

Accredited Standards Committee\*  
**National Committee for Information Technology Standards (NCITS)**

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**Date:** November 11, 1997

**Project:**

**Ref. Doc.:**

**Reply to:** John Lohmeyer

To: T10 Membership  
From: Ralph Weber / John Lohmeyer  
Subject: T10 Plenary Meeting #24 -- November 6, 1997  
Palm Springs, CA

Agenda

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  - 8.11 SCSI Parallel Interface - 2 (SPI-2) {Project 1142-D} [Ham/Penokie]
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  - 8.13 SCSI Fibre Channel Protocol - 2 (FCP-2) {Project 1144-D} [Snively]
  - 8.14 Serial Bus Protocol - 2 (SBP-2) {Project 1155-D} [Johansson]
  - 8.15 SCSI Architecture Model - 2 (SAM-2) {Project 1157-D} [Weber]
  - 8.16 SCSI-3 Enclosure Commands (SES) {Project 1212-D} [Snively]
  - 8.17 High Availability Profile (HAP) Technical Report {Project 1224-DT} [Hagerman]
  - 8.18 SCSI Controller Commands - 2 (SCC-2) {Project 1225-D} [Penokie]
  - 8.19 Multimedia Command Set - 2 (MMC-2) Status {Project 1228-D} [Roberts]
  - 8.20 SCSI Primary Commands - 2 (SPC-2) Status {Project 1236-D} [Weber]
  - 8.21 Reduced Block Commands (RBC) {Project 1240-D} [Bryan]
  - 8.22 SCSI Socket/SSL Services Command Set (SSS) {Project 1246-D} [Parker]
9. Old Business
  - 9.1 Resolution of SSC Letter Ballot Comments (97-020r1) [Stephens]

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- 9.2 Resolution of SCC-2 Letter Ballot Comments (97-31r0) [Penokie]
- 9.3 Approval of Contract Editor Quote and Invoice [Lamers]
- 9.4 Clarification of Web Distribution of Standards (Draft or Approved) [Lohmeyer]

10. New Business

- 10.1 T10 File Retention Policy
- 10.2 Actions on Working Group Recommendations
  - 10.2.1 Additional Persistent Reservation Type (97-242r1) [Snively]
  - 10.2.2 SPC-2 Changes complementary to RBC (97-256r2) [Johansson]
  - 10.2.3 Error in LOCK/UNLOCK CACHE Command CDB in SBC [Milligan]
  - 10.2.4 SCSI Enclosure Profile (97-264r1) [Weber/DeKoning]
- 10.3 Project Proposal for SPI-3 (97-262) [Lamers]
- 10.4 SBP-2 Security Extensions (97-245r1) [Johansson]

11. ISO

- 11.1 ISO Report [Milligan]
- 11.2 ISO Business [Milligan]
  - 11.2.1 US TAG recommendation for DIS 15842, SCSI-2 common access - Method transport and SCSI interface module
  - 11.2.2 Consideration of SSC for submission as an international standard [Milligan]
  - 11.2.3 Consideration of SCC-2 for submission as an international standard [Milligan]
  - 11.2.4 SAM-2 DIS [Milligan]
  - 11.2.5 Scope for Device Interfaces [Johansson]

12. Liaison Reports

- 12.1 T11 Liaison Report [Cummings]
- 12.2 T13 Liaison Report [Milligan]
- 12.3 SFF Industry Group [Allan]
- 12.4 IEEE 1394 [Johansson]
- 12.5 Copy Protection Technical Working Group (CPTWG) [Worrell]
- 12.6 IEEE P1285 Status
- 12.7 IEEE P1596.8 Status
- 12.8 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 T10 Chair, called the meeting to order at 1:31 p.m., Thursday November 6, 1997. He thanked Norm Harris and Adaptec for arranging and hosting the meeting.

John said that NCITS Subgroup Membership forms and the T10 Mailing Subscription form were available from Larry Lamers or himself at the head table. He said that people should use the NCITS forms to insure the NCITS Secretariat has the latest membership information. These forms should be mailed directly to the NCITS 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 T10 were made available to those attending.

## 2. Approval of Agenda

The draft agenda was approved with the following additions/changes:

- 10.2.1 Additional Persistent Reservation Type (97-242r1) [Snively]
- 10.2.2 SPC-2 Changes complementary to RBC (97-256r2) [Johansson]
- 10.2.3 Error in LOCK/UNLOCK CACHE Command CDB in SBC [Milligan]
- 10.2.4 SCSI Enclosure Profile (97-264r1) [Weber/DeKoning]

The following agenda items were added during the course of the meeting:

- 11.2.2 Consideration of SSC for submission as an international standard [Milligan]
- 11.2.3 Consideration of SCC-2 for submission as an international standard [Milligan]
- 11.2.4 SAM-2 DIS [Milligan]
- 11.2.5 Scope for Device Interfaces [Johansson]

## 3. Attendance and Membership

The membership requirements were reviewed. NCITS 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 T10. The individual may vote at the second plenary meeting. Working group meetings do not count toward attendance requirements.

Organizations must also pay the NCITS 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 13 people from 8 organizations informing them that their membership was in jeopardy due to non-attendance (see 97-034r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

Ciprico  
 Cirrus Logic  
 CMD Technology  
 Diogenes SCSI  
 Harting Electronik Inc.  
 KnowledgeTek  
 Molex  
 SyQuest Technology

All of the organizations were present except:

Cirrus Logic  
 CMD Technology

They were terminated due to lack of attendance (i.e., the principal member was changed to observer status and the first alternate member, if any, was dropped).

No organizations are currently in letter ballot jeopardy. Two organizations will be in letter ballot jeopardy should they not return all of the next set of letter ballots:

FSI Consulting Services  
 Harting Elektronik Inc.

There were no requests for new membership at this meeting.

The T10 membership during the meeting was 52 organizations, down from 54 organizations last time. Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current T10 membership list.

John presented the new membership form, being used this fall by NCITS for T10. He described the availability of CD\_Access (from ENDL) as part of the NCITS membership package. He described the new "Organizational Membership" category, priced at \$2,500 and allowing unlimited alternate members. Concerns were raised that naïve members might expect to get only meeting notices and minutes, where as both CD options include the full committee mailings (and CD\_Access includes much more).

John noted that CD-ROM and CD\_Access subscriptions are available to non-TC members, a change from previous years. Concerns were raised regarding the clarity of the new form in this area. John agreed to report the suggestions from the committee to NCITS.

John informed the committee that NCITS wants the membership forms returned by 21 November 1997. If someone completes a form but does not provide a payment, they will receive an invoice. If a current member fails to complete a form, they will be invoiced in the same way that they were last year (and can still make changes).

#### **4. Approval of Minutes - September Meeting Nashua, NH (T10/97-240r0)**

The minutes were approved as written.

#### **5. Document Distribution**

Members who have any problems with their mailing subscription should deal directly with Monica Vago (mvago@itic.nw.dc.us) (202) 626-5739.

Larry Lamers requested that all documents for the next mailing be in his hands in electronic format by 10:30 a.m. on Thursday November 13, 1997. Documents received after this time will go into a subsequent mailing.

Larry Lamers reminded the committee of the requirements for document submission to the committee mailing. Since T10 meets its document archiving requirements by saving the mailings, documents included in the mailing must be suitable for archiving. This means that native-format electronic originals with proper identification must be submitted. Document T10/95-147 contains the list of requirements for submissions. Document T10/95-361r0 contains instructions for expeditious delivery of documents to Larry.

The electronic copies can be sent directly to Larry by email (at ljlammers@ix.netcom.com), placed on the SCSI BBS (719-533-7950), or they can be transferred by ftp protocol to ftp.symbios.com and placed in the /pub/standards/io/pri/incoming directory. In the latter two cases, please also send an email to Larry (at ljlammers@ix.netcom.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), the T10 World Wide Web page (see below), and will be distributed to the T10 Reflector.

To be added to the T10 Reflector, send an email to majordomo@symbios.com with the line 'subscribe t10' in the message body. The NCITS Secretariat maintains a World Wide Web page at <http://www.ncits.org/>. Symbios Logic maintains a World Wide Web page on behalf of T10 at <http://www.symbios.com/t10/>.

The current document register is enclosure (3). The T10 document register is also available on the SCSI BBS in file DR.TXT and at <ftp://ftp.symbios.com/pub/standards/io/t10/dr.txt>.

#### **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.ncits.org/help/ansi\\_sdo.html](http://www.ncits.org/help/ansi_sdo.html). Annex I contains the ANSI patent policy. Amy Marasco manages patent issues for ANSI and can be contacted at [amarasco@ansi.org](mailto:amarasco@ansi.org) or 212-642-4954.

John Lohmeyer reported that he has received a letter describing IBM's patent policy regarding SCC-2 (97-257r0). John also reported receipt of a letter describing the Maxtor patent policy regarding patent 5,282,247 "Apparatus and Method for Providing Data Security in a Computer System Having Removable Memory" (97-271r0).

## 7. Review of Old Action Items

- 228) Larry Lamers will incorporate the pre-edit comments into SPI Amendment #1. *Carryover*
- 229) John Lohmeyer will forward the revised SPI Amendment #1 to NCITS for management review. *Carryover*
- 230) John Lohmeyer will forward the revised SES to NCITS for management review. *Carryover*
- 231) Larry Lamers (via professional editor) will prepare SES for forwarding to NCITS for management review. *Carryover*
- 238) Larry Lamers will check Fast-20 for inclusion of the ISO comments. *Carryover*
- 239) Gene Milligan will communicate the T10 endorsement of the SC 25 (Buzios/US) 35 recommendation regarding the JTC 1 re-engineering to the JTC 1 TAG. *Complete*
- 240) Gene Milligan will communicate the T10 endorsement of his personal recommendations on JTC 1 N 4787 and JTC 1 N 4785 to the JTC 1 TAG. *Complete*
- 241) Bob Snively will contact the chair of P1596.8 to establish an appropriate liaison. *Complete*
- 244) Pete McLean will prepare 97-162r3 for forwarding to NCITS. *Complete*
- 245) John Lohmeyer will forward 97-162r3 (the Reduced Block Commands project proposal) to NCITS for further processing. *Complete*
- 246) Erich Oetting will prepare SMC revision 10 for forwarding to NCITS. *Complete*
- 247) John Lohmeyer will forward SMC revision 10 to NCITS for processing toward first public review. *Complete*

## 8. Subgroup and/or Project Status Reports

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

John Lohmeyer said that the current T10 project status summary was included in the T10 Information Packages and will be included in the mailing as usual. John noted that several NCITS letter ballots have closed, but he has not received confirmation that they have passed. (Chair's note: All passed.) John reported that the next OMC meeting will be on November 19-20, 1997.

Gene Milligan noted that there is a dramatic change to the NCITS SD-2 that currently is going through letter ballot comments resolution.

### 8.2 T10.1 Task Group Report [Lamers]

John reported that the last T10.1 meeting was in June. T10 has requested that T10.1 be disbanded, but that he had not seen the official notice from NCITS. John indicated that this agenda item would be removed from the next agenda.

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

John Lohmeyer reported that action on the SPI Amendment is pending work by the technical editor.

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

Bill Dallas was unable to attend, but sent the following electronic report (which was read by John Lohmeyer):

...So, included in this mail is my CAM-3 status.

I will also be cc'ing you on mail I will be sending Gene Milligan on the companies that have implemented CAM.

I have been actively working on the CAM-3 document. I expect to release the document (Rev-3) within 3 weeks at the outside.

I have been cleaning up the document and writing the target mode section of the document.

I hope to make the mailings, but it is dependent on the how much of my time is consumed by these meetings.

John read the e-mail message mentioned in Bill's report:

...Included in this mail is the list of implementations that I know about.

I can't comment on the level of compliance of all the implementations but can comment on DIGITAL's.

Implementors or claimed support of CAM.

DIGITAL Equipment Corp. - Full implementation full compliance.

Tandem

BeOS - New multi-media OS just coming onto the market.

