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

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Date: March 26, 1998
Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: T10 Plenary Meeting #25 -- March 19, 1998
         San Diego, CA

Agenda

1. Opening Remarks
2. Approval of Agenda
3. Attendance and Membership
4. Approval of Minutes - November Meeting Palm Springs, CA (T10/97-274r1)
5. Document Distribution
6. Call for Patents
7. Review of Old Action Items
8. Project Status Reports
    8.1   Project Status Summary and NCITS/OMC Liaison [Lohmeyer]
    8.2   SPI Amendment (SPIAmnd) {Project 0855-D} [Johansson/Lamers]
    8.3   SCSI Common Access Method - 3 (CAM-3) Status {Project 990-D} [Dallas]
    8.4   SCSI-3 Block Commands (SBC) Status {Project 996-D} [Milligan]
    8.5   SCSI-3 Stream Commands (SSC) Status {Project 997-D} [Stephens]
    8.6   SCSI-3 Medium Changer Commands (SMC) Status {Project 999-D} [Oetting]
    8.7   Multimedia Command Set (MMC) Status {Project 1048-D} [Roberts]
    8.8   SCSI Parallel Interface - 2 (SPI-2) {Project 1142-D} [Ham/Penokie]
    8.9   SCSI Enhanced Parallel Interface (EPI) Technical Report {Project 1143-D} [Ham]
    8.10 SCSI Fibre Channel Protocol - 2 (FCP-2) {Project 1144-D} [Snively]
    8.11 Serial Bus Protocol - 2 (SBP-2) {Project 1155-D} [Johansson]
    8.12 SCSI Architecture Model - 2 (SAM-2) {Project 1157-D} [Weber]
    8.13 SCSI-3 Enclosure Commands (SES) {Project 1212-D} [Snively]
    8.14 High Availability Profile (HAP) Technical Report {Project 1224-DT} [Hagerman]
    8.15 SCSI Controller Commands - 2 (SCC-2) {Project 1225-D} [Penokie]
    8.16 Multimedia Command Set - 2 (MMC-2) Status {Project 1228-D} [Roberts]
    8.17 SCSI Primary Commands - 2 (SPC-2) Status {Project 1236-D} [Weber]
    8.18 Reduced Block Commands (RBC) {Project 1240-D} [Bryan]
    8.19 SCSI Socket/SSL Services Command Set (SSS) {Project 1246-D} [Parker]
    8.20 SCSI Parallel Interface - 3 (SPI-3) {Project 1302-D} [Penokie]
    8.21 SCSI Enclosure Profile (SEP) Technical Report {Project 1303-DT} [Weber]
9. Old Business
    9.1   T10 File Retention Policy (98-107) [Lohmeyer]
10. New Business
    10.1 Results of Letter Ballot on forwarding SBP-2
    10.2 Results of Letter Ballot on forwarding SPI-2
          10.2.1 0.5 pF Capacitance Balance Changing to 1.5 pF
          10.2.2 Removal of Tag Checking Requirement in SPI-2

Results of Meeting

1.   Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:00 a.m., Thursday March 19, 1998. He thanked Skip Jones and QLogic for arranging and hosting the meeting.

John said that NCITS Subgroup Membership forms and the T10 Mailing Subscription form were available on the document 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.

Larry Lamers announced that his is resigning as vice-chair of T10 and that George Penokie has agreed to takeover the duties of vice-chair. Larry provided the following electronic copy of his remarks for inclusion in the minutes:

"Ladies and Gentlemen,

It is with great pleasure that I am able to tender my resignation as Vice-Chairman of T10. George Penokie has agreed to assume the responsibilities of Vice-Chairman.

The goals I set for myself on becoming Vice-Chairman four years ago have been met: 1) the committee has been converted to electronic operation, in large part due to the work of John Lohmeyer; 2) the committee is actively working on future generations of parallel SCSI technology; and 3) a marketing organization, STA, has been established to promote the interface.

Recent events have convinced me that the electronic operation of T10 has been institutionalized and will continue. This week agreement has been reached on a common interchange format for committee databases thanks to the work of John Scheible. Dal Allan has negotiated with NCITS to provide the T10 mailing CD and has purchased the equipment to reproduce the CDs. The infrastructure is now in place to ensure the continued delivery of electronic mailings for T10.

I would also like to take this opportunity to thank John de Young, my manager for the past four years, for the support he has lent to accomplishing the task of converting to electronic operation and delivery of T10 mailings.

I will continue my role as principal member of T10 for Adaptec.

I will complete this mailing cycle just to turn the crank once with the new mechanisms to ensure that they work. Starting April 1, 1998, document number request should go to John Lohmeyer (lohmeyer@ix.netcom.com)."

2.   Approval of Agenda

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

    10.2.1   0.5 pF Capacitance Balance Changing to 1.5 pF
    10.2.2   Removal of Tag Checking Requirement in SPI-2
    10.3.1   Accept 97-225r2 for inclusion in SPC-2 and SAM-2 [Milligan]
    10.3.2   Accept 97-265r2 for inclusion in SPC-2 [Weber]
    10.3.3   Accept 98-115r3 for inclusion in SPC-2 [Weber]
    10.3.4   Accept 98-xxxr0 for inclusion in SPC-2 [Coughlan]
    10.3.5   Accept 97-230r6 for inclusion in SPI-3 [Penokie]
    11.3.9   Recommendation to submit SCC-2 to ISO/IEC
    11.3.10 Comment Resolution on SCC

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

    10.6   SCSI-2 Revision [Milligan]
    11.3.1   Recommendation to submit SMC, SES, SSC, SPI-2, SBP-2 and SCC-2 to ISO/IEC
    11.3.5   Comment Resolution on FCP or SCC

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. Alternatively, organizations may join T10 with the experimental Organizational Membership; this membership option costs $2500 and includes one principal member, any number of alternates, and either two CD-ROM mailings or one CD_Access mailing.

The Chair said he had sent letters to 5 people from 2 organizations informing them that their membership was in jeopardy due to non-attendance (see 97-037r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

Ancot Corp.
Oak Technology, Inc.

All of the organizations were present except:

Oak Technology, Inc.

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; additional alternates were changed to observers).

One organization will be in letter ballot jeopardy should they not return all of the next set of letter ballots:

FSI Consulting Services

The following organization requested and was granted new membership at this meeting:

Mylex Corp.

