

Accredited Standards Committee*

InterNational Committee for Information Technology Standards (INCITS)

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Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: Minutes of T10 Plenary Meeting #75 -- September 14, 2006
Nashua, NH

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*Operating under the procedures of The American National Standards Institute.

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11. ISO/IEC
 - 11.1 ISO/IEC Report [Robinson]
 - 11.2 ISO/IEC Business [Robinson]
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12. Liaison Reports
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 - 12.2 T13 Liaison Report [Colegrove]
 - 12.3 SFF Industry Group [Allan]
 - 12.4 SCSI Trade Association (STA) [Czekalski]
 - 12.5 IETF SCSI over IP [Black/Robinson]
 - 12.6 SNIA [open]
 - 12.7 Trusted Computing Group [Cummings/Fitzpatrick]
 - 12.8 IEEE P1667 [Shimor]
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14. Meeting Schedule
 - 14.1 Authorization of Working Group Meetings
15. Adjournment

Results of Meeting

1. Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:00 a.m., Thursday September 14, 2006. He thanked Zane Daggett of Hitachi Cable Manchester 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:

11.2.2 ISO/IEC FCD 14776-121 PIP

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 member-

ship 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 14 people from 8 organizations informing them that their membership was in jeopardy due to non-attendance (see 06-353r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

Broadcom Corp.
General Dynamics
Hitachi Cable Manchester
Iomega Corp.
McDATA
Oracle
QLogic Corp.
Texas Instruments

All organizations in attendance jeopardy were present except:

Broadcom Corp.
QLogic Corp.

Craig Carlson requested by email that the QLogic membership be changed to Advisory.

The organizations that were not present had their representatives changed to Advisory (non-voting) status.

John Lohmeyer called for requests to join the committee. The following organizations joined at this meeting:

STMicroelectronics

The T10 membership during the meeting was 46 organizations, down from the 47 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 -- 2006/05/05

Ballot:	05-134r0	06-080r0	06-184r0
Report:	05-135r0	06-081r0	06-185r0
Acronym:	FCP-3	SAT	MMC-5

Organization

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 - July 2006 - Colorado Springs, CO (T10/06-319r0)

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 September 21, 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 Portable Document Format (PDF) and/or native-format electronic originals with proper identification must be submitted.

People can obtain T10 document numbers for new and revised T10 documents 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.

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

- 637 John Lohmeyer will report to INCITS that T10 has appointed Avraham Shimor as the T10 liaison to IEEE P1667. *Complete.*
- 638 John Lohmeyer will add an IEEE P1667 liaison report to the next T10 agenda. *Complete.*
- 639 Bill McFerrin will produce MMC-5 revision 3b. *Complete.*
- 640 John Lohmeyer will forward MMC-5 Rev 3b to INCITS for further processing toward first public review. *Complete.*
- 641 Gary Robinson will notify INCITS that T10 recommends that the JTC1/SC25 TAG vote to approve ISO/IEC FCD 24740: 25n1164, Information technology - Responsive Link, project 1.25.13.10.14. *Complete.*
- 642 Gary Robinson will notify INCITS that T10 recommends that David Peterson be added the September SC 25 delegation, making the delegation: Robert Snively (Head of Delegation), Roger Cummings, Claudio DeSanti, Horst Truedstedt, Mark Overby, and David Peterson. *Complete.*
- 643 Gary Robinson will contact the SBP-3 editor regarding the ISO status of SBP-3 and prepare a motion for T10 action in September. *Carryover.*

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.

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 are 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 and that the anticipated forwarding date should be revised from November 2006 to July 2008.

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

Rob Elliott reported that no proposals have been approved for SES-2 and no new working draft revision needs to be prepared. Rob noted that he expects a forwarding letter ballot on SES-2 following the July 2008 meeting.

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

Dave Peterson reported on the activities of the SSC-3 working group (minutes in 06-429) and provided an electronic report in 06-434r0.

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

John Lohmeyer reported that the MMC-5 first public review ends October 2, 2006.

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

George Penokie reported that no proposals were accepted for SAM-4 at this meeting and so no new revision will be posted before the next meeting.

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

Bob Sheffield reported that the SAT working group (minutes in 06-381 and 06-415) recommended forwarding SAT r09 to first public review on a vote of 10:1:1. He further noted a 6:1:3 vote which recommended accepting 06-378r1 as correcting errors found in interim SAT drafts.

Bob Sheffield moved that 06-121r5 and 06-378r1 be accepted as resolving the SAT letter ballot comments and that SAT r09 be forwarded to INCITS for further processing towards first public review. Mark Overby seconded the motion. The motion passed on a vote of 37:0:1:8:=46.

