

Accredited Standards Committee*

InterNational Committee for Information Technology Standards (INCITS)

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Date: March 14, 2005

Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: Minutes of T10 Plenary Meeting #66 -- March 10, 2005
Dana Point, CA

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 10, 2005. He thanked Skip Jones of QLogic 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.

No items were added/revised during the course of the meeting.

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 2005 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 5 people from 4 organizations informing them that their membership was in jeopardy due to non-attendance (see 05-054r0) and that their membership would be terminated if they did not attend this meeting. The following organization was in attendance jeopardy:

Adaptec, Inc.
Foxconn Electronics
Pivot3, Inc.
Toshiba

All the organizations in attendance jeopardy were present so no organizations were changed to Advisory (non-voting) status.

The following organizations asked to join the committee at this meeting:

Broadcom
Lexar Media
Vitesse
Xiotech

The T10 membership during the meeting was 46 organizations, up from the 42 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. The current letter ballot jeopardy status is as shown:

T10 Letter Ballot Jeopardy Report -- 2004/10/25

Ballot:	04-109r0	04-241r0	04-326r0
Report:	04-110r0	04-242r0	04-327r0
Acronym:	ADT	SBC-2	SPC-3

Organization

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Agilent Technologies	Yes	No	DNV	
General Dynamics	Yes	DNV	Yes	
Hitachi Cable Manchester	Yes	DNV	Yes	
Philips Electronics	Yes	DNV	Yes	
QLogic Corp.	Yes	DNV	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 2005 - Las Vegas, NV (T10/05-036r2)

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 uploaded to the T10 web site by 10:30 a.m. on Thursday March 17, 2005. 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.

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. The contact for INCITS patent issues is Lynn Barra (lbarra@itic.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.

Gary Robinson reported that ANSI is balloting a new patent policy. Gary stated that as far as he could tell there are no substantive changes in the new ANSI patent policy.

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

- 597 Gary Robinson will communicate to INCITS that T10 recommends that the JTC1/SC25 TAG vote to approve the project ISO/IEC FDIS SPC-2, 1.25.13.11.27, 14776-452 FDIS. *Complete.*
- 598 John Lohmeyer will notify INCITS that T10 has recommended that project 1524-D (SRP-2) be closed due to insufficient interest. *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.

John Lohmeyer reported that the INCITS Standards Policy Board is discussing whether to restrict information access to the members of the TCs. He noted that the T10, T11, and T13 chairs are opposed to restricting information access.

John Lohmeyer reminded members that the nominations for INCITS awards close at the end of the month.

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

Ralph Weber reported that the CAP working group (minutes in 05-096) recommended that 04-355r7 be accepted as resolving the SPC-3 letter ballot comments (04-327r1).

Ralph Weber moved that 04-355r7 be accepted as resolving the SPC-3 letter ballot comments, that SPC-3 r22 be accepted as incorporating the letter ballot comment resolutions, and that SPC-3 r22 be forward to INCITS for further processing towards first public review. Mark Evans seconded the motion. The two-thirds motion passed 32:0:0:14=46.

Based on successful resolution of the SPC-3 letter ballot comments, Ralph Weber asked that the ENDL Texas vote be changed from No to Yes. Based on successful resolution of the SPC-3 letter ballot comments, Rob Elliott asked that the Hewlett Packard vote be changed from No to Yes. Based on successful resolution of the SPC-3 letter ballot comments, George Penokie asked that the IBM vote be changed from No to Yes. Based on successful resolution of the SPC-3 letter ballot comments, Mark Evans asked that the Maxtor vote be changed from No to Yes. Based on successful resolution of the SPC-3 letter ballot comments, Roger Cummings asked that the Veritas Software vote be changed from No to Yes.

Ralph Weber took an action item to prepare SPC-3 r22. John Lohmeyer took an action item to forward SPC-3 r22 to INCITS for further processing towards first public review.

8.3 SCSI Block Commands - 2 (SBC-2) Project 1417-D [Elliott]

John Lohmeyer reported that the public review for SBC-2 closed January 17 with no comments received and that it is on the April agenda for INCITS approval. Rob Elliott reported that the final draft PDF has been received from ANSI.

