R2 Date: 3/15/96 Author: G. Houlder [SY-96-02] Addition of software write protect to Mode Page Ah

X3T10/96-122R0 Date: 1/23/96 Author: Lohmeyer/Ham [SY-96-01] Minutes of SPI-2 Working Group - 2/96

X3T10/96-123R0 Date: 1/30/96 Author: K. Gingerich [SY-96-01] LVD SCSI Models

X3T10/96-124R0 Date: 1/30/96 Author: K. Gingerich [SY-96-01] LVD SCSI Driver/Receiver Specifications

X3T10/96-125R0 Date: 1/30/96 Author: Paul Aloisi [SY-96-01] Additional Termination Issue

X3T10/96-126R0 Date: 1/30/96 Author: D. Uber [SY-96-01] Active Negation to Release Issues

X3T10/96-127R0 Date: 2/1/96 Author: B. Ham [SY-96-01] LVD SCSI Signals

X3T10/96-128R0 Date: 2/2/96 Author: X3 Secretariat [SY-96-01] Proposa for NWI-SCSI Specifications for Optical Memory Card Reader/Writer

X3T10/96-129R0 Date: 1/9/96 Author: W. Bridgewater [SY-96-01] Voltage Driven Outputs

X3T10/96-130R0 Date: 2/6/96 Author: Johansson/Lamers [SY-96-01] Ammendment to SPI

X3T10/96-131R0 Date: 2/15/96 Author: J. Scheible [SY-96-02] SSA-PH1 Letter Ballot Comment Resolution

X3T10/96-132R0 Date: 2/15/96 Author: J. Scheible [SY-96-02] SSA-TL1 Letter Ballot Comment Resolution

X3T10/96-133R0 Date: 2/15/96 Author: J. Scheible [SY-96-02] SSA-S2P Letter Ballot Comment Resolution

X3T10/96-134R0 Date: 3/7/96 Author: Weber/Ham/Lohmeyer [SY-96-02] Minutes of SPI-2 Working Group - 3/96

X3T10/96-135R0 Date: 3/7/96 Author: Weber/Ham/Lohmeyer [SY-96-02] Minutes of EPI Working Group - 3/96

X3T10/96-136R1 Date: 3/7/96 Author: Weber/Lamers/Lohmeyer [SY-96-02] Minutes of SCSI-3 Working Group - 3/96

X3T10/96-137R0 Date: 4/16/96 Author: P. Kornitsky [sy-96-03] Quotation on Technical Report for > 8GB

X3T10/96-138R0 Date: 4/16/96 Author: T. Heinzmann [SY-96-03] Quotation on SPI ISO Version

Minutes of MMC Working Group - 3/96

Date: 3/7/96 Author: Weber/Lohmeyer [SY-96-02] X3T10/96-139R1 Minutes of X3T10 Plenary Meeting #14 X3T10/96-140R0 Date: 3/8/96 Author: G. Penokie [SY-96-02] Clarification of sleep mode X3T10/96-140R1 Date: 4/23/96 Author: G. Penokie [] Clarification of sleep mode X3T10/96-140R2 Date: 5/8/96 Author: G. Penokie [sy-96-03] Clarification of sleep mode X3T10/96-140R3 Date: 7/15/96 Author: G. Penokie [sy-96-04] Clarification of sleep mode X3T10/96-141R0 Date: 3/11/96 Author: not used X3T10/96-142R0 Date: 3/12/96 Author: G. Penokie [SY-96-02] Minutes of SCC Working Group - 3/96 X3T10/96-143R0 Date: 3/12/96 Author: G. Houlder [SY-96-02] Clarification of Set Capacity Feature Date: 3/12/96 Author: G. Houlder [SY-96-02] X3T10/96-144R0 Comment on SPI Error X3T10/96-145R0 Date: 3/12/96 Author: R. Moore [SY-96-02] LVD SCSI Assertion and Negation Currents Date: 3/13/96 Author: R. Snively [SY-96-02] X3T10/96-146R1 Project Proposal for Enclosure Services Interface (ESI) Standard X3T10/96-147R0 Date: 3/13/96 Author: C. Burns [SY-96-02] Question on use of SEL during SCAM Date: 3/13/96 Author: R. Weber [SY-96-02] X3T10/96-148R0 Comment Resolution on SPC X3T10 Letter Ballot X3T10/96-148R3 Date: 7/15/96 Author: R. Weber [SY-96-04] Comment Resolution on SPC X3T10 Letter Ballot X3T10/96-149R0 Date: 3/14/96 Author: E. Oetting [SY-96-02] Minutes of SMC/SSC Working Group - 2/96 X3T10/96-150R1 Date: 3/14/96 Author: B. Ham [SY-96-02] LVD Test Results X3T10/96-151R1 Date: 3/14/96 Author: D. Hagerman [SY-96-02] Project Proposal for High Availability Profile Technical Report X3T10/96-152R0 Date: 3/21/96 Author: Lohmeyer/Penokie [SY-96-03] Project Proposal for SCC-2 Standard X3T10/96-153R0 Date: 3/21/96 Author: R. Roberts [SY-96-02]