Apple

Wang - At one time. I no longer know if any of their new products have CAM.

VsTA - Experimental micro kernel for imbedded applications.

Qantel Technologies - Voice messaging.

QNX - Real time OS

Others

Microsoft claims support for CAM implemented drivers in 95 and NT. Basically what Microsoft did was take CAM and reorder the structure names and offsets of members. Added a few other features and called it a mini-port driver. The implementaion structure is the same as CAM. Basically it is a CAM implementation with a Microsoft reordering.

### **8.5 Serial Bus Protocol (SBP) Status {Project 992-D} [Roberts]**

John Lohmeyer reported that NCITS has sent the BSR-9 form to ANSI formally withdrawing SBP in September. In the absence of any objections this item will be removed from future agenda.

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

X3.301-1997 has been published and Ralph Weber has received his Technical Editor's copy. John Lohmeyer congratulated Ralph Weber on carrying this project through to publication. It was agreed that this agenda item should be consigned to the bit bucket.

### **8.7 SCSI-3 Block Commands (SBC) Status {Project 996-D} [Milligan]**

Gene Milligan reported that revision 8b is somewhere between NCITS and ANSI, progressing toward publication. He described a problem that has been reported in the table describing the LOCK/UNLOCK CACHE command. The problem was attributed to the editorial work that converted the document file from Word Perfect format to MS Word format. (See 10.2.3.)

### **8.8 SCSI-3 Stream Commands (SSC) Status {Project 997-D} [Stephens]**

Gary Stephens gave an oral report to the committee and provided the following electronic report for the minutes:

The SMC/SSC working group reviewed the SSC editor's responses to the Letter Ballot comments and Revision 11 of the SSC standard. The working group agreed on resolution of unresolved comments.

The editor agreed to prepare a revision 2 of the Letter Ballot comment resolution document and a Revision 12 of the draft standard.

The working group voted to make a recommendation to the plenary that the updated Letter Ballot resolution comments and Revision 12 be forwarded to NCITS for further processing.

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

Erich Oetting reported that SMC is in the ANSI publication process.

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

John Lohmeyer reported that the NCITS letter ballot closed on 28 October, but he has not received confirmation that the letter ballot passed. If the letter ballot passed, MMC will be forwarded to ANSI for publication.

### **8.11 SCSI Parallel Interface - 2 (SPI-2) {Project 1142-D} [Ham/Penokie]**

George Penokie reported that the SPI-2 revision 16 was reviewed at the working group. He then reported on several technical changes, requiring T10 approval.

- 1) Addition of a Fast-5 column and note 1 to the SE characteristic impedance table (Table 15 in revision 16);
- 2) Removal of note 1 in the Differential characteristic impedance table (Table 16 in revision 16);
- 3) Change of the maximum signal attenuation from 2,4 dB at 40 MHz to 1,41 dB at 60 MHz in the second paragraph after Table 16 (in revision 16);
- 4) Current text to be replaced by 1 ns for every entry in the Transmit Period Tolerance row in Table 42 of SPI-2 revision 16; and
- 5) Current text to be replaced by 1.1 ns for every entry in the Receive Period Tolerance row in Table 42 of SPI-2 revision 16.

Based on the unanimous recommendation of the SPI Working Group, George Penokie moved that T10 approve the technical changes (listed above) for inclusion in the stabilized portions of SPI-2. Paul Aloisi seconded the motion. Zane Daggett asked about the source of the changes in the cable attenuation specification. George explained that the change came from a desire to have an end-to-end specification. The problem was that the first end-to-end requirement didn't match the 15% loss specification given elsewhere in the standard. The change makes the specification match the 15% loss statement. The motion passed 43:0:0:9=52.

George Penokie reviewed that working group discussion regarding relaxation of the requirements regarding hot plugging (see 97-272). Based on the 13 to 8 recommendation of the working group, George Penokie moved that T10 approve the working group agreed changes in hot plugging. John Lohmeyer seconded the motion. The motion passed 38:2:1:11=52.

In response to a question from Gene Milligan, John Lohmeyer reported that the web site references both the stabilized SPI-2 revision 11 and the most-recent later version.

Gene Milligan moved that revision 17 of SPI-2 be accepted as the current working draft for project 1142-D and that its technical content be stabilized. Larry Lamers seconded the motion. In a discussion with Dal Allan, John noted that revision 17 would replace revision 11 on the web site, if the motion passes. John noted that an editing session is planned for 3 December, where a revision 18 will be produced (which will then replace revision 17 on the web site). The intent is that revision 18 be processed toward first public review by a T10 letter ballot.

Dal Allan moved to amend the motion to de-stabilize revision 11 and accept revision 17 as the current working draft. Chuck Brill seconded the motion to amend. During the discussion, it was noted that approving the motion to amend would leave SPI-2 unstabilized. The motion to amend failed 2:23:5:22=52.

The original motion passed 37:3:0:12=52.

George reported that SPI-2 revision 17 would be available for the next mailing, and on the web site early next week. He noted the editors meeting on 3 December and described its purposes as being a complete review of the document. By the Monday following 3 December, revision 18 will be available. Revision 18 will be distributed in a T10 letter ballot to approve forwarding of SPI-2 to first public review. He noted that the letter ballot would close around the middle of January. An attempt to resolve the letter ballot comments will be completed in time for action at the March meeting.

#### **8.12 SCSI Enhanced Parallel Interface (EPI) Technical Report {Project 1143-D} [Ham]**

John Lohmeyer reported on that activities of the EPI review during the SCSI working group (minutes in 97-273). He noted that the goal is to forward EPI around May.

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

Bob Snively report that he is developing a list of the changes from FCP to FCP-2. The document will be available soon on the web site. After the change list is agreed upon, Bob plans to begin drafting the FCP-2 document.

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

Peter Johansson made an oral report to the committee and provided the following electronic report for the minutes:

Since the September T10 plenary in Nashua, NH, the SBP-2 ad hoc working group has met twice, October 7 in Irvine, CA and earlier this week in Palm Springs, CA. Most of the time was spent on editorial review of the draft. The proposal for a bi-directional ORB presented in Natick has received no comment, hence is not proposed for inclusion in SBP-2.

By unanimous motion, the working group recommends that revision 3 of the SBP-2 draft be prepared by the editor and that this revision be balloted for forwarding to NCITS. Revision 3 is to be the same as revision 2h but without the change bars; the only changes between revision 2g and 2h are editorial and those approved for 97-245r1.

The following meeting schedule was agreed:  
March 17, 1998 (San Diego, CA) Working group during T10 week

Although the SBP-2 draft is proposed for a letter ballot to approve its first public review, comment on SBP-2 isochronous is still solicited from other segments of the industry (such as consumer electronics). The working group believes that existing isochronous features are adequate and correct for disks but that extensions may be needed for other targets.

Peter Johansson accepted an action item to prepare SBP-2 revision 3 for T10 letter ballot. John Lohmeyer accepted an action item to conduct a letter ballot on SBP-2 revision 3 for forwarding to first public review.

#### **8.15 SCSI Architecture Model - 2 (SAM-2) {Project 1157-D} [Weber]**

Ralph Weber reported that he has accepted the task of technical editing on SAM-2 and has done no other work on SAM-2.

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

Bob Snively reported that SES has been returned from the professional editor. He stated that the professional editor had some concerns, and the he (Bob) would be discussing the concerns with the professional editor soon. Bob plans to continue with the process toward publication (NCITS letter ballot and OMC management review) as soon as the nits are worked out.



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

Doug Hagerman reported that he will prepare HAP revision 6 as soon as possible, maybe in time for the next mailing.

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

George Penokie reported that the comments resolution document was revised slightly by the working group, producing 97-258r1. (See 9.2)

**8.19 Multimedia Command Set - 2 (MMC-2) Status {Project 1228-D} [Roberts]**

Ron Roberts reported on the activities of the MMC-2 working group (minutes in 97-280). Ron indicated that all the Mt. Fuji commands are in MMC-2 revision 3, with a couple of exceptions.

**8.20 SCSI Primary Commands - 2 (SPC-2) Status {Project 1236-D} [Weber]**

Ralph Weber reported that SPC-2 revision 1 will be in the next mailing. It will contain all approved T10 documents up to but not necessarily including documents approved at this meeting.

**8.21 Reduced Block Commands (RBC) {Project 1240-D} [Bryan]**

Pete McLean reported on the activities of the RBC working group (minutes in 97-270). Pete noted that the first draft of the RBC document (97-260) has been reviewed. Pete described efforts to coordinate the power management model between MMC-2 and RBC.

**8.22 SCSI Socket/SSL Services Command Set (SSS) {Project 1246-D} [Parker]**

Keith Parker reported on the SSS activities held during the SCSI working group (minutes in 97-273). He noted that the first draft will be available in February 1998.

**9. Old Business****9.1 Resolution of SSC Letter Ballot Comments (97-020r1) [Stephens]**

Based on the unanimous recommendation of the working group, Gary Stephens moved that T10 accept 97-204r2 as resolving the letter ballot comments for SSC, that the SSC editor be instructed to prepare SSC revision 12 including all the agreed changes, and that SSC revision 12 be forwarded to NCITS for processing toward first public review. Erich Oetting seconded the motion. The motion passed 38:0:0:16=52.

Gary Stephens took an action item to prepare SSC revision 12. John Lohmeyer took an action item to forward SSC revision 12 to NCITS for processing toward first public review.

**9.2 Resolution of SCC-2 Letter Ballot Comments (97-31r0) [Penokie]**

Based on the unanimous recommendation of the working group, George Penokie moved that T10 accept 97-258r1 as resolving the letter ballot comments for SCC-2, that SCC-2 revision 4 be accepted as including all the agreed changes, and that SCC-2 revision 4 be forwarded to NCITS for processing toward first public review. Ralph Weber seconded the motion. The motion passed 40:0:0:12=52.

George noted that SCC-2 revision 4 was in the last committee mailing. John Lohmeyer took an action item to forward SCC-2 revision 4 to NCITS for processing toward first public review.

### 9.3 Approval of Contract Editor Quote and Invoice [Lamers]

John Lohmeyer presented 97-284, an invoice from Patrick Waychoff for editing on SES, SPI, and Fast-20. Erich Oetting moved that the chair be authorized to instruct NCITS to pay the invoice. Peter Johansson seconded the motion. The motion passed 37:0:1:14=52.

John Lohmeyer took an action item to request that NCITS pay the invoice from Patrick Waychoff (97-284r0).

### 9.4 Clarification of Web Distribution of Standards (Draft or Approved) [Lohmeyer]

John Lohmeyer reported on his activities at the NCITS Secretariat as they relate to document publication on the web site. He noted that all draft documents will continue to be published on the web site, but with clear identification of all web site documents as drafts. John noted that he and Larry Lamers plan to draft a new preferred cover page for all T10 working drafts to further clarify their draft status.

## 10. New Business

### 10.1 T10 File Retention Policy

John noted that he and Larry have been asked by the NCITS Secretariat to draft a T10 file retention policy. He said that the policy has not yet been drafted. The group discussed various possible document retention policies.

John Lohmeyer took an action item to draft a T10 file retention policy.

### 10.2 Actions on Working Group Recommendations

#### 10.2.1 Additional Persistent Reservation Type (97-242r1) [Snively]

Based on the unanimous recommendation of the working group, Bob Snively moved that T10 accept 97-242r1 for inclusion in SPC-2. Ralph Weber seconded the motion. The motion passed 35:0:1:16=52.

#### 10.2.2 SPC-2 Changes complementary to RBC (97-256r2) [Johansson]

Peter Johansson reviewed the changes proposed in 97-256r2. The committee had a lengthy discussion of the proposal to make the REQUEST SENSE command optional. Since the committee sentiment seemed to be against making REQUEST SENSE optional in SPC-2, Peter decided to divide the question of RBC motivated changes in SPC-2.

