Accredited Standards Committee*
InterNational Committee for Information Technology Standards (INCITS)

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Date:	March 18, 2003
Reply to:	John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: Minutes of T10 Plenary Meeting #54 -- March 13, 2003
           Dallas, TX

Agenda

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Results of Meeting

1.   Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:00 a.m., Thursday March 13, 2003. He thanked Bob Kando and Paul Aloisi of Texas Instruments for hosting the meeting.

John said that INCITS subgroup membership forms and the T10 document subscription forms are available on the meeting disk. He said that people should use these forms to ensure the INCITS Secretariat has the latest membership information. These forms should be mailed directly to the INCITS 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

No additions/changes were made to the draft agenda.

John Lohmeyer moved and Ralph Weber seconded that the agenda be approved. In the absence of any objections, the motion passed unanimously.

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

    none

3.   Attendance and Membership

The membership requirements were reviewed. INCITS 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 begin voting at the beginning of his/her second meeting.

To maintain membership, organizations must pay the INCITS Service Fee ($800).

John briefly discussed the mailing fees. Complete pricing information is contained in the 2003 membership form (available at ftp://ftp.t10.org/t10/mem_form.txt).

There are also minimum attendance requirements to maintain voting membership on T10. If a member organization fails to attend two of the last three T10 meetings, they are warned that failing to attend the next T10 meeting would result in their membership being terminated.

The Chair said he had sent letters to 15 people from 7 organizations informing them that their membership was in jeopardy due to non-attendance (see 03-065r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

Congruent Software, Inc.
Dell Computer Corp.
Hitachi Cable Manchester
Molex Inc.
Pivot3, Inc.
Madison Cable Corp.
UNISYS Corporation

All of organizations in attendance jeopardy were present. So no organizations were changed to non-voting status.

The following organizations joined the committee at this meeting:

Iomega
Hitachi Global Storage Technologies

The T10 membership during the meeting was 42 organizations up from the 40 member organizations prior to the meeting. Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current T10 membership list.

John Lohmeyer reminded members that failure to vote on two out of the last three letter ballots also would result in membership jeopardy and then reported on the status of companies that have not voted on recent letter ballots. Amphenol, Emulex, and Philips will be in letter ballot jeopardy if they fail to return the next letter ballot.

4.   Approval of Minutes - January 2003 Meeting - Portland, OR (T10/03-048r0)

John Lohmeyer moved and Ralph Weber seconded that the minutes be approved. In the absence of any objections, the motion passed unanimously.

5.   Document Distribution

Members who have any problems with their mailing subscription should deal directly with Parthenia Purnell (ppurnell@itic.org) (202) 626-5741. A subscription form is included on the meeting disk.

John Lohmeyer requested that all documents for the next mailing be in his hands in electronic format by 10:30 a.m. on Thursday March 20, 2003. Documents received after this time may go into a subsequent mailing.

John reminded the committee of the requirements for document submission. Since T10 meets its document retention requirements by preparing mailings, documents included in the mailing must be suitable for archiving. This means that native-format and/or Portable Document Format (PDF) electronic originals with proper identification must be submitted.

People can obtain T10 document numbers and revised T10 document numbers by filling out a web form at http://www.t10.org/members/. The assigned T10 document number will be sent to the requestor by e-mail. The requestor may then reply to this email, including the document to be posted as an attachment. The document will be automatically posted on the T10 web site.

T10 members can complete this entire process using their personal T10 password. John explained that members who do not know their password should surf to the above URL and click on the "forgot password" link to have their password sent to them via e-mail.

John noted that non-members can also use the above document number process, but their requests will require approval by an administrator.

Minutes are available on the T10 World Wide Web page (see below), and are distributed to the T10 Reflector.

To be added to the T10 Reflector, send an e-mail to majordomo@t10.org with the line 'subscribe t10' in the message body.

The INCITS Secretariat maintains a World Wide Web page at:

   http://www.incits.org/.

LSI Logic maintains a web site on behalf of T10 on a server donated by the SCSI Trade Association at:

   http://www.t10.org/

There is also a mirror site at:

   http://www.t11.org/t10/

The T10 document register is available at:

   ftp://ftp.t10.org/t10/dr.txt

6.   Call for Patents

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

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.incits.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. Gene Milligan prepared a useful "Handy dandy Technical Committee's Patents Guide", which is available at ftp://ftp.t10.org/t10/document.99/99-291r0.pdf.

John Lohmeyer presented a summary of the ANSI patent policy prepared by Gary Robinson. The summary is also included on the Rules and Procedures (plus Patent Information) page on the T10 web site.

Cris Simpson reminded the committee that a statement of the Intel patent policy can be found in T10/01-041r0.

John asked that anyone who knows of other applicable patents to contact him.

There were no responses to the call for patents.