X3T10/96-154R0 Date: 3/25/96 Author: K. Gingerich [SY-96-02]

SCSI LVD Model

X3T10/96-155R0 Date: 4/9/96 Author: K. Hallam [SY-96-03]

Log Page OCh

X3T10/96-156R0 Date: 4/22/96 Author: D. Hagerman [SY-96-03]

Tape Support on FC-AL

X3T10/96-157R0 Date: 4/22/96 Author: Lamers/Lohmeyer [SY-96-03]

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X3T10/96-158R0 Date: 4/22/96 Author: J. Lohmeyer [SY-96-03]

Release Glitches

X3T10/96-159R0 Date: 4/22/96 Author: B. Ham [SY-96-03]

LVD Fast 40 REQ/ACK Test Results with Symmetrical Drivers and Terminators

X3T10/96-160R0 Date: 4/22/96 Author: S. Krakirian [SY-96-03]

Presentation on LVD glitch windows

X3T10/96-161R0 Date: 4/22/96 Author: R. Moore [SY-96-03]

LVD Driver Proposal

X3T10/96-162R0 Date: 4/24/96 Author: G. Penokie []

Clarification of when parity is valid (SPI-2).

X3T10/96-162R1 Date: 4/24/96 Author: G. Penokie [SY-96-03]

Clarification of when parity is valid (SPI-2).

X3T10/96-163R0 Date: 6/4/96 Author: J. Lohmeyer [sy-96-04]

Proposed Outline for SPI-2

X3T10/96-164R0 Date: 5/6/96 Author: G. Penokie [SY-96-03]

SCC-2 Proposals

X3T10/96-164R2 Date: 7/17/96 Author: G. Penokie [SY-96-04]

SCC-2 Proposals

X3T10/96-165R1 Date: 5/6/96 Author: G. Penokie [SY-96-03]

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X3T10/96-166R1 Date: 5/6/96 Author: Lohmeyer/Ham [SY-96-03]

Minutes of SPI-2 Working Group - 5/96

X3T10/96-167R1 Date: 5/7/96 Author: Weber/Lohmeyer [SY-96-03]

Minutes of SCSI-3 Working Group - 5/96

X3T10/96-168R0 Date: 5/7/96 Author: Weber/Lohmeyer [SY-96-03]

Minutes of X3T10 Plenary Meeting #15

X3T10/96-169R0 Date: 5/7/96 Author: C. Monia [SY-96-03]

Proposed Changes for SAM-2

X3T10/96-169R1 Date: 9/8/96 Author: C. Monia [SY-96-05]

Proposed Changes for SAM-2

X3T10/96-170R0 Date: 5/7/96 Author: P. Johanson [SY-96-03]

