

Accredited Standards Committee*

InterNational Committee for Information Technology Standards (INCITS)

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Date: March 13, 2006

Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: Minutes of T10 Plenary Meeting #72 -- March 9, 2006
Hilton Head, SC

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 9, 2006. He thanked Chris Lyon of the SCSI Trade Association for hosting the meeting.

John said that INCITS subgroup membership forms and the T10 document subscription forms are available on the meeting web site. 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. Attendance was taken electronically via the meeting web site.

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 or modified in the agenda during the course of the meeting:

- 11.2.1 FCP-3 NWIP
- 11.2.2 Remove SSM from program of work
- 11.2.3 SAM-3 FCD

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. People who continue to attend T10 meetings are expected to join T10 and to pay INCITS Service Fees.

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

John briefly discussed the mailing fees. Complete pricing information is contained in the 2006 membership form (available at http://www.t10.org/ftp/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 emails to 3 people from 2 organizations informing them that their membership was in jeopardy due to non-attendance (see 06-077r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

Amphenol Interconnect
Pivot3, Inc.

All organizations in attendance jeopardy were present.

Had any organizations not been present, their representatives would have been changed to Advisory (non-voting) status.

John noted that McDATA joined subsequent to the last meeting. They had met the criteria for reinstatement at the last T10 meeting, but had not requested reinstatement until February 22nd. Avago Technologies was terminated for failure to pay the 2006 INCITS Service Fee.

John Lohmeyer called for requests to join the committee. Marvel Semiconductor requested and was granted membership.

The T10 membership during the meeting was 46 organizations, up from the 45 member organizations extant at the time the meeting was convened. 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. The current letter ballot jeopardy status is as shown:

T10 Letter Ballot Jeopardy Report -- 2006/03/01

Ballot:	05-125r0	05-134r0	06-080r0
Report:	05-126r0	05-135r0	06-081r0
Acronym:	SAS-1.1	FCP-3	SAT

Organization

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Avago Technologies	--	--	DNV

Key:

Yes Organization voted Yes
 No Organization voted No
 Abs Organization voted Abstain
 DNV Organization failed to return letter ballot
 -- Organization was not a voting member for the letter ballot
 (*) Organization is in letter ballot jeopardy

4. Approval of Minutes - January 2006 - Phoenix, AZ (T10/06-041r0)

John Lohmeyer moved and Ralph Weber seconded that the minutes be approved as written. 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 uploaded to the T10 web site by 10:30 a.m. on Thursday March 16, 2006. 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

John Lohmeyer explained that this is a regular agenda item to identify any potential patent issues with developing standards and technical reports.

For additional information on ANSI procedures and the ANSI patent policy, please see the INCITS web page at <http://www.incits.org/call.htm>. The contact for INCITS patent issues is Lynn Barra (lbarra at itic dot org) or (202) 626-5739. 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.

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

Tim Symons noted that he had uploaded 06-149r0, "SAS patent disclosure by PMC-Sierra relating to distributed topology discovery".

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

There were no other responses to the call for patents other than those mentioned above.

7. Review of Old Action Items

- 619 Bob Sheffield will prepare SAT r08. *Complete.*
- 620 John Lohmeyer will conduct a letter ballot on forwarding SAT r08 to INCITS for first public review. *Complete.*
- 621 John Lohmeyer will forward 05-444r1 to INCITS for further processing as a new project proposal for SAT-2. *Complete.*
- 622 John Lohmeyer will forward 06-002r2 to the IEEE for posting as an OUI tutorial for SCSI. *Complete.*
- 623 Gary Robinson will forward 06-045r0 to the SC25 TAG as an NWIP contribution for SPC-3 as project 1.25.13.11.33, 14776-223, to mark YES on each of the 6 questions, define Gary S Robinson as Project Editor in question 4, and normal standard development track is proposed in question 7. *Complete.*
- 624 Gary Robinson will start the process of removing SSM-2 from the SC25 program of work. *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 web site and will be included in the mailing as usual.

Terry Nelson reported that work is continuing to review the Open Participation policy statement. John Lohmeyer called for all organizations that are attending regularly to make sure that they pay the INCITS Service Fees since, in his opinion, the motivation to close TC meetings is largely due to revenue concerns.

Gary Robinson reported on INCITS discussions for locating web sites. A proposal to move the T10 web site to INCITS facilities was blocked, in part due to Gary's efforts. Such a move would have eliminated features such as taking meeting attendance.

