To: Membership of X3T10

From: Ralph Weber, Secretary X3T10
       John Lohmeyer, Chair X3T10

Subject: Minutes of X3T10 Plenary Meeting #12
          Palm Springs, CA -- November 9, 1995

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Results of Meeting

1. Opening Remarks

John Lohmeyer, the X3T10 Chair, called the meeting to order at 1:03 p.m., Thursday November 9, 1995. He thanked Jeff Stai of Western Digital Corp. 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 and changes:

- 8.24 Boot Considerations Project [Penman]
- 8.25 EPI Study Group [Ham]
- 10.6 SAM-2 Project Proposal (95-333) [Monia]
- 11. ISO
  - 11.1 ISO Report [Milligan]
  - 11.2 ISO New Business

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 International Program Fee ($300) is billed separately directly from ANSI.

The Chair said he had sent letters to 12 people from 6 organizations informing them that their membership was in jeopardy due to non-attendance (see 95-039r0) and that their membership would be terminated if they did not attend this meeting. All organizations were represented at this meeting except: Burr-Brown Corp.

This organization was 'terminated' (that is, the principal was changed to observer and the first alternate was dropped). No organizations joined X3T10 at the meeting.

John announced that the X3 Secretariat has instructed him to remove 22 people including the following 9 people that were in his attendance database from X3T10 based on failure to pay the international program fee:

- Dal Allan
- Bill Galloway
- Ray Kaillio
- Gerald Marazas
- Christian Mollard
- Robbie Shergill
- Scott Smyers
- Dave Weber
- Mark Woithe

John announced that while several of these people are P or A members, someone from each of the affected organizations had paid the international program fee. Therefore, no organizations were removed entirely from the voting rolls.

The X3T10 membership is now at 52 (*) organizations down from 53 organizations last time. Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current X3T10 membership list.

(*) No one was present from Thomas & Betts at this point in the meeting. A new representative was present later in the meeting (discovered from the sign-in sheet). This meant that for most of the meeting, the total membership was assumed to be 51 organizations.

Gary Stephens made the following motion:
The members of this committee demand that X3 investigate and respond to concerns expressed over the levying of the IPF (International Program Fee). Until such time as such action is taken, the members of this committee shall oppose the removal of the nine people listed above as members for a number of reasons:

- Correspondence on this subject has been continuing for two years with no response from ANSI or X3.
- Only X3 levies the IPF on the basis of participation in American Standards activities and this is an international fee.
- X3T10, X3T11, X3T12 (and pending X3T13) committee members participate in only one international activity.
- Documentation indicating that other standards secretariats levy the fee on the basis of individual participation, not committee participation.

It was further moved that the removal of the nine people listed above as the members of X3T10 be suspended until the listed concerns are addressed.

Skip Jones seconded the motion.

The motion was discussed at length. Very little was said favoring the current fee structure. Claims were made that IEEE collects the fee only on an individual participation basis and then only using an honor system. This lead to charges that X3 is financing IEEE international activities. John suggested that such claims were speculative, at best. Ed Gardner suggested that very little benefit is derived from international participation. Skip Jones suggested that X3T10 end its international participation and thus end payment of the fee.

John noted that he will not honor the requirement of the motion to reinstate the members. He stated that the SD-2 (X3 rules) give him no leeway regarding terminations for non-payment of fees. Despite this, the demands for John to ignore the X3 Secretariat were repeated several times.

The motion passed 39:0:0:12=51.

4. Approval of Minutes - September Meeting Bedford, NH (X3T10/95-325r1)

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) or Dan Arnold (darnold@itic.nw.dc.us) at (202) 626-5741.

John announced that the 1996 Mailing Subscription Fees (for paper mailings) will go up $60 to $470 U.S. and $900 international.

Larry Lamers requested that all documents for the next mailing be in his hands by 10:30 a.m. on Thursday November 16, 1995. 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 high-quality, single-sided originals with adequate margins and 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.

In keeping with the X3T10 committee’s new efforts for electronic document filing and distribution, Larry requested that electronic copies of all documents, in their native format, be made available to him. The electronic copies can be emailed directly to Larry (at ljlamers@corp.adaptec.com), placed on the SCSI BBS (719-574-0424), 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 ljlamers@aol.com) informing him of the exact file name and location of the file.
As usual, minutes are also available on the SCSI BBS (719-574-0424) and will be distributed to the ATA and SCSI Reflectors. To be added to the ATA Reflector, send an email to majordomo@dt.wdc.com with the line 'subscribe ata' in the message body. To subscribe to the SCSI Reflector, send an electronic message to: scsi-request@symbios.com and include your mailing address 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.

John reported that Micropolis and Compaq have not responded to the letters he sent following the March and May meetings, respectively.

Gene Milligan reported that the Compaq attorney had provided a draft letter regarding the Compaq response to John Lohmeyer's patent policy letter. Since the fax cover sheet is marked attorney-client privileged Gene did not distribute a copy of the letter. But, he indicated that it was provided to ensure that the necessary ANSI requirements were addressed. Gene noted that he believed the letter was intended to offer ATA-3 relevant Compaq patents. However he had communicated two change requests regarding the Compaq correspondence. One item was the presumably inadvertent silence on security feature patents and the other was some detailed language that might be subject to misinterpretation regarding the ANSI policy.


7. Review of Old Action Items

84) George Penokie will prepare a document (probably a technical report) describing the SPI fairness algorithm. Dropped
97) Alan Olsen will review the REPORT DENSITY proposal with QIC. Dropped
116) Rick Tewell will document the usage of the 0Dh mode page code in SBC as per the wishes of X3T10 expressed in item 10.6 of the meeting #10 minutes. Carryover
118) Charles Monia will draft a SAM-2 project proposal. Complete
119) John Lohmeyer will forward the SBP-2 project proposal to X3 for further consideration. Complete
120) John Lohmeyer will forward the revised PC Boot Considerations project proposal to X3 for further consideration. Complete
121) John Lohmeyer will add a working group agenda item to discuss how the SPC document can be brought expeditiously to public review. Complete
122) Peter Johansson will obtain an IEEE organizationally unique identifier for use in SBP conforming devices. Complete

8. Subgroup and/or Project Status Reports

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

John said that the current X3T10 project status summary was included on the backs of the meeting agendas and will be included in the mailing as usual. He noted that the status of several projects changed on Monday of this week and announced the new project numbers assigned.

The recommendation to establish a new Technical Committee for ATA passed 23:0:0:4. The organizational meeting for X3T13 will probably occur in January; a press release will be issued.
8.2 X3T10.1 Task Group Report [Hallam]

Ken Hallam reported that the following X3T10.1 meetings were held since the last X3T10 Plenary: September 25, 1995 Denver, CO - Electrical WG; Oct. 30 thru Nov. 1, 1995 Hampshire, UK - General WG; Nov. 1, 1995 Hampshire, UK - Plenary. X3T10.1 has 25 Principle Members, 14 of whom attended Plenary in UK.

X3T10.1 work has been devoted to PH1, TL1, S2P. X3T10.1 received 23 new proposals: 2 PH1 proposals, 14 TL1 proposals, and 7 S2P proposals. Seven proposals were deferred to second generation documents. Ken reported the following change activities: new designs, more initiator participation, incremental experience, and clarification. No votes were taken to forward drafts to letter ballot because of need to: update drafts with proposals for member review, incorporate changes and look for "ripple effect", and prepare updated drafts slated for 11/15 mailing.

Ken announced that planned draft reviews and votes are scheduled for the December meeting. Letter ballots could close in January 96. Letter ballot comments would then be processed at the February meeting. Ken announced that the following second generation (40 MB links, speed negotiation) work has begun: PH2 and TL2.

Ken announced the following long term meeting schedule:

<table>
<thead>
<tr>
<th>Week</th>
<th>Location</th>
<th>Host</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/11/95</td>
<td>Milpitas, CA</td>
<td>VLSI</td>
</tr>
<tr>
<td>2/26/96</td>
<td>Lake Tahoe, CA</td>
<td>Samsung</td>
</tr>
<tr>
<td>4/29/96</td>
<td>Burlington, VT</td>
<td>IBM</td>
</tr>
<tr>
<td>6/24/96</td>
<td>St. Petersburg Beach, FL</td>
<td>AMP</td>
</tr>
<tr>
<td>8/26/96</td>
<td>Ft. Collins, CO</td>
<td>Symbios Logic</td>
</tr>
<tr>
<td>10/30/96</td>
<td>San Jose, CA</td>
<td>Adaptec *</td>
</tr>
<tr>
<td>12/9/96</td>
<td>Hawaii</td>
<td>IBM *</td>
</tr>
</tbody>
</table>

* = Tentative locations.