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

4.   Approval of Minutes - November Meeting Palm Springs, CA (T10/97-274r1)

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 March 26, 1998. 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 e-mail (at ljlamers@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/incoming directory. In the latter two cases, please also send an e-mail to Larry (at ljlamers@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 e-mail 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 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.

John Lohmeyer reported that he has obtained a new e-mail address of lohmeyer@ix.netcom.com and asked members to use the new address for committee business.

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. Section 1.2.11 contains the ANSI patent policy. Amy Marasco manages patent issues for ANSI and can be contacted at amarasco@ansi.org or 212-642-4954.

7.   Review of Old Action Items

228)   Larry Lamers will incorporate the pre-edit comments into SPI Amendment #1. *Complete*
229)   John Lohmeyer will forwarded the revised SPI Amendment #1 to NCITS for management review. *Complete*
230)   John Lohmeyer will forward the revised SES to NCITS for management review. *Complete*
231)   Larry Lamers will prepare SES for forwarding to NCITS for management review. *Complete*
238)   Larry Lamers will check Fast-20 for inclusion of the ISO comments. *Complete*
248)   Gary Stephens will prepare SSC revision 12. *Carryover*
249)   John Lohmeyer will forward SSC revision 12 to NCITS for processing toward first public review. *Carryover*
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. *Complete*
251)   Peter Johansson will prepare SBP-2 revision 3 for T10 letter ballot. *Complete*
252)   John Lohmeyer will conduct a letter ballot on SBP-2 revision 3 for forwarding to first public review. *Complete*
253)   John Lohmeyer will forward SCC-2 revision 4 to NCITS for processing toward first public review. *Complete*
254)   John Lohmeyer will request that NCITS pay the invoice from Patrick Waychoff 97-284r0. *Complete*
255)   John Lohmeyer will draft a T10 file retention policy. *Complete*
256)   John Lohmeyer will forward 97-264r1 (the SCSI Enclosure Profile technical report project proposal) to NCITS for further processing. *Complete*
257)   John Lohmeyer will forward 97-262r2 (the SPI-3 project proposal) to NCITS for further processing. *Complete*
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). *Complete*
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. *Complete*

260)   John Lohmeyer will convene a group of interested T10 committee members to discuss international partic-
         ipation by T10. *Complete*

8.   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.

OMC met last on January 8th in San Francisco. They meet next on March 23rd in Reston, VA. They are in the
process of transferring all their responsibilities to NCITS. This is planned to happen in May 1997 timeframe.
NCITS will meet March 24-25, also in Reston, VA.

OMC has recommended that the three T10 project proposals be accepted by NCITS. NCITS letter ballots on SEP
and SPI-3 closed March 14th. Project numbers 1303-DT and 1302-D were assigned, respectively. OMC also rec-
ommended that NCITS accept the T10 recommendation to change the scope of project 1240-D from STS to RBC.
This letter ballot closes on 3 April 97.

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

John Lohmeyer reported that the NCITS letter ballot on approving SPI Amendment #1 closes April 3rd.

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

Bill Dallas reported that revision 3 of CAM-3 is done and will be in the next mailing. He noted the new features in
revision 3 including: phase cognizant mode and host target mode. He noted that the use of phase cognizant mode
will be restricted to parallel bus implementations. He described other changes planned for future revisions. He
expressed a desire to remove the execute engine functionality because it is not applicable any more.

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

Gene Milligan reported that ANSI has requested the SBC source file for publication. John Lohmeyer reported that
BSR approved SBC on 7 January 1998. However, Gene reported that he has not received a publication draft of
SBC for review.

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

Gary Stephens was not present. John Lohmeyer reported that we are waiting for a revision of SSC ready for
forwarding to first public review.

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

Erich Oetting reported that he has completed a SMC revision 10a, including ANSI pre-edits, for forwarding to
NCITS management review and letter ballot. Deborah Donovan had expedited the processing to make the current
set of OMC/NCITS meetings.

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

Ron Roberts reported that he has not received the publication draft of MMC for review. John Lohmeyer reported
that BSR approved MMC on 1 December 1997.

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

George Penokie reported that SPI-2 revision 20 will be in the next mailing and noted that there are several items to be voted on later in this meeting.

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

In the absence of Bill Ham (who had step out briefly), John Lohmeyer described recent EPI enhancements regarding switching bridges. Larry Lamers expressed the belief that Bill will provide an EPI revision for the next mailing. *(Note: Bill later confirmed Larry's belief.)*

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

Bob Snively reported no progress on FCP-2.

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

Pete McLean reported that the SPB-2 working group met to resolve letter ballot comments (minutes in 98-138). Peter Johansson reported that a revision of SBP-2 including all agreed changes will be in the next mailing. Peter Johansson also provided the following electronic report for the minutes:

> Since the November T10 plenary in Palm Springs, CA, the SBP-2 ad hoc working group has met once, March 17 in San Diego, CA. The meeting was devoted to SBP-2 letter ballot comment resolution, with the following results:
>
> * 98-109r1, as modified, is recommended to the plenary as resolution of the editorial letter ballot comments.
> * On an 11:5 vote, the working group recommends to the plenary that the isochronous portions of SBP-2 be deleted from the draft before it is forwarded for public review and that a new project be authorized to address isochronous extensions to SBP-2.
> * If the plenary votes in accordance with the above recommendation, the working group recommends that 98-117r0, as modified, be accepted as resolution of the technical letter ballot comments.
> * If the plenary elects to retain the isochronous portions of SBP-2, the working group recommends that technical comment resolution be deferred until the next meeting of the SBP-2 ad hoc working group. With the exception of Steve Finch's comments 34, 50, 53, 68, 69, 170 and 176, the remainder of 98-117r0 is informally endorsed by the working group.
>
> The following meeting schedule was agreed:
> May 6, 1998 (Colorado Springs, CO) Working group during T10 week

Pete McLean noted that the working group recommended removal of isochronous transfers from SBP-2 on a vote of 11:5.

Mark Evans moved that T10 accept the working group recommendation to remove isochronous from SBP-2 and to use the material as the initial draft for a new isochronous project. Peter Johansson seconded the motion.