8.4 SCSI RDMA Protocol - 2 (SRP-2) Project 1524-D [open]

John Lohmeyer reported that INCITS had agreed to close this project. This item will be removed from future agendas.

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

Rob Elliott reported that no changes have been made in BCC.

8.6 MultiMedia Command Set - 4 (MMC-4) Project 1545-D [McFerrin]

John Lohmeyer reported that MMC-4 is on the April agenda for INCITS approval.

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

John Lohmeyer reported that ADT is on the April agenda for INCITS approval.

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

John Lohmeyer reported that ADC has been approved and is at ANSI for publication.

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

Rob Elliott reported that a new SES-2 revision will be posted following this meeting containing the proposals approved by this meeting. The new revision should be available in time for the mailing.

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

In the absence of Dave Peterson, John Lohmeyer reviewed a PDF report on the activities of the FCP-3 working group (minutes in 05-113).

Discussion items were: Check Condition when FCP_DL too small (05-044r1) and Use of fill bytes in FCP_DATA IUs (05-080r0). Last technical input was the March 2005 working group and that time has now passed.

8.11 SCSI Architecture Model - 3 (SAM-3) Project 1561-D [Weber]

John Lohmeyer reported that SAM-3 has been approved and is at ANSI for publication.

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

Rob Elliott reported that a new revision of SAS-1.1 will be prepared incorporating the proposals that are approved by this meeting. The new revision should be available for the mailing.

A letter ballot is requested on the new revision pursuant to forwarding to first public review. The letter ballot will be initiated as soon as the new revision is available. There were no objections to holding a letter ballot.

Rob asked that committee members prepare for the possibility of telephone conference calls dedicated to resolving SAS-1.1 letter ballot comments. If the nature of the SAS-1.1 letter ballot comments is appropriate, telephone conference calls will be arranged and announced on www.t10.org and the T10 reflector. Two-weeks notice will be given in all telephone conference call announcements.

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

In the absence of Dave Peterson, John Lohmeyer reviewed a PDF report on the activities of the SSC-3 working group (minutes in 05-111).

Discussion items:

- 05-002r3: Sequential-Access Device log page
- 05-066r0: Obsolete GAP SIZE field
- 05-067r0: Obsolete RSMK and setmarks
- 05-068r0: Mode page support
- 05-049r0: Model subclause for physical device
- Definition of Erase short
- Cleaning requested vs. cleaning required

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

Bill McFerrin reported that the MMC-5 group held a three-day meeting this week in conjunction with the Mt. Fuji group from Japan. The group reviewed details of several emerging DVD technologies.

Bill reported that the MMC-5 working group will not be meeting with T10 in May. The group will meet either in Seattle or Tokyo on or about May 17 - 19, with only two of those days actually being selected for the meeting. Bill stated that discussions about the meeting location and dates will be conducted on the T10 reflector.

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

George Penokie reported that the proposals approved by this meeting will be incorporated in a new SAM-4 draft. The new draft may not be available in time for the mailing.

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

Bob Sheffield reviewed the recent SAT activities (minutes in 05-088 and 05-095). He stated that a new revision of SAT will be posted in time for the next meeting, but not in time for the mailing. Bob stated that the target for conducting a letter ballot on SAT is following the July T10 meeting week.

8.17 SCSI Primary Commands - 4 (SPC-4) Project 1729-D [Weber]

Ralph Weber stated that r0 of SPC-4 will not be uploaded until the ANSI Editor's comments on SPC-3 are processed.

8.18 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 05-118).

Michael reported that requested inputs have been received from two backup applications groups, Veritas and Hewlett Packard. At least three other organizations have been requested to provide inputs but have not yet responded.

Michael stated that the SMC-3 project will move forward based on the inputs received to date unless more information is provided soon.

8.19 Object-Based Storage Devices - 2 (OSD-2) Project 1731-D [Weber]

Ralph Weber reported that OSD-2 r0 is available on the T10 web site and is OSD r10 plus the ANSI Editor's comments on OSD r10. A proposal for inclusion in OSD-2 is nearing completion in the SNIA OSD technical working group.