Ken announced the following X3T10.1 approved WG Meetings:
- X3T10.1 SSA Working Group - December 11-13, 1995 in Milpitas, CA.

8.3 SCSI Common Access Method (CAM) {Project 792-D} [Dallas]

John reported that the letter ballot for approval of CAM closes November 17th. Bill Dallas reported that he has received no other communications on CAM.

8.4 ATA Extensions (ATA-2) Status {Project 948-D} [Finch]

Gene Milligan gave an oral report on the recent meetings of the ATA Working Group (see the ATA minutes in 95-328 and 95-328).

Gene Milligan moved that X3T10 accept the recommendations of the ATA Ad Hoc. Larry Lamers seconded the motion. The motion passed unanimously. Larry Lamers took an action item to conduct a letter ballot for forwarding ATA-3 to first public review.

Pete McLean moved that X3T10 authorize the expenditure of up to $1,200 for inclusion of the ANSI edits for ATA-2 revision 3 (producing ATA-2 revision 3a). Steve Finch seconded the motion. The vote passed 26:0:0:25=51.

8.5 SCSI-3 Parallel Interface (SPI) Status {Project 855-D} [Lamers]

John reported that SPI is in the process of being published at ANSI. Since the last meeting, the Larry and John have been notified of three errors in SPI. John described the errors in general terms. John described the process by which an amendment correcting SPI will be developed and approved.
Gary Stephens moved that the SPI editor be authorized to prepare an amendment to SPI to correct the errors identified in document X3T10/95-356 to be distributed for letter ballot and that the corrections be forward to the SPI-2 technical editor for incorporation therein. Peter Johansson seconded the motion. The motion passed 26:0:0:25=51.

8.6  SCSI-3 Interlocked Protocol (SIP) Status {Project 856-D} [Penokie]

George Penokie moved that X3T10 authorize a letter ballot for forwarding of SIP revision 8 to first public review. Skip Jones seconded the motion. George stated that SIP has been relatively stable for a couple of revisions. There were no dissenting options expressed.

The motion passed 26:0:0:25=51.

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

Bill reported on the results of the CAM-3 Working Group meeting. Minutes of the meeting can be found in document 95-354.

8.8  SCSI-3 Generic Packetized Protocol (GPP) Status {Project 991-DT} [Stephens]

John reported that the first (and apparently only) public review on the GPP technical report will close on November 14th. It will be designated X3/TR-16-199x.

8.9  SCSI-3 Serial Bus Protocol (SBP) Status {Project 992-D} [Roberts]

Ron Roberts reported that no one attended the SBP comments review meeting, so he assumes that there are no comments on the proposed resolutions for the SBP public review comments.

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

John reported that the second public review on FCP closes on November 28th. John is not aware of any comments received against FCP. Gary Stephens stated that he plans to submit a public review comment.

8.11  SCSI-3 Architecture Model (SAM) Status {Project 994-D} [Monia]

John reported that the second public review on SAM closes on December 12th. John is not aware of any comments received against SAM.

8.12  SCSI-3 Primary Commands (SPC) Status {Project 995-D} [Weber]

Ralph reported that revision 8 was distributed in the last mailing.

Charles Monia moved that the status of SPC be changed from Working Draft to draft standard by entering the “Stabilized State” in accordance with Clause 2.5 of the X3T10 Proposed Standards Development Policies and Procedures with the specific proviso that the technical editor include on his list of Accepted Items X3T10/95-229 Persistent Reservations as amended by the working group, X3T10/95-344-345 ASC/ASCQs as amended by the working group, and X3T10/95-240 Device ID VPD when accepted, along with the minutes recording that the proposals X3T10/95-324 Cabinet Services and X3T10/95-349 SCSI Version Proposal are not on the list of Accepted Items. Skip Jones seconded the motion.

Peter Johansson moved that the motion be amended to move Persistent Reservations out of the list of Accepted Items for inclusion in SPC. Gary Stephens seconded the motion to amend. After a brief discussion, the motion to amend failed 2:24:0:25=51.

The original motion passed 27:1:0:24=51.
Speaking to his negative vote, Gene Milligan moved that, in light of the absence of plans for version reporting in the stabilized SPC, clause 1.2 be removed from the X3T10 Proposed Standards Development Policies and Procedures. The motion passed 26:2:0:24=51.

Speaking to their negative votes, Gene Milligan and Gary Stephens stated their support for the concept of version reporting.

8.13 SCSI-3 Block Commands (SBC) Status {Project 996-D} [Tewell]

John Lohmeyer reported that no progress has been made on SBC. He described the situation with the current technical editor and called for interested parties to volunteer for this position.

8.14 SCSI-3 Stream Commands (SSC) Status {Project 997-D} [Lappin]

Ted Lappin reported that the SSC/SMC working group met earlier (held in the absence of the SMC editor). He noted that the location of the soft write-protect bit was discussed and the bit was left in its current mode page (see SSC revision 5). Several requests for clarifications were also discussed. Ted reported that his next task is SAMinizing the SSC. The minutes of the SSC/SMC meeting can be found in document 95-359.

8.15 SCSI-3 Graphics Commands (SGC) Status {Project 998-D} [Tewell]

John Lohmeyer reported that the status of SGC is much the same as SBC. He will entertain volunteers to pick up this work.

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

No report was available for the SMC.

8.17 SCSI-3 Controller Commands (SCC) Status {Project 1047-D} [Penokie]

George Penokie reported that SCC second public review will close on December 12th. George reported that a special joint SCC/RAB meeting will be held Tuesday morning of January X3T10 week to review proposed enhancements to SCC. These proposed enhancements are the outcome of work done in the High Availability Study Group. He encouraged attendance at that meeting by all interested parties.

8.18 Multimedia Command Set (MMC) Status {Project 1048-D} [Roberts]

Ron Roberts reported that working group reviewed all the HP write-process commands. The results of that review have been accepted for MMC revision 4.0. MMC revision 4.0 will be ready in December (not in time for the next X3T10 mailing).

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

John Lohmeyer reported that the management review for Fast-20 was held at the OMC meeting this week.

8.20 AT Attachment-3 Interface (ATA-3) Status {Project 2008-D} [Milligan]

Gene Milligan reported on this subject earlier in the meeting (see 8.4).

8.21 ATA Packet Interface (ATAPI) Status {Project 1120-D} [Milligan]

Gene Milligan reported on this subject earlier in the meeting (see 8.4).

8.22 SPI-2 Study Group [Ham/Aloisi]
Paul Aloisi reported on several SPI-2 study group meetings. Minutes of the meetings are available in documents 95-337 and 95-340. The slides used in the status presentation can be found in document 95-362. SPI-2 will have a new draft in the next mailing.

8.23 High Availability Study Group [Sicola]

Charles Monia reported that the high availability study group meeting was held earlier this week.

8.24 Boot Considerations Project [Penman]

Duncan Penman reported that the document is nearly complete and that all known technical comments have been processed. Duncan plans to have a document ready for consideration at the next meeting.

8.25 EPI Study Group [Ham]

Bill Ham reported that the EPI study group held its first real meeting on Tuesday. Many useful details were discussed. He expressed the belief that the document will be ready for review in about six months.

9. Old Business

9.1 Clarification of international program fee [Allan]

John noted that the issue was discussed extensively under the membership topic.

9.2 Addressability of TARGET RESET task management function (94-236r2) [Snively]

Bob Snively moved that X3T10 accept the working group’s recommendation to accept 94-236r2. Charles Monia seconded the motion. The motion passed 24:0:0:27=51.

9.3 Resolution of SCSI-3 SBP (0992-D) Public Review Comments and Forwarding to 2PR

Ron Roberts and Peter Johansson reported on the OUI changes needed in SBP revision 21. Dick Scheel moved that SBP revision 22 be accepted as the resolution to comments received from first public review and be forward to X3 for further processing to second public review. Peter Johansson seconded the motion. The motion passed 29:0:0:22=51. John Lohmeyer took an action item to forward SBP revision 22 to X3 for processing toward second public review.

10. New Business

10.1 Resolution of 2PR comments (if any) on FCP

John Lohmeyer reported that no comments have been received from the FCP public review.

10.2 Resolution of 2PR comments (if any) on SAM

John Lohmeyer reported that no comments have been received from the SAM public review.

10.3 Resolution of 2PR comments (if any) on SCC

John Lohmeyer reported that no comments have been received from the SCC public review.