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>.

John reminded committee members that all persons present at a T10 meeting is responsible for identifying potential violations of the antitrust guidelines and reporting them to the chair. Discussions of the following topics are considered sensitive:

- * Any company's prices or pricing policies;
- * Specific R&D, sales and marketing plans;
- * Any company's confidential product, product development or production strategies;
- * Whether certain suppliers or customers will be served;
- * Prices paid to input sources; or
- * Complaints about individual firms or other actions that might tend to hinder a competitor in any market.

8.2 Bridge Controller Commands (BCC) Project 1528-D [Elliott]

Rob Elliott reported that there has been no activity on BCC.

8.3 SCSI Enclosure Services - 2 (SES-2) Project 1559-D [Elliott]

Rob Elliott reported that there has been no activity on SES-2 in the CAP working group. No date has been agreed upon for SES-2 Letter Ballot.

8.4 Fibre Channel Protocol - 3 (FCP-3) Project 1560-D [Peterson]

John Lohmeyer reported that FCP-3 had completed first public review with no comments received. Management review and the INCITS letter ballot will be performed as soon as ANSI completes the document editing.

The FCP-4 Study Group met on Tuesday (minutes in 06-141 and report in 06-159).

8.5 Serial Attached SCSI - 1.1 (SAS-1.1) Project 1601-D [Elliott]

John Lohmeyer reported that SAS-1.1 had completed first public review with no comments received. Management review and the INCITS letter ballot will be performed as soon as ANSI completes the document editing.

The committee discussed the usage of the terms 'fixed' and 'free' regarding connectors in SAS-1.1 and SAS-2. The group agreed to refer proposals for changes to the May SAS-2 Physical working group.

8.6 SCSI Stream Commands - 3 (SSC-3) Project 1611-D [Peterson]

In the absence of Dave Peterson, John Lohmeyer presented a report summarizing the activities of the SSC-3 working group (minutes in 06-142 and report in 06-158).

8.7 MultiMedia Command Set - 5 (MMC-5) Project 1675-D [McFerrin]

Bill McFerrin reported that the working group completed a review of the MMC-5 draft (minutes in 06-156).

The group agreed to conduct an MMC-5 forwarding Letter Ballot between now and the May meeting.

Bill McFerrin took an action item to prepare an MMC-5 revision for Letter Ballot. John Lohmeyer took an action item to conduct a Letter Ballot on the MMC-5 revision prepared by Bill McFerrin.

8.8 SCSI Architecture Model - 4 (SAM-4) Project 1683-D [Penokie]

George Penokie reported that no proposals are pending for inclusion in SAM-4 and no new revision will be produced.

8.9 SCSI / ATA Translation (SAT) Project 1711-D [Sheffield]

John Lohmeyer noted that the SAT letter ballot passed 32:9:3:1=45 as documented in 06-081. 17 ballots included approximately 1,500 comments. Bob Sheffield reported on the working group's progress in resolving the comments which are listed in 06-121r0 (minutes in 06-125).

8.10 Object-Based Storage Devices - 2 (OSD-2) Project 1729-D [Weber]

Ralph Weber reported that he is unaware of progress toward developing new OSD-2 proposals by the SNIA TWG.

8.11 SCSI Media Changer Command Set - 3 (SMC-3) Project 1730-D [Banther]

Michael Banther reported on the activities of the SMC-3 working group (minutes in 06-139) and provided an electronic report in 06-146.

8.12 SCSI Primary Commands - 4 (SPC-4) Project 1731-D [Weber]

Ralph Weber reported that SPC-4 r04 will be posted before the mailing and will incorporate all proposals approved by this meeting except 05-248r4 which will not be incorporated until 06-113 is approved to define log subpages.

8.13 Serial Attached SCSI Driver Interface (SDI) Project 1740-D [Elliott]

Rob Elliott noted that any changes to the SDI will be handled in the CAP working group and that no changes are currently proposed.

8.14 Automation/Drive Interface - Commands - 2 (ADC-2) Project 1741-D [Suhler]

Paul Suhler reported on the activities of the ADI working group (minutes in 06-118) and provided an electronic report in 06-143r0.

Paul requested that all technical input for ADC-2 be provided by May 2006.

8.15 Automation/Drive Interface - Transport Protocol - 2 (ADT-2) Project 1742-D [Suhler]

Paul Suhler reported on the activities of the ADI working group (minutes in 06-118) and provided an electronic report in 06-143r0.