Peter Johansson spoke against the motion noting that attendance at the working group meeting was light, that the isochronous material in SBP-2 is well fleshed-out for disks (but maybe not for consumer electronics), that the isochronous material is suitable for implementation. He expressed the belief that development of isochronous will be delayed if the material is removed from SBP-2.

Speaking in favor of the motion, Mark Evans noted the need to coordinate isochronous standards development with activities by other groups. He stated that no more than 20% of the working group's effort has been directed toward isochronous transfers.

The motion passed 28:6:0:18=52.

Peter Johansson provided the following comments regarding his no vote. I concur with many of the arguments in favor of the motion but am concerned that this change will retard progress on development of products.

Peter Johansson moved that T10 accept 98-109r1 as modified and 98-117r0 as modified as resolving the letter ballot comments on SBP-2. Mark Evans seconded the motion. The motion passed 36:0:0:16=52.

John noted that he is expecting a project proposal from Steve Finch for the mailing and consideration in May.

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

Ralph Weber reported that revision 4 of SAM-2 will be in the next mailing. He directed the committee's attention to the discussion of future plans that appears after the revision history.

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

John Lohmeyer reported that the NCITS letter ballot on approving SES will close on or about 3 April.

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

Doug Hagerman reported no progress on HAP but stated an intention to get a new revision in the next mailing. John Lohmeyer noted that the forwarding date has been moved to November 1998.

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

George Penokie reported that no word has been received from ANSI regarding publication of SCC-2. John Lohmeyer said he would investigate. *Chair's note: SCC-2 had been stalled waiting for the ANSI pre-edit comments. Due to work load, ANSI did not do a pre-edit and asked that we continue processing this draft standard. It is now being sent to NCITS for management review and letter ballot.*

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

Ron Roberts made an oral report to the committee and provided the following electronic report for the minutes:

The minutes of the March working group (98-141) were placed on the reflectors on Wednesday night (3/18).

Future working group dates:

April 21,22,23 in Palm Springs, CA (Tagged onto T11) Hyatt Regency Suites (760)322-9000
May 5, 6 in Colorado Springs, CO (T10 Week)

The GET CONFIGURATION COMMAND will be presented to SCSI-3 working group in May. A slot was requested on the agenda for May, preferably on Wednesday afternoon. Rob Sims will present.

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

Ralph Weber reported that a new revision of SPC-2 will be in the next mailing incorporating the changes approved by this meeting.

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

Pete McLean reported on the activities of the RBC working group (minutes in 98-139). Pete requested meeting time from 9 to 6 on Tuesday of the May meeting week.

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

Keith Parker reported that he has received the IEEE Posix standard for sockets and incorporated it. He described performance discussions with Charles Monia. He stated that the first draft will be available in the next mailing.

8.20 SCSI Parallel Interface - 3 (SPI-3) {Project 1302-D} [Penokie]

John Lohmeyer announced that the SPI-3 project proposal has been approved.

8.21 SCSI Enclosure Profile (SEP) Technical Report {Project 1303-DT} [Weber]

John Lohmeyer announced that the SEP project proposal has been approved. Ralph Weber reported that the lack of interest from the host software companies is delaying work on the project.

9. Old Business

9.1 T10 File Retention Policy (98-107) [Lohmeyer]

John Lohmeyer described a real-world motivation for development of a file retention policy. He described the policy as being that T10 does not guarantee that any documents will be retained. Ed Gardner and Gene Milligan proposed a modifications to the policy.

John Lohmeyer moved that T10 adopt the file retention policy as modified (98-107r1). Peter Johansson seconded the motion. John read the policy, as modified, to the committee. The motion passed 38:1:0:13=0.

John Lohmeyer took an action item forward the T10 file retention policy to NCITS for approval.

10. New Business

10.1 Results of Letter Ballot on forwarding SBP-2

John reported that the SBP-2 letter ballot passed 49:1:0:2=52. He noted that resolving the SBP-2 letter ballot comments was handled in item 8.11.

10.2 Results of Letter Ballot on forwarding SPI-2

John reported that the SPI-2 letter ballot passed 46:4:0:2=52. George Penokie that the letter ballot resolution document is 98-108r2 and will be available in the next mailing.

George Penokie moved that T10 accept 98-108r2 as resolving the letter ballot comments on SPI-2 and SPI-2 revision 20 as incorporating the letter ballot comments. John Lohmeyer seconded the motion. The motion passed 38:0:0:14=52. John Lohmeyer took an action item to forward SPI-2 revision 20 to NCITS for further processing towards first public review.

As a result of the letter ballots comments resolution, Digital, IBM, Milligan (Seagate) and Sun changed their 'no' votes on the letter ballot to 'yes.'

10.2.1   0.5 pF Capacitance Balance Changing to 1.5 pF

Ralph Weber reported that the working group unanimously recommended that the capacitance balance value be changed from 0.5 pF to 1.5 pF with a note recommending that implementations strive for the minimum possible values for properties characterized in Table 29.

George Penokie moved T10 accept the unanimous recommendation of the working group changing the capacitance balance requirements. Jeff Williams seconded the motion. The motion passed 38:0:0:14=52.

10.2.2   Removal of Tag Checking Requirement in SPI-2

Ralph Weber reported that the working group unanimously recommended that the requirement for checking for duplicate tags be removed from SPI-2 (proposal in 98-123r1).

Jeff Williams moved that 98-123r1 be accepted for inclusion in SPI-2. George Penokie seconded the motion. The motion passed 38:0:0:14=52.

10.3 Actions on Working Group Recommendations

10.3.1   Accept 97-225r2 (Queue Per LUN per Initiator) for inclusion in SPC-2 and SAM-2 [Milligan]

Gene Milligan moved that T10 accept the working group recommendation that 97-225r2 be approved for inclusion in SPC-2 and SAM-2. Larry Lamers seconded the motion. It was noted that the working group recommended the proposal on a vote of 6:2. The motion passed 33:1:3:15=52.

10.3.2   Accept 97-265r2 for inclusion in SPC-2 [Weber]

Ralph Weber moved that T10 accept the unanimous working group recommendation that 97-265r2 be approved for inclusion in SPC-2. Pete McLean seconded the motion. The motion passed unanimously.