10.4 Actions on Working Group Recommendations

Charles Monia moved that X3T10 accept the working group’s recommendation to approve 95-351r1, Aborting Untagged Tasks, for inclusion in SIP. Peter Johansson seconded the motion. The motion passed 29:0:0:22=51.
George Penokie moved that X3T10 accept the working group’s recommendation to approve 95-344, Change to SCSI-3 ASC, and 95-345, Additional SCSI Qualifiers, for inclusion in SPC. Charles Monia seconded the motion. The motion passed 31:0:0:20=51.

Bob Snively moved that X3T10 approve 95-229r3 (95-229r2, Proposal for Persistent Reserve, as revised based on working group comments) for inclusion in the SPC. Charles Monia seconded the motion. Bob presented a review of the changes made as a result of the working group discussion. The motion passed 29:0:0:22=51.

10.5 Recommendation to X3 regarding management of an IEEE Organizational Unique Identifier [Johansson]

John Lohmeyer described the events leading to the need for an OUI for SBP and the IEEE RAC’s assignment of one to X3. He had developed a proposal for X3 management of the 24-bit extension identifiers. John moved that X3T10 forward 95-360, OUI Management Proposal, to X3. Charles Monia seconded the motion. The motion passed 28:0:0:23=51. John took an action item to forward 95-360 to X3.

10.6 SAM-2 Project Proposal (95-333) [Monia]

John Lohmeyer moved that X3T10 forward 95-333r1 (95-333r0 as revised) to X3 for further processing. Charles Monia seconded the motion. The motion passed 31:0:0:20=51. John took an action item to forward 95-333r1 (the SAM-2 Project Proposal as revised) to X3.

11. ISO

11.1 ISO Report [Milligan]

Gene Milligan, the X3T10 International Representative, gave a brief oral report and provided the following electronic report:

**ISO Report 11/95**

JTC 1 has issued twenty one NWI letter ballots concerning X3T10, 11, and 12. The ballots close 19 January. The ballots are:

- ISO/IEC JTC 1 N 3693  Pathways & Space for Customer Premises Cabling and Equipment
- ISO/IEC JTC 1 N 3694  FDDI SMT-2
- ISO/IEC JTC 1 N 3695  FDDI TP-PMD
- ISO/IEC JTC 1 N 3696  SPI
- ISO/IEC JTC 1 N 3697  SBP
- ISO/IEC JTC 1 N 3698  SAM
- ISO/IEC JTC 1 N 3699  Fast-20
- ISO/IEC JTC 1 N 3701  SCC
- ISO/IEC JTC 1 N 3702  FCP
- ISO/IEC JTC 1 N 3703  HPPI-SE
- ISO/IEC JTC 1 N 3704  HPPI-ATM
- ISO/IEC JTC 1 N 3705  FC-SW
- ISO/IEC JTC 1 N 3706  FC-LE
- ISO/IEC JTC 1 N 3707  FC-FG
- ISO/IEC JTC 1 N 3708  FC-PH-2
- ISO/IEC JTC 1 N 3709  FC-SB
- ISO/IEC JTC 1 N 3710  FC-FP
- ISO/IEC JTC 1 N 3711  FC-ATM
- ISO/IEC JTC 1 N 3712  FC-PH-3
- ISO/IEC JTC 1 N 3713  FC-GS
- ISO/IEC JTC 1 N 3714  FC-AL
11.2 ISO New Business

On behalf of the United States of America and the country for which they stand, Gene Milligan moved that X3T10 recommend that the U.S. Member body vote affirmatively on the following six questions:

1) Do you accept the proposal in documents ISO/IEC JTC 1 N 3696 (SPI NWI); N 3697 (SBP NWI); N 3698 (SAM NWI); N 3699 (Fast-20 NWI); N 3701 (SCC NWI); and N3702 (FCP NWI)?

2) Do you support the addition to the new work item to the programme of work of the joint technical committee?

3) Do you commit yourself to participate in the development of this new work item?

4) Are you able to offer a project editor who will dedicate his efforts to the advancement and maintenance of this project?

5) Do you have a major contribution or a reference document ready for submittal?

6) Will you have such a contribution within ninety days?

Charles Monia seconded the motion. Larry Lamers reminded the committee that only representatives for U.S. domiciled organizations could vote on this and other international standards motions. The motion passed 31:0:0:20=51.

Gene Milligan (the IR) moved that X3T10 action members with operations in foreign countries to lobby France, United Kingdom, Brazil, Italy, Sweden, Denmark, and other JTC 1 countries for support of the new work item projects, in particular, that they will contribute to the development by answering “yes” to question 3. Peter Johansson seconded the motion. The motion passed 31:0:0:20=51.

12. Liaison Reports

12.1 X3T11 Liaison Report [Cummings]

Roger Cummings provided the following written report:

X3T11 met on October 4, 1995 with 78 people in attendance. Panasonic Technologies and TV/Com International were deleted for failure to attend meetings and/or return letter ballots. Texas Instruments was added as a new member organization. One X3T11 member reported receiving a notice from the Secretariat that he had lost membership because of non-payment of the International Program Fee, but as the Chair had not been informed of this the only action taken was to approve a motion demanding that the Secretariat investigate the situation. The membership of X3T11 is now 61 organizations.

The results of two X3T11 LBs were announced. The Letter Ballot on HIPPI Serial (Rev 1.5) for an OMC compliance review and a first Public Review passed with F45-O02-DNV15, however a new version of the draft will be produced to respond to the comments submitted with the Opposed ballots. The Letter Ballot on the FC Private Loop Direct Attach passed with F45-O00-DNV17 (1 For ballot included comments).

It was reported that the first Public Review of Project 979-D, HIPPI-FC (X3.283-199x), had closed with no comments, but that a few editorial comments had been received from the ANSI editor.

A number of motions were adopted which will change the definition of the optical physical variants in FC-PH-2. The result will be to remove variants which are duplicates of those in FC-PH, and those based on 980 nm VCSEL technology. Informative annexes will be included which contain recommendations of the physical variants to be used in future implementations, and which requests that transceiver manufacturers indicate if their parts are capable of acting as receivers for multiple variant definitions.
A motion to rescind the decision of the August X3T11 Plenary to delay a decision on a connector for FC-PH-3 Copper physical variants beyond October was defeated. It was also decided by consensus to have a single definition of link length, and to include test methods in a Normative Annex, in FC-PH-3.

Technical Editors were solicited for the FC-PH-3 and FC-ATM projects.

The following X3T11 Letter Ballots were authorized:

1) Forwarding a Project Proposal for HIPPI Autoconfiguration (HIPPI-AC) to OMC for further processing.
2) Forwarding a working dpANS, for the Revised IPI-3 Disk project, for further processing including an OMC review and a first Public Review.
3) Forwarding a working dpANS, for the Revised IPI-3 Tape project, for further processing including an OMC review and a first Public Review.
4) Forwarding a working dpANS, for the FC-PH-2 project, for further processing including an OMC review and a first Public Review.
5) Increasing the minimum launch amplitude for the electrical physical variants in FC-PH-3 to 800 millivolts peak-to-peak (from the 600 millivolts peak-to-peak level specified in FC-PH).
6) Including in FC-PH-2 that ac coupling shall be required as part of the receiver electrical cable interface specification.
7) Forwarding a working dpANS, for the FC-LE project, for further processing including an OMC review and a first Public Review.
8) Forwarding a working dpX3TR, for the 10 bit Interface project, for further processing including an OMC review and a first Public Review.

The next meeting of X3T11 is on December 6, 1995 at the Clarion Bay View Hotel, 660 K Street, San Diego, CA 92101. The phone number for the hotel is (800) 766-0234. The cutoff date for reservations is November 3. Note that a meeting fee of $25 per day will be levied for attendance at the December X3T11 meetings on those not registered in the ANSI/ENDL block at the Clarion Hotel. The fee is necessary because of the exceptional circumstances involved in holding a co-located meeting with a major trade show (Supercomputing ’95).

12.2 SFF Industry Group [Allan]

Dal Allan provided the following written report on SFF activities:

The VHDCI (Very High Density Cable Interconnects) selected the AMP-proposed design and met to discuss the backend configurations for which AMP had supplied an initial EIA draft. More configurations were added to the list and a number of editorial errors identified. The SCA-2 connector backend has also been documented in initial EIA draft form. A number of additions were made for both the device and host side.

Several suggestions were discussed on how to improve the cable plant for ATA systems, and new cable alternatives will be provided for testing by drive vendors. In another activity, a request for information is being made to all vendors for unitized connectors being developed and in use for the ATA and SCSI markets.

The SFF-8047 and SFF-8048 specifications which provided enhanced ESI capabilities over SFF-8045 and SFF-8046 for FC-AL and SCSI respectively have been withdrawn. The expanded functionality will be provided by SCSI agents as described in the SAF-TE specification and the X3T10 working group recommendations on direction.