8.16 Serial Attached SCSI - 2 (SAS-2) Project 1760-D [Elliott]

Rob Elliott reported that several SAS-2 protocol proposals have been recommended (minutes in 06-124). The SAS-2 physical working group (minutes in 06-145) made no recommendations. A SAS-2 revision will be posted containing all approved proposals in time for the mailing.

8.17 SCSI Block Commands - 3 (SBC-3) Project 1799-D [Penokie]

George Penokie reported SBC-3 r04 has been posed on the web site. No proposals are pending for inclusion in SBC-3, so no new revision is being prepared.

8.18 SCSI / ATA Translation - 2 (SAT-2) Project 1826-D [Overby]

Mark Overby reported that work will not begin on SAT-2 until the SAT Letter Ballot comments (see agenda item 8.9) are mostly processed. New proposals for SAT-2 changes, if any, will be reviewed by the SAT working group.

9. Old Business**9.1 Project Proposal for Fibre Channel Protocol for SCSI - 4 (FCP-4) (06-032r1) [Peterson]**

John Lohmeyer led a review of the FCP-4 project proposal (06-032r1). Dave Peterson has volunteered to be the project editor.

John Lohmeyer moved that T10 approve 06-032r1 as a new project proposal for SCSI Fibre Channel Protocol - 4 (FCP-4). Bob Nixon seconded the motion. The motion passed a two-thirds vote of 28:0:0:18=46.

John Lohmeyer took an action item to forward 06-032r1 to INCITS for further processing as a new project proposal for FCP-4.

10. New Business**10.1 Project Proposal for MultiMedia Command Set - 6 (MMC-6) (06-115) [McFerrin]**

John Lohmeyer noted that this project proposal did not meet the two-week rule, which is automatically invoked on project proposals. It will be carried over to old business for the May T10 meeting.

10.2 2006 Five-Year Maintenance Review of INCITS Standards (06-084) [Purnell]

John Lohmeyer reviewed 06-084r0, which enumerates seven standards that are up for five-year review. The standards are:

- INCITS 232-1996 [R2001], SCSI-2 Common Access Method Transport and SCSI Interface Module
- INCITS 295-1996 [R2001], Serial Storage Architecture - Transport Layer-1 (SSA-TL1)
- INCITS 269-1996 [R2001], SCSI-3 Fibre Channel Protocol (FCP)
- INCITS 270-1996 [R2001], SCSI-3 Architecture Model (SAM)
- INCITS 294-1996 [R2001], Serial Storage Architecture - SCSI-2 Protocol (SSA-S2P)
- INCITS 293-1996 [R2001], Serial Storage Architecture - Physical Layer 1 (SSA-PH1)

INCITS 351-2001, SCSI Primary Commands - 2 (SPC-2)

John noted that he had received an e-mail from Jim Nelson requesting that T10 reaffirm FCP (INCITS 269-1996) because FC-AE-2 references it. The T10 officers recommended that all the standards be reaffirmed except SAM because SAM-2 and SAM-3 contain more recent and complete SCSI architectural model information.

John Lohmeyer moved that T10 recommend to INCITS that INCITS 232-1996 [R2001], SCSI-2 Common Access Method Transport and SCSI Interface Module; INCITS 295-1996 [R2001], Serial Storage Architecture - Transport Layer-1 (SSA-TL1); INCITS 269-1996 [R2001], SCSI-3 Fibre Channel Protocol (FCP); INCITS 294-1996 [R2001], Serial Storage Architecture - SCSI-2 Protocol (SSA-S2P); INCITS 293-1996 [R2001], Serial Storage Architecture - Physical Layer 1 (SSA-PH1); and INCITS 351-2001, SCSI Primary Commands - 2 (SPC-2) be reaffirmed and that INCITS 270-1996 [R2001], SCSI-3 Architecture Model (SAM) be withdrawn, maintaining an archival reference. Ralph Weber seconded the motion.