7.   Review of Old Action Items

496   Gary Robinson will contribute SPI-4 Rev 10 to SC25. *Overtaken by events*
497   Bill Ham will assure that SSM-2 and PIP have ISO NWIPs generated. *Complete.*
498   Gary Robinson will contribute SPC-2 rev i22 to SC25. *Complete.*
499   Gary Robinson will request an FCD contribution for FCP-2 at the January Plenary. *Complete.*
502   John Lohmeyer will forward 03-030r1 to INCITS for processing as a new project proposal for SSC-3. *Complete.*
503   John Lohmeyer will forward 02-009r1 to INCITS for processing as a revised project proposal for ADT. *Complete.*
505   John Lohmeyer will forward 02-008r1 to INCITS for processing as a revised project proposal for ADC. *Complete.*
506   John Lohmeyer will report to INCITS that T10 recommends that project 1556-D be closed. *Complete.*
507   John Lohmeyer will forward SSM-2 rev 05a to INCITS for processing toward first public review. *Complete.*
508   John Lohmeyer will write a letter or e-mail to Mr. Atkinson acknowledging that T10 is working to produce an amendment to correct the RBC problems he reported. *Complete.*
509   Ron Roberts will prepare an amendment for RBC. *Complete.*
510   George Penokie will prepare SPI-5 rev 06. *Complete.*
511   John Lohmeyer will forward SPI-5 rev 06 to INCITS as containing substantive changes to resolve the public review comment. *Complete.*
512   John Lohmeyer will confirm that Madison Cable is willing to change their no vote on the PIP letter ballot to yes. *Complete.*
513   John Lohmeyer will forward PIP rev 04 to INCITS for processing toward first public review. *Complete.*
514   Gary Robinson will request the US National Member vote to approve the new work item proposal for SCSI Parallel Interface-5 (SPI-5) in JTC1/SC25, 14776-115 [SC25 n819]. *Complete.*
515   Gary Robinson will request the US National Member vote to approve the new work item proposal for Serial Attached SCSI (SAS) in JTC1/SC25, 14776-nnn [SC25 n820]. *Complete.*
516   Gary Robinson will request the US National Member vote to approve the new work item proposal for SCSI Fibre Channel Protocol-2 (FCP-2) in JTC1/SC25, 14776-nnn [SC25 n829]. *Complete.*
517   Gary Robinson will request the US National Member vote to disapprove the new work item proposal for SCSI Parallel Interface-4 (SPI-4). *Complete.*

8. Project Status Reports

8.1 Project Status Summary and INCITS Liaison [Lohmeyer]

John Lohmeyer said that the current T10 project status summary was included on the meeting disk and will be included in the mailing as usual.

John Lohmeyer reported that Bob Davis has been appointed the INCITS liaison to T10. Bob and John discussed INCITS issues of concern to T10.

John Lohmeyer reported that INCITS has issued a call for volunteers for T10 chair, which he had forwarded to the T10 reflector.

8.1.1   INCITS Antitrust Guidelines

All T10 members should be aware of the INCITS antitrust guidelines available at http://www.incits.org/natrust.htm.

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

John Lohmeyer reported that FCP-2 will be going to BSR this week or next.

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

John Lohmeyer reported that SAM-2 will be going to BSR this week or next.

Ralph Weber reported that the first revision of SAM-2 for ISO consideration has been prepared and is available as ftp://ftp.t10.org/t10/drafts/sam2/sam2i25.pdf.

Ralph Weber took an action item to notify Gary Robinson that the SAM-2 ISO revision can be found at ftp://ftp.t10.org/t10/drafts/sam2/sam2i25.pdf.

8.4 Object-based Storage Devices Commands (OSD) {Project 1355-D} [Weber]

Ralph Weber reported that SNIA OSD group expects to have a new OSD revision posted by April 15th.

8.5 SCSI Medium Changer Commands - 2 (SMC-2) {Project 1383-D} [Oetting]

Erich Oetting reported that SMC-2 rev 05b was posted last Friday. Erich reported on the activities of the SMC-2 working group. Erich stated that resolution of the letter ballot comments should be complete in May.

8.6 SCSI Primary Commands - 3 (SPC-3) {Project 1416-D} [Weber]

Ralph Weber reported that revision 12 of SPC-3 will be available in time for the mailing and will contain all the proposals approved by this meeting.

Ralph Weber reminded the committee that the target letter ballot date for SPC-3 is November 2003. He noted that, based on this letter ballot date, editing review meetings will begin this month to ready SPC-3 for letter ballot.

Topics to be discussed in this month are:

    REQUEST SENSE command
    REPORT SUPPORTED OPERATIONS command
    READ/WRITE ATTRIBUTE commands (MAM)
    Well known logical units

Additional editorial review meetings held during subsequent meeting weeks will cover the following topics:

Access Controls
Asymmetric logical unit behavior
Protocol specific data
Persistent Reservations Model
Persistent Reservations Commands
Control mode page

8.7 SCSI Block Commands - 2 (SBC-2) {Project 1417-D} [Elliott]

Rob Elliott reported that SBC-2 rev 09 should be available before the next meeting, incorporating proposals accepted at the last meeting.

8.8 SCSI Stream Commands - 2 (SSC-2) {Project 1434-D} [Peterson]

In the absence of Dave Peterson, John Lohmeyer reported that Dave intends to carry SSC-2 to conclusion of letter ballot comment resolution.

8.9 SCSI Passive Interconnect Performance (PIP) {Project 1439-D} [Daggett]

John Lohmeyer reported that PIP is at public review closing on March 17 and that no comments have been received to date.

8.10 SCSI Serial Bus Protocol -3 (SBP-3) {Project 1467-D} [Johansson]

Peter Johansson reported that the SBP-3 working group met January 20 - 21 in Wailea, HI and this week, March 11, during the T10 meetings in Dallas, TX.

At the Dallas meeting, the working group requested the editor to prepare SBP-3 Revision 3.0 for submission to the T10 chair for letter ballot.