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

Rob Elliott reported that an SDI working group meeting was held this week (minutes in 05-116). A new method of implementing the interface that is not IOCTL-based was discussed.

8.21 Automation/Drive Interface - Commands - 2 (ADC-2) Project 1741-D [Entzel]

Paul Suhler reported on the activities of the ADI working group (minutes in 05-112).

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

Paul Suhler reported on the activities of the ADI working group (minutes in 05-112).

9. Old Business

There was no old business.

10. New Business**10.1 Project proposal for Serial Attached SCSI 2 (SAS-2) (05-060) [Elliott]**

Rob Elliott and John Lohmeyer presented the SAS-2 project proposal, 05-060r0. Rob Elliott moved that 05-060r0 be approved as a new project proposal for Serial Attached SCSI - 2 (SAS-2). Mark Evans seconded the motion. The motion passed on a two-thirds vote of 29:0:2:15=46.

John Lohmeyer took an action item to forward 05-060r0 to INCITS for further processing as a new project proposal for SAS-2.

10.2 Five-Year Maintenance Review of INCITS Standards (05-082) [Purnell]

T10 has an obligation to review standards every five years and decide whether the standards should be reaffirmed, revised, withdrawn, or stabilized. The four T10 standards up for review this year are:

- SSC
- MMC-2
- RBC
- SPI-3

John Lohmeyer noted that RBC has an associated amendment (RBC AM1), which is not up for five-year review, but we should take the same action on it as we do on RBC.

Curtis Stevens moved that T10 recommend that SSC, MMC-2, RBC, and RBC AM1 be reaffirmed. Mark Overby seconded the motion. The two-thirds motion passed on a vote of 32:0:0:14=46.

George Penokie moved that T10 recommend that SPI-3 be withdrawn. Mark Evans seconded the motion. The roll call two-thirds motion passed on a vote of 29:0:6:11=46. Details of the roll call vote were as follows:

Organization	Voter	Vote
Adaptec, Inc.	Tim Symons	Yes
Agilent Technologies		(not present)
Amphenol Interconnect	Brian Miller	Yes
Broadcom Corp.	Paul Griffith	Yes
Brocade	Robert Snively	Yes
Cisco Systems, Inc.		(not present)
CNT		(not present)
Crossroads Systems, Inc.		(not present)
Dallas Semiconductor	Doug Cole	Yes
Dell, Inc.	Kevin Marks	Yes
EMC Corp.	Gary S. Robinson	Yes
Emulex	Robert H. Nixon	Yes
ENDL	Ralph O. Weber	Yes
FCI		(not present)
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.	David Hawks	Yes
Lexar Media, Inc.	Pat LaVarre	Abstain
LSI Logic Corp.	John Lohmeyer	Yes
Maxtor Corp.	Mark Evans	Yes
Microsoft Corp.		(not present)
Molex Inc.	Jay Neer	Yes
Nvidia Corp.	Mark Overby	Abstain
Panasonic Technologies, Inc	Terence J. Nelson	Abstain
Philips Electronics	William P. McFerrin	Yes
Pivot3, Inc.	Bill Galloway	Yes
PMC-Sierra		(not present)
QLogic Corp.		(not present)
Quantum Corp.	Paul Suhler	Yes
Seagate Technology	Gerald Houlder	Yes
Sierra Logic, Inc.	William Martin	Abstain
Storage Technology Corp.		(not present)
Sun Microsystems, Inc.	Vit Novak	Yes
Texas Instruments	Robert Kando	Yes
Toshiba	Yutaka Arakawa	Yes
TycoElectronics	Ashlie Fan	Yes
Veritas Software	Roger Cummings	Abstain
Vitesse Semiconductor	David Allen	Yes
Western Digital	Curtis Stevens	Abstain
Xiotech Corp.	Jeff Williams	Yes

This two-thirds roll call vote passed (29:0:6:11=46).