The motion passed 36:0:0:10=46 on a two-thirds roll call motion. Details of the voting were as follows:

Organization	Voter	Vote
Adaptec, Inc.	Chris Fore	Yes
AMCC		(not present)
Amphenol Interconnect	Michael Wingard	Yes
Broadcom Corp.	Ron Roberts	Yes
Brocade	Steven Wilson	Yes
Dallas Semiconductor		(not present)
Dell, Inc.	Kevin Marks	Yes
EMC Corp.	Gary S. Robinson	Yes
Emulex	Robert H. Nixon	Yes
ENDL	Ralph O. Weber	Yes
FCI	Douglas Wagner	Yes
Foxconn Electronics	Elwood Parsons	Yes
Fujitsu		(not present)
General Dynamics		(not present)
Hewlett Packard Co.	Rob Elliott	Yes
Hitachi Cable Manchester		(not present)
Hitachi Global Storage Tech.	Dan Colegrove	Yes
IBM Corp.	George O. Penokie	Yes
Intel Corp.	Robert Sheffield	Yes
Iomega Corp.		(not present)
Lexar Media, Inc.	John Geldman	Yes
LSI Logic Corp.	John Lohmeyer	Yes
M-Systems	Avraham Shimor	Yes
Marvell Semiconductor, Inc.	David Geddes	Yes
Maxtor Corp.	Mark Evans	Yes
McDATA		(not present)
Microsoft Corp.	Robert Griswold	Yes
Molex Inc.	Jay Neer	Yes
Nvidia Corp.	Mark Overby	Yes
Oracle		(not present)
Panasonic Technologies, Inc	Terence J. Nelson	Yes
Philips Electronics	William P. McFerrin	Yes
Pivot3, Inc.	Thomas Grieff	Yes
PMC-Sierra	Tim Symons	Yes
QLogic Corp.		(not present)
Quantum Corp.	Paul Entzel	Yes
Seagate Technology	Gerald Houlder	Yes
Sierra Logic, Inc.	William Martin	Yes
Sun Microsystems, Inc.	Vit Novak	Yes
Symantec	Roger Cummings	Yes

Texas Instruments		(not present)
TycoElectronics	Dan Gorenc	Yes
Vitesse Semiconductor	David Allen	Yes
Western Digital	Curtis Stevens	Yes
Xiotech Corp.	Jeff Williams	Yes
Xyratex	Rich Ramos	Yes

This two-thirds roll call vote passed (36:0:0:10=46).

John Lohmeyer took an action item to communicate the five-year recommendations to INCITS.

10.3 Actions on SAS Protocol Working Group Recommendations

The recommendations from the SAS protocol working group (minutes in 06-124) were presented to the committee.

George Penokie reviewed the following proposals recommended for inclusion in SAS-2:

- 06-122r2 (Zoning - Phy Features) [Weber]
- 06-130r1 (Sticky Zone Groups) [Marks]
- 06-082r2 (Zoning-related SMP functions) [Weber]
- 06-083r1 (Handle STP CLOSE and SATA_X_RDY crossing on the wire) [Sheffield]
- 06-099r0 (Transitions from SL_CC1:ArbSel) [Day]
- 06-101r0 (Minor correction to STP flow control formula) [Day]
- 06-134r0 (Rename phy event information codes) [Elliott]

Kevin Marks moved that 06-122r2, 06-130r1, 06-082r2, 06-083r1, 06-099r0, 06-101r0, and 06-134r0 be approved for inclusion in SAS-2. Mark Evans seconded the motion. The motion passed on a vote of 30:0:0:16=46.

10.4 Actions on SAS PHY Working Group Recommendations

There were no recommendations made by the SAS physical working group (minutes in 06-145).

10.5 Actions on SAT Working Group Recommendations

No recommendations were presented from the SAT working group (minutes in 06-125).

10.6 Actions on CAP Working Group Recommendations

The recommendations from the CAP working group (minutes in 06-126) were presented to the committee.

George Penokie reviewed the following proposals recommended for inclusion in SPC-4:

- 05-248r4 (Statistics and Performance Log Pages) [Penokie]
- 06-079r1 (More Log Page Cleanup) [Weber]
- 06-147r0 (ALL_TG_PT clarification) [Ramos]
- 06-126r0 (minutes of the CAP working group) (Assign Security Protocol code value EFh to the ATA Device Server Password Security protocol)

Rich Ramos moved that 05-248r4, 06-079r1, and 06-147r0 be approved for inclusion in SPC-4. Bill Martin seconded the motion. The motion passed on a vote of 30:0:0:16=46.

Ralph Weber stated that 05-248r4 will not be incorporated in SPC-4 until 06-113 is approved to add the basic definition of log subpages.

Ralph Weber moved that the assignment of Security Protocol code value EFh to the ATA Device Server Password Security protocol be approved for inclusion in SPC-4. Mark Overby seconded the motion.