Peter noted that a letter ballot comments resolution meeting may be held during the May meeting week.

8.11 SCSI Signal Modeling - 2 (SSM-2) {Project 1514-D} [Aloisi/Manildi]

John Lohmeyer reported that SSM-2 is at public review closing on March 17 and that no comments have been received to date.

8.12 SCSI RDMA Protocol - 2 (SRP-2) {Project 1524-D} [Simpson]

Cris Simpson reported on the SRP-2 issues that were discussed in the CAP working group (minutes in 03-123). He noted that proposals for changes to be included in SRP-2 are anticipated at the next meeting.

8.13 SCSI Parallel Interface - 5 (SPI-5) {Project 1525-D} [Penokie]

John Lohmeyer reported that SPI-5 is at public review closing on March 17 and that no comments have been received to date.

George Penokie reported that the ISO version of SPI-5 is ready for delivery to the IR as soon as the FCD number is available.

8.14 SCSI Management Server Commands (MSC) {Project 1528-D} [Penokie/Elliott]

George Penokie reported that an overview presentation on MSC may be brought to the CAP meeting in May.

8.15 MultiMedia Command Set - 4 (MMC-4) {Project 1545-D} [McFerrin]

Bill McFerrin reported on the activities of the MMC-4 working group. He stated that the information for the body of the document have been collected. Work on the annexes is continuing.

Bill stated that the MMC will be unable to meet with T10 during the May meeting week. Instead, a meeting is being planned for mid-April.

The group has established a rough deadline of May for new proposals.

8.16 Automation/Drive Interface - Transport Protocol (ADT) {Project 1557-D} [Entzel]

Paul Entzel reported on the activities of the ADI working group (minutes in 03-117). He stated that both ADT and ADC will go to letter ballot after the May meeting or after the July meeting at the latest.

John Lohmeyer reported that the INCITS letter ballot on closing the ADP project closes on April 14.

8.17 Automation/Drive Interface - Commands (ADC) {Project 1558-D} [Entzel/Wideman]

This topic was covered in item 8.16.

8.18 SCSI Enclosure Services - 2 (SES-2) {Project 1559-D} [Elliott]

Rob Elliott reported that SES-2 will not publish a new revision until after the May meeting because a proposal has yet to be approved by CAP.

8.19 Fibre Channel Protocol - 3 (FCP-3) {Project 1560-D} [Peterson]

John Lohmeyer reported that the committee may need to look for a new FCP-3 editor.

8.20 SCSI Architecture Model - 3 (SAM-3) {Project 1561-D} [Weber]

Ralph Weber reported that revision 06 will be available in time for the mailing and will contain all the changes approved by this meeting.

8.21 Serial Attached SCSI (SAS) {Project 1562-D} [Elliott]

Rob Elliott reported on the activities of the SAS working group (minutes in 03-122). Revision 03f will available in time for the mailing but will not include the planned changes to the port layer.

8.22 Serial Attached SCSI - 2 (SAS-2) {Project 1601-D} [Elliott]

Rob Elliott reported that no work will be done on SAS-2 until the SAS letter ballot is resolved.

John Lohmeyer reported that submission of proposals for SAS-2 is being encouraged for the May meeting.

8.23 SCSI Stream Commands - 3 (SSC-3) {Project 1611-D} [Peterson]

John Lohmeyer reported that the committee may need to look for a new SSC-3 editor. Paul Entzel stated that efforts are underway to find a new editor.

9. Old Business

9.1 ANSI INCITS 330-2000 Defect Report (03-021) (RBC-A) [Atkinson, Roberts]

John Lohmeyer said that an email (T10/03-021r0) was received from Ben Atkinson pointing out some defects in the RBC standard. He noted that the CAP working group (minutes in 03-123) reviewed the draft amendment correcting the defects (03-021).

The committee discussed the process of revising the document.

John stated his intention to issue a letter ballot on forwarding the revised amendment.

9.2 Make Element Reservations Obsolete in SMC-2 [Oetting]

Erich Oetting requested that this item be dropped from future agendas.

10. New Business

10.1 2003 Five-Year Maintenance Review of T10 Standards (03-071) [Spittle]

John Lohmeyer reviewed the T10 standards on which INCITS has requested a five-year maintenance review (03-071r0).

Ralph Weber moved that T10 recommend to INCITS that SBC, SMC, SPI-2, SBP-2, SES, the SES amendment, and SCC-2 be reaffirmed. Peter Johansson seconded the motion. The motion passed on a vote of 33:0:0:9=42.

John Lohmeyer took an action item to notify INCITS that T10 recommends the reaffirmation of SBC, SMC, SPI-2, SBP-2, SES, the SES amendment, and SCC-2.

10.2 Actions on Parallel SCSI Working Group Recommendations

Because the Parallel SCSI working group did not meet this week, no recommendations required consideration at this meeting.

10.3 Actions on SAS Working Group Recommendations

10.3.1   SAS PHY recommendations

Because of the SAS letter ballot, all SAS PHY working group recommendations are being resolved as letter ballot comments.

10.3.2   SAS Protocol recommendations

Because of the SAS letter ballot, all SAS Protocol working group recommendations are being resolved as letter ballot comments.