Means to provide future attachment of high rpm drives which require higher than 12V for operation will be documented in two SFF Specifications as companions to SFF-8045 and SFF-8046 for FC-AL and SCSI respectively have been withdrawn. The expanded functionality will be provided by SCSI agents as described in the SAF-TE specification and the X3T10 working group recommendations on direction.

Means to provide future attachment of high rpm drives which require higher than 12V for operation will be documented in two SFF Specifications as companions to SFF-8045 and SFF-8046. A mechanical interlock for hot plugging will prevent smoking 12V drives in 36V enclosures. An electrical interlock will prevent providing 36V to an enclosure which contains any 12V drives. Clear labeling on drives and enclosures will also be recommended.

12.3 IEEE P1394 [Marazas]
Peter Johansson reported that P1394 approval work is almost complete. He also gave a brief description of the 1394 follow-on project (a.k.a. P1394.1).

12.4 IEEE P1285 Status [Pak]

No report was received from P1285. Gene Milligan reported receipt of email from Martin Freeman requesting an electronic comments of Gene’s comments for consideration by the ballot resolution committee. Larry Lamers stated that he had received no correspondence regarding his P1285 comments.

12.5 PCMCIA Report [McLean]

Pete said that no noteworthy activities had occurred at PCMCIA.

12.6 Report on SCSI Industry Association Meeting

John Lohmeyer reported that the minutes of the 16 October meeting were sent to the SCSI Reflector. A meeting is planned for December 14th hosted by Quantum in Milpitas, CA at the Holiday Inn. A co-located meeting is planned for January 1996. In a straw poll, the committee favored a Thursday morning meeting over a Friday morning meeting: 8:4.

13. Review of Action Items

116) Rick Tewell will document the usage of the 0Dh mode page code in SBC as per the wishes of X3T10 expressed in item 10.6 of the meeting #10 minutes.
123) Larry Lamers will conduct a letter ballot for forwarding ATA-3 toward first public review.
124) John Lohmeyer will forward SBP revision 22 to X3 for processing toward second public review.
125) John Lohmeyer will forward 95-360 (the OUI management proposal) to X3.
126) John Lohmeyer will forward 95-333r1 (the SAM-2 Project Proposal as amended) to X3.
127) Larry Lamers will prepare an amendment for SPI for review by X3T10.
128) Larry Lamers will conduct a letter ballot for forwarding SIP revision 8 toward first public review.
129) John Lohmeyer will forward the revised X3T10 Policies and Procedures to X3.

14. Meeting Schedule

The next plenary meeting of X3T10 will be January 11, 1996, in Dallas, TX, at the Doubletree Hotel at Park West (214-869-4300), hosted by Quantum Corp. The meeting will begin at 1:00 p.m. on Thursday.

The meeting list for the next plenary week is:
Meetings marked with == are X3T10-authorized meetings. Meetings marked with -- are authorized by other groups and may change without notice.

??? The SCSI IA meeting day is to be determined by that group.
Minutes of X3T10 Plenary Meeting #12 in Palm Springs, CA

Meeting Map Abbreviation Key:

1394TA: 1394 Trade Association
ATA: AT Attachment (a.k.a. IDE)
ATA-2: ATA Extensions
ATA-3: Third Generation ATA
ATAPI: ATA Packet Interface
CAM: Common Access Method
CAM-3: Next generation CAM for SCSI-3 (was called CAM-2)
EPI: Synchronous Data Transfer at 20 Megatransfers/second
Fast-20: 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
High Avail.: High Availability
LB: Letter Ballot
MMC: SCSI-3 Multimedia Commands (CD-ROM)
P1394: IEEE Project on High Performance Serial Bus (not an X3 activity)
PH: Physical (Connectors, Cables, Transceivers, etc.)
Plenary: Full Committee Meeting
RAB: RAID Advisory Board (not an X3 activity)
RAID: Redundant Array of Independent Devices
SBP: SCSI-3 Serial Bus Protocol
SCC: SCSI-3 Controller Commands (RAID)
SCSI: Small Computer System Interface
SCSI IA: SCSI Industry Association (or whatever it will be called)
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)
Stor: Storage
UIG: User Interest Group (not an X3 activity)
VHDCI: Very High Density Cabled Interconnect
WG: Working Group (same as Ad Hoc Group)
X3T10: Lower Level Interfaces Technical Committee (was X3T9.2)
X3T10.1: SSA Task Group of X3T10 (was X3T9.7)

Several other X3T10 events are also planned:

<table>
<thead>
<tr>
<th>Event</th>
<th>Day/Date</th>
<th>Time</th>
<th>Location/contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPI-2 LVDS WG</td>
<td>Fr 12/15</td>
<td>9 am</td>
<td>Milpitas, CA / McGrath</td>
</tr>
<tr>
<td>SPI-2 LVDS WG</td>
<td>Mo 2/5/96</td>
<td>9 am</td>
<td>Denver, CO / Lohmeyer</td>
</tr>
<tr>
<td>ATA Working Group</td>
<td>Tu 11/28-12/1</td>
<td>9 am</td>
<td>WD in Irvine, CA / Hanan</td>
</tr>
<tr>
<td>ATA WG / X3T13</td>
<td>Tu 1/23-26/96</td>
<td>9 am</td>
<td>San Jose, CA / McGrath</td>
</tr>
<tr>
<td>MMC Working Group</td>
<td>Tu/We 12/5-7</td>
<td>9 am</td>
<td>Sunnyvale, CA / Philips (*)</td>
</tr>
</tbody>
</table>

(*) Two days starting on either 12/5 or 12/6, to be determined and announced to the MMC Reflector.

For more information about X3T10 activities, please contact the following people:
The long-term X3T10 meeting week schedule is:

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Host/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 8-12, 1996</td>
<td>Dallas, TX</td>
<td>Quantum</td>
</tr>
<tr>
<td>Mar 11-15, 1996</td>
<td>Newport Beach, CA</td>
<td>QLogi c</td>
</tr>
<tr>
<td>May 6-10, 1996</td>
<td>Ft. Lauderdale, FL</td>
<td>Adaptec</td>
</tr>
<tr>
<td>Jul 15-19, 1996</td>
<td>Colorado Springs, CO</td>
<td>Symbios Logi c</td>
</tr>
<tr>
<td>Sep 9-13, 1996</td>
<td>Natick, MA (near Boston)</td>
<td>Digital</td>
</tr>
<tr>
<td>Nov 4-8, 1996</td>
<td>Palm Springs, CA</td>
<td>Western Digital</td>
</tr>
<tr>
<td>Jan 6-10, 1997</td>
<td>Dallas, TX</td>
<td>Quantum</td>
</tr>
<tr>
<td>Mar 10-14, 1997</td>
<td>San Diego, CA</td>
<td>QLogi c</td>
</tr>
<tr>
<td>May 5-9, 1997</td>
<td>Natick, MA (near Boston)</td>
<td>Digital</td>
</tr>
<tr>
<td>Jul 14-18, 1997</td>
<td>Colorado Springs, CO</td>
<td>Symbios Logi c</td>
</tr>
<tr>
<td>Sep 8-12, 1997</td>
<td>Nashua, NH</td>
<td>Unitrode</td>
</tr>
<tr>
<td>Nov 3-7, 1997</td>
<td>Palm Springs, CA</td>
<td>Western Digital</td>
</tr>
</tbody>
</table>

Skip Jones moved and Paul Aloisi seconded that the 1997 meeting sites and hosts be approved as listed above. (The 1996 meetings and 1997 dates were previously approved.) The motion passed 24:4:1:22=51.

### 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.

Paul Aloisi moved that X3T10 authorize the X3T10-related meetings and events in the list above. Skip Jones seconded the motion. The motion passed unanimously.