10.3.3   Accept 98-115r3 for inclusion in SPC-2 [Weber]

Ralph Weber described the contents of the 98-115r3 proposal. Ralph Weber moved that T10 accept 98-115r3 for inclusion in SPC-2. Gene Milligan seconded the motion. Ralph noted that the working unanimously recommended including 98-115r3 for inclusion in SPC-2. The motion passed unanimously.

10.3.4   Accept 98-140r0 for inclusion in SPC-2 [Coughlan]

Tom Coughlan reviewed the proposal that duplicate persistent reservations from an initiator not be reported by the Persistent Reserve In command. Tom Coughlan moved that T10 accept 98-140r0 for inclusion in SPC-2. Gene Milligan seconded the motion. The motion passed unanimously.

10.3.5   Accept 97-230r6 for inclusion in SPI-3 [Penokie]

George Penokie reviewed the packetized parallel SCSI proposal (97-230r6). George Penokie moved that T10 accept the working group recommendation that 97-230r6 be accepted for inclusion in SPI-3. Larry Lamers seconded the motion. John Lohmeyer noted that the working group had voted 7:2:2 to make the recommendation.

Skip Jones asked if the QAS (Quick Arbitrate and Select) definition is included in this proposal. George said the mechanism is not defined but negotiation for QAS is present. Fibre Channel packets were compared with packetized parallel SCSI packets, noting that there are sufficient similarities to allow construction of parallel SCSI to Fibre Channel bridges.

John noted that this is not a final action so only a simple majority vote is required. Ed Gardner expressed the belief that this action is a major decision, even if it's not a final action. He suggested that a voting in May would be preferable. George noted that the proposal has been under discussion for at least six months.

The motion passed 30:5:4:13=52.

10.4 Recommendation that ESDI (X3.170 and X3.170a) be withdrawn [Milligan]

John reported on a reflector message suggesting that X3.170 and X3.170a be withdrawn. George Penokie noted that X3.170 and X3.170a are normative references in SCSI-2.

Gene Milligan moved that X3.170 and X3.170a be withdrawn. Erich Oetting seconded the motion. Gene Milligan moved that consideration be deferred to the May meeting. Larry Lamers seconded the motion to defer. The motion to defer passed 32:3:0:17=52.

Gene Milligan took an action item to report on how handle the normative reference to ESDI in SCSI-2 (see 10.6).

10.5 Licensing the source code of standards for product specifications [Allan]

Dal Allan reported that he has been given an action item by NCITS to develop a licensing policy for standards. He proposed the following annual fee scale:

$15,000 - $20,000	for all standards for all NCITS T*xx* committees
$10,000 - $12,000	for all standards from just one TC
$1,000	for just one standard

He noted that the low value applies to members of the committee and the high values are for non-members.

Several details of the proposal were discussed. One issue was whether the fee would cover all future use of the same material. Dal said that reprinting would be allowed without a fee, but that use of new material would require payment of a new fee.

10.6 SCSI-2 Revision [Milligan]

Gene Milligan moved that T10 instruct the Chair to determine in consultation with the NCITS secretariat which of the following three options could be most expeditiously handled upon SCSI-2 renew/withdraw/revise decision:

a) Revise SCSI-2 to delete ESDI references and add a note equivalent to the one found in SBC (i.e., Note - The signals and connectors used for rotational position locking are external to the SCSI bus and are not part of this American National Standard.);

b) Revise SCSI-2 to replace the reference to ESDI with SBC; or

c) Do the equivalent of (a) or (b) but by a short corrigenta.

Bob Snively seconded the motion. John Lohmeyer offered a friendly amendment that replaced the words, "the Chair" with, "Gene Milligan." The motion, as amended, passed unanimously.

11. ISO

11.1 ISO Report [Milligan]

Gene Milligan made an oral report to the committee and noted that the next monthly written ISO report would appear on the SCSI Reflector within a few days. Gene stated that he will provide a complete report of the ISO status of T10 projects for attachment to the minutes.

Gene noted that the March report will include a revision to the ISO/JTC 1 directives for comment. Gene requested that comments be sent to him via e-mail, arriving no later than 3 April.

The following report was distributed via the T10 reflector:

ISO Report 3/98

The US National Body vote on ISO/IEC CD 14165-141, Information technology - Fibre Channel - Part 141: Fabric Generic Requirements (FC-FG) to Approve has been forwarded through ANSI.

The US National Body vote for ISO/IEC CD 14766-321 ([SIC] should be 14776-321), Information technology - Small Computer System Interface Part 321: Block Commands (SCSI-3 SBC) to Approve with comments has been forwarded through ANSI.

The comments were: Please make the following editorial corrections listed as 8b through 8c along with the items listed as 8a if they were not already in the CD 14766-321 ([SIC] should be 14776-321) text.

Revision 8c

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.

Revision 8b

Revision 8b contained corrections for two typographical errors:
1) in Table 74, RDC was changed to RCD, and
2) in Table 98, ISO/IEC 100090 was change to ISO/IEC 10090.

Revision 8a

Incorporated the ANSI pre-edits including:
Delete 'are' from extent definition.
In volatile medium definition delete 'a' from 'a power off/on cycles.'
In 5.1.15.3 change 'clause' to 'sub-clause'.
In 6.1.1.1 change 'Each descriptor is comprised of the cylinder ' to 'Each descriptor comprises the cylinder ' two places.
Add the missing Table 31 reference in 6.1.14.
In 6.1.16 change 'compare' to 'comparison' in two places and one place in 6.1.19.
Correct note numbering.
In 6.2.5 change table reference from '54' to '50'.
In Note 20 (now Note 21) change reference from 7.1.4 to 7.1.4.3.
In 7.1.2.8 change 'bits is' to 'bits are'.

In 7.1.4.3 delete 'the repeated instance of 'defines the density code
values used for optical memory block devices.'
In Annex A change 'is an example illustrating' to 'illustrates' eight
places.

The US National Body vote on ISO/IEC CD 14766-361 ([SIC] should be
14776-361), Information technology - Small Computer System Interface Part
361: Multimedia Commands (SCSI-3 MMC) to Approve with comments has been
forwarded through ANSI. The comments were: Please make the following
editorial changes:

A) Renumber the annexes to eliminate the impression that there are missing
annexes.

B) In the scope - 3rd sentence, change "... available for a subject device
shall is ..." to "... available for a subject device shall be fully ..."