Based on the unanimous recommendation of the RBC and SCSI working groups, Peter Johansson moved that T10 accept 97-256r2, with the exception of the REQUEST SENSE changes, for inclusion in SPC-2. Ralph Weber seconded the motion. The motion passed 21:2:3:26=52.

Peter Johansson moved that T10 accept the REQUEST SENSE changes in 97-256r2 for inclusion in SPC-2. The motion failed for lack of a second. Pete Johansson moved that T10 make REQUEST SENSE "Z" (made mandatory or optional by command standards) in SPC-2. Pete McLean seconded the motion. The motion passed 21:1:7:21=52.

#### 10.2.3 Error in LOCK/UNLOCK CACHE Command CDB in SBC [Milligan]

Based on the unanimous recommendation of the working group, Gene Milligan moved that the SBC editor be instructed to correct a typographical error and return byte 6 in the SBC command table for LOCK/UNLOCK CACHE to the reserved status it had in SCSI-2, at the earliest possible opportunity (including pre-publication editing at ANSI). Paul Aloisi seconded the motion. The motion passed 35:0:0:17=52.

**10.2.4 SCSI Enclosure Profile (97-264r1) [Weber/DeKoning]**

Ralph Weber reviewed the working group recommended changes that produced 97-264r1. Based on the 8:2:1 affirmative vote of the working group, Ralph Weber moved that T10 forward 97-264r1 (the SCSI Enclosure Profile project proposal) to NCITS for processing a new project. Doug Hagerman seconded the motion. The motion passed 31:0:0:21=52.

John Lohmeyer took an action item to forward 97-264r1 (the SCSI Enclosure Profile technical report project proposal) to NCITS for further processing.

**10.3 Project Proposal for SPI-3 (97-262) [Lamers]**

Based on the unanimous recommendation of the SPI Working Group, Larry Lamers moved that 97-262r2 be forwarded to NCITS for processing as a proposal for a new project on SPI-3. Erich Oetting seconded the motion. The motion passed 30:1:0:21=52. George Penokie declined to comment about his no vote, but rumor has it that he has volunteered to edit SPI-3.

John Lohmeyer took an action item to forward 97-262r2 (the SPI-3 project proposal) to NCITS for further processing.

**10.4 SBP-2 Security Extensions (97-245r1) [Johansson]**

Peter Johansson moved that 97-245r1, "Proposed SBP-2 Annex for Security", be accepted as a modification to stabilized parts of SBP-2 and that the changes themselves be stabilized. Pete McLean seconded the motion. Peter noted that the recommendation was unanimously approved by the SBP-2 ad hoc working group October 7, 1997. The motion passed 39:0:0:13=52.

Peter noted that Compaq patent 5,375,243 may apply to the security proposals specified in 97-245r1. This was first mentioned at the October 7, 1997, meeting of the SBP-2 ad hoc and has not yet received any response from Compaq. The working group requested the Chair of T10 to write Compaq and request that Compaq review 97-245r1 to ascertain whether or not Compaq patents are infringed by implementations of the security protocol.

John Lohmeyer accepted an action item to write Compaq and request that Compaq review 97-245r1 to ascertain whether or not Compaq patents are infringed by implementations of the security protocol.

**11. ISO****11.1 ISO Report [Milligan]**

Gene Milligan made an oral report to the committee and provided the following electronic report for the minutes:

The SAM DIS ballot closed with a vote of 22:0:4:2. Editorial comments were received from Germany (11) and Japan (5).

NCITS press release 2 for 1997 (L2/97-055) announced the intend to adopt 230 ISO/IEC JTC1 standards as ANSI standards. This action doubles the work of NCITS Technical Committees in re-affirmation of existing ISO/IEC and ANSI/ISO standards due to different dates for approval by ISO/IEC and ANSI. Unless specific actions are taken to synchronize re-affirmation processing, the technical committees face an unnecessary administrative burden.

L2 proposes that when a ISO/IEC JTC1 standard is up for re-affirmation (every 5 years), a U.S. recommendation to affirm the ISO standard implies (without a separate ballot) that the ANSI counterpart also be confirmed, regardless when the ANSI-ISO standard has been adopted or confirmed; and that if the review of the ISO/IEC JTC1 standard results in a revision, the US will either participate in the revision process by doing joint ballots on the drafts for adoption as ISO and ANSI/ISO standards, or if appropriate, decide to withdraw the ANSI/ISO standard.

**TITLE & SCOPE SC 100C:**

Audio, Video and Multimedia subsystems and equipment.  
Standardization of audio, video, television, audiovisual and multimedia equipment and systems. The activity addresses the hardware platform for audio, video, television, audiovisual and multimedia production and consumption in both consumer and professional environment, and as such runs from the simplest elements to complete systems, and from linearly programmed services to interactive applications.

SC 100C is especially but not exclusively concerned with the development of standards for interfaces, interconnections and interoperability, functional requirements and measuring methods for equipment and systems including electroacoustic transducers, and human interfaces.

**TITLE & SCOPE SC 100D:**

Cabled distribution systems.

Standardization of

\* cabled distribution systems including measuring methods

\* equipment and associated methods of measurement for

- headend reception

- processing and distribution of television signals, sound signals and their associated data signals

- processing, interfacing and transmitting all kinds of interactive multimedia signals using all applicable transmission media.

**11.2 ISO Business [Milligan]****11.2.1 US TAG recommendation for DIS 15842, SCSI-2 common access - Method transport and SCSI interface module**

Gene Milligan and John Lohmeyer discussed a letter that John should have received from the US TAG. Gene Milligan moved that the IR and the Chair be authorized to approve the DIS ballot on behalf of the US TAG, if the DIS ballot concerns the SCSI-2 CAM that was approved by T10, and that IR and the Chair conduct a letter ballot and provide negative or positive DIS comments, if the DIS concerns a standard from a competing standards group. Peter Johansson seconded the motion. The motion passed 30:0:0:22=52.

Gene Milligan and John Lohmeyer took an action item to approve the DIS on SCSI-2 CAM or conduct a letter ballot as described in item 11.2.1 in the minutes of T10 meeting #24 (97-274).

**11.2.2 Consideration of SSC for submission as an international standard [Milligan]**

After a discussion about ISO fast track with John Lohmeyer, Gene Milligan asked that this agenda item be dropped.

**11.2.3 Consideration of SCC-2 for submission as an international standard [Milligan]**

Gene Milligan asked that this agenda item be dropped.

John Lohmeyer took an action item to convene a group of interested T10 committee members to discuss international participation by T10.

**11.2.4 SAM DIS [Milligan]**

Gene Milligan moved that T10 authorize the technical editor to resolve the ISO comments on the SAM DIS, generate a resolution report, produce the final IS text and provide both to the IR for provision to ISO/IEC. Ralph Weber seconded the motion. In the absence of any objections, the motion passed unanimously.

**11.2.5 Scope for Device Interfaces [Johansson]**

Peter Johansson moved that the IR be instructed to draft a statement of concern about the overlap in scope between TC 100 in SC 25 in the area of device interfaces. Pete McLean seconded the motion.

Gene Milligan took an action item to draft a statement of concern about the overlap in scope between TC 100 in SC 25 in the area of device interfaces. Peter Johansson offered to help draft the statement of concern.

## 12. Liaison Reports

John Lohmeyer read the following e-mail to the committee:

From Barry Hedquist, NCITS OMC, beh@peren.com:

The Portable Applications Standard Committee (PASC) is an IEEE Computer Society standard committee that is responsible for the POSIX family of standards. The defining if the overall application portability interfaces for sockets is the responsibility of that committee.

The PASC Chair is Lowell Johnson of Unisys Corporation. His email is lgj@rsvl.unisys.com. Phone is 612 635-7305.

John expressed the belief that this e-mail concerns the SSS project and said that he will forward the e-mail message to Keith Parker.

### 12.1 T11 Liaison Report [Cummings]

Roger Cummings provided the following electronic report, and foils that John Lohmeyer presented to the committee:

T11 met on October 9, 1997 with 92 people in attendance. EMC, Tandem Computer, and the U.S. Navy lost membership because of a lack of attendance at T11 Plenary meetings. Clariion, Hitachi Cable, McData and VLSI Technology were added as new member organizations. This brings the membership of T11 to 84 organizations. The total attendance at the T11 meeting week was 129 people.

It was reported that NCITS Letter Ballots on recommendations to withdraw X3.186[R1992], X3.201-1992, A/I 9318-2:1992 all closed on 8/25/97 with 16 for, 0 opposed, 0 abstentions, and 10 not voting, and that the requests have now been passed to ANSI.

It was also noted that NCITS Letter Ballots for Final Approval of IPI-3 Disk Revised and IPI-3 Tape Revised close on 10/17/97.

The results of three T11 Letter Ballots for forwarding for OMC Compliance Review and a first Public Review were reported as:

- 1) FC-AL-2 - 60 for, 10 opposed, and 13 not voting (14 ballots with comments)
- 2) FC-PH/DAM:2 - 65 for, 4 opposed, and 14 not voting (7 ballots with comments)
- 3) FC-SW - 65 for, 0 opposed, and 18 not voting (3 ballots with comments)

All ballots passed, but T11 agreed unanimously to hold all three drafts in T11 for comment resolution.

A project proposal for a FC Cost Reduced 10 Km Single Mode Physical variant was approved for further processing by 60 for, 0 opposed and 21 not voting. T11 intends to assign this project to TG T11.2.

Motions to approve responses to first Public Review comments, and final drafts, for Projects 1119-D (FC-PH-3), 1162-DT (FC-PLDA) and 1235-DT (FC-FLA) were all approved by rollcall votes of 63 for, 0 opposed, and 21 not voting.

T11 unanimously agreed to not go forward with the 6 FC-PH restructuring project proposals because of a lacking of committed editing resources.

T11 also unanimously agreed to not go forward with the FC-HA, FC-HPD and FC-L project proposals because of a lack of committed editing resources.

Three new project proposals were worked on with a view to their being able to be approved at the December T11 Plenary. These were:

- 1) FC-PI'98 containing all of the physical variants which make sense for 1998 and beyond (including new ones in excess of 1.0625 Gbits/s)

2) FC-PH'98 containing all of the functionality in FC-2 & above from PH, PH-2 & PH-3 which makes sense for 1998 and beyond, plus new classes and link services

3) FC-AL-3 for loop futures with strong backwards compatibility with FC-AL & FC-AL-2

Motions to request the formation of Task Groups T11.3 (Interconnection Schemes) & T11.4 (Protocol Mappings) were postponed until December by 32 for, 4 opposed, 6 abstentions, and 42 not voting and 34 for, 7 opposed, 4 abstentions and 39 not voting respectively.

A motion to reconsider the choice of Portsmouth, UK as the location for the August 1998 T11 meetings failed by a roll call vote of 18 For, 27 Opposed, with 2 Abstaining and 37 Not Voting. The location is thus confirmed.

Calls for Volunteers for the positions of Chair of Task Groups T11.1 and T11.2 have been issued, and close on 12/5/97. A second Call for Volunteers for the position of T11 International Representative has been issued, and closes on 10/31/97.

The next meeting of T11 is being held during the week of December 8, 1997 at the Radisson Hotel at Orlando Airport, 555 Hazeltine National Drive, Orlando, FL 32812. The telephone number is (407) 856-0100 or (800) 333-3333, the fax (407) 855-7991. The Cutoff Date was October 22, 1997, but some rooms are still available until November 7. The Group Name is T11, the room rate is \$110 plus tax. See [www.dpt.com/t11](http://www.dpt.com/t11) for meeting map and other details. Note that the TC T11 Plenary meeting will take place on THURSDAY, December 11 and the TG T11.1 and T11.2 Plenary meetings will take place on Wednesday, December 10.

## 12.2 T13 Liaison Report [Milligan]

Gene Milligan provided the following electronic report for the minutes:

### T13 November Report

T13 met in October and resolved letter ballot comments on the three open development projects.

D1226 Revision 7 is being published as an NCITS Technical Report -Enhanced BIOS Services For Disk Drives and it's availability should be announced in the November 21, 1997 Standards Action.