Simple Task Management

X3T10/96-171R0 Date: 5/7/96 Author: G. Houlder [SY-96-03]

Change Action for Zero in programmable Capacity Feature

X3T10/96-172R0 Date: 5/7/96 Author: G. Penokie [SY-96-03]

Fairness Algorithm

X3T10/96-173R0 Date: 5/8/96 Author: C. Monia [SY-96-03]

Expanding the ACA Mechanism to All Command Exceptions

X3T10/96-174R0 Date: 5/9/96 Author: T. Lappin [SY-96-03]

Minutes of SMC/SSC Working Group - 5/96

X3T10/96-175R0 Date: 5/9/96 Author: B. Ham [SY-96-05]

Proposal for LVD SCSI Physical Interface

X3T10/96-176R0 Date: 5/9/96 Author: B. Ham [SY-96-05]

Proposal for VHDCI and SCA Connectors

X3T10/96-177R0 Date: 5/9/96 Author: B. Dallas [SY-96-03]

Minutes of CAM-3 Working Group - 5/96

X3T10/96-178R0 Date: 5/9/96 Author: G. Stephens [SY-96-03]

SSC - SET CAPACITY Command

X3T10/96-179R0 Date: 5/9/96 Author: G. Stephens [SY-96-03]

Additional Write Protect functions for SCC

X3T10/96-180R0 Date: 5/9/96 Author: G. Stephens [SY-96-03]

SSC READ REVERSE command byte order selection

X3T10/96-181R0 Date: 5/9/96 Author: G. Stephens [SY-96-03]

SSC Progress Indication Using REQUEST SENSE Polling

X3T10/96-182R0 Date: 5/9/96 Author: G. Stephens [SY-96-03]

SPC Test Unit Ready and Defferred Error Reporting

X3T10/96-183R0 Date: 5/9/96 Author: G. Stephens [SY-96-03]

SBC Mandatory Commands and the PLDA Profile

X3T10/96-184R0 Date: 5/9/96 Author: R. Roberts [SY-96-03]

Minutes of MMC Working Group - 5/96

X3T10/96-185R0 Date: 5/9/96 Author: R. Roberts [SY-96-04]

Project Proposal for MMC-2 Standard

X3T10/96-186R0 Date: 5/9/96 Author: Weber/Lohmeyer [SY-96-03]

Security Initialization Proposal for SBC

X3T10/96-186R1 Date: 7/17/96 Author: Weber/Lohmeyer [SY-96-04]

Security Initialization Proposal for SBC

X3T10/96-187R0 Date: 6/4/96 Author: B. Ham [SY-96-04]

Voltage Mode and Slew Rate Test Data

X3T10/96-188R0 Date: 6/4/96 Author: J. Lohmeyer [SY-96-05]