C) Table 1, is missing the reference points for footnotes 3 and 12. Correct

Table 1 as follows:

Table 1 - Example of Mixed Mode CD Disc Layout

```
|--------------+----------+---------+-----------+--------+--------->
|              |          |         |           |        |         |
|     Block    |  Logical |  Track  |  Absolute |  Track |  Track  |
|  Description |  Address  | Relative |   M/S/F   |   /    | Relative |
|              | (Decimal) | logical |  Address1 |  Index |  M/S/F  |
|              |          | address |           |        | Address |
|              |          |         |           |        |         |
|--------------+----------+---------+-----------+--------+--------->
   >----------+----------+---------|
   |          |          |         |
   |  Sector  |   Mode   | CD Data |
   | Contains |  Audio   |  Mode2  |
   | Info or  | or Data  |         |
   |  Pause   |          |         |
   |          |          |         |
   >----------+----------+---------|
|--------------+----------+---------+-----------+--------+--------->
|              |          |         |           |        |         |
| Lead-in Area3 |  ---     |  ---    |  ---      |  0/-   |  ---    |
|              |          |         |           |        |         |
|--------------+----------+---------+-----------+--------+--------->
   >----------+----------+---------|
   |          |          |         |
   |  ---     |  Audio   |  ---    |
   |          |          |         |
   >----------+----------+---------|
|--------------+----------+---------+-----------+--------+--------->
|              |          |         |           |        |         |
| Pre-gap3     |  ---     |  ---    | 00/00/00  |  1/0   | 00/02/00 |
|              |          |         |           |        | 7        |
|              |          |         |           |        |         |
|--------------+----------+---------+-----------+--------+--------->
```

```
    >----------+----------+----------|
    |          |          |          |
    | Pause    | Data     | Null     |
    |          |          |          |
    >----------+----------+----------|
|-------------+----------+----------+-----------+----------+--------+---------->
|             |          |          |           |          |        |          |
| 1st Track   | 00004    | 0        | 00/02/005 | 1/1      | 00/00/00 |
| data        |          |          |           |          |        |          |
|             |          |          |           |          |        |          |
|-------------+----------+----------+-----------+----------+--------+---------->
    >----------+----------+----------|
    |          |          |          |
    | Info     | Data     | L-EC     |
    |          |          |          |
    >----------+----------+----------|
|-------------+----------+----------+-----------+----------+--------+---------->
|             |          |          |           |          |        |          |
| 2nd track   | 60004    | 0        | 01/22/005 | 2/1      | 00/00/00 |
| data        |          |          |           |          |        |          |
|             |          |          |           |          |        |          |
|-------------+----------+----------+-----------+----------+--------+---------->
    >----------+----------+----------|
    |          |          |          |
    | Info     | Data     | L-EC     |
    |          |          |          |
    >----------+----------+----------|
|-------------+----------+----------+-----------+----------+--------+---------->
|             |          |          |           |          |        |          |
|             | 7500     | 1500     | 01/42/00  | 2/2      | 00/20/00 |
|             |          |          |           |          |        |          |
|-------------+----------+----------+-----------+----------+--------+---------->
    >----------+----------+----------|
    |          |          |          |
    | Info     | Data     | L-EC     |
    |          |          |          |
    >----------+----------+----------|
|-------------+----------+----------+-----------+----------+--------+---------->
|             |          |          |           |          |        |          |
| Post gap    | 9000     | 3000     | 02/02/00  | 2/3      | 00/40/00 |
|             |          |          |           |          |        |          |
|-------------+----------+----------+-----------+----------+--------+---------->
    >----------+----------+----------|
    |          |          |          |
    | Pause    | Data     | Null     |
    |          |          |          |
    >----------+----------+----------|
|-------------+----------+----------+-----------+----------+--------+---------->
|             |          |          |           |          |        |          |
| Pause-silence | 9150   | -1506    | 02/04/00  | 3/0      | 00/02/00 |
|             |          |          |           |          | 7        |
|             |          |          |           |          |        |          |
|-------------+----------+----------+-----------+----------+--------+---------->
    >----------+----------+----------|
    |          |          |          |
    | Pause    | Audio    | ---      |
    |          |          |          |
    >----------+----------+----------|
|-------------+----------+----------+-----------+----------+--------+---------->
```

```
|             |           |           |            |         |           |
| 3rd track   | 93008     | 0         | 02/04/009  | 3/1     | 00/00/00  |
| audio       |           |           |            |         |           |
|             |           |           |            |         |           |
|-------------+-----------+-----------+------------+---------+----------->
   >---------+----------+----------|
   |         |          |          |
   | Info    | Audio    | ---      |
   |         |          |          |
   >---------+----------+----------|
|-------------+-----------+-----------+------------+---------+----------->
|             |           |           |            |         |           |
|             | 1400      | 2250      | 02/34/00   | 3/2     | 00/03/00  |
|             |           |           |            |         |           |
|-------------+-----------+-----------+------------+---------+----------->
   >---------+----------+----------|
   |         |          |          |
   | Info    | Audio    | ---      |
   |         |          |          |
   >---------+----------+----------|
|-------------+-----------+-----------+------------+---------+----------->
|             |           |           |            |         |           |
| 4th track   | 219758    | 0         | 04/53/009  | 4/1     | 00/00/00  |
| audio       |           |           |            |         |           |
|             |           |           |            |         |           |
|-------------+-----------+-----------+------------+---------+----------->
   >---------+----------+----------|
   |         |          |          |
   | Info    | Audio    | ---      |
   |         |          |          |
   >---------+----------+----------|
|-------------+-----------+-----------+------------+---------+----------->
|             |           |           |            |         |           |
| Pre-gap part| 30000     | -2256     | 06/40/00   | 5/0     | 00/03/00  |
| 1           |           |           |            |         | 7         |
|             |           |           |            |         |           |
|-------------+-----------+-----------+------------+---------+----------->
   >---------+----------+----------|
   |         |          |          |
   | Pause   | Audio    | ---      |
   |         |          |          |
   >---------+----------+----------|
|-------------+-----------+-----------+------------+---------+----------->
|             |           |           |            |         |           |
| Pre-gap part| 300075    | -150      | 06/41/00   | 5/0     | 00/02/00  |
| 2           |           |           |            |         | 7         |
|             |           |           |            |         |           |
|-------------+-----------+-----------+------------+---------+----------->
   >---------+----------+----------|
   |         |          |          |
   | Pause   | Data     | Null     |
   |         |          |          |
   >---------+----------+----------|
|-------------+-----------+-----------+------------+---------+----------->
|             |           |           |            |         |           |
| 5th track   | 30225     | 0         | 06/43/00   | 5/1     | 00/00/00  |
| data        |           |           |            |         |           |
|             |           |           |            |         |           |
|-------------+-----------+-----------+------------+---------+----------->
```

```
  >----------+----------+----------|
  |          |          |          |
  | Info     | Data     | L-EC     |
  |          |          |          |
  >----------+----------+----------|
|-------------+----------+----------+-----------+--------+---------->
|             |          |          |           |        |          |
| Last        | 26399910 | 233 774  | 58/39/74  | 5/1    | 51/56/74 |
| Information  |          |          |           |        |          |
|             |          |          |           |        |          |
|-------------+----------+----------+-----------+--------+---------->
  >----------+----------+----------|
  |          |          |          |
  | Info     | Data     | L-EC     |
  |          |          |          |
  >----------+----------+----------|
|-------------+----------+----------+-----------+--------+---------->
|             |          |          |           |        |          |
| Post-gap    | ---      | 233 775  | 58/40/00  | 5/2    | 51/57/00 |
|             |          |          |           |        |          |
|-------------+----------+----------+-----------+--------+---------->
  >----------+----------+----------|
  |          |          |          |
  | Pause    | Data     | Null     |
  |          |          |          |
  >----------+----------+----------|
|-------------+----------+----------+-----------+--------+---------->
|             |          |          |           |        |          |
| Lead-out area| 26400011 | 0       | 58/42/0012| AA/-13 | 00/00/00 |
|             |          |          |           |        |          |
|-------------+----------+----------+-----------+--------+---------->
  >----------+----------+----------|
  |          |          |          |
  | Pause    | Audio    | ---      |
  |          |          | Notes:   |
  |          |          |          |
  >----------+----------+----------|
```