D1248 Revision 5 will be announced for a public review beginning 12/5/97 and closing 2/3/98. NCITS 316:199X -1394 to AT Attachment - Tailgate will be priced at \$30 U.S. and \$39 non continental U.S.

D1153 Revision 17 will be announced for a public review beginning 12/5/97 and closing 2/3/98. NCITS 317:199X -1394 to -AT Attachment with Packet Interface Extension (ATA/ATAPI-4) will be priced at \$75 U.S. and \$97.50 non continental U.S.

T13 has canceled the December, January, and March meetings. The next plenary meeting of T13 will begin February 17, 1998 at the Marriot Hotel in Ft. Collins, CO, hosted by Symbios and conclude by the end of the day 2/20/98. This meeting will address any public review comments that may have occurred and will work on the proposal to provide the capability to power up in standby mode along with any other new proposals that may be made.

Gene offered to skip reading the report to the committee and the committee accepted his offer.

## 12.3 SFF Industry Group [Allan]

Dal Allan had left earlier in the meeting, but provided the following electronic report for the minutes (which was read by Ralph Weber):

The T10 request on the 2-56 screw thread has been answered by the IEC. Harvey Waltersdorf advises that it is acceptable to define an English thread as long as the body of the connector is dimensioned in metric.

The specification for VHDCI has been approved for publication but another revision will be generated to incorporate comments that were submitted against the EIA draft standard.

Progress continues on SCA and the optical connectors. The initial effort on a methodology for testing high speed serial cable assemblies was discussed.

The last of the TBDs in SFF-8049 and SFF-8059 specifications for the ATA 80-conductor cable and 40-pin connector have been completed.

The next revision of GBIC (Gigabit Interface Converter) is 4.4, the biggest change is to incorporate color coding to identify single mode and multi mode.

SFF will meet in 12 January in San Jose from Monday 1:00pm to Tuesday noon, preceding the Fibre Channel working group which is being hosted by Adaptec.

As a result of a question raised by John Lohmeyer, it was agreed to modify the first paragraph of the SFF report to show that Harvey Waltersdorf effectively said that it's acceptable to use an English thread screw in a part that otherwise has all dimensions stated in Metric.

## 12.4 IEEE 1394 [Johansson]

Peter Johansson provided the following electronic report for the minutes:

P1394a continues to meet monthly. The goal for IEEE balloting has been revised (as a result of actions at the Maui meeting, October 20 - 21) and is now expected within the first quarter of 1998. As a result of changes to cable and connector construction for the 4-pin variant, its specification has been retained in P1394a. In a motion made in Maui a low power suspend / resume facility is mandatory for P1394a PHYs. The final details are not confirmed; the editor has an action item to prepare a document with the proposal by November 20. Other technical material within the draft continues to be reviewed and a small number of open issues remain. In a separate effort, a smaller group of silicon designers-PHY and link-are meeting regularly to review the C code, state machines and the PHY/link interface.

The most recent revision, P1394a Draft 1.1, is available in PDF from the FTP site. This draft reflects the current scope of P1394a but does not include suspend / resume.

Meeting minutes, past drafts and other documents are available at the FTP site, <ftp://ftp.symbios.com/pub/standards/io/1394/P1394a>. For reflector announcements, [P1394@Sun.com](mailto:P1394@Sun.com); subscribe by sending a message to [Bob.Snively@Sun.com](mailto:Bob.Snively@Sun.com).

The next meeting of P1394a is Thursday and Friday, December 4 - 5, 1997, in Ft. Lauderdale, FL.

P1394b, chaired by David Wooten, is also meeting monthly (with the exception of November, as everyone is too busy with Comdex). David has organized focused task groups to resolve issues such as long-haul cables, standard cables and their connectors, the PHY/link interface, signaling start-up protocol, steady-state protocol, protocol accelerations, data flow, encoding schemes, etc.

For reflector announcements, [P1394b@Zayante.com](mailto:P1394b@Zayante.com); subscribe by automated Majordomo services at [listserve@zayante.com](mailto:listserve@zayante.com).

The next meeting of P1394b is Tuesday and Wednesday, December 2 - 3, 1997, in Ft. Lauderdale, FL.

P1394.1 (bridges) is making improved, but still sluggish, progress since many of the key individuals are also heavily involved in the other 1394 standards activities. The next meeting of the working group is Thursday and Friday, November 13 - 14, 1997, in San Jose, CA. For reflector announcements, [P1394.Bridges@Sun.com](mailto:P1394.Bridges@Sun.com); subscribe by sending a message to [Bob.Snively@Sun.com](mailto:Bob.Snively@Sun.com). The FTP site is <ftp://ftp.symbios.com/pub/standards/io/1394/P1394.1>.

1394 cable power, both its distribution and management, continues to be an engaging problem. Some of the power management work may affect P1394a and some has spun off into a separate power management working group under the aegis of the 1394 Trade Association. The reflector is [list@p1394pm.org](mailto:list@p1394pm.org) and it is automated á la Majordomo.

Internet Engineering Task Force (IETF) IP/1394 Liaison Report

The IP/1394 working group of the IETF is defining how Internet Protocol (IP) is to be carried by IEEE 1394. The reflector used is IP1394@Mailbag.Intel.com and may be subscribed, automatically, by requests directed to Listserv@Intel.com . The next meeting of the group is at the 40th IETF Meeting in Washington, DC, the week of December 8 - 12, 1997. In accordance with IETF culture, most of the development work is conducted via the reflector and not in face-to-face meetings.

Peter offered not to report orally to the committee and the committee accepted his offer.

## 12.5 Copy Protection Technical Working Group (CPTWG) [Worrell]

Devon Worrell was not available to make a report.

## 12.6 IEEE P1285 Status

Mark Evans reported receiving the contact address for the chair of the P1285 group. He sent an e-mail to the contact and received a response indicating that the committee has been inactive for a while but is restarting activity.

## 12.7 IEEE P1596.8 Status

Bob Snively made an oral report to the committee and provided the following electronic report for the minutes:

To: T10  
 From: Bob Snively  
 Date: November 3, 1997  
 Subject: Communication with 1596.8 committee

The following report was given at the T10 meeting on November 6, 1997.

Bob Snively contacted the chairperson of IEEE 1596.8, Robert Beauchamp (bob\_beauchamp@dg.com) of Data General to identify any liaison activities that should take place.

IEEE 1596.8 is developing an 18-bit parallel LVDS signaling mechanism for SCSI. The parallel signals include 1 clock, 1 flag, and 16 data bits. The clock operates at 250 MHz, transferring data on both the clock transition edges two bytes wide for a total of 1000 Megabytes/second. The interface uses the VHDCI connector and SCSI quality twisted pairs to achieve point-to-point communication over 5 meters.

Interested companies include Data General, Dolphin, and Lockheed-Martin. They have not held any formal meetings recently.

Bob Beauchamp will send me [Bob Snively] a copy of their proposed standard. I [Bob Snively] have sent him contacts and URLs for corresponding SCSI and HIPPI work.

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

Louis Grantham provided the following electronic report for the minutes:

STA Liaison Report 11/06/97 to T10 (Louis Grantham, Linfinity Microelectronics)

After input in the STA Technical meeting in September, STA formed the SCSI Harbor committee to define a profile for packaging around a disk (or other storage device) for its use and installation in servers. The goals are to define a standard canister that would address mechanical, electrical, cooling, shock, and vibration issues. Issues to be covered in the profile were covered by Pat McGarrah of Quantum. Dale Anderson of IBM presented common wrapper requirements. Silicon Graphics, Unisys, and IBM shared examples of wrappers and envelopes.

Terminology: Wrapper, envelope, and enclosure.  
 Wrapper: The piece that attaches to the device.



Envelope: The piece into which the wrapper is inserted.

Enclosure: The cabinet that contains one or more envelopes.

The next SCSI Harbor meeting will be December 2 in Irvine hosted by QLogic.

To have your name added to the SCSI Harbor Reflector, please send an email to [info@scsita.org](mailto:info@scsita.org) with the following information:

1. You want to be added to the SCSI Harbor reflector (this is important because this alias is used for other requests as well).

2. Your full contact information (title, company, mailing address, phone, fax).

You do not need to be a member of STA. However, STA requests the above information to track the interest level in the SCSI Harbor activity and to be able to contact you should your email start bouncing--it happens.

To post to the SCSI Harbor reflector, send your email to: [harbor@scsita.org](mailto:harbor@scsita.org)

Should you have any problems with the SCSI Harbor Reflector, please contact Susan Haskell of the SCSI Trade Association at [info@scsita.org](mailto:info@scsita.org) or 415-750-8351.

Document repository is <ftp://ftp.scsita.org/pub/harbor>, and

<http://www.scsita.org/harbor> will have links to the documents.

January 9<sup>th</sup>, 1998 will be the Annual Meeting for the STA. It will be held in Denver, hotel TBD.

Louis offered not to report orally to the committee and the committee accepted his offer.

### 13. Review of Action Items

- 228) Larry Lamers will incorporate the pre-edit comments into SPI Amendment #1.
- 229) John Lohmeyer will forward the revised SPI Amendment #1 to NCITS for management review.
- 230) John Lohmeyer will forward the revised SES to NCITS for management review.
- 231) Larry Lamers will prepare SES for forwarding to NCITS for management review.
- 238) Larry Lamers will check Fast-20 for inclusion of the ISO comments.
- 248) Gary Stephens will prepare SSC revision 12.
- 249) John Lohmeyer will forward SSC revision 12 to NCITS for processing toward first public review.
- 250) John Lohmeyer will write Compaq and request that Compaq review 97-245r1 to ascertain whether or not Compaq patents are infringed by implementations of the security protocol.
- 251) Peter Johansson will prepare SBP-2 revision 3 for T10 letter ballot.
- 252) John Lohmeyer will conduct a letter ballot on SBP-2 revision 3 for forwarding to first public review.
- 253) John Lohmeyer will forward SCC-2 revision 4 to NCITS for processing toward first public review.
- 254) John Lohmeyer will request that NCITS pay the invoice from Patrick Waychoff 97-284r0.
- 255) John Lohmeyer will draft a T10 file retention policy.
- 256) John Lohmeyer will forward 97-264r1 (the SCSI Enclosure Profile technical report project proposal) to NCITS for further processing.
- 257) John Lohmeyer will forward 97-262r2 (the SPI-3 project proposal) to NCITS for further processing.
- 258) Gene Milligan and John Lohmeyer will approve the DIS on SCSI-2 CAM or conduct a letter ballot as described in item 11.2.1 in the minutes of T10 meeting #24 (97-274).
- 259) Gene Milligan will draft a statement of concern about the overlap in scope between TC 100 and SC 25 in the area of device interfaces.
- 260) John Lohmeyer will convene a group of interested T10 committee members to discuss international participation by T10.

### 14. Meeting Schedule

The next plenary meeting of T10 will be March 19, 1998 in San Diego, CA at the Hyatt Islandia Hotel (619-224-1234), hosted by QLogic. The meeting will begin at **9:00 a.m.** on Thursday.

The meeting list for the next plenary week is:

**March '98 Meeting Map  
(11/6/97 Version)**

<b>Monday 3/16</b>	9	10	11	12	1	2	3	4	5	6	7	8	9	
	+-----+													
	SPI-3 WG												(40)	
	+-----+													
	RBC WG (might be Wed if host okay)												(25)	
	+-----+													
	Fibre Channel WG												(40)	
	+-----+													
<b>Tuesday 3/17</b>	9	10	11	12	1	2	3	4	5	6	7	8	9	
	+-----+													
	SCSI WG												(40)	
	+-----+													
	MMC WG												(15)	
	+-----+													
	SBP-2 (letter ballot resolution)												(25)	
	+-----+													
	Fibre Channel WG  Tape Issues												(40)	
	+-----+													
<b>Wednesday 3/18</b>	9	10	11	12	1	2	3	4	5	6	7	8		
	+-----+													
	SCSI WG												(40)	
	+-----+													
	MMC WG												(15)	
	+-----+													
	SFF SSWGs   SFF												(40)	
	+-----+													
<b>Thursday 3/19</b>	9	10	11	12	1	2	3	4	5	6	7	8		
	+-----+													
	T10 Plenary Meeting / SCSI Harbor (*)												(70/40)	
	+-----+													
(*) - SCSI Harbor meeting begins 30 minutes after T10 plenary but not before 2:00 pm														
<b>Friday 3/20</b>	8	9	10	11	12	1	2	3	4	5				
	+-----+													
	SCSI Trade Association (STA)												(30)	
	+-----+													

Meetings marked with == are T10-authorized meetings.  
Meetings marked with -- are authorized by other groups and may change without notice.