15. Adjournment

The meeting was adjourned at 6:04 p.m. on Thursday November 9, 1995.
<table>
<thead>
<tr>
<th>Name</th>
<th>S</th>
<th>Organization</th>
<th>Electronic Mail Address</th>
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</table>
Minutes of X3T10 Plenary Meeting #12 in Palm Springs, CA

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57 People Present

Status Key:  P  -  Principal
             A, A# - Alternate
             O  -  Observer
             L  -  Liaison
             V  -  Visitor
Minutes of X3T10 Plenary Meeting #12 in Palm Springs, CA

X3T10/95-343r2

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Minutes of X3T10 Plenary Meeting #12 in Palm Springs, CA

X3T10/95-033R0 Date: 9/20/95 Author: J. Lohmeyer [SY-95-05]
Desc: Agenda for X3T10 Meeting #12 (Nov '95)

X3T10/95-034R0 Date: 6/17/95 Author: J. Lohmeyer [SY-95-04]
Desc: Results of X3T10 Letter Ballots 95-014 through 95-024

X3T10/95-035R0 Date: 7/21/95 Author: J. Lohmeyer [SY-95-04]
Desc: Response to Public Review Comment #1 on SCC

X3T10/95-036R0 Date: 7/21/95 Author: J. Lohmeyer [SY-95-04]
Desc: Response to Public Review Comment #2 on SCC

X3T10/95-037R0 Date: 7/21/95 Author: J. Lohmeyer [SY-95-04]
Desc: Response to Public Review Comment #3 on SCC

X3T10/95-038R0 Date: 9/20/95 Author: J. Lohmeyer [SY-95-05]
Desc: X3T10 Project Summary - July '95

X3T10/95-039R0 Date: 9/20/95 Author: J. Lohmeyer [SY-95-05]
Desc: Jeopardy letter for Nov '95 meeting

X3T10/95-040R0 Date: 10/4/95 Author: J. Lohmeyer [SY-96-01]
Desc: Agenda for X3T10 Meeting #13 (Jan '96)

X3T10/95-041R0 Date: 10/4/95 Author: J. Lohmeyer [SY-96-01]
Desc: X3T10 Project Summary - November '95

X3T10/95-042R0 Date: 10/4/95 Author: J. Lohmeyer [SY-96-01]
Desc: Jeopardy letter for Jan '96 meeting

X3T10/95-043R0 Date: 10/4/95 Author: J. Lohmeyer [SY-96-01]
Desc: Letter to Gassan Salaman (IEEE) requesting OUID for X3T10

X3T10/95-044R0 Date: 1/16/95 Author: S. Smyers [SY-95-01]
Desc: CDU Command Proposal

X3T10/95-045R0 Date: 1/16/95 Author: G. Penokie [SY-95-01]
Desc: Fast-20 Letter ballot comments

X3T10/95-046R0 Date: 1/16/95 Author: G. Penokie [SY-95-01]
Desc: SPC comments

X3T10/95-047R0 Date: 1/16/95 Author: G. Penokie [SY-95-02]
Desc: Public Review Comment #1 on SAM (X3.720)

X3T10/95-048R0 Date: 1/16/95 Author: G. Penokie [SY-95-02]
Desc: XOR Commands comments

X3T10/95-049R0 Date: 1/16/95 Author: T. Asami [SY-95-01]
Desc: Fast-20 Definition

X3T10/95-050R0 Date: 1/16/95 Author: C. Monia [SY-95-01]
Desc: Comparison of CA & ACA

X3T10/95-051R0 Date: 1/16/95 Author: D. Colegrove [SY-95-01]
Desc: PFA for ATA

X3T10/95-052R0 Date: 1/16/95 Author: D. Colegrove [SY-95-02]
Desc: PFA for ATA

X3T10/95-053R0 Date: 1/16/95 Author: L. Sloan [SY-95-01]
Desc: Presentation on 3rd Party Operations

X3T10/95-054R0 Date: 1/16/95 Author: L. Sloan [SY-95-02]
Desc: Technical details on 3rd Party Proposal

X3T10/95-055R0 Date: 1/16/95 Author: J. Elrod [SY-95-01]
Desc: Minutes of XOR Study Group - Jan '95

X3T10/95-056R0 Date: 1/16/95 Author: J. Molina [SY-95-01]
Desc: Letter on hotel locations

X3T10/95-057R0 Date: 1/16/95 Author: G. Stephens [SY-95-01]
Desc: Response for GPP Letter Ballot

X3T10/95-058R0 Date: 1/16/95 Author: E. Lappin [SY-95-01]
Desc: Space past EOD

X3T10/95-059R0 Date: 1/16/95 Author: E. Lappin [SY-95-01]
Desc: READ POSITION

X3T10/95-060R0 Date: 1/16/95 Author: E. Lappin [SY-95-02]
Desc: READ POSITION

X3T10/95-061R0 Date: 1/16/95 Author: R. Roberts [SY-95-01]
Desc: Minutes of MMC Working Group - Jan '95
X3T10/95-120R0  Date: 1/16/95  Author: Lamers/Milligan  [SY-95-01]
Desc: Minutes of ATA-3 Working Group - 1/11-12/95

X3T10/95-121R0  Date: 1/16/95  Author: S. Finch  [SY-95-01]
Desc: ATA-2 Annex F Issues

X3T10/95-122R0  Date: 1/16/95  Author: J. Chen  [SY-95-01]
Desc: ATA 2308/sec Timing Proposal

X3T10/95-123R0  Date: 1/16/95  Author: J. Lohmeyer  [SY-95-01]
Desc: Letter ballot results from mailing SY-9406

X3T10/95-124R0  Date: 1/16/95  Author: G. Penokie  [SY-95-02]
Desc: Public Review Comment #1 on FCP (X3.263)

X3T10/95-125R0  Date: 1/16/95  Author: L. Leach  [SY-95-01]
Desc: Cable Error Detection Proposal

X3T10/95-126R0  Date: 1/16/95  Author: D. Pak  [SY-95-01]
Desc: Liaison Report from 1285

X3T10/95-127R0  Date: 1/16/95  Author: D. Penman  [SY-95-01]
Desc: Additional ATA-3 Topics

X3T10/95-128R0  Date: 1/16/95  Author: D. Pak  [SY-95-01]
Desc: Liaison Report from 1285

X3T10/95-129R0  Date: 1/16/95  Author: D. Penman  [SY-95-01]
Desc: Minutes of SCSI Working Group - Jan '95

X3T10/95-130R0  Date: 1/16/95  Author: R. Weber  [SY-95-01]
Desc: Minutes of X3T10 Plenary Meeting #7

X3T10/95-131R0  Date: 1/16/95  Author: D. Penman  [SY-95-01]
Desc: ATA Systems Issues

X3T10/95-132R0  Date: 1/16/95  Author: T. Lappin  [SY-95-01]
Desc: Write without read block mode control

X3T10/95-133R0  Date: 1/16/95  Author: T. Lappin  [SY-95-02]
Desc: Clearing ASC/ASCQ

X3T10/95-134R0  Date: 1/16/95  Author: T. Lappin  [SY-95-02]
Desc: Write protect control

X3T10/95-135R0  Date: 1/16/95  Author: R. Weber  [SY-95-01]
Desc: Status of AIIM C21 M559 Standard at X3T10

X3T10/95-136R0  Date: 1/24/95  Author: B. Dallas  [SY-95-01]
Desc: Minutes of CAM WG - 1/95

X3T10/95-137R0  Date: 1/28/95  Author: K. Calvert  [SY-95-01]
Desc: Letter re: Copyright Release for ATASP1

X3T10/95-138R0  Date: 1/26/95  Author: M. Alexenko  [SY-95-01]
Desc: SCAM issues in SPI rev 15

X3T10/95-139R0  Date: 1/26/95  Author: J. Lohmeyer  [SY-95-01]
Desc: Minimum Active Negation Current Issue

X3T10/95-139R1  Date: 2/1/95  Author: J. Lohmeyer  [1]
Desc: Minimum Active Negation Current Issue

X3T10/95-139R2  Date: 2/8/95  Author: J. Lohmeyer  [SY-95-02]
Desc: Minimum Active Negation Current Issue

X3T10/95-140R0  Date: 1/27/95  Author: F. Podia  [SY-95-01]
Desc: Use of Log Pages Assigned by X3T10 to AIIM B21

X3T10/95-141R0  Date: 1/27/95  Author: K. Calvert  [SY-95-01]
Desc: ATASP1 Presentation

X3T10/95-142R0  Date: 1/27/95  Author: K. Calvert  [SY-95-01]
Desc: ATASP1 Specification

X3T10/95-143R0  Date: 1/27/95  Author: D. Worrell  [SY-95-01]
Desc: ATA-3 Features Proposal

X3T10/95-144R0  Date: 2/8/95  Author: H. Landis  [SY-95-02]
Desc: Identify DMA proposal

X3T10/95-145R0  Date: 2/8/95  Author: H. Landis  [SY-95-02]
Desc: Device 1 Only proposal

X3T10/95-146R0  Date: 2/9/95  Author: Lamers/Lohmeyer  [SY-95-02]
Desc: Electronic Notification Procedure

X3T10/95-147R0  Date: 2/9/95  Author: Lamers/Lohmeyer  [SY-95-02]
Desc: Preparing Documents for Committee Mailings

X3T10/95-148R0  Date: 2/9/95  Author: Lamers/Lohmeyer  [SY-95-02]
Minutes of X3T10 Plenary Meeting #12 in Palm Springs, CA