1. Absolute MSF address repeated in the header field of data blocks.
2. The CD data mode is stored in the header of data tracks. This indicates that the block is part of a data pre-gap or post gap (null), that this is a data block using the auxiliary field for L-EC symbols (ECC-CD data mode one), or that this is a data block using the auxiliary field for user data (CD data mode 2.)
3. Table of Contents information is stored in the sub-channel of lead-in area. The lead-in area is coded as track zero. Track zero and the initial 150 sector pre-gap (or audio pause) are not accessible with logical addressing.
4. Exact value returned by READ TOC/PMA/ATIP Command.
5. Value stored in Table of Contents with zero tolerance.
6. Track relative logical addresses are negative in the pre-gap areas

11.2 Report on International Matters Ad Hoc Meeting [Lohmeyer]

John Lohmeyer reported on the International Matters Ad Hoc Meeting, held this past Tuesday night. The first topic was an Optical Memory Card SCSI Command Set standard being developed in Japan. John noted that the OMC project is using the device type already assigned to SCC devices. Gene Milligan noted that the project is based on SCSI-2, not SCSI-3.

John reported that the ad hoc group discussed the ISO Fast Track process and decided that it might not be as fast as the process T10 is already is using. However, Fast Track may be appropriate for use when the usual T10 process fails due to lack of interest on the new project ballot. T10 is testing Fast Track with SCSI-2 CAM and will evaluate using Fast Track after the test is complete.

John reported that the ad hoc group discussed the possibility of forming a TC focused only on international issues. This was not felt to be the best idea right now. Instead, an international ad hoc meeting will be held periodically. One possible result could be the development of a consent agenda for international issues at T10 meetings. This would accelerate processing of international matters during the T10 meeting.

Gene Milligan reported on a discussion of the possibility of joining the TC 100 TAG for activities related to multi-media.

11.3 ISO Business [Milligan]

11.3.1   Recommendation to submit SMC, SES, SSC, SPI-2, SBP-2 and SCC-2 to ISO/IEC

Gene Milligan moved that the forwarded versions of SMC, SES, SSC, SPI-2, SBP-2 and SCC-2 along with a new work proposal for each of them be sent to SC25. Erich Oetting seconded the motion. The motion passed 36:2:0:14=52.

11.3.2   Comment Resolution on SPI

Gene Milligan reported that ISO SPI revisions should be completed in the next couple of weeks. Larry Lamers reported that the ISO SPI has been revised but the editor's report has not been completed.

11.3.3   Comment Resolution on Fast-20

Gene Milligan reported that ISO Fast-20 revisions should be completed in the next couple of weeks.

11.3.4   Comment Resolution on SAM

Gene Milligan reported that Charles Monia is committed to complete the ISO SAM revisions.

11.3.5   Comment Resolution on FCP or SCC

Gene Milligan reported that he needs to discuss FCP resolution with Bob Snively or SCC resolution with George Penokie.

12. Liaison Reports

12.1 T11 Liaison Report [Cummings]

No report.

12.2 T13 Liaison Report [Milligan]

Gene Milligan reported that T13 met last month in Fort Collins. The purpose of the meeting was to discuss proposals for ATA/ATAPI-5. Pete McLean reported on the EPA's Energy Star program. He described coordinated activities to respond to new initiatives from the EPA on behalf of disk drive manufacturers. He noted that the next meeting will be around 3 April and that he plans to attend.

12.3 SFF Industry Group [Allan]

SFF held an interim SSWG (Specific Subject Working Group) in January and met again during the T10 plenary week.

The SFF-8012 activity on the 4-pin power connector has been revived because of dimensional issues associated with the shroud. The recommendations made by Jerry Kachlic were accepted by the members and will be included in the next revision.

An agreement on finalizing the dimensions on 40-pin ATA appears to have been reached and some of them will be carried over to the combo connectors. New revisions of all three will be included in the next mailing.

Bill Ham and the High Speed Serial SSWG are in pioneering territory on the testing and characterization of gigabaud signals. Dedicated SSWGs are being held on this area every month at this time.

SFF anticipates having a website up and operating by the end of April (hosted by WD), and will retire FaxAccess at the end of June.