John Lohmeyer took an action item to notify INCITS of T10's recommendation to reaffirm SSC, MMC-2, RBC, and RBC AM1 as well as T10's recommendation to withdraw SPI-3.

10.3 Actions on SAS Protocol Working Group Recommendations

The recommendations from the SAS-1.1 working group (minutes in 05-094) were presented to the committee.

George Penokie, Bob Sheffield, Ralph Weber, reviewed the following proposals recommended for inclusion in SAS-1.1:

- 04-333r1 (PHY VACANT SMP Function Response) [Sheffield]
- 05-010r3 (External Connector Interoperability) [Fairchild]
- 05-058r1 (COMWAKE Received clarification) [Sheffield]
- 05-055r1 (SMP Enclosure WWN and Connector information) [Johnson]
- 05-089r1 (Discovery Process Missing Route Table Rules) [Johnson]
- 05-093r1 (Responding to an OPEN address frame while in the BreakWait state) [Evans]
- 05-102r0 (Missing confirmations in Table J.4) [Martin]
- 05-107r1 (Overlapped tag handling) [Elliott]
- 05-106r1 (Link and Port layer state machine fixes) [Penokie/Evans]
- 05-114r0 (SAS Discover Process Informative Annex Update) [Fairchild]

Bob Sheffield moved that 04-333r1, 05-010r3, 05-058r1, 05-055r1, 05-089r1, 05-102r0, 05-107r1, 05-106r1, and 05-114r0 be approved for inclusion in SAS-1.1. Bill Martin seconded the motion. The motion passed on a vote of 31:0:2:13=46.

Mark Evans moved that 05-093r1 be approved for inclusion in SAS-1.1. Bob Nixon seconded the motion.

Rob Elliott stated the problem with the proposal is that Opens are rejected. Mark Evans stated that the problem with accepting the Opens is that it is hard to implement in existing hardware. Bill Martin noted that his analysis of accepting Opens led to new livelock conditions, meaning that the problem that initiated work on the proposals was not fully solved if Opens were accepted.

The motion passed on a vote of 20:3:11:11=46.

10.4 Actions on SAS PHY Working Group Recommendations

The recommendations from the SAS PHY working group (minutes in 05-110) were presented to the committee.

George Penokie and Alvin Cox reviewed the following proposals recommended for inclusion in SAS-1.1:

- 04-378r2 (Clarification of SATA Signaling Level Specification) [Olawsky]
- 05-059r1 (05-023r0 SAS-1.1 Connector figures) [Allan]
- 05-062r2 (Signal Performance Measurements Annex) [Penokie]
- 05-069r0 (Transient during OOB)
- 05-079r3 (Minimum XR/IR Receiver Signal Level for 3Gb SATA Mode) [Olawsky]
- 05-083r2 (PHY transmitter and receiver electrical table updates) [Cox]
- 05-084r2 (Compact Connectors - Internal and External) [Neer]

Alvin Cox moved that 04-378r2, 05-059r1, 05-062r2, 05-069r0, 05-079r3, and 05-083r2 be approved for inclusion in SAS-1.1. Kevin Marks seconded the motion. The motion passed on a vote of 27:0:3:16=46.

Jay Neer moved that 05-084r2 be approved for inclusion in SAS-1.1. Vit Novak seconded the motion.

George Penokie explained that some companies think that adding the connectors is premature in SAS-1.1, but STA recommended incorporating the connector now to promote adoption of SAS.

The motion passed on a vote of 22:4:9:11=46.

10.5 Actions on CAP Working Group Recommendations

The recommendations from the CAP working group (minutes in 05-096) were presented to the committee.

George Penokie and Ralph Weber reviewed 05-074r1 (Command requirements) [Elliott] a proposal recommended for inclusion in SPC-4 SES-2 SMC-3.

George Penokie reviewed the following proposals recommended for SAM-4:

- 05-081r1 (Task management function lifetime) [Elliott]
- 05-107r1 (Overlapped tag handling) [Elliott]

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

- 05-005r2 (Audible Alarm Element Addition) [Marks]
- 05-064r1 (Additional Element Status diagnostic page Valid bit) [Elliott]

George Penokie reviewed 05-015r2 (Add WRITE MEDIUM ATTRIBUTES) [Entzel] a proposal recommended for inclusion in SPC-4.