10.4 Actions on CAP Working Group Recommendations

George Penokie described the following proposal recommended for inclusion in SAM-3 SPC-3 SAS FCP-3 SRP-2:
    Device names and VPD data (02-419r3)

Rob Elliott moved that 02-419r3 be approved for inclusion in SAM-3 SPC-3 SAS FCP-3 SRP-2. Ron Roberts seconded the motion.

Ed Gardner spoke against the motion stating that the proposal is inconsistent and should be referred back to the working group for further review and revision. Ed claimed that as written the proposal has the effect of prohibiting target devices supporting multiple protocols.

Rob Elliott stated that Ed's characterization of the proposal is incorrect and Ed debated that point.

Peter Johansson spoke against the motion based on a concern that the proposal requires transport protocols to define identifier names formats.

The motion failed on a vote of 9:10:14:9=42.

George Penokie and Ralph Weber described the following documents recommended for inclusion in SAM-3 and SPC-3:
    Remove TARGET RESET from SAM-3 and SPC-3 (03-001r1) [Weber] {17:2:2}
    What is architectural about SAM-3 CDB definitions? (03-005r1) {r0 as revised} [Weber] {unanimous}

Ralph Weber moved that 03-001r1 and 03-005r1 be approved for inclusion in SAM-3 and SPC-3. Erich Oetting seconded the motion.

Peter Johansson moved to divide the question. Bill Galloway seconded the motion to divide the question. In the absence of any objections, the motion to divide the question passed unanimously.

Peter Johansson spoke against 03-001r1 stating that removing the target reset will work a hardship on protocol standards writers. David Black noted that SAM-3 will still contain forms of target reset that can be referenced.

The motion to approve inclusion of 03-001r1 passed on a vote of 24:2:6:10=42:

The motion to approve inclusion of 03-005r1 passed on a vote of 27:0:3:12=42.

George Penokie and Ralph Weber described the following document recommended for inclusion in SAM-3:
    SAM-3 Glossary Cleanup (03-004r2)

Ralph Weber moved that 03-004r2 be approved for inclusion in SAM-3. Bill Galloway seconded the motion. The motion passed on a vote of 29:0:2:11=42.

George Penokie and Ralph Weber described the following documents recommended for inclusion in SPC-3:
    SPC-3 Rename some SAS additional sense codes (03-088r0) [Elliott] {unanimous}
    Other SPC-3 Fixes (03-092r1) [Penokie] {unanimous}

Rob Elliott moved that 03-088r0 and 03-092r1 be approved for inclusion in SPC-3. Bill Galloway seconded the motion. The motion passed on a vote of 26:0:5:11=42.

10.5 Actions on Other Working Group Recommendations

No recommendations from other working groups were brought to this meeting.

10.6 More Descriptive Name for T10 [Lohmeyer]

John Lohmeyer reported that changes in the INCITS web site have resulted in a request to update the name of the T10 committee.

The committee discussed how T13 and T11 have responded to similar requests to update their committee name.

George Penokie moved that the T10 committee name be changed to 'SCSI storage interfaces'. Bill Galloway seconded the motion.

Ron Roberts moved to call the question. Mark Evans seconded the motion to call the question. The motion to call the question passed 24:2:3:13=42.

The main motion passed on a vote of 32:0:3:7=42.

John Lohmeyer took an action item to notify INCITS that T10 has voted to change its name to 'SCSI storage interfaces'.

11. ISO/IEC

11.1 ISO/IEC Report (03-118) [Robinson]

Gary Robinson presented the ISO/IEC report and provided an electronic report in 03-118.

11.2 ISO/IEC Business [Robinson]

11.2.1 Approval of SPC-2 NP (25N842Av) [Robinson]

John Lohmeyer moved and Ralph Weber seconded that T10 approve the NP (25N842Av) issued by SC25 for SPC-2, answering the 6 questions 'Yes' and naming Gary S. Robinson as project editor. The roll call motion passed 33:0:0:9=42 as shown below:

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Organization                 Stat Name                   Yes No Abs NP
Adaptec, Inc.                 P   Mr. Ron Roberts          1
Amphenol Interconnect         P   Mr. Michael Wingard      1
Andiamo Systems, Inc.         P   Dr. Claudio DeSanti      1
Brocade Comm. Systems, Inc.   A   Mr. Steven Wilson        1
Cisco Systems, Inc.                                                     1
Congruent Software, Inc.      P   Mr. Peter Johansson      1
Crossroads Systems, Inc.                                               1
Dallas Semiconductor          A   Mr. Titkwan Hui          1
Dell Computer Corp.           P   Mr. Kevin Marks          1
EMC Corp.                     A   Mr. David Black          1
Emulex                        P   Mr. Robert H. Nixon      1
ENDL Texas                    P   Mr. Ralph O. Weber       1
FCI                           P   Mr. Douglas Wagner       1
Fujitsu                                                                1
General Dynamics                                                       1
Hewlett Packard Co.           P   Mr. Rob Elliott          1
Hitachi Cable Manchester      P   Mr. Zane Daggett         1
Hitachi Global Storage Tech.  P   Mr. Dan Colegrove        1
Honda Connectors                                                       1
IBM / Tivoli Systems          P   Mr. George O. Penokie    1
Intel Corp.                   P   Mr. Cris Simpson         1
Iomega Corp.                  P   Mr. Hiromichi Oribe      1
KnowledgeTek, Inc.                                                     1
LSI Logic Corp.               P   Mr. John Lohmeyer        1
Madison Cable Corp.           A.  Mr. Marc Dupuis          1
Maxtor Corp.                  P   Mr. Mark Evans           1
Microsoft Corp.               P   Ms. Emily Hill           1
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Molex Inc.                                                            1
Network Appliance Inc.      P    Mr. James R. (Bob) Davis  1
Panasonic Technologies, Inc  P   Dr. Terence J. Nelson     1
Philips Electronics/CD Edge  P   Mr. William P. McFerrin   1
Pivot3, Inc.                P    Mr. Bill Galloway         1
QLogic Corp.                                                          1
Quantum Corp.               P    Mr. Paul Entzel           1
Seagate Technology          P    Mr. Gerald Houlder        1
Storage Technology Corp.    P    Mr. Erich Oetting         1
Sun Microsystems, Inc.      P    Mr. Vit Novak             1
Texas Instruments           A.   Mr. Robert Kando          1
Toshiba                     P    Mr. Hiroshi Suzuki        1
UNISYS Corporation          A    Mr. Phil Shelton          1
Veritas Software                                                      1
Vixel Corp.                 P    Mr. Kenneth Hirata        1