12.4 IEEE 1394 [Johansson]

No report.

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

No report.

12.6 IEEE P1285 Status

Gene Milligan reported that ballot resolution has not occurred.

12.7 IEEE P1596.8 Status

Bob Snively reported that he has not been in contact with the project since the last T10 meeting.

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

Skip Jones reported that STA held their annual meeting in January. Membership is up to about 26 members. He detailed the current activities.

12.9 Storage Networking Industry Association (SNIA) [Lagatta]

Tom Lagatta reported on the formation of the Storage Networking Industry Association <http://www.snia.org/>. He noted that the group is still trying to fomulate its specific goals. They are trying to avoid overlapping the work of other groups. Tom's presentation is 98-143.

In response to a question from Gene Milligan, Tom described the joint SNIA and NASD groups.

13. Review of Action Items

261)   John Lohmeyer will verify the ANSI patent policy URL shown in the committee minutes.
262)   John Lohmeyer will forward the T10 file retention policy to NCITS for approval.
263)   Gene Milligan will report on how handle the normative reference to ESDI in SCSI-2.
264)   John Lohmeyer will forward SPI-2 revision 20 to NCITS for further processing towards first public review.

14. Meeting Schedule

The next plenary meeting of T10 will be May 7, 1998 in Colorado Springs, CO at the Doubletree World Arena Hotel (719-576-8900), hosted by Symbios, Inc. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

```
                         May '98 Meeting Map
                         (3/26/98 Version)

Monday 5/4          9   10  11  12  1   2   3   4   5   6   7   8   9
                    +=========================================+
                    | SPI-3 WG                                |     (40)
                    +=========================================+
                    | Fibre Channel WG                        |     (40)
                    +-----------------------------------------+

Tuesday 5/5         9   10  11  12  1   2   3   4   5   6   7   8   9
                    +=============================+
                    | SCSI WG                     |                 (40)
                    +=============================+===+
                    | MMC WG                          |             (15)
                    +=================================+
                    | RBC WG                          |             (25)
                    +===============+=============+===+
                    |Fibre Channel WG| Tape Issues |               (40)
                    +---------------+-------------+

Wednesday 5/6       9   10  11  12  1   2   3   4   5   6   7   8
                    +=====================================+
                    | SCSI WG                             |         (40)
                    +=====================================+===+
                    | MMC WG                                  |     (15)
                    +===============+=====================+
                    | SBP-2 WG      |                             (25)
                    +===============+=================+=======+
                                    | SFF SSWGs       | SFF   |     (40)
                                    +---------------+-------+

Thursday 5/7        9   10  11  12  1   2   3   4   5   6   7   8
                    +========================+----------------+
                    | T10 Plenary Meeting    / SCSI Harbor (*) |   (70/40)
                    +========================+-----+----------+
                                    | STA Marcom    |             (15)
                                    +---------------+
 (*) - SCSI Harbor meeting begins 30 minutes after T10 plenary
       but not before 2:00 pm

Friday 5/8      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           April 21-22, 1998  Palm Springs (with T11)
```

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
```

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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@maxtor.com
                       or   Peter Johansson (510) 531-5472
                                              pjohansson@aol.com
SCC-2 & SPI-2               George Penokie   (507) 253-5208
                                              gop@us.ibm.com
SMC                         Erich Oetting    (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
                                              ljlamers@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
---------------- ------------------------- -------------------
Mar 16-20, 1998  San Diego, CA             QLogic
May  4-8,  1998  Colorado Springs, CO      Symbios
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
Sep 13-17, 1999  Huntington Beach, CA      QLogic
Nov  8-12, 1999  Palm Springs, CA          Adaptec
Proposed 2000 Dates:
Jan 10-14, 2000  (just in case we decide to re-instate January meetings)
Mar  6-10, 2000
May  8-12, 2000
Jul 10-14, 2000
Sep 11-15, 2000
Nov  6-10, 2000
```

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. Ad hoc groups should strive to achieve consensus prior to bringing issues to T10.

Ron Roberts moved that T10 authorize the T10-related meetings and events in the list above. Paul Aloisi seconded the motion. The motion passed unanimously.

15. Adjournment

The meeting was adjourned at 1:40 p.m. on Thursday March 19, 1998.