Rob Elliott moved that:

- 05-074r1 be approved for inclusion in SPC-4 SES-2 SMC-3;
- 05-081r1 and 05-107r1 be approved for SAM-4;
- 05-005r2 and 05-064r1 be approved for inclusion in SES-2; and
- 05-015r2 be approved for inclusion in SPC-4.

Gerry Houlder seconded the motion. The motion passed on a vote of 29:0:3:14=46.

Gerry Houlder reviewed 04-198r5 (Background Media Scan) [Houlder] a proposal recommended for inclusion in SPC-4 and SBC-3.

Gerry Houlder moved that 04-198r5 be approved for inclusion in SPC-4 and SBC-3. John Lohmeyer seconded the motion. The motion passed on a vote of 20:0:13:13=46.

10.6 Actions on Other Working Group Recommendations

Bob Sheffield reviewed the following proposals recommended for inclusion in SAT (minutes in 05-095):

- 04-262r8 (ATA Command Pass-Through) [Stevens]
- 05-109r3 (SAT Control Mode Page Proposal) [Overby]

Gerry Houlder reviewed 05-080r1 (Use of fill bytes in FCP_DATA IUs) [Houlder] a proposal recommended for inclusion in FCP-3.

Bob Sheffield moved that

- 04-262r8 and 05-109r3 be approved for inclusion in SAT; and
- 05-080r1 be approved for inclusion in FCP-3.

Curtis Stevens seconded the motion. The motion passed on a vote of 31:0:1:14=46.

11. ISO/IEC

11.1 ISO/IEC Report [Robinson]

Gary Robinson presented the ISO/IEC report (05-092r1).

11.2 ISO/IEC Business [Robinson]

11.2.1 NWIP for SAS-1.1 (04-126) [Elliott]

John Lohmeyer, Gary Robinson, and Rob Elliott describe the NWIP as 14776-151: IT - Small Computer System Interface (SCSI) - 1.1. -Part 151: Serial Attached SCSI (SAS-1.1) (T10/04-126r0).

Gary Robinson moved that T10 has reviewed the new work item proposal and recommends the NWIP for SAS-1.1 (T10/04-126r0) as a US contribution to JTC1/SC25, and to approve the NP to be issued by SC25 in response to the NWIP, answering the 6 questions 'Yes' and naming Gary S. Robinson as project editor. Rob Elliott seconded the motion. The roll call two-thirds vote passed 31:0:1:14=46. Details of the roll call vote were as follows:

Organization	Voter	Vote
Adaptec, Inc.	Tim Symons	Yes
Agilent Technologies		(not present)
Amphenol Interconnect	Brian Miller	Yes
Broadcom Corp.	Paul Griffith	Yes
Brocade	Robert Snively	Yes
Cisco Systems, Inc.		(not present)
CNT		(not present)
Crossroads Systems, Inc.		(not present)
Dallas Semiconductor	Doug Cole	Yes
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		(not present)
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.	David Hawks	Yes
Lexar Media, Inc.	Pat LaVarre	Abstain
LSI Logic Corp.	John Lohmeyer	Yes
Maxtor Corp.	Mark Evans	Yes
Microsoft Corp.		(not present)
Molex Inc.	Jay Neer	Yes
Nvidia Corp.	Mark Overby	Yes
Panasonic Technologies, Inc	Terence J. Nelson	Yes
Philips Electronics	William P. McFerrin	Yes
Pivot3, Inc.		(not present)
PMC-Sierra		(not present)
QLogic Corp.		(not present)
Quantum Corp.	Paul Entzel	Yes
Seagate Technology	Gerald Houlder	Yes
Sierra Logic, Inc.	William Martin	Yes
Storage Technology Corp.		(not present)

Sun Microsystems, Inc.	Vit Novak	Yes
Texas Instruments	Robert Kando	Yes
Toshiba	Yutaka Arakawa	Yes
TycoElectronics		(not present)
Veritas Software	Roger Cummings	Yes
Vitesse Semiconductor	David Allen	Yes
Western Digital	Curtis Stevens	Yes
Xiotech Corp.	Jeff Williams	Yes

This two-thirds roll call vote passed (31:0:1:14=46).