                                                        33  0  0   9 = 42
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Gary Robinson took an action item to notify INCITS of the T10 recommendation on 25N842Av.

11.2.2 NWIP for SCSI SSM-2 (03-083) [Robinson]

Gary Robinson moved and Erich Oetting seconded to approve the NWIP (T10/03-083r0) as a US contribution to JTC1/SC25 and to approve the NP to be issued by SC25, answering the 6 questions 'Yes' and naming Gary S. Robinson as project editor. The roll call motion passed 33:0:0:9=42, with the details the same as shown in 11.2.1.

Gary Robinson took an action item to submit 03-083r0 as a NWIP for SSM-2.

11.2.3 NWIP for SCSI PIP (03-084) [Robinson]

Gary Robinson moved and Zane Daggett seconded to approve the NWIP (T10/03-084r0) as a US contribution to JTC1/SC25 and to approve the NP to be issued by SC25, answering the 6 questions 'Yes' and naming Gary S. Robinson as project editor. The roll call motion passed 33:0:0:9=42, with the details the same as shown in 11.2.1.

Gary Robinson took an action item to submit 03-084r0 as a NWIP for PIP.

11.2.4 NWIP for SCSI SAM-2 (03-132) [Robinson]

Gary Robinson moved and Ralph Weber seconded to approve the NWIP (T10/03-132r0) as a US contribution to JTC1/SC25 and to approve the NP to be issued by SC25, answering the 6 questions 'Yes' and naming Gary S. Robinson as project editor. The roll call motion passed 33:0:0:9=42, with the details the same as shown in 11.2.1.

Gary Robinson took an action item to submit 03-132r0 as a NWIP for SAM-2.

11.2.5 Endorsement of Gary Robinson as US candidate for Convener of JTC 1/SC 25/WG 4

John Lohmeyer moved and Bob Davis seconded that T10 endorse the nomination of Gary S. Robinson as the US candidate for US candidate for Convener of JTC 1/SC 25/WG 4. The roll call motion passed 33:0:0:9=42, with the details the same as shown in 11.2.1.

John Lohmeyer took an action item to inform Jennifer Garner that T10 recommends that JTC 1 TAG nominate Gary S. Robinson as the US candidate for Convener of JTC 1/SC 25/WG 4.

12. Liaison Reports

12.1 T11 Liaison Report (03-125) [Snively]

Steve Wilson presented the T11 liaison report contained in T10/03-125r0.

12.2 T13 Liaison Report [Colegrove]

Dan Colegrove reported to the committee on T13 activities and Pete McLean, T13 Chair, provided the following electronic report:

> T13 Liaison Report - February 24, 2003

> T13 met last in Irvine, CA on February 18 through 20 with 22 people present. Membership is currently 20 voting organizations.

> ATA/ATAPI Host Adapter Standard, T13/1510D, has been forwarded to INCITS for first public review. Public review closes March 17.

> T13 voted to recommend that INCITS withdraw ANSI INCITS 316-1998, 1394 to ATA Attachment - Tailgate. The recommendation has been forwarded to INCITS.

> T13 voted to recommend that INCITS reaffirm ANSI INCITS 317-1998, ATA Attachment with Packet Interface - 4. The recommendation has been forwarded to INCITS.

> The ATA/ATAPI-7, T13/1532D, is in development. The Serial ATA promoters filed copyright releases on the Serial ATA 1.0a specification. T13 has created a draft of ATA/ATAPI-7 volume 3 with this material included and begun to review the draft.

> ITIC requested that T13 recommend the name for the committee to be shown on the INCITS website. T13 is requesting that name be "ATA Storage Interfaces".

> The chair of T13 Pete McLean has notified the committee that he is being laid off by Maxtor Corporation and will no longer serve as chair after 4 April. T13 vice-chair Dan Colegrove has agreed to chair T13 until INCITS appoints a new Chairman.

> Minutes of the meeting are available at <http://www.t13.org/docs2003/e03101r0.pdf>.

> Seagate will host the next plenary meeting April 20-22, 2003 in Irvine, CA. The meeting will start at 9 AM.

> For further T13 information access ftp.t13.org or www.t13.org.