Project Proposal for a SUPR standard

X3T10/96-206R0

MInutes of SCC-2 Study Group - 7/96

Date: 6/6/96 Author: Lamers/Lohmeyer [SY-96-04] X3T10/96-189R0 MInutes of SPI-2 Working Group - 6/96 X3T10/96-190R0 Date: 6/6/96 Author: K. Gingerich [SY-96-05] Changes to SPI-2 draft for HVD X3T10/96-191R0 Date: 6/22/96 Author: C. Monia [SY-96-04] Proposed Notational Conventions for SCSI Layered Protocol Documents X3T10/96-192R0 Date: 6/22/96 Author: C. Monia [SY-96-04] Request for Firmware Boot/restart ASC/ASCQ X3T10/96-193R0 Date: 6/25/96 Author: R. Roberts [SY-96-04] Minutes of MMC Working Group - 6/96 Date: 7/8/96 Author: G. Houlder [SY-96-04] X3T10/96-194R0 Add Immediate bit to XPWRITE and XDWRITE Extended commands X3T10/96-195R0 Date: 7/8/96 Author: G. Houlder [SY-96-04] Add mode page for Fibre Channel features X3T10/96-196R1 Date: 7/10/96 Author: G. Penokie [SY-96-04] Simplification of SACL configration X3T10/96-197R0 Date: 7/12/96 Author: G. Frazier [SY-96-04] proposal for a new set of SES elements to support parallel SCSI bus extenders X3T10/96-198R1 Date: 7/15/96 Author: P. Johansson [SY-96-04] New Task Management Models for SAM Date: 9/11/96 Author: P. Johansson [sy-96-05] X3T10/96-198R2 New Task Management Models for SAM X3T10/96-199R0 Date: 7/15/96 Author: B. Hager [SY-96-04] Proposed Normative Reference Structure (clause 2) and Guidelines for Use X3T10/96-200R0 Date: 7/15/96 Author: B. Ham [SY-96-04] LVD SCSI Current Mode Dirver Data Fast 80 Date: 7/15/96 Author: Weber/Lohmeyer [SY-96-04] X3T10/96-201R0 Minutes of the SPI-2/EPI Working Group - 7/96 X3T10/96-202R1 Date: 7/15/96 Author: Weber/Lohmeyer [SY-96-04] Minutes of SCSI Working Group - 7/96 X3T10/96-203R0 Date: 7/15/96 Author: Weber/Lohmeyer [SY-96-04] Minutes of Plenary Meeting #16 - 7/96 X3T10/96-204R0 Date: 7/15/96 Author: Weber/Dallas [SY-96-04] Minutes of the Serial Issues Study Group - 7/96 X3T10/96-205R1 Date: 7/16/96 Author: A. Stone [SY-96-04] Proposal for SCSI Tape Devices clauses of FC-PLDA

Date: 7/16/96 Author: G. Penokie [SY-96-04]

X3T10/96-207R0 Date: 5/3/96 Author: SC 25 Secretariat [SY-96-04]

CD Comments on SPI

X3T10/96-208R0 Date: 5/3/96 Author: SC 25 Secretariat [SY-96-04]

CD Comments on SBP

X3T10/96-209R0 Date: 5/3/96 Author: SC 25 Secretariat [SY-96-04]

CD Comments on Fast-20

X3T10/96-210R0 Date: 5/3/96 Author: SC 25 Secretariat [SY-96-04]

CD Comments on SAM

X3T10/96-211R0 Date: 5/3/96 Author: SC 25 Secretariat [SY-96-04]

CD Comments on SCC

X3T10/96-212R0 Date: 7/11/96 Author: C. Monia [SY-96-04]

SCSI-2 Questions

X3T10/96-213R0 Date: 7/17/96 Author: P. Johannson []

Presentation on SBP-2

X3T10/96-213R1 Date: 7/17/96 Author: P. Johannson [sy-96-04]

Presentation on SBP-2

X3T10/96-214R0 Date: 7/17/96 Author: R. DeKonig [SY-96-04]

Extensions to Identifier Descriptor

X3T10/96-215R0 Date: 7/18/96 Author: P. Kornitsky [SY-96-04]

Invoice for 8GB Technical Report

X3T10/96-216R0 Date: 7/18/96 Author: P. Kornitsky [SY-96-04]

Quote on SBP table conversion

X3T10/96-217R0 Date: 7/18/96 Author: P. Kornitsky [SY-96-04]

Invoice on SBP table conversion

X3T10/96-218R0 Date: 7/18/96 Author: T. Heinzman [SY-96-04]

Paritial Invoice on SPI ISO

X3T10/96-219R0 Date: 7/18/96 Author: E. Oetting [SY-96-04]

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X3T10/96-220R0 Date: 7/18/96 Author: L. Grantham [SY-96-04]

Proposal for LVD Icons

X3T10/96-221R0 Date: 7/18/96 Author: G. Stephens [SY-96-04]

Proposal for ammended project proposal for 1142

X3T10/96-222R1 Date: 8/13/96 Author: G. Milligan [sy-96-05]