X3T10/95-149B0 Date: 2/12/95 Author: R. Roberts [SY-95-02]
Desc: Procedure for Funding X3T10 Technical Editors

X3T10/95-150B0 Date: 2/15/95 Author: Lamers/Milligan [SY-95-02]
Desc: Minutes of ATA-3 Working Group - 2/16/95

X3T10/95-151B1 Date: 2/15/95 Author: Lamers/Milligan [SY-95-02]
Desc: Minutes of ATA-3 Working Group - 2/15-16/95

X3T10/95-152B0 Date: 2/15/95 Author: J. McGrath [SY-95-02]
Desc: Problems with System Implementation of Dual Ports

X3T10/95-153B0 Date: 2/15/95 Author: C. Stevens [SY-95-02]
Desc: Enhanced Disk Drive Specification

X3T10/95-154B0 Date: 2/15/95 Author: H. Landis [SY-95-02]
Desc: Version Identification in ATA

X3T10/95-154R1 Date: 2/15/95 Author: G. Milligan [SY-95-03]
Desc: Version Identification in ATA

X3T10/95-155B0 Date: 2/15/95 Author: H. Landis [SY-95-02]
Desc: Comment on clause 10.5 of ATA-2

X3T10/95-156B0 Date: 2/15/95 Author: H. Landis [SY-95-02]
Desc: B10S Types, CHS Translation, LBA and other Good Stuff

X3T10/95-157B0 Date: 2/28/95 Author: J. Lohmeyer [SY-95-02]
Desc: Flowchart on X3T10 procedures

X3T10/95-158B0 Date: 3/2/95 Author: G. Penokie [SY-95-02]
Desc: IBM Patent Policy for SCC

X3T10/95-159B0 Date: 3/8/95 Author: L. Sloan [SY-95-02]
Desc: Distributed SCSI I/O Status and New Issues

X3T10/95-160B0 Date: 3/9/95 Author: L. Sloan [SY-95-02]
Desc: Public Review Comment #2 on SAM (X3.270)

X3T10/95-161B0 Date: 3/8/95 Author: G. Houlder [SY-95-02]
Desc: Minutes of XOR Study Group

X3T10/95-162B0 Date: 3/8/95 Author: Lamers/Milligan [SY-95-02]
Desc: Minutes of ATA Working Group - 3/8-9/95

X3T10/95-163B0 Date: 3/9/95 Author: J. Chen [SY-95-02]
Desc: Comments on ATA-2

X3T10/95-164B0 Date: 3/9/95 Author: T. Plone [SY-95-02]
Desc: Worldwide Industry Hardware Support

X3T10/95-165B0 Date: 3/9/95 Author: T. Plone [SY-95-02]
Desc: ATAPI Test Program

X3T10/95-166B0 Date: 3/9/95 Author: J. Lohmeyer [SY-95-02]
Desc: ATA-2 Forwarding Letter Ballot Results

X3T10/95-167B0 Date: 3/9/95 Author: C. Patton [SY-95-02]
Desc: ATA Electrical Simulation Plots

X3T10/95-168B0 Date: 3/9/95 Author: J. McGrath [SY-95-02]
Desc: ATA Electrical Issues with 2 Ports

X3T10/95-168R1 Date: 3/9/95 Author: J. McGrath [SY-95-03]
Desc: ATA Line Termination Issues

X3T10/95-168R2 Date: 7/10/95 Author: J. McGrath [SY-95-04]
Desc: ATA Signal Integrity Issues

X3T10/95-169B0 Date: 3/9/95 Author: R. Roberts [SY-95-02]
Desc: Minutes of MMC Working Group - 3/8/95

X3T10/95-170B0 Date: 3/9/95 Author: Weber/Lohmeyer [SY-95-02]
Desc: SCSI Working Group Minutes - 3/95

X3T10/95-171B0 Date: 3/9/95 Author: Weber/Lohmeyer [SY-95-02]
Desc: Minutes of X3T10 Plenary Meeting #8

X3T10/95-172B0 Date: 3/9/95 Author: Weber/Lohmeyer [SY-95-02]
Desc: SPI Futures Working Group Minutes - 3/95

X3T10/95-173B0 Date: 3/9/95 Author: D. Pak [SY-95-02]
Desc: P1285 Liaison Report - 3/95

X3T10/95-174B0 Date: 3/9/95 Author: B. Dallas [SY-95-02]
Desc: Minutes of the CAM-3 Working Group - 3/95

X3T10/95-175B0 Date: 3/17/95 Author: P. Johansson [SY-95-02]
Desc: Editorial Correction to SPI rev 15

X3T10/95-176B0 Date: 3/17/95 Author: L. Barra [SY-95-02]
Desc: Public Review Comment on FCP (X3.269)

X3T10/95-177B0 Date: 3/17/95 Author: L. Barra [SY-95-02]
Desc: Public Review Comment on SAM (X3.270)

X3T10/95-178B0 Date: 3/17/95 Author: K. Gingerich [SY-95-02]
Desc: Comments on Fast-20
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X3T10/95-179R0  Date: 3/17/95  Author: P. Aloisi  [SY-95-02]
Desc: 3.3 Volt SCSI Termpower

X3T10/95-180R0  Date: 3/17/95  Author: P. Aloisi  [SY-95-02]
Desc: SCSI-3 SPI Low Voltage

X3T10/95-181R0  Date: 3/17/95  Author: P. Aloisi  [SY-95-02]
Desc: Low Power SCSI

X3T10/95-182R0  Date: 3/17/95  Author: P. Aloisi  [SY-95-02]
Desc: proposed working draft SPI-LP

X3T10/95-183R0  Date: 3/17/95  Author: P. Aloisi  [SY-95-02]
Desc: Project Proposal for SPI-LV Standard

X3T10/95-184R0  Date: 3/17/95  Author: P. Aloisi  [SY-95-02]
Desc: SPI Hot Swapping/Plugging

X3T10/95-185R0  Date: 3/20/95  Author: T. Lappin  [SY-95-02]
Desc: Minutes of the SSC Meeting - 03/95

X3T10/95-186R0  Date: 3/25/95  Author: C. Monia  [SY-95-02]
Desc: Public Review Comment #1 on SBP (X3.268)

X3T10/95-187R0  Date: 3/25/95  Author: T. Wickland  [SY-95-02]
Desc: Public Review Comment #3 on SAM (X3.270)

X3T10/95-188R0  Date: 3/25/95  Author: G. Witalka  [SY-95-02]
Desc: Public Review Comment #2 on FCP (X3.269)

X3T10/95-189R0  Date: 3/25/95  Author: C. Monia  [SY-95-02]
Desc: Public Review Comment #3 on FCP (X3.269)

X3T10/95-190R0  Date: 3/25/95  Author: L. Sloan  [SY-95-02]
Desc: Public Review Comment #4 on FCP (X3.269)

X3T10/95-191R0  Date: 3/25/95  Author: G. Stephens  [SY-95-02]
Desc: Public Review Comment #5 on FCP (X3.269)

X3T10/95-192R0  Date: 3/25/95  Author: S. Smyers  [SY-95-02]
Desc: Public Review Comment #2 on SBP (X3.268)

X3T10/95-193R0  Date: 3/30/95  Author: L. Sloan  [SY-95-03]
Desc: Public Review Comment #6 on CAM (X.232)

X3T10/95-194R0  Date: 4/4/95  Author: P. McLean
Desc: Overlap Proposal

X3T10/95-194R1  Date: 4/20/95  Author: P. McLean  [SY-95-03]
Desc: Overlap Proposal

X3T10/95-195R0  Date: 4/8/95  Author: R. Roberts  [SY-95-03]
Desc: Minutes of MMC Working Group - 3/29-30/95

X3T10/95-196R0  Date: 4/11/95  Author: Lamers/Lohmeyer  [SY-95-03]
Desc: Minutes of Server SCSI Working Group - 4/10/95

X3T10/95-197R0  Date: 4/11/95  Author: K. Gingerich  [SY-95-03]
Desc: Power Dissipation Analysis

X3T10/95-198R0  Date: 4/12/95  Author: Lamers/Milligan
Desc: Minutes of ATA Working Group - 4/11-13/95

X3T10/95-199R0  Date: 4/12/95  Author: T. Hanan  [SY-95-03]
Desc: Driver Current for ATA-3

X3T10/95-200R0  Date: 4/13/95  Author: H. Landis  [SY-95-04]
Desc: Default Set Multiple Value

X3T10/95-201R0  Date: 4/21/95  Author: Freeman  [SY-95-03]
Desc: Request for density codes and medium type codes for QIC

