## Accredited Standards Committee\*

# InterNational Committee for Information Technology Standards (INCITS)

Date: July 21, 2003
Reply to: John Lohmeyer

To: T10 Membership

From: Ralph Weber / John Lohmeyer

Subject: Minutes of T10 Plenary Meeting #56 -- July 10, 2003

Colorado Springs, CO

# **Agenda**

- 1. Opening Remarks
- 2. Approval of Agenda
- 3. Attendance and Membership
- 4. Approval of Minutes May 2003 Meeting Nashua, NH (T10/03-179r0)
- 5. Document Distribution
- 6. Call for Patents
- 7. Review of Old Action Items
- 8. Project Status Reports
  - 8.1 Project Status Summary and INCITS Liaison [Lohmeyer]
    - 8.1.1 INCITS Antitrust Guidelines
  - 8.2 Object-based Storage Devices Commands (OSD) {Project 1355-D} [Weber]
  - 8.3 SCSI Medium Changer Commands 2 (SMC-2) {Project 1383-D} [Oetting]
  - 8.4 SCSI Primary Commands 3 (SPC-3) {Project 1416-D} [Weber]
  - 8.5 SCSI Block Commands 2 (SBC-2) {Project 1417-D} [Elliott]
  - 8.6 SCSI Stream Commands 2 (SSC-2) {Project 1434-D} [Peterson]
  - 8.7 SCSI Passive Interconnect Performance (PIP) {Project 1439-D} [Daggett]
  - 8.8 SCSI Serial Bus Protocol -3 (SBP-3) {Project 1467-D} [Johansson]
  - 8.9 SCSI Signal Modeling 2 (SSM-2) {Project 1514-D} [Aloisi/Manildi]
  - 8.10 SCSI RDMA Protocol 2 (SRP-2) {Project 1524-D} [Simpson]
  - 8.11 SCSI Parallel Interface 5 (SPI-5) {Project 1525-D} [Penokie]
  - 8.12 SCSI Management Server Commands (MSC) {Project 1528-D} [Penokie/Elliott]
  - 8.13 MultiMedia Command Set 4 (MMC-4) {Project 1545-D} [McFerrin]
  - 8.14 Automation/Drive Interface Transport Protocol (ADT) {Project 1557-D} [Entzel]
  - 8.15 Automation/Drive Interface Commands (ADC) {Project 1558-D} [Entzel/Wideman]
  - 8.16 SCSI Enclosure Services 2 (SES-2) {Project 1559-D} [Elliott]
  - 8.17 Fibre Channel Protocol 3 (FCP-3) {Project 1560-D} [Peterson]
  - 8.18 SCSI Architecture Model 3 (SAM-3) {Project 1561-D} [Weber]
  - 8.19 Serial Attached SCSI (SAS) {Project 1562-D} [Elliott]
  - 8.20 Serial Attached SCSI 1.1 (SAS-1.1) {Project 1601-D} [Elliott]
  - 8.21 SCSI Stream Commands 3 (SSC-3) {Project 1611-D} [Peterson]
- 9. Old Business
  - 9.1 ANSI INCITS 330-2000 Defect Report (03-021) (RBC AM1) [Atkinson, Roberts]
- 10. New Business
  - 10.1 Actions on SAS Protocol Working Group Recommendations
  - 10.2 Actions on CAP Working Group Recommendations
  - 10.3 Actions on Other Working Group Recommendations

- 11. ISO/IEC
  - 11.1 ISO/IEC Report (03-238) [Robinson]
  - 11.2 ISO/IEC Business [Robinson]
- 12. Liaison Reports
  - 12.1 T11 Liaison Report (03-252) [Snively]
  - 12.2 T13 Liaison Report [Colegrove]
  - 12.3 SFF Industry Group [Allan]
  - 12.4 IEEE 1394 [Johansson]
  - 12.5 SCSI Trade Association (STA) [Czekalski]
  - 12.6 IETF SCSI over IP [Black/Robinson]
  - 12.7 SNIA [Cummings]
  - 12.8 SATA II [open/Cox]
- 13. Review of Action Items
- 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 July 10, 2003. He thanked LSI Logic 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 and a copy of the attendance list was circulated. Copies of the draft agenda and general information on T10 were made available to those attending.