Gerry Houlder questioned the assignment of code EFh but no changes were made.

The motion passed on a vote of 29:1:2:14=46.

10.7 Actions on Other Working Group Recommendations

George Penokie reviewed 06-092r0 (Indication of REC support) a proposal recommended for inclusion in FCP-4.

George Penokie moved that 06-092r0 be approved for inclusion in FCP-4. Bob Nixon seconded the motion. The motion passed on a vote of 30:0:0:16=46.

11. ISO/IEC

11.1 ISO/IEC Report [Robinson]

Gary Robinson presented the ISO/IEC report (06-123).

11.2 ISO/IEC Business [Robinson]

11.2.1 FCP-3 NWIP

Gary Robinson moved that T10 recommends that the SC25 TAG contribute a NWIP to SC25 for FCP-3, T10/06-045r1, as project 1.25.13.11.nn, 14776-223, to mark YES on each of the 6 questions, define Gary S Robinson as Project Editor in question 4, normal standard development track is proposed in question 7, and when the NWIP ballot is available; to vote Approve. John Lohmeyer seconded the motion.

The motion passed 37:0:0:9=46 on a two-thirds roll call motion. Details of the voting were as follows:

Organization	Voter	Vote
Adapteq, Inc.	Chris Fore	Yes
AMCC		(not present)
Amphenol Interconnect	Michael Wingard	Yes
Broadcom Corp.	Ron Roberts	Yes
Brocade	Steven Wilson	Yes
Dallas Semiconductor		(not present)
Dell, Inc.	Kevin Marks	Yes
EMC Corp.	Gary S. Robinson	Yes
Emulex	Robert H. Nixon	Yes
ENDL	Ralph O. Weber	Yes
FCI	Douglas Wagner	Yes
Foxconn Electronics	Elwood Parsons	Yes
Fujitsu	Mike Fitzpatrick	Yes
General Dynamics		(not present)
Hewlett Packard Co.	Rob Elliott	Yes
Hitachi Cable Manchester		(not present)
Hitachi Global Storage Tech.	Dan Colegrove	Yes
IBM Corp.	George O. Penokie	Yes
Intel Corp.	Robert Sheffield	Yes
Iomega Corp.		(not present)
Lexar Media, Inc.	John Geldman	Yes
LSI Logic Corp.	John Lohmeyer	Yes
M-Systems	Avraham Shimor	Yes

Marvell Semiconductor, Inc.	David Geddes	Yes
Maxtor Corp.	Mark Evans	Yes
McDATA		(not present)
Microsoft Corp.	Robert Griswold	Yes
Molex Inc.	Jay Neer	Yes
Nvidia Corp.	Mark Overby	Yes
Oracle		(not present)
Panasonic Technologies, Inc	Terence J. Nelson	Yes
Philips Electronics	William P. McFerrin	Yes
Pivot3, Inc.	Thomas Grieff	Yes
PMC-Sierra	Tim Symons	Yes
QLogic Corp.		(not present)
Quantum Corp.	Paul Entzel	Yes
Seagate Technology	Gerald Houlder	Yes
Sierra Logic, Inc.	William Martin	Yes
Sun Microsystems, Inc.	Vit Novak	Yes
Symantec	Roger Cummings	Yes
Texas Instruments		(not present)
TycoElectronics	Dan Gorenc	Yes
Vitesse Semiconductor	David Allen	Yes
Western Digital	Curtis Stevens	Yes
Xiotech Corp.	Jeff Williams	Yes
Xyratex	Rich Ramos	Yes

This two-thirds roll call vote passed (37:0:0:9=46).

Gary Robinson took an action item to report to INCITS that T10 recommends that the SC25 TAG contribute a NWIP to SC25 for FCP-3, T10/06-045r1, as project 1.25.13.11.nn, 14776-223, to mark YES on each of the 6 questions, define Gary S Robinson as Project Editor in question 4, normal standard development track is proposed in question 7.

11.2.2 Remove SSM from program of work

Gary Robinson moved that T10 recommends that the SC25 TAG request SC25 to remove project 1.25.13.11.37, SCSI Signal Modeling, SSM-214776-132 from it Program of Work. John Lohmeyer seconded the motion.

The motion passed 37:0:0:9=46 on a two-thirds roll call motion. Details of the voting were identical to those reported under agenda item 11.2.1.

Gary Robinson took an action item to report to INCITS that T10 recommends that the SC25 TAG request SC25 to remove project 1.25.13.11.37, SCSI Signal Modeling, SSM-214776-132 from it Program of Work.