X3T10/95-202R1  Date: 4/25/95  Author: C. Monia  [SY-95-03]
Desc: Proposed Responses to SAM Public Review Comments

X3T10/95-203R0  Date: 4/26/95  Author: C. Binford  [SY-95-03]
Desc: Proposal to handle unconfirmed FCP_RSP

X3T10/95-204R0  Date: 4/27/95  Author: R. Snively  [SY-95-03]
Desc: Response to Public Review Comments on FCP

X3T10/95-204R2  Date: 4/27/95  Author: R. Snively  [SY-95-04]
Desc: Response to Public Review Comments on FCP

X3T10/95-205R0  Date: 5/3/95  Author: P. McLean  [SY-95-03]
Desc: ATA-3 issues with ATAPI

X3T10/95-206R0  Date: 5/3/95  Author: B. Dallas  [SY-95-03]
Desc: Response to Public Review Comments on CAM

X3T10/95-207R0  Date: 5/8/95  Author: J. Lohmeyer  [SY-95-03]
Desc: Project Proposal for SPI-2 Standard

X3T10/95-207R1  Date: 5/8/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Project Proposal for SPI-2 Standard

X3T10/95-208R0  Date: 5/8/95  Author: E. Gardner  [SY-95-03]
Desc: FCP or DDA Profile use of Disconnect-Reconnect Mode Page
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Desc: TAG Annual Report

X3T10/95-232B0  Date: 5/13/95  Author: J. Elrod  [SY-95-03]
Desc: Minutes of XOR Study Group - 5/95

X3T10/95-232B0  Date: 5/13/95  Author: G. Scherer  [SY-95-03]
Desc: Public Review Comment # on FCP (from Emulex)

X3T10/95-234B0  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-03]
Desc: Project Proposal for SSA-PHI Standard

X3T10/95-234B1  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-04]
Desc: Project Proposal for SSA-PHI Standard

X3T10/95-235B0  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-03]
Desc: Project Proposal for SSA-PH2 Standard

X3T10/95-235B1  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-04]
Desc: Project Proposal for SSA-PH2 Standard

X3T10/95-236B0  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-03]
Desc: Project Proposal for SSA-TLI Standard

X3T10/95-236B1  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-04]
Desc: Project Proposal for SSA-TLI Standard

X3T10/95-237B0  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-03]
Desc: Project Proposal for SSA-TL2 Standard

X3T10/95-237B1  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-04]
Desc: Project Proposal for SSA-TL2 Standard

X3T10/95-238B0  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-03]
Desc: Project Proposal for SSA-S2P Standard

X3T10/95-238B1  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-04]
Desc: Project Proposal for SSA-S2P Standard

X3T10/95-239B0  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-03]
Desc: Project Proposal for SSA-S3P Standard

X3T10/95-239B1  Date: 5/13/95  Author: Scheible/Lamers  [SY-95-04]
Desc: Project Proposal for SSA-S3P Standard

X3T10/95-240B0  Date: 5/22/95  Author: J. Lohmeyer  [SY-95-03]
Desc: SCAM Mode Page Proposal

X3T10/95-241B0  Date: 5/22/95  Author: J. Urban  [SY-95-03]
Desc: Public Review Comment #1 on SCC

X3T10/95-242B0  Date: 7/27/95  Author: T. Wicklund  [SY-95-03]
Desc: Public Review Comment #3 on SCC

X3T10/95-243B0  Date: 6/2/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Response to Public Review Comment #1 on CAM

X3T10/95-244B0  Date: 6/2/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Response to Public Review Comment #1 on SAM

X3T10/95-245B0  Date: 6/2/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Response to Public Review Comment #2 on SAM

X3T10/95-246B0  Date: 6/2/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Response to Public Review Comment #3 on SAM

X3T10/95-247B0  Date: 6/2/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Response to Public Review Comment #1 on FCP

X3T10/95-248B0  Date: 6/2/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Response to Public Review Comment #2 on FCP

X3T10/95-249B0  Date: 6/2/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Response to Public Review Comment #3 on FCP

X3T10/95-250B0  Date: 6/2/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Response to Public Review Comment #4 on FCP

X3T10/95-251B0  Date: 6/2/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Response to Public Review Comment #5 on FCP

X3T10/95-252B0  Date: 6/2/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Response to Public Review Comment #6 on FCP

X3T10/95-253B0  Date: 6/2/95  Author: R. Weber  [SY-95-04]
Desc: Proposed REPORT LUNS command

X3T10/95-253B1  Date: 6/2/95  Author: R. Weber  [SY-95-05]
Desc: Proposed REPORT LUNS command

X3T10/95-254B0  Date: 6/2/95  Author: P. McLean  [SY-95-04]
Desc: Proposal for ATA+PI document

X3T10/95-255B0  Date: 6/16/95  Author: R. Roberts  [SY-95-04]
Desc: Minutes of MMC meeting

X3T10/95-256B0  Date: 6/22/95  Author: Lamers/Hilligan  [SY-95-04]
Desc: Proposal of ATA Working Group - 6/22-23/95

X3T10/95-257B0  Date: 6/22/95  Author: J. McGrath  [SY-95-04]
Desc: Comments on WD Overlap Proposal
X3T10/95-258R0  Date: 6/22/95  Author: D. Worrell  [SY-95-04]
Desc: Overlap Features

X3T10/95-258R1  Date: 7/7/95  Author: P. McLean  [SY-95-04]
Desc: Overlap Features

X3T10/95-258R3  Date: 7/7/95  Author: P. McLean  [SY-95-05]
Desc: ATA Overlap Proposal

X3T10/95-259R0  Date: 6/22/95  Author: D. Worrell  [SY-95-04]
Desc: ATA Project Schedule

X3T10/95-260R0  Date: 6/26/95  Author: G. Houlder  [SY-95-04]
Desc: Inadequacy of Number of Blocks in Mode Select/Sense

X3T10/95-260R1  Date: 6/26/95  Author: G. Houlder  [SY-95-05]
Desc: Set Capacity Proposal

X3T10/95-261R0  Date: 6/26/95  Author:  []
Desc: not used

X3T10/95-262R0  Date: 7/8/95  Author: L. Sloan  [SY-95-04]
Desc: An Update on Distributed I/O at LLNL

X3T10/95-263R0  Date: 7/10/95  Author: Weber/Lohmeyer  [SY-95-04]
Desc: Minutes of the SPI-2 & ESCP Study Group - 07/95

X3T10/95-264R1  Date: 7/10/95  Author: Weber/Lohmeyer  [SY-95-04]
Desc: Minutes of SCSI Working Group - 07/95

X3T10/95-265R1  Date: 7/10/95  Author: Weber/Lohmeyer  [SY-95-04]
Desc: Minutes of X3T10 Plenary #10

X3T10/95-266R0  Date: 7/10/95  Author: B. Ham  [SY-95-04]
Desc: Low Voltage Low Power Differential Interface

X3T10/95-267R0  Date: 7/10/95  Author: B. Ham  [SY-95-04]
Desc: SPI-2 Framework

X3T10/95-268R0  Date: 7/10/95  Author: EIA/TIA-644  [SY-95-04]
Desc: Electrical Characteristics of LVDS Signalling

X3T10/95-269R0  Date: 7/10/95  Author: P. Aloisi  [SY-95-04]
Desc: SCSI SPI-2 Low Voltage Differential

X3T10/95-269R1  Date: 7/10/95  Author: P. Aloisi  [SY-95-04]
Desc: SCSI SPI-2 Low Voltage Differential

X3T10/95-269R5  Date: 7/10/95  Author: P. Aloisi  [SY-95-05]
Desc: SCSI SPI-2 Low Voltage Differential

X3T10/95-270R0  Date: 7/10/95  Author: P. Aloisi  [SY-95-04]
Desc: Presentation on SPI-2 LVDS Bus

X3T10/95-271R0  Date: 7/10/95  Author: P. Aloisi  [SY-95-04]
Desc: Presentation on Power and Margin for SPI-2

X3T10/95-272R0  Date: 7/13/95  Author: P. Aloisi  [SY-95-04]
Desc: Power Distribution

X3T10/95-273R0  Date: 7/13/95  Author: S. Sicola  [SY-95-05]
Desc: Presentation on Fault Tolerant Controller

X3T10/95-274R0  Date: 7/13/95  Author: S. Sicola  [SY-95-04]
Desc: Minutes of the High Availability Study Group

X3T10/95-275R1  Date: 7/13/95  Author: R. Weber  [SY-95-04]
Desc: Minutes of the CAN Working Group - 7/95