In view of the successful resolution of his letter ballot comments Kevin Marks asked that the Dell No vote on the letter ballot be changed to a Yes. In view of the successful resolution of his letter ballot comments Ralph Weber asked that the ENDL No vote on the letter ballot be changed to a Yes. In view of the successful resolution of his letter ballot comments Rob Elliott asked that the Hewlett Packard No vote on the letter ballot be changed to a Yes. In view of the successful resolution of his letter ballot comments George Penokie asked that the IBM No vote on the letter ballot be changed to a Yes. In view of the successful resolution of his letter ballot comments John Lohmeyer asked that the LSI Logic No vote on the letter ballot be changed to a Yes. In view of the successful resolution of his letter ballot comments Robert Sheffield asked that the Intel No vote on the letter ballot be changed to a Yes. In view of the successful resolution of his letter ballot comments Gerry Houlder asked that the Maxtor No vote on the letter ballot be changed to a Yes (note Seagate acquired Maxtor during the interval in which the SAT letter ballot comments were resolved). In view of the successful resolution of his letter ballot comments Mark Overby asked that the Nvidia No vote on the letter ballot be changed to a Yes. In view of the successful resolution of his letter ballot comments Curtis Stevens asked that the Western Digital No vote on the letter ballot be changed to a Yes.

John Lohmeyer took an action item to forward SAT r09 to INCITS for further processing towards first public review.

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

Ralph Weber reported that five OSD-2 proposals had been deferred due to insufficient CAP meeting time. Since there are no approved proposals needing incorporation, no new OSD-2 revision will be produced before the November meeting.

8.9 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 06-423) and provided an electronic report in 06-430.

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

Ralph Weber reported that SPC-4 r07 will be posted in time for the mailing and will incorporate all approved proposals.

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

Rob Elliott noted that there has been no activity on this project.

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

Paul Suhler reported on the activities of the ADI working group (minutes in 06-401) and provided an electronic report in 06-424. He noted that a new revision of ADC-2 will be prepared for a T10 letter ballot and the letter ballot on forwarding ADC-2 r07 is planned to commence before the November meeting week. He stated that the first public review forwarding date for ADC-2 should be listed as July 2007.

Paul Entzel took an action item to prepare ADC-2 r07. John Lohmeyer took an action item to conduct a letter ballot on forwarding ADC-2 r07 to first public review.

8.13 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 06-401) and provided an electronic report in 06-424. He stated that the first public review forwarding date for ADT-2 should be listed as November 2007.

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

Rob Elliott reported that several SAS-2 protocol proposals have been recommended (minutes in 06-376r1 and 06-414). The SAS-2 physical working group (minutes in 06-423) approved no recommendations, but the spread-spectrum clocking proposal will be considered under agenda item 10.3 absent a working group recommendation.

A SAS-2 revision will be posted containing all approved proposals in time for the mailing.

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

George Penokie reported that a new revision will be posted containing changes approved at this meeting; however maybe not in time for the mailing.

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

Mark Overby reported that work will begin on SAT-2 during the November meeting week.

8.17 Fibre Channel Protocol - 4 (FCP-4) Project 1828-D [Peterson]

David Peterson reported on the activities of the FCP-4 working group (minutes in 06-428) and provided an electronic report in 06-433r0.

8.18 MultiMedia Command Set - 6 (MMC-6) Project 1836-D [McFerrin]

Bill McFerrin was not present since the MMC working group is meeting in Seattle later today.

9. Old Business

There was no old business.

10. New Business

10.1 Five-Year Maintenance Review of INCITS/T10 Standards (06-403) [Purnell]

George Penokie moved that T10 recommend that SMD-E, SPC, SPI-4, and SSM be withdrawn and that SSA-S3P, SSA-PH2, SSA-TL2, SDV, and SRP be reaffirmed. Curtis Stevens seconded the motion. The motion passed on a roll call vote of 37:0:0:9=46 which met the two-thirds rule. Details of the roll call vote were as follows:

Organization	Voter	Vote
Adaptec, Inc.	Chris Fore	Yes
AMCC	Paul von Stamwitz	Yes
Amphenol Interconnect		(not present)
Brocade		(not present)
Dallas Semiconductor	Steve Robalino	Yes
Dell, Inc.	Kevin Marks	Yes
EMC Corp.	David Black	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	Nathan Hastad	Yes
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.	Robert Payne	Yes
KnowledgeTek, Inc.	Dennis Moore	Yes
Lexar Media, Inc.	John Geldman	Yes
LSI Logic Corp.	John Lohmeyer	Yes
M-Systems	Donald Rich	Yes
Marvell Semiconductor, Inc.	David Geddes	Yes
McDATA	David Peterson	Yes
Microsoft Corp.	Mark Benedikt	Yes
Molex Inc.	Jay Neer	Yes
Network Appliance	Frederick Knight	Yes
Nvidia Corp.	Mark Overby	Yes
Oracle	James Williams	Yes
Panasonic Technologies, Inc		(not present)
Philips Electronics		(not present)
Pivot3, Inc.		(not present)
PMC-Sierra	Tim Symons	Yes
Quantum Corp.	Paul Entzel	Yes
Seagate Technology	Gerald Houlder	Yes
Sierra Logic, Inc.	William Martin	Yes
STMicroelectronics, Inc.	Stephen Finch	Yes
Sun Microsystems, Inc.		(not present)
Symantec	Roger Cummings	Yes
Texas Instruments	Paul D. Aloisi	Yes
TycoElectronics	Dan Gorenc	Yes
Vitesse Semiconductor	Jim Scott	Yes
Western Digital	Curtis Stevens	Yes
Xiotech Corp.		(not present)
Xyratex		(not present)

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

John Lohmeyer took an action item to notify INCITS that T10 recommends the withdrawal of SMD-E, SPC, SPI-4, and SSM and the reaffirmation of SSA-S3P, SSA-PH2, SSA-TL2, SDV, and SRP. John Lohmeyer took an action item to conduct a five-year maintenance review of MMC and MMC-3 during the November T10 meeting week.

10.2 Actions on SAS Protocol Working Group Recommendations

The recommendations from the SAS protocol working group (minutes in 06-376r1 and 06-414) were presented to the committee.

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

- 06-279r3 (Allow more than one ZPSDS in a SAS domain) [Elliott]
- 06-281r3 (Enable and Disable Zoning) [Elliott]
- 06-286r5 (SMP ZONE LOCK) [Symons]
- 06-201r6 (SMP CONFIGURE PHY ZONE function) [Symons]
- 06-203r6 (SMP REPORT ZONE PERMISSION function) [Symons]
- 06-288r6 (SMP ZONE ACTIVATE) [Symons]
- 06-289r6 (SMP ZONE UNLOCK) [Symons]
- 06-377r1 (Broadcast (Activate)) [Symons]
- 06-358r5 (Zone Configuration model) [Symons]
- 06-202r9 (SMP CONFIGURE ZONE PERMISSION function) [Symons]
- 06-326r2 (SMP Zone Lock Timer) [Symons]
- 06-418r1 (Enable disable zone management function revision) [Symons]
- 06-384r1 (OPEN_REJECT_RETRY during zoning changes) [Elliott]
- 06-402r0 (Changes to ATTACHED SATA DEVICE bit) [Day]
- 06-299r1 (Clarifications of the SCSI power conditions in SAS) [Owens and Marks]
- 06-405r0 (Transport Layer Retries Fix) [Penokie]
- 06-408r1 (Race condition for transition out of SP12:SAS_Fail state) [Martin]
- 06-409r1 (IDENTIFY address frame REASON field) [Elliott]
- 06-188r2 (Support multiple STP affiliations) [Elliott]

Tim Symons moved that 06-279r3, 06-281r3, 06-286r5, 06-201r6, 06-203r6, 06-288r6, 06-289r6, 06-377r1, 06-358r5, 06-202r9, 06-326r2, 06-418r1, 06-384r1, 06-402r0, 06-299r1, 06-405r0, 06-408r1, and 06-409r1 be approved for inclusion in SAS-2. Rob Elliott seconded the motion. The motion passed on a vote of 33:0:3:10=46.

Rob Elliott moved that 06-188r2 be approved for inclusion in SAS-2. Curtis Stevens seconded the motion. The motion failed on a vote of 4:8:25:9=46.

Kevin Marks and Mark Overby stated that they voted no because the proposal left too much outside the scope of the standard.

10.3 Actions on SAS PHY Working Group Recommendations

There were no approved recommendations made by the SAS physical working group (minutes in 06-423). However, a vote to recommend spread-spectrum clocking (06-263r6) [Elliott] narrowly failed by a vote of 7:7:14.

Rob Elliott moved that 06-263r6 be approved for inclusion in SAS-2. Kevin Marks second the motion. Rob Elliott requested that a roll call vote be conducted on the motion.

George Penokie spoke in opposition to the motion, noting that spread-spectrum clocking reduces pulse heights and adds signal jitter. Rob Elliott spoke in favor of the motion noting that spread-spectrum clocking is critical to meeting EMI requirements in deskside 6 Gbs SAS applications.