Meeting	Date	Location / Contact
MMC-2	1/8-9/98	Placerville, CA / Roberts
RBC	2/9/98	Salt Lake City, UT / Iomega
RBC/MMC-2	2/10/98	Salt Lake City, UT / Iomega
MMC-2	2/11/98	Salt Lake City, UT / Iomega
SPI-2 Edit	12/3/97	Irvine, CA / QLogic
SPI-3 Protocol	12/4/97	Irvine, CA / QLogic
SPI-3 Physical	1/21/98	Irvine, CA / QLogic
SPI-2 LB Res	1/22/98	Irvine, CA / QLogic

## 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)  
 Encl Profile: Enclosure Profile Study Group  
 Fast-20: Data Transfer at 20 Mega-transfers/second (a.k.a., Ultra)  
 Fast-40: Data Transfer at 40 Mega-transfers/second (a.k.a., Ultra2)  
 FC: Fibre Channel  
 FC-AL: Fibre Channel - Arbitrated Loop (a T11 project)  
 FCLC: Fibre Channel Loop Community (not an NCITS activity)  
 I/F: Interface  
 Int'l SG: International Activities Study Group  
 HAP: High Availability Profile (Technical Report)  
 LB: Letter Ballot  
 MMC: SCSI-3 Multimedia Commands (CD-ROM)  
 PH: Physical (Connectors, Cables, Transceivers, etc.)  
 Plenary: Full Committee Meeting  
 RAID: Redundant Array of Independent Devices  
 RBC: Reduced Block Commands  
 SBC: SCSI-3 Block Commands  
 SBP-2: Serial Bus Protocol for IEEE 1394 (2nd generation)  
 SCC: SCSI-3 Controller Commands (RAID)  
 SCSI: Small Computer System Interface  
 SES: SCSI Enclosure Services  
 SCSI Harbor: A STA project on defining a wrapper for SCSI devices  
 SFF: SFF Industry Group (not an NCITS activity)  
 SFF ATA: SFF ATA Cabling SSWG (not an NCITS activity)  
 SG: Study Group  
 SMC: SCSI-3 Medium Changer Commands  
 SPC: SCSI-3 Primary Commands  
 SPI-2: Second Generation SCSI Parallel Interface  
 SPI-3: Third Generation SCSI Parallel Interface  
 SSA: Serial Storage Interface  
 SSC: SCSI-3 Stream Commands (includes Tape)  
 SSWGs: Specific-Subject Working Groups  
 STA: SCSI Trade Association (not an NCITS activity)  
 STA T: STA Technical Meeting (T10 members invited)  
 STS: SCSI Transport via SBP-2  
 T10: Lower Level Interfaces Technical Committee  
 T10.1: SSA Task Group of T10  
 VHDCI: Very High Density Cabled Interconnect  
 WG: Working Group (same as Ad Hoc Group)

For more information about T10 activities, please contact the following people:

Activity	Contact	Telephone/Email
CAM-3	Bill Dallas	(603) 881-2508 dallas@wasted.enet.dec.com
EPI	Bill Ham	(508) 841-2629 ham@subsys.enet.dec.com
FCP, FCP-2, SES	Robert Snively	(415) 336-5332 Bob.Snively@eng.sun.com
GPP & SSC	Gary Stephens	(602) 321-1725 6363897@mcimail.com
HAP	Doug Hagerman	(508) 841-2145 hagerman@mail.dec.com
SBC	Gene Milligan	(405) 324-3070 gene_milligan@notes.seagate.com
SBP, MMC, MMC-2	Ron Roberts	(916) 677-5714 rkroberts@aol.com
SBP-2 & STS	Pete McLean	(303) 678-2149 pete_mclean@mactor.com
	or	Peter Johansson
		(510) 531-5472 pjohansson@aol.com
SCC-2 & SPI-2	George Penokie	(507) 253-5208

SMC	Erich Oetting	gop@us.ibm.com (303) 673-2178 Erich_Oetting@Stortek.com
SPC, SPC-2, SAM-2	Ralph Weber	(972) 503-3205 x228 roweber@acm.org
SSA-PH1, -PH2, -TL1, -TL2	Larry Lamers	(408) 957-7817 ljlammers@aol.com
SSA-S2P & -S3P	John Scheible	(512) 823-8208 Scheible@vnet.ibm.com
SSS	Keith Parker	(503) 255-1035 diogenes@europa.com
Other Activities	John Lohmeyer	(719) 533-7560 john.lohmeyer@symbios.com

The long-term T10 meeting week schedule is:

Date	Location	Host/Comments
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Mar 16-20, 1998	San Diego, CA	QLogic
May 4-8, 1998	Colorado Springs, CO	Symbios Logic
Jul 13-17, 1998	Portland, ME	Digital
Sep 14-18, 1998	St. Petersburg Beach, FL	AMP
Nov 2-6, 1998	Palm Springs, CA	Adaptec
Mar 8-12, 1999	Sarasota, FL	AMP
May 3-7, 1999	Manchester, NH	Hitachi Cable
Jul 12-16, 1999	Colorado Springs, CO	Symbios Logic
Sep 13-17, 1999	San Diego, CA	QLogic
Nov 8-12, 1999	Palm Springs, CA	Adaptec

**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 T10 (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 T10.

Erich Oetting moved that T10 authorize the T10-related meetings and events in the list above. Ron Roberts seconded the motion. The motion passed 27:4.

**15. Adjournment**

The meeting was adjourned at 6:31 p.m. on Thursday November 6, 1997.

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57 People Present

Status Key: P - Principal  
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O - Observer  
L - Liaison  
V - Visitor

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T10 Document Database on 11/11/97 at 22:32:40 -- Enclosure (3)

T10/97-001R0	Date: 11/22/96	Author: J. Lohmeyer	Mailing: SY-97-01
Agenda for X3T10 Meeting #20 (Mar '97)			
T10/97-002R0	Date: 11/22/96	Author: J. Lohmeyer	Mailing: SY-97-01
X3T10 Project Summary - Jan '97			
T10/97-003R0	Date: 11/22/96	Author: J. Lohmeyer	Mailing: SY-97-01
Jeopardy letter for Mar '97 meeting			
T10/97-004R0	Date: 11/22/96	Author: J. Lohmeyer	Mailing: SY-97-01
Results of X3T10/96-045 Letter Ballot			
T10/97-005R0	Date: 11/22/96	Author: J. Lohmeyer	Mailing: SY-97-01
Response to 1PR Comment #1 on X3.301-199x (SPC)			
T10/97-006R0	Date: 11/22/96	Author: J. Lohmeyer	Mailing: SY-97-01
Response to 1PR Comment #2 on X3.301-199x (SPC)			
T10/97-007R0	Date: 3/10/97	Author: J. Garner	Mailing: SY-97-01
Call for Volunteers - Chairman T10			
T10/97-007R1	Date: 3/10/97	Author: J. Garner	Mailing: SY-97-02
Second Call for Volunteers - Chairman T10			
T10/97-008R0	Date: 1/22/97	Author: J. Lohmeyer	Mailing: SY-97-02
Agenda for X3T10 Meeting #21 (May '97)			
T10/97-009R0	Date: 1/22/97	Author: J. Lohmeyer	Mailing:
T10 Project Summary - Mar '97			
T10/97-009R1	Date: 1/22/97	Author: J. Lohmeyer	Mailing: SY-97-02
T10 Project Summary - Mar '97			
T10/97-010R0	Date: 1/22/97	Author: J. Lohmeyer	Mailing: SY-97-02
Jeopardy letter for May '97 meeting			
T10/97-011R0	Date: 1/22/97	Author: J. Lohmeyer	Mailing: SY-97-02
Results of T10/96-046 Letter Ballot on forwarding SSA-PH2 to 1PR			
T10/97-012R0	Date: 1/22/97	Author: J. Lohmeyer	Mailing: SY-97-02
Results of T10/96-047 Letter Ballot on forwarding SSA-TL2 to 1PR			
T10/97-013R0	Date: 1/22/97	Author: J. Lohmeyer	Mailing: SY-97-02
Results of T10/96-048 Letter Ballot on forwarding SSA-S3P to 1PR			
T10/97-014R0	Date: 3/18/97	Author: J. Lohmeyer	Mailing: SY-97-02
Response to Public Review Comment #1 on X3.304 (MMC) (see 97-127)			
T10/97-015R0	Date: 3/19/97	Author: J. Lohmeyer	Mailing: SY-97-02
Letter Ballot on forwarding SSC to 1PR			
T10/97-016R0	Date: 4/8/97	Author: J. Lohmeyer	Mailing: SY-97-03
Agenda for T10 Meeting #22 (July '97)			
T10/97-017R0	Date: 4/8/97	Author: J. Lohmeyer	Mailing: SY-97-03
T10 Project Summary - May '97			
T10/97-018R0	Date: 4/8/97	Author: J. Lohmeyer	Mailing: SY-97-03
Jeopardy letter for May '97 meeting			
T10/97-019R0	Date: 4/8/97	Author: J. Lohmeyer	Mailing:
not used			
T10/97-020R2	Date: 5/15/97	Author: J. Lohmeyer	Mailing: SY-97-03
Results of T10/97-015 Letter Ballot on forwarding SSC to 1PR			
T10/97-021R0	Date: 4/8/97	Author: J. Lohmeyer	Mailing: SY-97-03
Letter forwarding SCSI World Wide Names description to IEEE			