X3T10/95-276R0  Date: 7/13/95  Author: P. Halford  [SY-95-04]
Desc: Fibre Channel Use of the IEEE Global Identifier

X3T10/95-277R0  Date: 7/13/95  Author: R. Roberts  [SY-95-04]
Desc: Response to public Review #1 comments on SBP

X3T10/95-278R0  Date: 7/13/95  Author: R. Snively  [SY-95-04]
Desc: Response to Letter Ballot comments on FCP-2 project proposal

X3T10/95-279R0  Date: 7/13/95  Author: D. Pak  [SY-95-04]
Desc: Liaison Report from P1285 - 7/95

X3T10/95-280R0  Date: 7/13/95  Author: J. Lohmeyer  [SY-95-04]
Desc: Response to letter ballot comments on EPI and SPI-2 project proposals

X3T10/95-281R0  Date: 7/13/95  Author: G. Milligan  [SY-95-04]
Desc: Response to letter ballot comments on ATA+PI project proposal

X3T10/95-282R0  Date: 7/13/95  Author: G. Milligan  [SY-95-04]
Desc: Response to letter ballot comments on formation of a new TC for ATA

X3T10/95-283R0  Date: 7/13/95  Author: R. Hallam  [SY-95-04]
Desc: Response to letter ballot comments on the SSA project proposals

X3T10/95-284R0  Date: 7/13/95  Author: R. Gotting  [SY-95-04]
Desc: Minutes of SMC/SCC Working Group Meeting - 7/95

X3T10/95-285R0  Date: 7/13/95  Author:  []
Desc: not used

X3T10/95-286R0  Date: 7/13/95  Author: R. Roberts  [SY-95-04]
X3T10/95-320R0  Date: 9/12/95  Author: B. Ham  [SY-95-05]
Desc: Proposed working draft Enhanced Physical Interface Technical Report (EPI)

X3T10/95-321R1  Date: 9/13/95  Author: D. Penman  [SY-95-06]
Desc: PC Boot Considerations > 8 GB

X3T10/95-322R0  Date: 9/13/95  Author: R. Snively  [SY-95-05]
Desc: Persistent Reserve Presentation

X3T10/95-323R0  Date: 9/13/95  Author: G. Milligan  [SY-95-05]
Desc: Comments on Information Exceptions Control Page

X3T10/95-324R1  Date: 9/19/95  Author: R. Snively  [SY-95-05]
Desc: Enclosure Services

X3T10/95-325R1  Date: 9/20/95  Author: Weber/Lohmeyer  [SY-95-05]
Desc: Minutes of X3T10 Plenary #

X3T10/95-326R0  Date: 9/20/95  Author: E. Outting  [SY-95-05]
Desc: Minutes of SSC/SMC Working Group - 9/95

X3T10/95-327R0  Date: 9/20/95  Author: R. Roberts  [SY-95-05]
Desc: Minutes of MMC Working Group - 9/95

X3T10/95-328R1  Date: 9/20/95  Author: Lamers/Milligan  [SY-95-05]
Desc: Minutes of ATA Working Group - 9/19-22/95

X3T10/95-329R0  Date: 9/20/95  Author: E. Oetting  [SY-95-05]
Desc: Minutes of SSC/SMC Working Group - 9/95

X3T10/95-330R0  Date: 9/20/95  Author: P. McLean  [SY-95-05]
Desc: Minutes of ATA Working Group - 9/95

X3T10/95-331R0  Date: 9/20/95  Author: P. McLean  [SY-95-05]
Desc: Flowcharts for ATA-3

X3T10/95-332R0  Date: 9/21/95  Author: M. Yokoyama  [SY-95-05]
Desc: Device Capability Page for CD devices

X3T10/95-333R0  Date: 9/28/95  Author: C. Monia  [SY-95-05]
Desc: Project Proposal for SCSI-3 Architecture Model - 2 (SAM-2)

X3T10/95-334R0  Date: 9/28/95  Author: C. Monia  [SY-95-06]
Desc: Project Proposal for SCSI-3 Architecture Model - 2 (SAM-2)

X3T10/95-335R0  Date: 9/29/95  Author: P. Aloisi  [SY-95-05]
Desc: SPI-2 LVDS Driver Tests

X3T10/95-336R0  Date: 9/29/95  Author: R. Ham  [SY-95-05]
Desc: Fast 40/80 LVDS Performance Using SCSI Interconnect

X3T10/95-337R0  Date: 9/29/95  Author: T. Spitler  [SY-95-06]
Desc: Cross-talk testing

X3T10/95-338R0  Date: 10/17/95  Author: J. Lohmeyer  [SY-95-06]
Desc: Minutes of ATA Working Group - 10/17-19/95

X3T10/95-339R0  Date: 10/19/95  Author: Z. Deggott  [SY-95-06]
Desc: Annex D SPI errors

X3T10/95-340R0  Date: 11/7/95  Author: Weber/Lohmeyer  [SY-95-05]
Desc: Minutes of SPI-2 Study Group - 11/95

X3T10/95-341R0  Date: 11/7/95  Author: Weber/Lohmeyer  [SY-95-06]
Desc: Minutes of EPI Study Group - 11/95

X3T10/95-342R0  Date: 11/7/95  Author: Weber/Lohmeyer  [SY-95-06]
Desc: Minutes of SCSI Working Group - 11/95

X3T10/95-343R0  Date: 11/7/95  Author: Weber/Lohmeyer  [SY-95-06]
Desc: Minutes of X3T10 Plenary Meeting #12

X3T10/95-344R0  Date: 11/7/95  Author: G. Penokie  [SY-95-06]
Desc: Change to SCSI-3 ASC

X3T10/95-345R0  Date: 11/7/95  Author: G. Penokie  [SY-95-06]
Desc: Additional SCSI Qualifiers

X3T10/95-346R0  Date: 11/7/95  Author: F. Gasparik  [SY-95-06]
Desc: LVDS Common Mode Specifications

X3T10/95-347R0  Date: 11/7/95  Author: D. Wallace  [SY-95-06]
Desc: Differential IV Curve

X3T10/95-348R0  Date: 11/7/95  Author: E. Gardner  [SY-95-06]
Desc: FCP-2 Disconnect-Connect Page

X3T10/95-349R0  Date: 11/7/95  Author: G. Milligan  [SY-95-06]
Desc: Version Control in SCSI

X3T10/95-350R0  Date: 11/8/95  Author: R. Roberts  [SY-95-06]
Desc: Minutes of MMC Working Group - 11/95

X3T10/95-351R0  Date: 11/8/95  Author: C. Monia  [SY-95-06]
Desc: Aborting Untagged Tasks

X3T10/95-352R0  Date: 11/8/95  Author: C. Monia  [SY-95-06]
Desc: Out of Order Command Execution
Minutes of X3T10 Plenary Meeting #12 in Palm Springs, CA

X3T10/95-353R0  Date: 11/8/95  Author: L. Sloan  [SY-95-06]
Desc: Protected Persistent Reservation

X3T10/95-354R0  Date: 11/8/95  Author: B. Dallas  [SY-95-06]
Desc: Minutes of CAM Working Group - 11/95

X3T10/95-355R0  Date: 11/8/95  Author: G. Houlder  [SY-95-06]
Desc: Immediate Bit validation with FOV

X3T10/95-356R0  Date: 11/8/95  Author: L. Lamers  [SY-95-06]
Desc: SPI Defects and Clarifications

X3T10/95-357R0  Date: 11/8/95  Author: S. Sicola  [SY-95-06]
Desc: SCSI-3 Fault Tolerant Controller Configuration

X3T10/95-358R0  Date: 11/8/95  Author: S. Sicola  [SY-95-06]
Desc: Presentation on Controller Failover Profile

X3T10/95-359R0  Date: 11/8/95  Author: T. Lappin  [SY-95-06]
Desc: Minutes of SCC Working Group - 11/95

X3T10/95-360R0  Date: 11/8/95  Author: J. Lohmeyer  [SY-95-06]
Desc: OUI Management Proposal

X3T10/95-361R0  Date: 11/9/95  Author: L. Lamers  [SY-95-06]
Desc: Submitting Documents Electronically

X3T10/95-362R0  Date: 11/9/95  Author: P. Aloisi  [SY-95-06]
Desc: SPI-2 Status Report

X3T10/95-363R0  Date: 11/10/95  Author: D. Uber  [SY-95-06]
Desc: Terminator Mismatch Problem

X3T10/95-364R0  Date: 11/14/95  Author: C. Monia  [SY-95-06]
Desc: Proposal to Change SPC Status From Working Draft to Draft Standard

X3T10/95-365R0  Date: 11/15/95  Author: D. Allan  [SY-95-06]
Desc: IPP Fees