Terminator Issues

X3T10/96-223R0 Date: 7/22/96 Author: S. Schmalz [SY-96-04]

Dependence of Differential and Common Mode Impedance on Parasitic Capacitances

and Freq

X3T10/96-224R0 Date: 7/22/96 Author: G.Penokie [SY-96-04]

Comments on SPI Ammendment

X3T10/96-225R0 Date: 9/6/96 Author: R. Weber [SY-96-05]

Project Proposal for SPC-2 Standard

X3T10/96-226R1 Date: 8/14/96 Author: J. Lohmeyer [SY-96-05] Proposed corrections and clarifications to SPI-2 regarding Release Glitches

X3T10/96-227R0 Date: 8/8/96 Author: J. Lohmeyer [SY-96-05] Minutes of SPI-2 Working Group - 8/96

X3T10/96-228R0 Date: 9/4/96 Author: G. Penokie [SY-96-05] More Simplification of SCAL Configuration

X3T10/96-229R0 Date: 9/6/96 Author: G. Penokie [SY-96-05] Case for mandatory Read(6)

X3T10/96-230R0 Date: 9/6/96 Author: G. Penokie [SY-96-05] Commands required by SCSI-2 and optional in SCSI-3

X3T10/96-231R0 Date: 9/6/96 Author: Richard Hovey [SY-96-05]
X3 OMC Copy Protection ad hoc group - Convener's Report

X3T10/96-232R0 Date: 9/6/96 Author: Ham/Weber/Lohmeyer [SY-96-05] Minutes of SPI-2 Working Group -- Sept 9, 1996

X3T10/96-233R0 Date: 9/6/96 Author: T. Coughlan [SY-96-05] Proposal for Additional Persistent Reservation Functions

X3T10/96-234R0 Date: 9/6/96 Author: Weber/Lamers/Lohmeyer [SY-96-05] Minutes of SCSI Working Group -- Sept 10-11, 1996 (Author: Weber/Lamers/Lohmeyer

X3T10/96-235R0 Date: 9/6/96 Author: Weber/Lamers/Lohmeyer [SY-96-05] Minutes of Plenary Meeting #17 -- Sept 12, 1996

X3T10/96-236R0 Date: 9/11/96 Author: C. Monia [SY-96-05] Proposed Resolution to ISO Comments on SAM

X3T10/96-237R1 Date: 9/11/96 Author: G. Milligan [SY-96-05] Obsolete Field Checking

X3T10/96-238R0 Date: 9/11/96 Author: P. Johansson [SY-96-05] Enhanced Configuration ROM for SBP-2 Devices

X3T10/96-239R0 Date: 9/11/96 Author: G. Penokie [SY-96-05] Editors Comments on SCC (ISO)

X3T10/96-240R1 Date: 9/11/96 Author: G. Stephens [SY-96-05] Link Event Timeout and the PLDA profile

X3T10/96-241R1 Date: 9/12/96 Author: G. Penokie [SY-96-05] Example of Normative Reference under new Guidelines

X3T10/96-242R1 Date: 9/11/96 Author: C. Monia [SY-96-05] Editors Report: Proposed Responses to ISO Review Comments on SAM

X3T10/96-243R0 Date: 9/12/96 Author: Roberts/Reisch [SY-96-05] Minutes of MMC Working Group - 9/96

X3T10/96-244R0 Date: 9/12/96 Author: E. Oetting [SY-96-05] Minutes of SMC/SSC Working Group - 9/96

X3T10/96-245R0 Date: 9/12/96 Author: D. Wallace [SY-96-05]

SPI-2 Termination

X3T10/96-246R0 Date: 9/12/96 Author: R. Roberts [SY-96-05]

Normative Reference Clause for SBP

X3T10/96-247R0 Date: 9/12/96 Author: R. Roberts [SY-96-05]

Letter Ballot Comment Resolution on MMC

X3T10/96-248R0 Date: 9/12/96 Author: G. Penokie [SY-96-05]

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