11.2.3 SAM-3 FCD

Gary Robinson moved that T10 recommends that the SC25 TAG vote to approve 25N 1137, FCD ISO/IEC 14776-413 Information technology Small Computer System Interface Part 413: SCSI Architecture Model 3 (SAM-3). John Lohmeyer seconded the motion.

The motion passed 37:0:0:9=46 on a two-thirds roll call motion. Details of the voting were identical to those reported under agenda item 11.2.1.

Gary Robinson took an action item to report to INCITS that T10 recommends that the SC25 TAG vote to approve 25N 1137, FCD ISO/IEC 14776-413 Information technology Small Computer System Interface Part 413: SCSI Architecture Model 3 (SAM-3).

12. Liaison Reports

12.1 T11 Liaison Report [Snively]

Roger Cummings presented an electronic liaison report prepared by Bob Snively (06-140).

12.2 T13 Liaison Report [Colegrove]

Dan Colegrove provided an oral report to the committee on the activities of T13. The ATA-8 Architecture standard is in Letter Ballot comment resolution. Technical input is closing for the ATA-8 Command Set. The next Command Set standard, ACS-2 (note the nomenclature change), is being opened for inputs.

For details regarding T13 activities see www.t13.org.

12.3 SFF Industry Group [Allan]

Dal Allan reported on the SFF Industry Group activities. By the end of the month all the SAS connectors will be published. Two standards and two technical reports are being processed at the IEC.

12.4 IEEE 1394 [Johansson]

In the absence of Peter Johansson, no report was available.

12.5 SCSI Trade Association (STA) [Czekalski]

Marty Czekalski presented an electronic report (06-148) on the activities of the SCSI Trade Association.

12.6 IETF SCSI over IP [Black/Robinson]

In the absence of David Black, no report was presented.

12.7 SNIA [open]

Roger Cummings noted that he is no longer acting as the SNIA liaison. Steve Wilson reported to the committee and provided an electronic report in 06-157r0.

12.8 Trusted Computing Group [Cummings/Fitzpatrick]

Roger Cummings reported on the TCG activities and provided an electronic report in 06-150r0.

The committee asked Roger to report to the TCG that the T10 CAP working group is beginning several projects that may conflict with TCG projects.

Roger Cummings took an action item to report to the TCG that the T10 CAP working group is beginning several projects that may conflict with TCG projects.

13. Review of Action Items

- 625 Bill McFerrin will prepare an MMC-5 revision for Letter Ballot.
- 626 John Lohmeyer will conduct a Letter Ballot on the MMC-5 revision prepared by Bill McFerrin.
- 627 John Lohmeyer will forward 06-032r1 to INCITS for further processing as a new project proposal for FCP-4.
- 628 John Lohmeyer will communicate the five-year recommendations to INCITS.

- 629 Gary Robinson will report to INCITS that T10 recommends that the SC25 TAG contribute a NWIP to SC25 for FCP-3, T10/06-045r1, as project 1.25.13.11.nn, 14776-223, to mark YES on each of the 6 questions, define Gary S Robinson as Project Editor in question 4, normal standard development track is proposed in question 7.
- 630 Gary Robinson will report to INCITS that T10 recommends that the SC25 TAG request SC25 to remove project 1.25.13.11.37, SCSI Signal Modeling, SSM-214776-132 from it Program of Work.
- 631 Gary Robinson will report to INCITS that T10 recommends that the SC25 TAG vote to approve 25N 1137, FCD ISO/IEC 14776-413 Information technology Small Computer System Interface Part 413: SCSI Architecture Model 3 (SAM-3).
- 632 Roger Cummings will report to the TCG that the T10 CAP working group is beginning several projects that may conflict with TCG projects.