12.3 SFF Industry Group [Allan]

Vit Novak reported that work on SFF 8425 continues and that another SSWG will be held during the May T10 meeting week. An electronic report was received from Dal Allan following the meeting:

> A mockup of an SFF-8221 'Pre-Aligned 2.5" Drive >10mm Form Factor' was passed around to attendees and some descriptive text about the system characteristics and handle will be included in the next revision. It is anticipated that Rev 2.8 of SFF-8470 'Multilane Connector' will be the final specification, and be submitted to IEC for standardization. The discussion about the scope for SFF-8082 'Guidelines for Labeling Cables and Ports' establised the immediate goals of the project. Technical comments on SFF-8482 'Internal Serial Attachment Connector' for SAS will result in a new revision of the specification. There is optimism that the SFF-

8425 for 'Single Voltage Drives' SSWG will be able to broaden the specifications of regulated power, and define ripple more precisely. Both of these will assist JBOD and RAID subsystem design.

12.4 IEEE 1394 [Johansson]

Peter Johansson reported IEEE 1394 activities and provided the following electronic report for the minutes.

The Ballot Response Committee (BRC) for IEEE P1394.1, High Performance Serial Bus Bridges, has resolved, in principal, all of the comments received during Sponsor Ballot. The Editor is incorporating the agreed changes in anticipation of a recirculation ballot this year, with projected approval as an IEEE standard in 2003. Contact the Chair, Peter Johansson (PJohansson@ACM.org), for details.

The BRC for IEEE P1394.3, Peer to Peer Data Transport, a protocol built upon SBP-2, has resolved all Sponsor ballot comments. The Vice Chair, Alan Berkema (Alan_Berkema@HP.com), is expected to initiate a recirculation ballot shortly.

The 1394 Trade Association Wireless working group is developing a "protocol adaptation layer" (PAL) to enable IEEE 1394 applications to interoperate with like applications in IEEE P802.11e devices. Some of the work is active in the IEEE P802.11e (quality of service) working group. The 1394 Trade Association working group is also investigating the use of ultra-wide band (UWB) technologies for wireless 1394. Contact the working group Chair, John Fuller (JFuller@Computer.org) or the Project Editor, Peter Johansson (PJohansson@ACM.org), for details.

The IEEE MSC has approved the formation of the S800BASE-T study group, which is chartered to investigate methods of running IEEE 1394 over up to 100 meters of UTP-5 by leveraging existing gigabit Ethernet PHY technology. They are pursuing a very aggressive schedule and plan to hand over the work to the IEEE P1394 revision working group for incorporation in the revised IEEE 1394 base standard. The STDS-1394@IEEE.org reflector will be used for S800BASE-T discussions. Contact the study group Chair, Michael Teener (Teener@Apple.com), for details.

12.5 SCSI Trade Association (STA) [Czekalski]

Marty Czekalski reported on the activities of the SCSI Trade Association and provided an electronic report that can be found in 03-134r0.

In response to a request from STA, George Penokie moved that the working draft currently named SAS-2 be re-named to SAS-1.1. Mark Evans seconded the motion. The motion passed on a vote of 28:0:5:9=42.

12.6 IETF SCSI over IP [Black/Robinson]

David Black reported that iSCSI received final technical approval in February. He noted that based on the decision taken earlier in this meeting (see item 10.4) the IETF proposal to add NAA naming to the iSCSI name format will be deferred until after a T10 decision is reached.

12.7 SNIA [Cummings]

In the absence of Roger Cummings, David Black reported that SNIA is working the final details of SMI version 1. The SMI 1.1 work will begin in the next few weeks.

13. Review of Action Items

519   Ralph Weber will notify Gary Robinson that the SAM-2 ISO revision can be found at ftp://ftp.t10.org/t10/drafts/sam2/sam2i25.pdf.

520   John Lohmeyer will notify INCITS that T10 recommends the reaffirmation of SBC, SMC, SPI-2, SBP-2, SES, the SES amendment, and SSC-2.
521   John Lohmeyer will notify INCITS that T10 has voted to change its name to 'SCSI storage interfaces'.
522   Gary Robinson will notify INCITS of the T10 recommendation on 25N842Av.
523   Gary Robinson will submit 03-083r0 as a NWIP for SSM-2.
524   Gary Robinson will submit 03-084r0 as a NWIP for PIP.
525   Gary Robinson will submit 03-132r0 as a NWIP for SAM-2.
526   John Lohmeyer will inform Jennifer Garner that T10 recommends that JTC 1 TAG nominate Gary S. Robinson as the US candidate for Convener of JTC 1/SC 25/WG 4.