The motion passed on a roll call vote of 22:2:15:7=46. Details of the roll call vote were as follows:

Organization	Voter	Vote
Adaptec, Inc.	Chris Fore	Yes
AMCC	Paul von Stamwitz	Yes
Amphenol Interconnect Brocade	Michael Wingard	Yes (written vote) (not present)
Dallas Semiconductor	Steve Robalino	Yes
Dell, Inc.	Kevin Marks	Yes
EMC Corp.	Mickey Felton	Yes
Emulex	Robert H. Nixon	Abstain
ENDL	Ralph O. Weber	Abstain
FCI	Douglas Wagner	Yes
Foxconn Electronics	Elwood Parsons	Yes
Fujitsu	Mike Fitzpatrick	Abstain
General Dynamics	Nathan Hastad	Abstain
Hewlett Packard Co.	Rob Elliott	Yes
Hitachi Cable Manchester		(not present)
Hitachi Global Storage Tech.	Dan Colegrove	No
IBM Corp.	George O. Penokie	No
Intel Corp.	Robert Sheffield	Yes
Iomega Corp.	Robert Payne	Abstain
KnowledgeTek, Inc.	Dennis Moore	Abstain
Lexar Media, Inc.	John Geldman	Abstain
LSI Logic Corp.	John Lohmeyer	Yes
M-Systems	Donald Rich	Abstain
Marvell Semiconductor, Inc.	David Geddes	Yes
McDATA	David Peterson	Abstain
Microsoft Corp.	Mark Benedikt	Yes
Molex Inc.	Jay Neer	Yes
Network Appliance	Frederick Knight	Yes
Nvidia Corp.	Mark Overby	Yes
Oracle	James Williams	Abstain
Panasonic Technologies, Inc		(not present)
Philips Electronics		(not present)
Pivot3, Inc.	Bill Galloway	Yes (written vote)
PMC-Sierra	Tim Symons	Yes
Quantum Corp.	Paul Entzel	Yes
Seagate Technology	Gerald Houlder	Yes
Sierra Logic, Inc.	William Martin	Abstain
STMicroelectronics, Inc.	Stephen Finch	Abstain
Sun Microsystems, Inc.		(not present)
Symantec	Roger Cummings	Abstain
Texas Instruments	Paul D. Aloisi	Abstain
TycoElectronics	Dan Gorenc	Yes
Vitesse Semiconductor	Jim Scott	Yes
Western Digital	Curtis Stevens	Abstain
Xiotech Corp.		(not present)
Xyratex		(not present)

This simple majority roll call vote passed (22:2:15:7=46).

10.4 Actions on SAT Working Group Recommendations

The SAT working group (minutes in 06-415) recommended that SAT be forwarded to INCITS for first public review and the committee processed that recommendation under agenda item 8.7.

10.5 Actions on CAP Working Group Recommendations

The recommendations from the CAP working group (minutes in 06-416) were presented to the committee.

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

06-321r1 (Statistics and Performance log pages command cleanup) [Elliott]
06-221r3 (Peripheral device informational identifier) [Elliott]

George Penokie reviewed 06-350r0 (Power conditions state machine clarification) [Marks] a proposal recommended for inclusion in SPC-4 and SBC-3.

Rob Elliott moved that 06-321r1 and 06-221r3 be approved for inclusion in SPC-4 and that 06-350r0 be approved for inclusion in SPC-4 and SBC-3. Gerry Houlder seconded the motion. The motion passed on a vote of 35:0:1:10=46.

George Penokie reviewed 06-034r5 (Physical blocks sans FORMAT UNIT LBA TO ALIGN field) [Elliott] a proposal recommended for inclusion in SBC-3.

Rob Elliott moved that 06-034r5 be approved for inclusion in SBC-3. Curtis Stevens seconded the motion. Rob Elliott requested a roll call vote.

The motion passed on a roll call vote of 11:4:20:11=46. Details of the roll call vote were as follows:

Organization	Voter	Vote
Adaptec, Inc.	Chris Fore	Yes
AMCC	Paul von Stamwitz	Yes
Amphenol Interconnect		(not present)
Brocade		(not present)
Dallas Semiconductor	Steve Robalino	Yes
Dell, Inc.	Kevin Marks	No
EMC Corp.	David Black	No
Emulex	Robert H. Nixon	Abstain
ENDL	Ralph O. Weber	Yes
FCI	Douglas Wagner	Abstain
Foxconn Electronics	Elwood Parsons	Abstain
Fujitsu	Mike Fitzpatrick	Abstain
General Dynamics		(not present)
Hewlett Packard Co.	Rob Elliott	Yes
Hitachi Cable Manchester		(not present)
Hitachi Global Storage Tech.	Dan Colegrove	No
IBM Corp.	George O. Penokie	No
Intel Corp.	Robert Sheffield	Abstain
Iomega Corp.	Robert Payne	Abstain
KnowledgeTek, Inc.	Dennis Moore	Abstain
Lexar Media, Inc.	John Geldman	Yes
LSI Logic Corp.	John Lohmeyer	Abstain
M-Systems	Donald Rich	Yes
Marvell Semiconductor, Inc.	David Geddes	Abstain
McDATA	David Peterson	Abstain
Microsoft Corp.	Mark Benedikt	Abstain
Molex Inc.	Jay Neer	Abstain
Network Appliance	Frederick Knight	Abstain
Nvidia Corp.	Mark Overby	Yes
Oracle	James Williams	Abstain
Panasonic Technologies, Inc		(not present)
Philips Electronics		(not present)
Pivot3, Inc.		(not present)
PMC-Sierra	Tim Symons	Abstain
Quantum Corp.	Paul Entzel	Abstain
Seagate Technology	Gerald Houlder	Yes
Sierra Logic, Inc.	William Martin	No
STMicroelectronics, Inc.	Stephen Finch	Abstain
Sun Microsystems, Inc.		(not present)
Symantec	Roger Cummings	Yes
Texas Instruments	Paul D. Aloisi	Abstain
TycoElectronics	Dan Gorenc	Abstain
Vitesse Semiconductor	Jim Scott	Abstain
Western Digital	Curtis Stevens	Yes
Xiotech Corp.		(not present)
Xyratex		(not present)

This simple majority roll call vote passed (11:5:20:10=46).

10.6 Actions on Other Working Group Recommendations

The recommendations from the FCP-4 working group (minutes in 06-428) were presented to the committee.

George Penokie and Dave Peterson reviewed the following proposals recommended for inclusion in FCP-4:

- 06-406r1 (LS_RJT for REC Conflict between FC-LS and FCP-4) [Penokie]
- 06-236r1 (Fix race condition between REC ACC and FCP_XFER_RDY) [Entzel]

Paul Entzel moved that 06-406r1 and 06-236r1 be approved for inclusion in FCP-4. Dave Peterson seconded the motion. The motion passed on a vote of 27:0:9:10=46.

10.7 Potential Liaison with MIPI Alliance (06-380 and 06-379) [Rich/Shimor]

Donald Rich presented a letter requesting establishment of a liaison between T10 and MIPI Alliance regarding references to OSD by MIPI standards which are under development. The committee requested two months to consider the request before voting on it.

11. ISO/IEC

11.1 ISO/IEC Report [Robinson]

In the absence of Gary Robinson, John Lohmeyer presented the ISO/IEC report (06-407).

11.2 ISO/IEC Business [Robinson]

11.2.1 ISO/IEC FCD 24739-1, ATA/ATAPI-7 V1

Mark Overby moved that T10 recommends that the JTC1/SC25 TAG vote to approve ISO/IEC FCD 24739-1, Information technology, AT Attachment with Packet Interface - 7 Part 1 - Register Delivered Command Set, Logical Register Set, (ATA/ATAPI-7 V1), SC:25N1074. Curtis Stevens seconded the motion. The roll call motion passed as follows:

Organization	Voter	Vote
Adaptec, Inc.	Chris Fore	Yes
AMCC	Paul von Stamwitz	Yes
Amphenol Interconnect		(not present)
Brocade		(not present)
Dallas Semiconductor	Steve Robalino	Yes
Dell, Inc.	Kevin Marks	Yes
EMC Corp.	David Black	Yes
Emulex	Robert H. Nixon	Yes
ENDL	Ralph O. Weber	Yes
FCI		(not present)
Foxconn Electronics		(not present)
Fujitsu	Mike Fitzpatrick	Yes
General Dynamics	Nathan Hastad	Yes
Hewlett Packard Co.	Rob Elliott	Yes
Hitachi Cable Manchester	Zane Daggett	Yes
Hitachi Global Storage Tech.	Dan Colegrove	Yes
IBM Corp.	George O. Penokie	Yes
Intel Corp.	Robert Sheffield	Yes
Iomega Corp.	Robert Payne	Yes
KnowledgeTek, Inc.	Dennis Moore	Yes
Lexar Media, Inc.	John Geldman	Yes
LSI Logic Corp.	John Lohmeyer	Yes
M-Systems	Donald Rich	Yes
Marvell Semiconductor, Inc.	David Geddes	Yes
McDATA	David Peterson	Yes
Microsoft Corp.	Mark Benedikt	Yes
Molex Inc.	Jay Neer	Yes
Network Appliance	Frederick Knight	Yes
Nvidia Corp.	Mark Overby	Yes
Oracle	James Williams	Yes
Panasonic Technologies, Inc		(not present)
Philips Electronics		(not present)
Pivot3, Inc.		(not present)
PMC-Sierra	Tim Symons	Yes
Quantum Corp.	Paul Entzel	Yes
Seagate Technology	Gerald Houlder	Yes
Sierra Logic, Inc.	William Martin	Yes
STMicroelectronics, Inc.	Stephen Finch	Yes
Sun Microsystems, Inc.		(not present)
Symantec	Roger Cummings	Yes
Texas Instruments	Paul D. Aloisi	Yes
TycoElectronics		(not present)
Vitesse Semiconductor	Jim Scott	Yes
Western Digital	Curtis Stevens	Yes
Xiotech Corp.		(not present)
Xyratex		(not present)