14. Meeting Schedule

The next plenary meeting of T10 will be Thursday May 11, 2006 in San Jose, CA the Fairmont Hotel (1-408-998-1900) hosted by Nvidia Corp. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

May 2006 Meeting Map

Monday 5/08	9	10	11	12	1	2	3	4	5	6	7	8	
	+-----+												
	ADI-2 WG / SMC-3 WG											(10)	
	+-----+												
	SAS Prot WG											(40)	
	+-----+												
	SCSI Trade Association Event: SAS Open House												
	+-----+												
Tuesday 5/09	9	10	11	12	1	2	3	4	5	6	7	8	
	+-----+												
	SAS Physical WG											(45)	
	+-----+												
	SAT WG											(40)	
	+-----+												
	STA Marcom *											(35)	
	+-----+												
	FCP-4 WG/ SSC-3 WG											(25)	
	+-----+												
	MMC WG											(25)	
	+-----+												
Wednesday 5/10	9	10	11	12	1	2	3	4	5	6	7	8	
	+-----+												
	CAP WG											(40)	
	+-----+												
	MMC WG											(25)	
	+-----+												
	SFF											(30)	
	+-----+												
	STA Plenary * / TCC*											(20)	
	+-----+												
Thursday 5/11	9	10	11	12	1	2	3	4	5	6	7	8	
	+-----+												
	T10 Plenary SAT WG											(50/20)	
	+-----+												
Friday 5/12	9	10	11	12	1	2	3	4	5	6	7	8	
	No meetings planned for Friday.												

/ means the next meeting starts when the previous meeting concludes
 Meetings marked with == are T10-authorized meetings.
 Meetings marked with -- are other groups and may change without notice.
 Meetings marked with (*) are closed meetings of other groups.

Other T10-authorized meetings:

Meeting	Date	Location / Contact
SSC-3 Call	Thur 3/16 11a CT	TBA via T10 reflector / Peterson
SAT LB Calls	Mondays noon-3p MT 3/20, 3/27, 4/3 4/10, 4/24, 5/1	TBA via T10 reflector / Sheffield
SAS PHY Calls	Biweekly beginning 3/23	TBA via T10 reflector / Cox
SSC-3 Call	Thur 3/23 11a CT	TBA via T10 reflector / Peterson
SAS Supervisor Call	Thur 3/23 9-11 PT	TBA via T10 reflector / Lohmeyer
SMC-3 Call	Mon 3/27 11a ET	TBA via T10 reflector / Banther
SSC-3 Call	Thur 3/30 11a CT	TBA via T10 reflector / Peterson
SAS Supervisor Call	Thur 3/30 9-11 PT	TBA via T10 reflector / Lohmeyer
SAS Supervisor Call	Thur 4/13 9-11 PT	TBA via T10 reflector / Lohmeyer
SAS Supervisor	Apr 20	Denver / Lohmeyer
WG		

Map Abbreviation Key:

ad hoc: a.k.a., working group
ADI: Automation Drive Interface (tape library interface)
Amnd: Amendment
CAP: Commands, Architecture, and Protocols
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
Lock SG: Study Group to examine need for Locking removable storage devices
MMC: Multimedia Commands (CD-ROM, DVD, etc.)
OSD: Object-based Storage Device
PH or PHY: Physical (Connectors, Cables, Transceivers, etc.)
Prot: Protocol
Plenary: Full Committee Meeting
Res: Resolution
SAS: Serial Attached SCSI
SAT: SCSI / ATA Translation
SBC-2: SCSI Block Commands - 2
SCSI: Small Computer System Interface
SDI: Serial Attached SCSI Driver Interface
SES: SCSI Enclosure Services
SFF: SFF Industry Group (not an INCITS activity)
SG: Study Group
SMC-3: SCSI Medium Changer - 3 Commands
SPC-4: SCSI Primary Commands - 4 (4th generation)
SSC-3: SCSI Stream Commands - 2 (includes Tape)
STA: SCSI Trade Association (Closed meeting -- not an INCITS activity)
STA Marcom: STA Marketing Communications (Closed meeting -- not an INCITS activity)
STP: Serial ATA Tunneled Protocol
T10: SCSI Storage 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, ADC, ADT-2, ADC-2	Paul Entzel	(720) 406-5782 paul.entzel@quantum.com
SBC-2, SES-2, SAS-1.1, SAS-2, BCC, SDI	Rob Elliott	(281) 518-5037 Elliott@hp.com
MMC-4, MMC-5	Bill McFerrin	(325) 423-1560 billmc@tstar.net
SBP-3	Peter Johansson	(510) 527-3926 PJohansson@ACM.org
SAM-4, SBC-3	George Penokie	(507) 253-5208 gop@us.ibm.com
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SAT-2	Mark Overby	(425) 417-9412 moverby@nvidia.com
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SPC-3, SAM-3, SPC-4, OSD-2	Ralph Weber	(214) 912-1373 roweber@acm.org
SSC-3, FCP-3, FCP-4	Dave Peterson	(763) 268-6139 david.peterson@mcddata.com
Other Activities	John Lohmeyer	(719) 533-7560 lohmeier@t10.org