14. Meeting Schedule

The next plenary meeting of T10 will be Thursday May 8, 2003 in Nashua, NH at the Crowne Plaza Nashua (603-886-1200), hosted by Hitachi Cable Manchester. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

```
                        May 2003 Meeting Map
                        (2003/03/13 Version)
Monday 5/05          9   10  11  12  1   2   3   4   5   6   7   8
                     +==============+=======================+
                     |SMC-2/FCP-3 WG / ADI WG               |       (10)
                     +========+=====+=======================+
                     |Par SCSI / SAS Protocol WG            |       (40)
                     +========+===========================+

Tuesday 5/06   8     9   10  11  12  1   2   3   4   5   6   7   8
                     +=======================================+
                     | SAS Protocol WG                       |       (40)
                     +==============================+==========+
                     | ADI WG                       |               (15)
                     +==============================+---+
                     | T11 Ad hocs                  |               (15)
                     +==============================+---+
                     | SBP-3 WG                     |               (10)
                     +==============================+-------+
                     | STA Plugfest Mtg  | STA (closed mtg) |       (20)
                     +------------------+-------------------+

Wednesday 5/07       9   10  11  12  1   2   3   4   5   6   7   8
                     +=======================================+
                     | SCSI Commands, Arch., & Protocol WG   |       (35)
                     +==============================+==========+
                     | SBP-3 WG                     |               (10)
                     +=====================+=======+------+
                                           |SFF 8425 SSWG |          (20)
                   +----------------------+---+----------+
                   | STA (closed meeting)     |                     (20)
                   +--------------------------+

Thursday 5/08  8     9   10  11  12  1   2   3   4   5   6   7   8
                     +=================+
                     | T10 Plenary     |                             (45)
                     +=================+================+
                                       | SPC-3 Editing  |            (10)
                     +-----------------+================+
                     | FCIA Board Meeting (closed mtg)   |           (10)
                     +---------------------------------+

Friday 5/09    8     9   10  11  12  1   2   3   4   5   6   7   8
                     No meetings planned for Friday
```

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

```
  Other T10-authorized meetings:
Meeting          Date               Location / Contact
--------------   ----------------   ------------------------------------
ADI Calls        Bi-weekly          To be announced via T10 reflector
SAS Prot Calls   Weekly Tuesday am  To be announced via T10 reflector
SAS PHY Calls    Weekly Monday pm   To be announced via T10 reflector
MMC              Week of 4/21       To be announced via T10 reflector
```

```
 Map Abbreviation Key:
ADI:         Automation Drive Interface (tape library interface)
Amnd:        Amendment
CAP:         Commands, Architecture, and Protocols
Fast-80:     Data Transfer at 80 Mega-transfers/sec. (a.k.a., Ultra3,Ultra160)
Fast-160:    Data Transfer at 160 Mega-transfers/sec. (a.k.a., Ultra320)
FC:          Fibre Channel
I/F:         Interface
IETF:        Internet Engineering Task Force (the group that sets
             Internet standards)
iFC:         Internet Fibre Channel
IPS:         Internet Protocol SCSI
iSCSI:       Internet SCSI
LB:          Letter Ballot
MMC:         Multimedia Commands (CD-ROM, DVD, etc.)
OSD:         Object-based Storage Device
Par.:        Parallel (e.g., SPI-n)
PH or PHY:   Physical (Connectors, Cables, Transceivers, etc.)
PIP:         (SCSI) Passive Interconnect Performance
Plenary:     Full Committee Meeting
Res:         Resolution
SAS:         Serial Attached SCSI
SBC-2:       SCSI Block Commands - 2
SBP-3:       Serial Bus Protocol - 3
SCSI:        Small Computer System Interface
SES:         SCSI Enclosure Services
SFF:         SFF Industry Group (not an INCITS activity)
SG:          Study Group
SMC-2:       SCSI Medium Changer - 2 Commands
SPC-3:       SCSI Primary Commands - 2 (3rd generation)
SPI-4:       Fourth Generation SCSI Parallel Interface
SPI-5:       Fifth Generation SCSI Parallel Interface
SRP:         SCSI RDMA Protocol (was SVP)
SRP-2:       SCSI RDMA Protocol (2nd generation)
SSC-2:       SCSI Stream Commands - 2 (includes Tape)
SSM-2:       SCSI Signal Modeling (2nd generation)
SSWGs:       Specific-Subject Working Groups
STA:         SCSI Trade Association (Closed meeting -- not an INCITS activity)
STA Marcom:  STA Marketing Communications (Closed meeting -- not an INCITS activity)
STA Tech:    STA Technical Meeting (T10 members invited)
STP:         Serial ATA Tunneled Protocol
T10:         Lower Level Interfaces Technical Committee
T11:         Device Level Interfaces Technical Committee
WG:          Working Group (same as Ad Hoc Group)
```

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

```
Activity                  Contact         Telephone/Email
------------------------- --------------- ------------------------------
ADT                       Paul Entzel     (720) 406-5782
                                          paul.entzel@quantum.com
ADC                       Rod Wideman     (720) 249-5796
                                          rod.wideman@adic.com
PIP, PIP-2                Zane Daggett    (603) 669-4347 x236
                                          zdaggett@hcm.hitachi.com
SBC-2, SES-2, SAS         Rob Elliott     (281) 518-5037
                                          Elliott@hp.com
MMC-2, MMC-3, MMC-4       Bill McFerrin   (303) 651-5400
                                          bmcferrin@aol.com
SBP-2, SBP-3              Peter Johansson (510) 527-3926
                                                PJohansson@ACM.org
SCC-2, SPI-4, SPI-5, MSC  George Penokie  (507) 253-5208
                                          gpenokie@tivoli.com
SMC, SMC-2                Erich Oetting   (303) 673-2178
                                          Erich_Oetting@Stortek.com
SPC-3, SAM-2, SAM-3, OSD  Ralph Weber     (214) 912-1373
                                          roweber@acm.org
SSC, SSC-2, FCP-2, FCP-3  Dave Peterson   (612) 802-3299
                                          dap@cisco.com
SRP, SRP-2                Cris Simpson    (503) 712-4333
                                          cris.simpson@intel.com
SSM-2                     Paul Aloisi     (603) 222-8687
                                          paul_aloisi@ti.com
Other Activities          John Lohmeyer   (719) 533-7560
                                          lohmeyer@t10.org
```