This two-thirds roll call vote passed (35:0:0:11=46).

Gary Robinson was given an action item to recommend that the JTC1/SC25 TAG vote to approve ISO/IEC FCD 24739-1, Information technology, AT Attachment with Packet Interface - 7 Part 1 - Register Delivered Command Set, Logical Register Set, (ATA/ATAPI-7 V1), SC:25N1074.

11.2.2 ISO/IEC FCD 14776-121 PIP

Paul Aloisi moved that T10 recommends that the JTC1/SC25 TAG vote to approve ISO/IEC FCD 14776-121, Project 1.25.13.11.38, Information technology, SCSI Passive Interconnect Performance. Bob Nixon seconded the motion. The roll call motion passed as follows:

Organization	Voter	Vote
Adaptec, Inc.	Chris Fore	Yes
AMCC	Paul von Stamwitz	Yes
Amphenol Interconnect		(not present)
Brocade		(not present)
Dallas Semiconductor	Steve Robalino	Yes
Dell, Inc.	Kevin Marks	Yes
EMC Corp.	David Black	Yes
Emulex	Robert H. Nixon	Yes
ENDL	Ralph O. Weber	Yes
FCI		(not present)
Foxconn Electronics		(not present)
Fujitsu	Mike Fitzpatrick	Yes
General Dynamics	Nathan Hastad	Yes
Hewlett Packard Co.	Rob Elliott	Yes
Hitachi Cable Manchester	Zane Daggett	Yes
Hitachi Global Storage Tech.	Dan Colegrove	Yes
IBM Corp.	George O. Penokie	Yes
Intel Corp.	Robert Sheffield	Yes
Iomega Corp.	Robert Payne	Yes
KnowledgeTek, Inc.	Dennis Moore	Yes
Lexar Media, Inc.	John Goldman	Yes
LSI Logic Corp.	John Lohmeyer	Yes
M-Systems	Donald Rich	Yes
Marvell Semiconductor, Inc.	David Geddes	Yes
McDATA	David Peterson	Yes
Microsoft Corp.	Mark Benedikt	Yes
Molex Inc.	Jay Neer	Yes
Network Appliance	Frederick Knight	Yes
Nvidia Corp.	Mark Overby	Yes
Oracle	James Williams	Yes
Panasonic Technologies, Inc		(not present)
Philips Electronics		(not present)
Pivot3, Inc.		(not present)
PMC-Sierra	Tim Symons	Yes
Quantum Corp.	Paul Entzel	Yes
Seagate Technology	Gerald Houlder	Yes
Sierra Logic, Inc.	William Martin	Yes
STMicroelectronics, Inc.	Stephen Finch	Yes
Sun Microsystems, Inc.		(not present)
Symantec	Roger Cummings	Yes
Texas Instruments	Paul D. Aloisi	Yes
TycoElectronics		(not present)
Vitesse Semiconductor	Jim Scott	Yes
Western Digital	Curtis Stevens	Yes
Xiotech Corp.		(not present)
Xyratex		(not present)

This two-thirds roll call vote passed (35:0:0:11=46).

Gary Robinson was given an action item to recommend that the JTC1/SC25 TAG vote to approve ISO/IEC FCD 14776-121, Project 1.25.13.11.38, Information technology, SCSI Passive Interconnect Performance.

12. Liaison Reports

12.1 T11 Liaison Report [Snively]

In the absence of Bob Snively, Ralph Weber presented an electronic liaison report (06-404).

12.2 T13 Liaison Report [Colegrove]

Dan Colegrove provided an oral report to the committee on the activities of T13. For details regarding T13 activities see www.t13.org.