## T10 Plenary Meeting #24 -- November 6, 1997

T10/97-274 R0

T10/97-022R0	Date: 4/8/97	Author: J. Lohmeyer	Mailing: SY-97-03
T10 Annual Report for 1996			
T10/97-023R0	Date: 5/27/97	Author: J. Lohmeyer	Mailing: SY-97-04
Agenda for T10 Meeting #23 (Sept '97)			
T10/97-024R0	Date: 5/27/97	Author: J. Lohmeyer	Mailing: SY-97-04
T10 Project Summary - July '97			
T10/97-025R0	Date: 5/27/97	Author: J. Lohmeyer	Mailing: SY-97-04
Jeopardy letter for July '97 meeting			
T10/97-026R0	Date: 5/27/97	Author: G. Milligan	Mailing: SY-97-04
Letter Ballot on approving DIS 14776-411 SAM			
T10/97-027R0	Date: 6/5/97	Author: J. Lohmeyer	Mailing: SY-97-04
Results of Letter Ballot on approving DIS 14776-411 SAM (97-026r0)			
T10/97-028R0	Date: 7/22/97	Author: J. Lohmeyer	Mailing: SY-97-04
Letter Ballot on Forwarding SMC to First Public Review			
T10/97-029R0	Date: 7/22/97	Author: J. Lohmeyer	Mailing: SY-97-04
Letter Ballot on Forwarding SCC-2 to First Public Review			
T10/97-030R0	Date: 9/4/97	Author: J. Lohmeyer	Mailing: SY-97-05
Results of Letter Ballot 97-028 on Forwarding SMC to 1PR			
T10/97-031R0	Date: 9/4/97	Author: J. Lohmeyer	Mailing: SY-97-05
Results of Letter Ballot 97-029 on Forwarding SCC-2 to 1PR			
T10/97-032R0	Date: 9/5/97	Author: J. Lohmeyer	Mailing: SY-97-05
Agenda for T10 Meeting #24 (Nov '97)			
T10/97-033R0	Date: 9/5/97	Author: J. Lohmeyer	Mailing: SY-97-05
T10 Project Summary - Sept '97			
T10/97-034R0	Date: 9/5/97	Author: J. Lohmeyer	Mailing: SY-97-05
Jeopardy letter for Sept '97 meeting			
T10/97-101R1	Date: 1/2/97	Author: R. Snively	Mailing: SY-97-01
Draft tutorial for IEEE company_id based SCSI identifiers			
T10/97-101R2	Date: 1/2/97	Author: R. Snively	Mailing: SY-97-04
Draft tutorial for IEEE company_id based SCSI identifiers			
T10/97-102R0	Date: 1/2/97	Author: R. Roberts	Mailing: SY-97-01
MMC-2 Additional Definitions			
T10/97-103R0	Date: 1/2/97	Author: R. Roberts	Mailing: SY-97-01
MMC-2 DVD MODEL			
T10/97-104R0	Date: 1/2/97	Author: R. Roberts	Mailing: SY-97-01
MMC-2 CD MODEL			
T10/97-105R0	Date: 1/2/97	Author: R. Roberts	Mailing: SY-97-01
MMC-2 CHANGER MODEL			
T10/97-106R0	Date: 1/2/97	Author: R. Roberts	Mailing: SY-97-01
MMC-2 DVD POWER MANAGEMENT			
T10/97-107R0	Date: 1/2/97	Author: R. Roberts	Mailing: SY-97-01
MMC-2 FEATURE SETS			
T10/97-108R0	Date: 1/2/97	Author: R. Roberts	Mailing: SY-97-01
MMC-2 Packet Commands for C/DVD Devices			
T10/97-109R0	Date: 1/2/97	Author: R. Roberts	Mailing: SY-97-01
Minutes of MMC 2 Working Group - 1/97			
T10/97-110R1	Date: 1/6/97	Author: Weber/Lohmeyer	Mailing: SY-97-01
Minutes of SPI-2 Working Group - 1/97			



T10/97-111R1	Date: 1/6/97	Author: Weber/Lohmeyer	Mailing: SY-97-01
Minutes of SCSI Working Group - 1/97			
T10/97-112R1	Date: 1/6/97	Author: Weber/Lohmeyer	Mailing: SY-97-01
Minutes of X3T10 Plenary Meeting #19			
T10/97-113R0	Date: 1/6/97	Author: G. Penokie	Mailing: SY-97-01
Minutes of SCC Working Group - 1/97			
T10/97-114R0	Date: 1/6/97	Author: B. Ham	Mailing: SY-97-01
Test Results on LVD			
T10/97-115R0	Date: 1/6/97	Author: L. Lamers	Mailing: SY-97-01
Report on SPI-2 Editing Session			
T10/97-115R1	Date: 4/22/97	Author: L. Lamers	Mailing: SY-97-03
Report on SPI-2 Editing Session			
T10/97-116R0	Date: 1/6/97	Author: B. Ham	Mailing: SY-97-02
Bus Set Delay for Domain Expanders			
T10/97-117R0	Date: 1/6/97	Author: R. Roberts	Mailing: SY-97-01
MMC-2 Commands specific to CD Media Only			
T10/97-118R0	Date: 1/6/97	Author: R. Roberts	Mailing: SY-97-01
MMC-2 ATAPI Implementation Notes			
T10/97-119R0	Date: 1/6/97	Author: R. Roberts	Mailing: SY-97-01
MMC-2 SCSI Implementation Notes			
T10/97-120R0	Date: 1/6/97	Author: R. Roberts	Mailing: SY-97-01
MMC-2 DVD-R and DVD-RAM			
T10/97-121R0	Date: 1/8/97	Author: D. Wallace	Mailing:
Annex on Universal Backplane			
T10/97-122R0	Date: 1/8/97	Author: G. Penokie	Mailing: SY-97-01
Addressing Model for SAM-2			
T10/97-122R1	Date: 1/8/97	Author: G. Penokie	Mailing:
Addressing Model for SAM-2			
T10/97-122R2	Date: 5/6/97	Author: G. Penokie	Mailing: sy-97-03
Addressing Model for SAM-2			
T10/97-122R3	Date: 7/27/97	Author: G. Penokie	Mailing:
Addressing Model for SAM-2			
T10/97-122R4	Date: 7/27/97	Author: G. Penokie	Mailing: SY-97-04
Addressing Model for SAM-2			
T10/97-123R0	Date: 1/8/97	Author: G. Milligan	Mailing: SY-97-01
SBC X3T10 Letter Ballot Comment Resolution			
T10/97-124R0	Date: 1/8/97	Author: T. Coughlan	Mailing: SY-97-01
Do Read Long and Write Long have a Secure Future?			
T10/97-125R1	Date: 1/9/97	Author: E. Oetting	Mailing: SY-97-01
Minutes of SCC/SMC Working Group - 1/97			
T10/97-126R0	Date: 1/16/97	Author: R. DeKoning	Mailing: SY-97-01
Comments on IEEE Registration			
T10/97-127R0	Date: 1/16/97	Author: R. Reisch	Mailing: SY-97-01
Public Review Comment #1 on X3.304 (MMC)			
T10/97-128R1	Date: 1/22/97	Author: P. Johansson	Mailing:
Transport Status for SBP-2			
T10/97-128R2	Date: 1/22/97	Author: P. Johansson	Mailing: SY-97-02

## Transport Status for SBP-2

T10/97-129R0	Date: 1/29/97	Author: Keith W. Parker	Mailing:
SCSI Socket/SSL Services (SSS) Command Set Proposal			
T10/97-129R1	Date: 1/29/97	Author: Keith W. Parker	Mailing:
SCSI Socket/SSL Services (SSS) Command Set Proposal			
T10/97-129R2	Date: 1/29/97	Author: Keith W. Parker	Mailing: SY-97-02
Project Proposal for SCSI Socket/SSL Services (SSS) Command Set			
T10/97-130R0	Date: 2/6/97	Author: J. Scheible	Mailing: SY-97-02
Letter Ballot Comment Resolution on SSA-PH2			
T10/97-131R0	Date: 2/6/97	Author: J. Scheible	Mailing:
Letter Ballot Comment Resolution on SSA-TL2			
T10/97-131R1	Date: 2/6/97	Author: J. Scheible	Mailing: SY-97-02
Letter Ballot Comment Resolution on SSA-TL2			
T10/97-132R0	Date: 2/6/97	Author: J. Scheible	Mailing: SY-97-02
Letter Ballot Comment Resolution on SSA-S3P			
T10/97-133R0	Date: 2/9/97	Author: P. Johansson	Mailing: SY-97-02
REQUEST ABORTED Response Status in SBP-2			
T10/97-134R0	Date: 2/9/97	Author: P. Johansson	Mailing:
Unsolicited Status Handshake in SBP-2			
T10/97-134R1	Date: 2/9/97	Author: P. Johansson	Mailing: SY-97-02
Unsolicited Status Handshake in SBP-2			
T10/97-135R0	Date: 2/13/97	Author: P. McLean	Mailing: SY-97-02
Minutes of SBP-2 Working Group - 2/12-13/97			
T10/97-136R0	Date: 2/24/97	Author: P. Johansson	Mailing: SY-97-02
Task management event matrix			
T10/97-137R0	Date: 3/3/97	Author: Weber/Lohmeyer	Mailing: SY-97-02
Minutes of SPI-2 Working Group - 3/97			
T10/97-138R0	Date: 3/3/97	Author: Weber/Lohmeyer	Mailing:
Minutes of SCSI Working Group - 3/97			
T10/97-138R1	Date: 3/3/97	Author: Weber/Lohmeyer	Mailing: SY-97-02
Minutes of SCSI Working Group - 3/97			
T10/97-139R0	Date: 3/3/97	Author: Weber/Lohmeyer	Mailing: SY-97-02
Minutes of T10 Plenary Meeting #20			
T10/97-139R1	Date: 3/3/97	Author: Weber/Lohmeyer	Mailing: SY-97-02
Minutes of T10 Plenary Meeting #20			
T10/97-140R0	Date: 3/3/97	Author: G. Penokie	Mailing: SY-97-02
Additional Device Types for ASC/ASCQ			
T10/97-141R0	Date: 3/3/97	Author: G. Penokie	Mailing:
Message Issues			
T10/97-141R1	Date: 3/3/97	Author: G. Penokie	Mailing:
Message Issues			
T10/97-141R2	Date: 3/3/97	Author: G. Penokie	Mailing:
Message Issues			
T10/97-141R3	Date: 3/3/97	Author: G. Penokie	Mailing: SY-97-02
Message Issues			
T10/97-142R0	Date: 3/3/97	Author: G. Penokie	Mailing:
Reserve/Release Issues			

T10/97-142R1	Date: 3/3/97	Author: G. Penokie	Mailing: SY-97-02
Reserve/Release Issues			
T10/97-143R0	Date: 3/5/97	Author: C. Monia	Mailing: SY-97-02
Digital Equipment Corp. SCAM Patent Disclosure			
T10/97-144R0	Date: 3/10/97	Author: B. Ham	Mailing: SY-97-02
LVD Hot Plugging Results - 3/10/96			
T10/97-145R0	Date: 3/10/97	Author: Keith W. Parker	Mailing: SY-97-02
Presentation on SCSI Socket/SSL Services			
T10/97-146R0	Date: 3/10/97	Author: V. Bastiani	Mailing: SY-97-02
Presentation on LVD/Ultra-3			
T10/97-147R0	Date: 3/10/97	Author: G. Penokie	Mailing: SY-97-02
Minutes of SCC Working Group - 3/97			
T10/97-148R1	Date: 3/11/97	Author: Eric Oetting	Mailing: SY-97-02
SMC Device Identification			
T10/97-149R0	Date: 3/11/97	Author: P. McLean	Mailing: SY-97-02
Minutes of SBP-2 Working Group - 3/97			
T10/97-150R0	Date: 3/11/97	Author: J. McGrath	Mailing: SY-97-02
Parallel SCSI Performance			
T10/97-151R0	Date: 3/12/97	Author: C. Monia	Mailing: SY-97-02
Status of SCSI Error Recovery			
T10/97-152R0	Date: 3/12/97	Author: R. Roberts	Mailing: SY-97-02
MMC-1 Public Review Comments Resolution			
T10/97-153R0	Date: 3/12/97	Author: R. Roberts	Mailing: SY-97-02
Minutes of the MMC Working Group - 3/97			
T10/97-154R0	Date: 3/13/97	Author: E. Oetting	Mailing: SY-97-02
Minutes of SMC Working Group - 3/97			
T10/97-155R1	Date: 3/24/97	Author: D. Hagerman	Mailing: SY-97-02
Tapes in FC PLDA			
T10/97-155R2	Date: 3/24/97	Author: D. Hagerman	Mailing:
Tapes in FC PLDA			
T10/97-155R3	Date: 3/24/97	Author: D. Hagerman	Mailing: SY-97-04
Tapes in FC PLDA			
T10/97-156R0	Date: 3/28/97	Author: Kate McMillan	Mailing: SY-97-02
Proposed New SD3 Project Proposal Guide			
T10/97-157R0	Date: 4/15/97	Author: J. Fuller	Mailing: SY-97-04
Notify bit for management orbs			
T10/97-158R1	Date: 4/15/97	Author: J. Fuller	Mailing:
SBP-2 Enhanced Page Tables			
T10/97-158R2	Date: 4/15/97	Author: J. Fuller	Mailing: SY-97-03
SBP-2 Enhanced Page Tables			
T10/97-159R0	Date: 4/15/97	Author: D. Steele / F. Gasparik	Mailing: SY-97-03
FAST-40 Rebuttal			
T10/97-160R1	Date: 4/15/97	Author: Weber/Lohmeyer	Mailing: SY-97-03
Minutes of SPI-2 Working Group - 4/18/97			
T10/97-161R0	Date: 4/15/97	Author: P. McLean	Mailing: SY-97-03
Minutes of the SBP-2 Working Group - 4/10/97			
T10/97-162R0	Date: 4/15/97	Author: P. McLean	Mailing: SY-97-03