The long-term T10 meeting week schedule is:

```
Date               Location                 Host/Comments
------------------ ------------------------ ----------------------------
May 5-9, 2003      Nashua, NH               Hitachi Cable
Jul 7-11, 2003     Colorado Springs, CO     LSI Logic [Dates Changed]
Sep 8-12, 2003     Seattle, WA              Microsoft
Nov 3-7, 2003      Austin, TX               Crossroads
Jan 12-16, 2004    Chandler, AZ             Intel
Mar 8-12, 2004     (Contact John Lohmeyer if you want to host this meeting)
May 3-7, 2004      Toronto, Montreal, or Ottawa Brocade
Jul 12-16, 2004    Colorado Springs, CO     LSI Logic
Sep 13-17, 2004    (Contact John Lohmeyer if you want to host this meeting)
Nov 8-12, 2004     Austin, TX               Crossroads
Approved 2005 dates:
Jan 17-21, 2005
Mar 7-11, 2005
May 2-6, 2005
Jul 11-15, 2005
Sep 12-16, 2005
Nov 7-11, 2005
```

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.

Erich Oetting moved that T10 authorize the T10-related meetings and events in the list above that had not previously been approved through the end of June 2003. Mark Evans seconded the motion. In the absence of any objections, the motion passed unanimously.

15. Adjournment

John Lohmeyer moved and Ralph Weber seconded that the meeting be adjourned. The motion passed unanimously. The meeting was adjourned at 12:05 p.m. on Thursday March 13, 2003.

Enclosure(1) -- Meeting Attendees

```
        Name             S      Organization        Electronic Mail Address
---------------------- --  ------------------------  ------------------------
Mr. Ron Roberts         P  Adaptec, Inc.             rkroberts@aol.com
Mr. Michael Wingard     P  Amphenol Interconnect     mikwingard@aol.com
Dr. Claudio DeSanti     P  Andiamo Systems, Inc.     cds@andiamo.com
Mr. Steven Wilson       A  Brocade Comm. Systems,    swilson@brocade.com
                           Inc.
Mr. Peter Johansson     P  Congruent Software, Inc.  PJohansson@ACM.org
Mr. James A. Lott, Jr.  P  Dallas Semiconductor      jim.lott@dalsemi.com
Mr. Kevin Marks         P  Dell Computer Corp.       kevin_marks@dell.com
Mr. Gary S. Robinson    P  EMC Corp.                 robinson_gary@emc.com
Mr. David Black         A  EMC Corp.                 black_david@emc.com
Mr. Robert H. Nixon     P  Emulex                    bob.nixon@emulex.com
Mr. Ralph O. Weber      P  ENDL Texas                roweber@acm.org
Mr. Douglas Wagner      P  FCI                       dwagner@fciconnect.com
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                                                     fujitsu.com
Mr. Rob Elliott         P  Hewlett Packard Co.       Elliott@hp.com
Mr. Werner Glinka       AV Hitachi America           werner.glinka@attglobal.
                                                     net
Mr. Zane Daggett        P  Hitachi Cable Manchester  zdaggett@hcm.hitachi.com
Mr. Dan Colegrove       P  Hitachi Global Storage    dcolegro@us.ibm.com
                           Tech.
Mr. George O. Penokie   P  IBM / Tivoli Systems      gop@us.ibm.com
Mr. Cris Simpson        P  Intel Corp.               cris.simpson@intel.com
Mr. Hiromichi Oribe     P  Iomega Corp.              oribe@iomega.com
Mr. John Lohmeyer       P  LSI Logic Corp.           lohmeyer@t10.org
Mr. Marc Dupuis         A. Madison Cable Corp.       mdupuis@madisoncable.com
Mr. Mark Evans          P  Maxtor Corp.              mark_evans@maxtor.com
Ms. Emily Hill          P  Microsoft Corp.           emhill@microsoft.com
Mr. Jay Neer            P  Molex Inc.                jneer@molex.com
Mr. James R. (Bob)      P  Network Appliance Inc.    bob@netapp.com
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Mr. Bill Galloway       P  Pivot3, Inc.              billg@pivot3.com
Mr. Paul Entzel         P  Quantum Corp.             paul.entzel@quantum.com
Mr. Gerald Houlder      P  Seagate Technology        gerry.houlder@seagate.com
Mr. Erich Oetting       P  Storage Technology Corp.  erich_oetting@stortek.com
Mr. Vit Novak           P  Sun Microsystems, Inc.    vit.novak@sun.com
Mr. Robert Kando        A. Texas Instruments         Robert.Kando@ti.com
Mr. Hiroshi Suzuki      P  Toshiba                   hiroshi.suzuki@tais.
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Mr. Phil Shelton        A  UNISYS Corporation        phil.shelton@unisys.com
Mr. Kenneth Hirata      P  Vixel Corp.               Ken.Hirata@Vixel.com


38 People Present


Status Key:  P    -  Principal
             A,A# -  Alternate
             AV   -  Advisory Member
             L    -  Liaison
             V    -  Visitor
```

Enclosure(2) -- T10 Attendance Database
      Generated on 2003/03/13 at 21:11:34

```
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