Meeting Attendees -- Enclosure (1)

```
        Name              S       Organization        Electronic Mail Address
---------------------- -- ------------------------ ------------------------
Mr. Lawrence J. Lamers P  Adaptec, Inc.            ljlamers@ix.netcom.com
Mr. Charles Brill      P  AMP, Inc.                cebrill@amp.com
Mr. Bill Mable         A  Amphenol Interconnect    bmable@spectra.net
Mr. Bart Raudebaugh    A  Ancot Corp.              bart@ancot.com
Mr. Ron Roberts        A  Apple Computer           rkroberts@aol.com
Mr. Douglas Wagner     P  Berg Electronics         wagnerdl@bergelect.com
Mr. Bob Gannon         O  C&M Corp.                rgannon@cm-corp.com
Mr. Gerry Johnsen      P  Ciprico Inc.             gerry@ciprico.com
Mr. Ian Morrell        P  Circuit Assembly Corp.   ianm@ca-online.com
Mr. Edward Haske       O  CMD Technology           haske@cmd.com
Mr. Robert C. Elliott  O  Compaq Computer Corp.    relliott@compaq.com
Mr. Peter Johansson    P  Congruent Software, Inc. pjohansson@aol.com
Mr. Charles Tashbook   P  Dallas Semiconductor     charles.tashbook@dalsemi.
                                                   com
Mr. Greg McSorley      P  Data General / Clariion  greg_mcsorley@dgc.ceo.dg.
                                                   com
Mr. Douglas Hagerman   P  Digital Equipment Corp.  douglas.hagerman@digital.
                                                   com
Mr. William Dallas     A# Digital Equipment Corp.  dallas@zk3.dec.com
Dr. William Ham        A# Digital Equipment Corp.  bill.ham@digital.com
Mr. Sid Snyder         A# Digital Equipment Corp.  sid.snyder@digital.com
Mr. Tom Coughlan       V  Digital Equipment Corp.  tom.coughlan@digital.com
Mr. Keith W. Parker    P  Diogenes SCSI            diogenes@europa.com
Mr. I. Dal Allan       P  ENDL                     dal_allan@mcimail.com
Mr. Jim Jones          A  Exabyte Corp.            jimj@exabyte.com
Mr. Gordon Yen         V  Foxconn                  gordony@honhai.com
Mr. Chris Nieves       P  Fujitsu                  cnieves@fcpa.fujitsu.com
Mr. Marcello Soliven   V  GMt Microelectronics     soliven@gmtme.com
Mr. Marcos Barrionuevo P  Harting, Inc. of N.      Marcos.Barrionuevo@
                           America                 harting.com
Mr. J. R. Sims         P  Hewlett Packard Co.      robsims@hootie.lvld.hp.
                                                   com
Mr. Zane Daggett       P  Hitachi Cable Manchester, zdaggett@hcm.hitachi.com
                           Inc
Mr. Anthony Yang       P  Hitachi Storage Products yang_a@halsp.hitachi.com
Mr. Thomas J. Kulesza  P  Honda Connectors         tkulesza@hondaconnectors.
                                                   com
Mr. George Penokie     P  IBM Corp.                gop@us.ibm.com
Mr. Dan Colegrove      A# IBM Corp.                colegrov@us.ibm.com
Mr. Tim Bradshaw       P  Iomega Corp.             bradshat@iomega.com
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        T10 Document Database on 1998/03/26 at 09:38:08 -- Enclosure (3)

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Agenda for T10 Meeting #26 (May '98)

T10/98-002R0 Date: 1997/12/05 Author: J. Lohmeyer   Mailing: 1998_1
T10 Project Summary - Mar '98

T10/98-003R0 Date: 1997/12/05 Author: J. Lohmeyer   Mailing: 1998_1
Jeopardy letter for Mar '98 meeting

T10/98-004R0 Date: 1997/12/05 Author: J. Lohmeyer   Mailing: 1998_1
Letter Ballot on Forwarding SPI-2 to First Public Review

T10/98-005R0 Date: 1998/01/13 Author: J. Lohmeyer   Mailing: 1998_1
Results of letter ballot 97-038 on forwarding SBP-2

T10/98-006R0 Date: 1998/01/13 Author: J. Lohmeyer   Mailing: 1998_1
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T10/98-101R0 Date: 1997/12/02 Author: Dean Wallace   Mailing: 1998_1
Universal Backplane Annex

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U3 SCSI Performance

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Comment resolution on SPI-2 letter ballot

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Comment Resolution on SBP-2 letter ballot - Revision 3

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Minutes of MMC-2 Working Group - 1/98

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T10/98-114R0 Date: 1998/01/21 Author: B. Gintz   Mailing: 1998_1
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T10/98-115R0 Date: 1998/01/30 Author: Ralph Weber   Mailing: 1998_1
Sundry Minor Enhancements for SPC-2

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T10/98-116R0 Date: 1998/02/04 Author: Ron Roberts   Mailing: 1998_1
MMC-2 Features and Parameters Clause

T10/98-117R0 Date: 1998/02/28 Author: Peter Johansson   Mailing: 1998_1
Comment Resolution on SBP-2 letter ballot - More on Revision 3

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RBC Generic Command Set Issues

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Minutes of RBC working group - 2/98

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Serial Bus Protocol 2 - Programmable Reconnect Interval Extension

T10/98-122R0 Date: 1998/03/02 Author: Ron Roberts   Mailing: 1998_1
Proposal Clause 4 MMC-2

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Removal of Tag Checking Requirement in SPI-2

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Removal of Tag Checking Requirement in SPI-2

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SPC-2, Persistent Reservation: Additional proposed corrections

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Minutes of SPI-3 Working Group - 3/98

T10/98-126R0 Date: 1998/03/12 Author: Lohmyer/Weber   Mailing: 1998_1
Minutes of SCSI Working Group - 3/98

T10/98-127R0 Date: 1998/03/12 Author: Lohmyer/Weber   Mailing: 1998_1
Minutes of T10 Plenary #25

T10/98-128R0 Date: 1998/03/13 Author: Robert Snively   Mailing: 1998_1
New Log Page Requirements

T10/98-129R0 Date: 1998/03/14 Author: W.C. Gintz   Mailing: 1998_1
Hot Plugging on U3 Busses (Second Report)

T10/98-130R0 Date: 1998/03/18 Author: Keith Parker   Mailing: 1998_1
SCSI Socket Services (SSS) Review 98-03-18

T10/98-131R0 Date: 1998/03/16 Author: Greg Kapraun   Mailing: 1998_1
0.5pF Balance Capacitance

T10/98-132R0 Date: 1998/03/16 Author: Wally Bridgewater Mailing: 1998_1
Bias Reduction Proposal - 3/98

T10/98-133R0 Date: 1998/03/16 Author: Richard Moore   Mailing: 1998_1
Presentation on QAS changes

T10/98-134R0 Date: 1998/03/16 Author: Dean Wallace   Mailing: 1998_1
Termination Power Requirements

T10/98-135R0 Date: 1998/03/19 Author: Bill Ham   Mailing: 1998_1
Section of EPI describing SCSI switches

T10/98-136R0 Date: 1998/03/10 Author: Gene Milligan   Mailing: 1998_1
ISO/IEC 8482 issues

T10/98-137R0 Date: 1998/03/19 Author: Steve Finch   Mailing: 1998_1
Project Proposal for Serial Bus Isochronous Protocol Standard

T10/98-138R0 Date: 1998/03/19 Author: Pete McLean   Mailing: 1998_1
Minutes of SBP-2 Working Group - 3/98

T10/98-139R0 Date: 1998/03/19 Author: Pete McLean   Mailing: 1998_1
Minutes of RBC Working Group - 3/98

T10/98-140R0 Date: 1998/03/19 Author: T. Coughlan   Mailing: 1998_1
Clarification of Persistant Reservation

T10/98-141R0 Date: 1998/03/19 Author: Ron Roberts   Mailing: 1998_1
Minutes of MMC-2 Working Group - 3/98

T10/98-142R0 Date: 1998/03/17 Author: John Scheible   Mailing: 1998_1
Common Database Record Interchange Structure

T10/98-143R0 Date: 1998/03/19 Author: Tom Lagatta   Mailing: 1998_1
Storage Networking Industry Association Presentation