# 2. Approval of Agenda

No additions/changes were made to the draft agenda.

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

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 2003 membership form (available at ftp://ftp.t10.org/t10/mem\_form.txt).

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

The Chair said he had sent letters to 4 people from 3 organizations informing them that their membership was in jeopardy due to non-attendance (see 03-194r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

Cisco Systems, Inc. Honda Connectors KnowledgeTek, Inc.

The following organizations were not present at the meeting:

Cisco Systems, Inc.

The members from the organizations that failed to attend will have their membership changed to non-voting status.

The following organizations joined the committee at this meeting:

Agilent Technologies

The T10 membership during the meeting was 42 organizations unchanged 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 and then noted that the status of companies that have not voted on recent letter ballots is contained in 03-213. John stated that Cisco Systems, Inc. and Honda Connectors are in letter ballot jeopardy.

# 4. Approval of Minutes - May 2003 Meeting - Nashua, NH (T10/03-179r0)

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 July 17, 2003. Documents received after this time may go into a subsequent mailing.

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

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

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

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

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

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

The INCITS Secretariat maintains a World Wide Web page at:

http://www.incits.org/.

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

http://www.t10.org/

There is also a mirror site at:

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

The T10 document register is available at:

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

#### 6. Call for Patents

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

A document is available from ANSI, "Procedures for the Development and Coordination of American National Standards", at no charge. This document is also on the WWW at http://www.incits.org/help/ansi\_sdo.html. Section 1.2.11 contains the ANSI patent policy. Amy Marasco manages patent issues for ANSI and can be contacted at amarasco@ansi.org or 212-642-4954. Gene Milligan prepared a useful "Handy dandy Technical Committee's Patents Guide", which is available at ftp://ftp.t10.org/t10/document.99/99-291r0.pdf.

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

John Lohmeyer noted that he had received a letter from Ron Silletti of IBM disclosing IBM's patent position regarding the ADI draft standards (see 03-241).

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

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

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

### 7. Review of Old Action Items

- Ralph Weber will notify Gary Robinson that the SAM-2 ISO revision can be found at ftp://ftp.t10.org/t10/drafts/sam2/sam2i25.pdf. *Carry over.*
- 527 Peter Johansson will prepare SBP-3 revision 4 for forwarding to first public review. *Complete*.
- 528 John Lohmeyer will forward SBP-3 to INCITS for further processing towards first public review. Complete.
- 529 Rob Elliott will prepare SAS revision 4 for forwarding to first public review. *Complete.*
- John Lohmeyer will contact Microsoft Corporation regarding the disposition of their No vote on the SAS letter ballot. *Complete.*
- John Lohmeyer will forward SAS revision 4 to INCITS for processing toward first public review. Complete.
- John Lohmeyer will notify SATA II that Alvin Cox will be the T10 liaison to the SATA II PHY group. 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 Bob Davis, who was our INCITS liaison, has been laid off and has resigned from the T10 committee.

Terry Nelson reported that INCITS will be meeting next week at Oracle in the bay area.

John reported that Monica Vago left INCITS and Kate McMillan passed away.

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

Ralph Weber reported that OSD revisions 7 and 7a were uploaded to the T10 web site in June. The substantive content of the two revisions is identical but revision 7 contains editing markings to show the text that has been removed since revision 6.

Ralph Weber moved that OSD revision 7a be accepted as a committee draft. Cris Simpson seconded the motion. In the absence of any objections, the motion passed unanimously.

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

Erich Oetting reported on the activities of the SMC-2 working group (minutes in 03-255). He stated that a motion to forward SMC-2 to first Public Review is anticipated at the September meeting.

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

Ralph Weber reported that revision 14 of SPC-3 will be available in time for the mailing and will contain all the proposals approved by this meeting as well as the results of the SPC-3 editing meetings held this week.