Project proposal for command definition for mass storage on 1394

T10/97-162R2 Date: 8/19/97 Author: P. McLean Mailing:  
Project proposal for command definition for mass storage on 1394

T10/97-162R3 Date: 8/26/97 Author: P. McLean Mailing: SY-97-05  
Project proposal for command definition for mass storage on 1394

T10/97-163R0 Date: 4/18/97 Author: M. LoBue Mailing: SY-97-03  
STA Recommendations on Ultra-3

T10/97-164R0 Date: 4/18/97 Author: V. Bastiani Mailing: SY-97-03  
Presentation on Test Results for Ultra-3

T10/97-165R0 Date: 4/18/97 Author: W. Bridgewater Mailing: SY-97-03  
First Pulse Measurements

T10/97-166R0 Date: 4/18/97 Author: F. Gasperik Mailing: SY-97-03  
Analysis of Data presented

T10/97-167R0 Date: 4/18/97 Author: L. Barnes Mailing:  
SCSI Universal Backplane Microstrip Configuration

T10/97-167R1 Date: 4/18/97 Author: L. Barnes Mailing: SY-97-04  
SCSI Universal Backplane Microstrip Configuration

T10/97-168R0 Date: 4/18/97 Author: B. Ham Mailing: sy-97-04  
FAST 40 AND FAST 80 DATA FROM MULTIMODE BACKPLANES

T10/97-169R0 Date: 4/22/97 Author: K. Gingerich Mailing: SY-97-03  
Simplified AC Model of the LVD SCSI Bus

T10/97-170R1 Date: 4/26/97 Author: G. Penokie Mailing: SY-97-03  
Additional Device Types for ASC/ASCQs for SCC-2

T10/97-171R0 Date: 4/26/97 Author: G. Penokie Mailing: SY-97-03  
Minutes of the SCC-2 working group - 5/96

T10/97-172R0 Date: 4/28/97 Author: V. Bastiani Mailing: SY-97-03  
Analysis of Driver/Receiver Response

T10/97-173R0 Date: 5/1/97 Author: P. McLean Mailing: SY-97-04  
Mass Storage Profile for 1394 presentation

T10/97-174R0 Date: 5/1/97 Author: P. Aloisi Mailing: SY-97-05  
Single Ended Termination Issues

T10/97-175R1 Date: 5/5/97 Author: Weber/Lohmeyer Mailing: SY-97-03  
Minutes of SPI working group - 05/97

T10/97-176R1 Date: 5/5/97 Author: Weber/Lohmeyer Mailing: SY-97-03  
Minutes of SCSI working group - 05/97

T10/97-177R1 Date: 5/5/97 Author: Weber/Lohmeyer Mailing: SY-97-03  
Minutes of T10 Plenary Meeting - 05/97

T10/97-178R0 Date: 5/5/97 Author: V. Bastiani Mailing: SY-97-03  
Presentation on Ultra-3 - 05/97

T10/97-179R0 Date: 5/5/97 Author: B. Ham Mailing: SY-97-03  
TEST RESULTS WITH ASYMMETRICAL DRIVERS, BIAS TERMINATORS, AND COMPLEX LOADS

T10/97-180R0 Date: 5/5/97 Author: P. Aloisi Mailing: SY-97-03  
Terminator Specifications

T10/97-181R0 Date: 5/5/97 Author: W. Bridgewater Mailing: SY-97-03  
Presentation on LVD testing

T10/97-182R1 Date: 5/6/97 Author: V. Novak Mailing: SY-97-04  
REQ/ACK Mismatch

T10/97-183R0	Date: 5/6/97	Author: Tom Coughlin	Mailing: SY-97-03
Persistent Reservation-What if the keys are not unique?			
T10/97-184R0	Date: 5/6/97	Author: Doug Hagerman	Mailing: SY-97-03
Use of Class 2 for Fibre Channel Tapes			
T10/97-184R1	Date: 5/6/97	Author: Doug Hagerman	Mailing: SY-97-04
Use of Class 2 for Fibre Channel Tapes			
T10/97-184R3	Date: 8/19/97	Author: Doug Hagerman	Mailing: sy-97-05
Use of Class 2 for Fibre Channel Tapes			
T10/97-184R4	Date: 10/24/97	Author: Doug Hagerman	Mailing: sy-97-06
Use of Class 2 for Fibre Channel Tapes			
T10/97-185R0	Date: 5/6/97	Author: P. McLean	Mailing: SY-97-03
SBP-2 Error senarios			
T10/97-186R1	Date: 5/6/97	Author: C. Monia	Mailing: SY-97-03
Request for Interpretation - Multiple-byte fields			
T10/97-187R0	Date: 5/6/97	Author: C. Monia	Mailing: SY-97-03
Error Recovery Policy Requirements for Command Queueing			
T10/97-188R0	Date: 5/8/97	Author: Eric Oetting	Mailing: SY-97-03
Minutes of SSC/SMC Working Group - 5/97			
T10/97-189R0	Date: 5/8/97	Author: Brian Smith	Mailing: SY-97-03
Class 3 Error Detection and Recovery			
T10/97-189R2	Date: 6/12/97	Author: Brian Smith	Mailing:
Class 3 Error Detection and Recovery			
T10/97-189R3	Date: 7/15/97	Author: Brian Smith	Mailing: SY-97-04
Class 3 Error Detection and Recovery			
T10/97-190R0	Date: 5/8/97	Author: Rob Reisch	Mailing: SY-97-03
Minutes of MMC-2 Working Group - 5/97			
T10/97-191R1	Date: 5/14/97	Author: Pete McLean	Mailing: SY-97-03
Minutes of SBP-2 Working Group - 5/97			
T10/97-192R0	Date: 5/15/97	Author: Mike Bryan	Mailing: SY-97-03
Login Query move			
T10/97-193R0	Date: 5/15/97	Author: Mike Bryan	Mailing: SY-97-03
Login modifications			
T10/97-194R0	Date: 5/15/97	Author: Tarl Neustaedter	Mailing: SY-97-04
Proposal to add Unit_Model_Id to IEEE 1212 Config ROM			
T10/97-195R0	Date: 6/5/97	Author: P. Johansson	Mailing: SY-97-04
Configuration ROM - Power Reset and Security			
T10/97-196R0	Date: 6/10/97	Author: P. Johansson	Mailing: SY-97-04
SBP-2 and 1394-1995 Transaction Errors			
T10/97-197R0	Date: 6/17/97	Author: T. Asami	Mailing: SY-97-04
SCSI LFP - CRC Attach			
T10/97-197R1	Date: 9/3/97	Author: T. Asami	Mailing: SY-97-05
SCSI LFP - CRC Attach			
T10/97-198R0	Date: 6/17/97	Author: T. Asami	Mailing: SY-97-04
SCSI LFP - Status / Message Simplification			
T10/97-199R0	Date: 6/17/97	Author: M. Kosco	Mailing: SY-97-04
SCSI LFP - Quick Arbitrate & Select			
T10/97-199R1	Date: 9/2/97	Author: M. Kosco	Mailing: SY-97-05
SCSI LFP - Quick Arbitrate & Select			

T10/97-199R2	Date: 11/4/97	Author: M. Kosco	Mailing: SY-97-06
SCSI LFP - Quick Arbitrate & Select			
T10/97-200R0	Date: 6/19/97	Author: M. Kosco	Mailing: SY-97-04
SCSI LFP - Broadcast Command Packet			
T10/97-200R1	Date: 9/3/97	Author: M. Kosco	Mailing: SY-97-05
SCSI LFP - Broadcast Command Packet			
T10/97-201R0	Date: 6/19/97	Author: K. Parker	Mailing: SY-97-04
SCSI Socket/SSL Services (SSS) Review 97-07-16			
T10/97-202R0	Date: 6/24/97	Author: P. McLean	Mailing: SY-97-04
Minutes of SBP-2 Working Group - 6/97			
T10/97-203R0	Date: 6/24/97	Author: G. Penokie	Mailing:
Warning/PFA ASC Reporting Selection			
T10/97-203R1	Date: 7/8/97	Author: G. Penokie	Mailing:
Warning/PFA ASC Reporting Selection			
T10/97-203R2	Date: 7/16/97	Author: G. Penokie	Mailing: SY-97-04
Warning/PFA ASC Reporting Selection			
T10/97-204R0	Date: 7/3/97	Author: Ted Lappin	Mailing: SY-97-04
Response to Letter Ballot Comments on SSC			
T10/97-204R1	Date: 11/5/97	Author: Gary Stephens	Mailing: SY-97-06
Response to Letter Ballot Comments on SSC			
T10/97-205R0	Date: 7/3/97	Author: J. Lohmeyer	Mailing: SY-97-04
Comments on 97-198r0 Status/Message Simplification			
T10/97-206R0	Date: 7/9/97	Author: A. Wilson	Mailing: SY-97-04
Performance Estimates for LFP			
T10/97-207R0	Date: 7/14/97	Author: B. Gintz	Mailing: SY-97-04
Ultra 3 Amplitude & Skew Budgets - 25 Meter Point To Point			
T10/97-208R0	Date: 7/14/97	Author: V. Bastiani	Mailing: SY-97-04
Proposal On 80 Mega Transfers			
T10/97-209R0	Date: 7/14/97	Author: Weber/Lohmeyer	Mailing: SY-97-04
Minutes of Fast-xx Study Group and SPI-2 Working Group			
T10/97-210R0	Date: 7/14/97	Author: Weber/Lohmeyer	Mailing: SY-97-04
Minutes of SCSI Working Group - 7/97			
T10/97-211R0	Date: 7/14/97	Author: L. Lamers	Mailing: SY-97-04
Minutes of SCSI Protocol Study Group - 7/97			
T10/97-212R0	Date: 7/14/97	Author: Weber/Lohmeyer	Mailing: SY-97-04
Minutes of T10 Plenary Meeting #22 - 7/97			
T10/97-213R0	Date: 7/14/97	Author: Roers/Daggett	Mailing: SY-97-04
Attenuation of SCSI Cables at Extended Frequencies			
T10/97-214R0	Date: 7/14/97	Author: Wally Bridgewater	Mailing:
Bias and Minimum Drive			
T10/97-214R1	Date: 7/14/97	Author: Wally Bridgewater	Mailing: SY-97-04
Bias and Minimum Drive			
T10/97-215R0	Date: 7/15/97	Author: B. Ham	Mailing: SY-97-04
Proposal for Glitch Filtering in SPI-2			
T10/97-216R0	Date: 7/15/97	Author: Ham/Guss	Mailing: SY-97-04
Latching and Counting Proposal			
T10/97-217R0	Date: 7/16/97	Author: R. DeKoning	Mailing: SY-97-04