12.3 SFF Industry Group [Allan]

In the absence of Dal Allan, no SFF Industry Group liaison report was available.

12.4 SCSI Trade Association (STA) [Czekalski]

Marty Czekalski presented an electronic report (06-436) on the activities of the SCSI Trade Association.

12.5 IETF SCSI over IP [Black/Robinson]

David Black reported that the iSCSI maintenance draft is not collecting any major issues. Work is nearing conclusion on a draft to add a detailed support reporting function to iSCSI "login".

12.6 SNIA [open]

No report was made.

12.7 Trusted Computing Group [Cummings/Fitzpatrick]

Mike Fitzpatrick provided an electronic report in 06-437 on TCG activities and presented its contents to the committee.

12.8 IEEE P1667 [Shimor]

In the absence of Avraham Shimor, Donald Rich provided an electronic report in 06-435 on IEEE P1667 activities and presented its contents to the committee.

13. Review of Action Items

- 643 Gary Robinson will contact the SBP-3 editor regarding the ISO status of SBP-3 and prepare a motion for T10 action in September.
- 644 John Lohmeyer will forward SAT r09 to INCITS for further processing towards first public review.
- 645 Paul Entzel will prepare ADC-2 r07.
- 646 John Lohmeyer will conduct a letter ballot on forwarding ADC-2 r07 to first public review.
- 647 John Lohmeyer will notify INCITS that T10 recommends the withdrawal of SMD-E, SPC, SPI-4, and SSM and the reaffirmation of SSA-S3P, SSA-PH2, SSA-TL2, SDV, and SRP.
- 648 John Lohmeyer will conduct a five-year maintenance review of MMC and MMC-3 during the November T10 meeting week.
- 649 Gary Robinson will recommend that the JTC1/SC25 TAG vote to approve ISO/IEC FCD 24739-1, Information technology, AT Attachment with Packet Interface - 7 Part 1 - Register Delivered Command Set, Logical Register Set, (ATA/ATAPI-7 V1), SC:25N1074.

- 650 Gary Robinson will recommend that the JTC1/SC25 TAG vote to approve ISO/IEC FCD 14776-121, Project 1.25.13.11.38, Information technology, SCSI Passive Interconnect Performance.

14. Meeting Schedule

The next plenary meeting of T10 will be Thursday November 9, 2006 in Las Vegas, NV at the Atrium Suites Las Vegas Hotel (1-866-404-5286) hosted by Hitachi GST. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

November 2006 Meeting Map
(2006/09/14 Version)

Monday 11/06	9	10	11	12	1	2	3	4	5	6	7	8	
	+=====+												
	ADI-2 WG / SMC-3 WG											(15)	
	+=====+												
	SAS Protocol WG											(40)	
	+=====+												
	IEEE P1619 Meeting											(20)	
	+-----+												
	USB MSC Lock WG *											(15)	
	+-----+												
Tuesday 11/07	9	10	11	12	1	2	3	4	5	6	7	8	
	+=====+												
	SAS Physical WG											(45)	
	+=====+												
	SAT WG CAP WG											(20/40)	
	+=====+												
	STA Marcom *											(20)	
	+-----+												
	SSC-3 WG /FCP-4 WG											(25)	
	+=====+												
Wednesday 11/08	9	10	11	12	1	2	3	4	5	6	7	8	
	+=====+												
	CAP WG											(40)	
	+=====+												
	SFF											(25)	
	+-----+												
	STA Plenary * / TCC*											(20)	
	+-----+												
Thursday 11/09	9	10	11	12	1	2	3	4	5	6	7	8	
	+=====+												
	T10 Plenary											(50/25)	
	+=====+												
Friday 11/10	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
SAS Protocol Call(s)	TBA	TBA via T10 reflector / Elliott
SAS Zoning Calls	TBA	TBA via T10 reflector / Lohmeyer
SAS PHY Calls	Weekly Thu 10a CDT	TBA via T10 reflector / Cox

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, MMC-6	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
SAT	Bob Sheffield	(480) 554-8597 robert.l.sheffield@intel.com
SAT-2	Mark Overby	(425) 417-9412 moverby@nvidia.com
SMC-2	Erich Oetting	(303) 673-2178 Erich_Oetting@Stortek.com
SMC-3	Noud Snelder	+31408446108 Noud.snelder@bdt.de
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
Sep 11-15, 2006	Nashua, NH	Hitachi Cable Manchester
Nov 6-10, 2006	Las Vegas, NV	Hitachi GST
Approved dates and locations (except March and November) for 2007:		
Jan 15-19, 2007	Orlando, FL	Symantec
Mar 12-16, 2007	TBD	SCSI Trade Association
May 7-11, 2007	Seattle, WA	Microsoft Corp.
Jul 9-13, 2007	Colorado Springs, CO	LSI Logic
Sep 17-21, 2007	Vancouver, BC Canada	PMC-Sierra
Nov 5-9, 2007		
Proposed dates for 2008:		
Jan 14-18, 2008		
Mar 10-14, 2008	TBD	Nvidia
May 5-9, 2008		
Jul 14-18, 2008	Colorado Springs, CO	LSI Logic
Sep 8-12, 2008		
Nov 3-7, 2008		