Gary Robinson took an action item to notify INCITS that T10 recommends T10/04-1216r0 as a JTC1/SC25 NWIP for 14776-151: IT - Small Computer System Interface (SCSI) - 1.1. -Part 151: Serial Attached SCSI (SAS-1.1), answering the 6 questions 'Yes' and naming Gary S. Robinson as the project editor.

12. Liaison Reports

12.1 T11 Liaison Report [Snively]

Bob Snively presented the T11 liaison report contained in T10/05-090.

12.2 T13 Liaison Report [Colegrove]

Dan Colegrove provided an oral report to the committee on the activities of T13. The SCT (Smart Command Transport) was forwarded to first public review. He noted that the principle activity of the committee is the ATA/ATAPI-8 project and that ATA/ATAPI-7 should be coming to T10 soon for ISO standardization. For details regarding T13 activities see www.t13.org.

12.3 SFF Industry Group [Allan]

In the absence of Dal Allan, no report was available.

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 on the activities of the SCSI Trade Association available in 05-119r0.

12.6 IETF SCSI over IP [Black/Robinson]

In the absence of David Black no report was available.

12.7 SNIA [Cummings]

Roger Cummings provided an electronic report on SNIA activities (05-117) and reviewed the report for the committee.

12.8 Trusted Computing Group [Fitzpatrick]

In the absence of Mike Fitzpatrick no report was made on the status of the trusted computing group.

13. Review of Action Items

- 599 Ralph Weber will prepare SPC-3 r22.
- 600 John Lohmeyer will forward SPC-3 r22 to INCITS for further processing towards first public review.
- 601 John Lohmeyer will forward 05-060r0 to INCITS for further processing as a new project proposal for SAS-2.
- 602 John Lohmeyer will notify INCITS of T10's recommendation to reaffirm SSC, MMC-2, RBC, and RBC AM1 as well as T10's recommendation to withdraw SPI-3.
- 603 Gary Robinson will notify INCITS that T10 recommends T10/04-1216r0 as a JTC1/SC25 NWIP for 14776-151: IT - Small Computer System Interface (SCSI) - 1.1. -Part 151: Serial Attached SCSI (SAS-1.1), answering the 6 questions 'Yes' and naming Gary S. Robinson as the project editor.

14. Meeting Schedule

The next plenary meeting of T10 will be Thursday May 5, 2005 in Oklahoma City, OK at the Sheraton Oklahoma City Hotel (405-235-2780), hosted by Fujitsu CPA. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

May 2005 Meeting Map
(2005/03/10 Version)

Monday 5/2	9	10	11	12	1	2	3	4	5	6	7	8	
	+=====+												
	ADI-2 WG				SMC-3 WG								(10)
	+=====+												
	SAS Prot WG												(40)
	+=====+												
Tuesday 5/3	8	9	10	11	12	1	2	3	4	5	6	7	8
	+=====+												
	SAS Physical WG												(25)
	+=====+												
	SCSI/ATA Trans WG				SAS Prot WG								(40)
	+=====+												
	FCP-3 WG				/ SSC-3 WG								(15)
	+=====+												
	STA Marcom *												(20)
	+-----+												
Wednesday 5/4	9	10	11	12	1	2	3	4	5	6	7	8	
	+=====+												
	CAP WG												(40)
	+=====+												
	SFF												(30)
	+-----+												
	STA Plenary * /Adm*/ TCC*												(20)
	+-----+												
Thursday 5/5	8	9	10	11	12	1	2	3	4	5	6	7	8
	+=====+												
	T10 Plenary				SAS-1.1 LB								(45/10)
	+=====+												
	FCIA Board Meeting *												(12)
	+-----+												
Friday 5/6	8	9	10	11	12	1	2	3	4	5	6	7	8
	+=====+												
	SAS-1.1 LB												(10)
	+=====+												