## Storage Management Profile Presentation

T10/97-218R0	Date: 7/16/97	Author: R. Snively	Mailing: SY-97-04
Review of Persistent Reservation			
T10/97-218R2	Date: 9/4/97	Author: R. Snively	Mailing: SY-97-05
Review of Persistent Reservation			
T10/97-219R0	Date: 7/17/97	Author: E. Oetting	Mailing: SY-97-04
LUN Discovery			
T10/97-219R1	Date: 9/10/97	Author: E. Oetting	Mailing:
LUN Discovery			
T10/97-219R2	Date: 9/10/97	Author: E. Oetting	Mailing: SY-97-05
LUN Discovery			
T10/97-220R0	Date: 7/16/97	Author: E. Oetting	Mailing: SY-97-04
Minutes of SSC/SMC Working Group - 7/97			
T10/97-221R0	Date: 7/17/97	Author: R. Reisch	Mailing: SY-97-04
Minutes of MMC Working Group - 7/97			
T10/97-222R2	Date: 7/17/97	Author: E. Oetting	Mailing: SY-97-04
SMC Devices with no storage elements			
T10/97-223R0	Date: 7/17/97	Author: B. Ham	Mailing: SY-97-04
Motion to change bus_set_delay in SPI-2			
T10/97-224R0	Date: 7/17/97	Author: Robert Palasek	Mailing: SY-97-04
Invoice on SPI-2 Figures			
T10/97-225R0	Date: 7/18/97	Author: G. Milligan	Mailing: SY-97-05
Proposal for Contingent Allegiance / ACA			
T10/97-225R1	Date: 9/21/97	Author: G. Milligan	Mailing: SY-97-06
Proposal for Contingent Allegiance / ACA			
T10/97-226R0	Date: 7/22/97	Author: P. Johansson	Mailing: SY-97-04
SBP-2 Management ORB Time-outs			
T10/97-227R0	Date: 7/22/97	Author: Poulsen/Redford	Mailing: SY-97-04
REMOVABLE / RE-WRITABLE MEDIA SPECIFICATION			
T10/97-228R0	Date: 7/24/97	Author: R. Bellino	Mailing: SY-97-04
LOWER ATTENUATION SCSI CABLES			
T10/97-229R0	Date: 7/30/97	Author: P. McLean	Mailing: SY-97-05
Minutes of SBP-2 working group - 7/97			
T10/97-230R0	Date: 8/18/97	Author: G. Penokie	Mailing: SY-97-05
Packetizing SPI			
T10/97-230R1	Date: 10/3/97	Author: G. Penokie	Mailing:
Packetizing SPI			
T10/97-230R2	Date: 10/22/97	Author: G. Penokie	Mailing:
Packetizing SPI			
T10/97-230R3	Date: 10/31/97	Author: G. Penokie	Mailing: SY-97-06
Packetizing SPI			
T10/97-231R0	Date: 8/19/97	Author: P. Johansson	Mailing: SY-97-05
Proposed Annex for SBP-2: SCSI Transport via SBP-2			
T10/97-232R0	Date: 8/19/97	Author: P. Johansson	Mailing: SY-97-05
Configuration ROM at power-on			
T10/97-233R0	Date: 8/20/97	Author: P. McLean	Mailing: SY-97-05
Minutes of SBP-2 Working Group - 8/97			

T10/97-234R0 Date: 8/20/97 Author: R. Weber Mailing: SY-97-05  
LUN\_Z Capabilities Bit in SPC-2

T10/97-235R0 Date: 8/27/97 Author: B. Ham Mailing: SY-97-05  
Modifications for interconnect specifications in SPI-2 that force specific  
construction implementation details

T10/97-236R0 Date: 8/27/97 Author: P. Aloisi Mailing:  
SPI-2 Issues For the September working Group and Plenary Vote

T10/97-236R1 Date: 9/8/97 Author: P. Aloisi Mailing: SY-97-05  
SPI-2 Issues For the September working Group and Plenary Vote

T10/97-237R0 Date: 9/2/97 Author: Weber/Lohmeyer Mailing: SY-97-05  
Fast-XX and SPI-2 Working Group - 9/97

T10/97-238R0 Date: 9/2/97 Author: Weber/Lohmeyer Mailing: SY-97-05  
Minutes of SCSI Working Group - 9/97

T10/97-239R0 Date: 9/2/97 Author: L. Lamers Mailing:  
Minutes of Protocol Study Group - 9/97

T10/97-239R1 Date: 9/2/97 Author: L. Lamers Mailing: SY-97-05  
Minutes of Protocol Study Group - 9/97

T10/97-240R0 Date: 9/2/97 Author: Weber/Lohmeyer Mailing: SY-97-05  
Minutes of T10 Plenary Meeting #23 - 9/97

T10/97-241R0 Date: 9/4/97 Author: L. Lamers Mailing: SY-97-05  
LFP INQUIRY and MODE SENSE data format

T10/97-241R1 Date: 11/4/97 Author: L. Lamers Mailing: SY-97-06  
LFP INQUIRY and MODE SENSE data format

T10/97-242R0 Date: 9/5/97 Author: R. Snively Mailing: SY-97-05  
Additional Persistent Reservation Type

T10/97-243R0 Date: 9/8/97 Author: G. Kapraun Mailing: SY-97-05  
LVD Differential Skew Testing

T10/97-244R0 Date: 9/9/97 Author: P. Johansson Mailing: SY-97-05  
Regarding ORBS

T10/97-245R0 Date: 9/16/97 Author: P. Johansson Mailing: SY-97-05  
Proposed SBP-2 Annex for Security

T10/97-245R1 Date: 10/7/97 Author: P. Johansson Mailing: SY-97-06  
Proposed SBP-2 Annex for Security

T10/97-246R1 Date: 9/9/97 Author: Tom Coughlan Mailing: SY-97-05  
Persistant Resrvation with Non-Unique Keys

T10/97-247R1 Date: 9/11/97 Author: E. Oetting Mailing: SY-97-05  
SMC Comment Resolution

T10/97-248R0 Date: 9/10/97 Author: E. Oetting Mailing: SY-97-05  
Minutes of SMC/SSC Working Group - 9/97

T10/97-249R0 Date: 9/10/97 Author: P. McLean Mailing: SY-97-05  
Minutes of SBP-2 Working Group - 9/97

T10/97-250R1 Date: 9/9/97 Author: C. Monia Mailing: SY-97-05  
Multi-Port Changes for SAM-2

T10/97-251R0 Date: 9/10/97 Author: B. Galloway Mailing: SY-97-05  
Performance Analysis

T10/97-252R0 Date: 9/10/97 Author: Ralph Weber Mailing: SY-97-05  
Enclosure Profile Outline

T10/97-253R0 Date: 9/10/97 Author: Ralph Weber Mailing: SY-97-05



## ANSI Editorial Changes to SPC

T10/97-254R0 Date: 9/11/97 Author: Rob Reisch Mailing: SY-97-05  
Minutes of MMC-2 Working Group - 9/97

T10/97-255R0 Date: 9/11/97 Author: Monica Vago Mailing: SY-97-05  
Clarification of Web Distribution of Standards (Draft or Approved)

T10/97-256R0 Date: 9/17/97 Author: P. Johansson Mailing:  
SPC-2 Changes for new RBC device type

T10/97-256R1 Date: 10/7/97 Author: P. Johansson Mailing:  
SPC-2 Changes for new RBC device type

T10/97-256R2 Date: 11/6/97 Author: P. Johansson Mailing: SY-97-06  
SPC-2 Changes for new RBC device type

T10/97-257R0 Date: 9/17/97 Author: G. Penokie Mailing: SY-97-06  
IBM Patent Licensing Position for SCC-2

T10/97-258R0 Date: 9/17/97 Author: G. Penokie Mailing: SY-97-05  
SCC-2 Letter Ballot Comments Resolutions

T10/97-258R1 Date: 10/11/97 Author: G. Penokie Mailing: SY-97-06  
SCC-2 Letter Ballot Comments Resolutions

T10/97-259R0 Date: 10/6/97 Author: P. McLean Mailing:  
Minutes of SBP-2 Working Group - 10/7/97

T10/97-259R1 Date: 10/6/97 Author: P. McLean Mailing:  
Minutes of SBP-2 Working Group - 10/7/97

T10/97-259R2 Date: 10/6/97 Author: P. McLean Mailing: SY-97-06  
Minutes of SBP-2 Working Group - 10/7/97

T10/97-260R0 Date: 10/6/97 Author: M. Bryant Mailing: SY-97-06  
Proposal for Reduced Block Commands (RBC)

T10/97-261R0 Date: 10/10/97 Author: R. Reisch Mailing: SY-97-06  
Minutes of MMC-2 Working Group - 10/97

T10/97-262R0 Date: 10/15/97 Author: L. Lamers Mailing:  
Project Proposal for SCSI-4 Parallel Interface - 3

T10/97-262R1 Date: 10/24/97 Author: L. Lamers Mailing:  
Project Proposal for SCSI-4 Parallel Interface - 3

T10/97-262R2 Date: 11/5/97 Author: L. Lamers Mailing: SY-97-06  
Project Proposal for SCSI-4 Parallel Interface - 3

T10/97-263R0 Date: 10/22/97 Author: R. Roberts Mailing:  
Get Configuration Command Proposal

T10/97-263R1 Date: 10/22/97 Author: R. Roberts Mailing: SY-97-06  
Get Configuration Command Proposal

T10/97-264R0 Date: 10/27/97 Author: Weber/DeKoning Mailing:  
Enclosure Profile TR Project Proposal

T10/97-264R1 Date: 11/5/97 Author: Weber/DeKoning Mailing: SY-97-06  
Enclosure Profile TR Project Proposal

T10/97-265R0 Date: 10/27/97 Author: Ralph Weber Mailing: SY-97-06  
ASC/ASCQ for RBC Threshold Exceeded

T10/97-266R0 Date: 10/31/97 Author: R. Snively Mailing: SY-97-06  
FCP-2 Initial Changes

T10/97-267R0 Date: 10/31/97 Author: Keith Parker Mailing: SY-97-06  
SCSI Socket Services (SSS) Review 97-11-05

## T10 Plenary Meeting #24 -- November 6, 1997

T10/97-274 R0

T10/97-268R0	Date: 10/31/97	Author: Tak Asami	Mailing:
Timing Tolerance for SPI-3			
T10/97-268R1	Date: 11/4/97	Author: Tak Asami	Mailing: SY-97-06
Timing Tolerance for SPI-3			
T10/97-269R0	Date: 11/3/97	Author: W. Gintz	Mailing: SY-97-06
Presentation to Fast-80 Study Group - 11/97			
T10/97-270R0	Date: 11/3/97	Author: P. McLean	Mailing: SY-97-06
MInutes of SBP-RBC Working Group - 11/97			
T10/97-271R0	Date: 11/3/97	Author: P. McLean	Mailing: SY-97-06
Patent Letter on SBP-2 from Maxtor			
T10/97-272R0	Date: 11/3/97	Author: Weber/Lohmeyer	Mailing: SY-97-06
Minutes of Fast-xx & SPI-2 Study Group - 11/97			
T10/97-273R0	Date: 11/3/97	Author: Weber/Lohmeyer	Mailing: SY-97-06
Minutes of SCSI Working Group - 11/97			
T10/97-274R0	Date: 11/3/97	Author: Weber/Lohmeyer	Mailing: SY-97-06
Minutes of T10 Plenary Meeting #24			
T10/97-275R0	Date: 11/3/97	Author: R. Weber	Mailing: SY-97-06
SPC-2 Administrivia			
T10/97-276R0	Date: 11/3/97	Author: V. Bastiani	Mailing: SY-97-06
Fast-XX testing - 11/97			
T10/97-277R0	Date: 11/3/97	Author: G. Kapraun	Mailing: SY-97-06
LVD Differential SKEW Testing			
T10/97-278R0	Date: 11/5/97	Author: R. Roberts	Mailing:
Features and Profile Proposal for MMC			
T10/97-278R1	Date: 11/3/97	Author: R. Roberts	Mailing: SY-97-06
Features and Profile Proposal for MMC			
T10/97-279R0	Date: 11/4/97	Author: R. Roberts	Mailing: SY-97-06
Power Management Proposal			
T10/97-280R0	Date: 11/3/97	Author: R. Roberts	Mailing: SY-97-06
Minutes of MMC-2 Working Group - 11/97			
T10/97-281R0	Date: 11/3/97	Author: V. Novak	Mailing: SY-97-06
Load Compensation			
T10/97-282R0	Date: 11/4/97	Author: L. J. Lamers	Mailing: SY-97-06
Minutes of Protocol Study Group - 1/97			
T10/97-283R0	Date: 11/5/97	Author: R. Basham	Mailing: SY-97-06
End to End CRC Proposal			
T10/97-284R0	Date: 11/6/97	Author: P. Waychoff	Mailing: SY-97-06
Invoice for Editing Work			
T10/97-285R0	Date: 11/6/97	Author: Eric Oetting	Mailing: SY-97-06
Minutes of SSC/SMC Working Group - 11/97			