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

John Lohmeyer moved and Gerry Houlder seconded that the 2007 meeting locations through September, excluding the specific March 2007 location, be approved. Because T10 has a standing rule requiring two-thirds approval for meeting locations outside the contiguous 48 United States, this motion required a two-thirds vote. The motion passed 32:0:0:14=46, which met the two-thirds rule.

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. Working groups should strive to achieve consensus prior to bringing issues to T10.

Curtis Stevens moved that T10 authorize the T10-related meetings and events in the list above that had not previously been approved through the end of October 2006. Bill Martin seconded the motion. The motion passed 25:2:1:18=46.

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 11:35 a.m. on Thursday September 14, 2006.

Enclosure(1) -- Meeting Attendees

Name	S	Organization
Mr. Chris Fore	P	Adaptec, Inc.
Mr. Paul von Stamwitz	P	AMCC
Mr. Steve Robalino	A	Dallas Semiconductor
Mr. Kevin Marks	P	Dell, Inc.
Mr. David Black	A	EMC Corp.
Mr. Mickey Felton	A#	EMC Corp.
Mr. Robert H. Nixon	P	Emulex
Mr. Ralph O. Weber	P	ENDL Texas
Mr. Douglas Wagner	P	FCI
Mr. Elwood Parsons	P	Foxconn Electronics
Mr. Mike Fitzpatrick	P	Fujitsu
Mr. Nathan Hastad	P	General Dynamics
Mr. Michael Banther	V	Hewlett Packard Co.
Mr. Rob Elliott	P	Hewlett Packard Co.
Mr. Zane Daggett	P	Hitachi Cable Manchester
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. Robert Payne	P	Iomega Corp.
Mr. Joel Silverman	AV	Kawasaki Microelectronics Am
Mr. Dennis Moore	P	KnowledgeTek, Inc.
Mr. John Geldman	P	Lexar Media, Inc.
Mr. John Lohmeyer	P	LSI Logic Corp.
Mr. Donald Rich	A#	m-systems Flash Disk Pioneers
Mr. David Geddes	P	Marvell Semiconductor, Inc.
Mr. Paul Wassenberg	A	Marvell Semiconductor, Inc.
Mr. David Peterson	P	McDATA
Mr. Mark Benedikt	P	Microsoft Corporation
Mr. Jay Neer	P	Molex Inc.
Mr. Frederick Knight	A	Network Appliance
Mr. Mark Overby	P	Nvidia Corp.
Mr. James Williams	P	Oracle
Mr. Tim Symons	P	PMC-Sierra
Mr. Paul Entzel	P	Quantum Corp.
Dr. Paul Suhler	A	Quantum Corp.
Mr. Alvin Cox	A	Seagate Technology
Mr. Martin Czekalski	V	Seagate Technology
Mr. Gerald Houlder	P	Seagate Technology
Mr. William Martin	P	Sierra Logic, Inc.
Mr. Stephen Finch	P	STMicroelectronics, Inc.
Mr. Roger Cummings	P	Symantec
Mr. Paul D. Aloisi	P	Texas Instruments
Mr. Dan Gorenc	A	TycoElectronics
Mr. Jim Scott	A.	Vitesse Semiconductor
Mr. Curtis Stevens	P	Western Digital

46 People Present

Status Key: P - Principal
 A,A# - Alternate
 AV - Advisory Member

L - Liaison
 V - Visitor

Enclosure(2) -- T10 Attendance Database

Generated on 2006/09/18 at 11:08:05

Mr. Chris Fore (P) Phone: (919) 287-2024
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523 Davis Drive, Suite 500 Email: chris_fore at adaptec dot com
Durham, NC 27713

Mr. Tom Treadway (A) Phone: 321-207-1267
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Suite 190
Orlando, FL 32826

Mr. Ziad Matni (AV) Phone: 610-712-3569
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Mr. Ken Paist (AV) Phone: (610) 712-3265
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Endicott, NY 13760

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1745 Technology Drive Email: rsnively at brocade dot com
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