/ 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 PHY Calls		TBA via T10 reflector / Cox
FCP-3 Call	Mar 22 10a CST	TBA via T10 reflector / Peterson
SAT Call	Mar 28 9a-12n PST	TBA via T10 reflector / Sheffield
SAT WG	Apr 18	Longmont, CO (T13) / Hatfield

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
SDI: Serial Attached SCSI Driver 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: 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, ADT-2	Paul Entzel	(720) 406-5782 paul.entzel@quantum.com
ADC, ADC-2	Rod Wideman	(720) 249-5796 rod.wideman@adic.com
SBC-2, SES-2, SAS-1.1, 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
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SPC-3, SAM-3, SPC-4, OSD-2	Ralph Weber	(214) 912-1373 roweber@acm.org
SSC-3, FCP-3	Dave Peterson	(763) 268-6139 david_peterson@cnt.com
Other Activities	John Lohmeyer	(719) 533-7560 lohmeier@t10.org

The long-term T10 meeting week schedule is:

Date	Location	Host/Comments
May 2-6, 2005	Oklahoma City, OK	Fujitsu
Jul 11-15, 2005	Colorado Springs, CO	LSI Logic
Sep 12-16, 2005	Vancouver, BC	PMC Sierra
Nov 7-11, 2005	Austin, TX	Dell Computer
Jan 9-13, 2006	Phoenix, AZ	Intel Corp.
Mar 6-10, 2006	TBD	SCSI Trade Association
May 8-12, 2006		
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		
Mar 12-16, 2007		
May 7-11, 2007		
Jul 9-13, 2007		
Sep 17-21, 2007	(to avoid conflicts with the Jewish High Holy Days)	
Nov 5-9, 2007		

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

John Lohmeyer moved and Mark Evans seconded that T10 approve the 2006 meeting locations and hosts. In the absence of any objections, the motion passed unanimously.

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.

Bob Snively 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 2005. Curtis Stevens 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 11:30 a.m. on Thursday March 10, 2005.

Enclosure(1) -- Meeting Attendees

Name	S	Organization
Mr. Tim Symons	P	Adaptec, Inc.
Mr. Brian Miller	A	Amphenol Interconnect
Mr. Paul Griffith	P	Broadcom Corp.
Mr. Robert Snively	P	Brocade Comm. Systems, Inc.
Mr. Doug Cole	A	Dallas Semiconductor
Mr. Kevin Marks	P	Dell, Inc.
Mr. Gary S. Robinson	P	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. Michael Banther	V	Hewlett Packard Co.
Mr. Rob Elliott	P	Hewlett Packard Co.
Mr. Dan Colegrove	P	Hitachi Global Storage Tech.
Mr. George O. Penokie	P	IBM / Tivoli Systems
Mr. Robert Sheffield	P	Intel Corp.
Mr. David Hawks	P	Iomega Corp.
Mr. Pat LaVarre	P	Lexar Media, Inc.
Mr. John Lohmeyer	P	LSI Logic Corp.
Mr. Amir Segev	V	m-systems
Mr. Martin Czekalski	A	Maxtor Corp.
Mr. Mark Evans	P	Maxtor Corp.
Mr. Jay Neer	P	Molex Inc.
Mr. Mark Overby	P	Nvidia Corp.
Dr. Terence J. Nelson	P	Panasonic Technologies, Inc
Mr. William P. McFerrin	P	Philips Electronics/CD Edge
Mr. Bill Galloway	P	Pivot3, Inc.
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. Robert Kando	A	Texas Instruments
Mr. Yutaka Arakawa	P	Toshiba
Ms. Ashlie Fan	P	TycoElectronics
Mr. Ron Mathews	AV	UNISYS Corporation
Mr. Roger Cummings	P	Veritas Software
Mr. David Allen	A	Vitesse Semiconductor
Mr. Curtis Stevens	P	Western Digital
Mr. Jeff Williams	P	Xiotech Corp.

42 People Present

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

Enclosure(2) -- T10 Attendance Database

Generated on 2005/03/14 at 13:47:16

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