The long-term T10 meeting week schedule is:

Date	Location	Host/Comments
May 8-12, 2006	San Jose, CA	Nvidia Corp.
Jul 10-14, 2006	Colorado Springs, CO	LSI Logic
Sep 11-15, 2006	Nashua, NH	Hitachi Cable Manchester
Nov 6-10, 2006	Las Vegas, NV	Hitachi GST
Approved dates for 2007:		
Jan 15-19, 2007	Orlando, FL	Symantec
Mar 12-16, 2007		
May 7-11, 2007	Seattle, WA	Microsoft Corp.
Jul 9-13, 2007	Colorado Springs, CO	LSI Logic
Sep 17-21, 2007	TBD	PMC-Sierra
Nov 5-9, 2007		
Proposed dates for 2008:		
Jan 14-18, 2008		
Mar 10-14, 2008		
May 5-9, 2008		
Jul 14-18, 2008		
Sep 8-12, 2008		
Nov 3-7, 2008		

John Lohmeyer asked people interested hosting one of the above meetings to contact him.

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.

Bill Martin moved that T10 authorize the T10-related meetings and events in the list above that had not previously been approved through the end of April 2006. Ron Roberts 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. In the absence of any objections, the motion passed unanimously. The meeting was adjourned at 11:10 a.m. on Thursday March 9, 2006.

Enclosure(1) -- Meeting Attendees

Name	S	Organization
Mr. Chris Fore	A#	Adaptec, Inc.
Mr. Michael Wingard	P	Amphenol Interconnect
Mr. Ron Roberts	A	Broadcom Corp.
Mr. Steven Wilson	A	Brocade Comm. Systems, Inc.
Mr. Gideon Avida	AV	Decru
Mr. Kevin Marks	P	Dell, Inc.
Mr. Gary S. Robinson	P	EMC Corp.
Mr. Robert H. Nixon	P	Emulex
Mr. I. Dal Allan	A	ENDL
Mr. Ralph O. Weber	P	ENDL Texas
Mr. Douglas Wagner	P	FCI
Mr. Elwood Parsons	P	Foxconn Electronics
Mr. Mike Fitzpatrick	P	Fujitsu
Mr. Michael Banther	V	Hewlett Packard Co.
Mr. Rob Elliott	P	Hewlett Packard Co.
Mr. Dan Colegrove	P	Hitachi Global Storage Tech.
Mr. James Rockrohr	V	IBM
Mr. George O. Penokie	P	IBM Corp.
Mr. Robert Sheffield	P	Intel Corp.
Mr. Dennis Moore	P	KnowledgeTek, Inc.
Mr. John Geldman	P	Lexar Media, Inc.
Mr. Praveen Viraraghavan	V	LSI Logic Corp
Mr. John Lohmeyer	P	LSI Logic Corp.
Mr. Avraham Shimor	P	M-Systems
Mr. David Geddes	P	Marvell Semiconductor, Inc.
Mr. Martin Czekalski	A	Maxtor Corp.
Mr. Mark Evans	P	Maxtor Corp.
Mr. Robert Griswold	A#	Microsoft Corp.
Mr. Jay Neer	P	Molex Inc.
Mr. Frederick Knight	AV	Network Appliance
Mr. Mark Overby	P	Nvidia Corp.
Dr. Terence J. Nelson	P	Panasonic Technologies, Inc
Mr. William P. McFerrin	P	Philips Electronics/CD Edge
Mr. Thomas Grieff	A	Pivot3, Inc.
Mr. Tim Symons	P	PMC-Sierra
Mr. Paul Entzel	P	Quantum Corp.
Dr. Paul Suhler	A	Quantum Corp.
Mr. Alvin Cox	V	Seagate Technology
Mr. Gerald Houlder	P	Seagate Technology
Mr. William Martin	P	Sierra Logic, Inc.
Mr. Vit Novak	P	Sun Microsystems, Inc.
Mr. Roger Cummings	P	Symantec
Mr. Dan Gorenc	A	TycoElectronics
Mr. David Allen	A	Vitesse Semiconductor
Mr. Curtis Stevens	P	Western Digital
Mr. Jeff Williams	P	Xiotech Corp.
Mr. Rich Ramos	P	Xyratex

47 People Present

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

Enclosure(2) -- T10 Attendance Database

Generated on 2006/03/13 at 21:55:04

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