Ralph Weber reminded the committee that the target Letter Ballot date for SPC-3 is November 2003.

Ralph reported that the editing review meetings for SPC-3 have completed all planned tasks except review of the Persistent Reservations material. Based on the number of outstanding proposals regarding Persistent Reservations, the editing team has decided to skip reviewing that material. As a result, the SPC-3 editing review is now concluded.

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

Rob Elliott reported that SBC-2 r09 has been posted and will be included in the next mailing. Rob asked committee members to prepare for an SBC-2 editing meeting to be held during the November meeting week.

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

Dave Peterson reported that the CAP working group (minutes in 03-247) has recommended accepting 02-081r8 as the resolution for the SSC-2 Letter Ballot comments and forwarding SSC-2 r09 for first Public Review.

On behalf of the CAP working group, Cris Simpson moved that 02-081r8 be accepted as containing the resolution for the SSC-2 Letter Ballot comments, that SSC-2 revision 09 be accepted as containing the agreed resolutions for the Letter Ballot comments, and that SSC-2 revision 09 be forward to INCITS for processing towards first Public Review. The motion passed on a vote of 26:0:0:16=42, meeting the two-thirds rule.

Based on the successful resolution of their Letter Ballot comments, Ralph Weber, George Penokie, Paul Entzel, and Gerry Houlder requested that their No votes on the Letter Ballot be changed to Yes.

John Lohmeyer took an action item to forward SSC-2 revision 09 to INCITS for processing towards first Public Review.

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

John Lohmeyer reported that PIP had been published as ANSI INCITS.368:2003. He congratulated Zane Daggett and Bill Ham for their hard work on completing this standard.

When Bill Ham reported that he had not yet received a courtesy copy of EPI, John Lohmeyer took an action item to contact INCITS regarding courtesy copies of EPI, PIP, SSM-2, and SPI-5.

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

John Lohmeyer reported that the Public Review for SBP-3 closed on July 7th and no comments are known to have been received. He stated that Peter Johansson mentioned an outstanding issue. John was waiting for a response from Peter on whether to continue the SBP-3 processing or to request a second public review on a revised SBP-3.

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

John Lohmeyer reported that SSM-2 had been published as ANSI INCITS.369:2003. He congratulated Paul Aloisi, Bruce Manildi, and Larry Barnes for their hard work on completing this standard.

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

Cris Simpson reported on the SRP-2 First Burst support and multi-channel model activities conduced in the CAP working group (minutes in 03-247).

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

John Lohmeyer reported that SPI-5 had been published as ANSI INCITS.367:2003. He congratulated George Penokie for his hard work on completing this standard.

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

George Penokie reported that the CAP working group (minutes in 03-247) has recommended that the MSC project be withdrawn unless proposals for MSC content are received by the November meeting week. He noted that the working group also recommended making announcements to this effect as part of both this meeting week and the September meeting week.

George Penokie took an action item to announce on the T10 Reflector the T10 intention to withdraw the MSC project unless proposals for MSC content are received by the November T10 meeting week. George Penokie took an action item to announce on the T10 Reflector during the September T10 meeting week the T10 intention to withdraw the MSC project unless proposals for MSC content are received by the November T10 meeting week.

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

Bill McFerrin reported on the activities of the MMC-4 working group. He noted that MMC-4 r02 and r02a have been posted since the last meeting and will be available in the next meeting. He stated that the November Letter Ballot date is in jeopardy.

Bill McFerrin moved that SPC-3 version descriptors be assigned for ATAPI-6, ATAPI-7, USB-1, USB-2, and USB Mass. Ron Roberts seconded the motion. In the absence of any objections, the motion passed unanimously.

Bill McFerrin took an action item provide the SPC-3 Editor with document references for USB-1, USB-2, and USB Mass.

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

Paul Entzel reported on the activities of the ADI working group (minutes in 03-236). He stated that new revisions of ADC and ADT will be prepared soon and that the new ADT will be finished in time for the mailing.

He noted that ADC is not quite ready for Letter Ballot after this meeting, as previously planned. Paul stated that the goal is to hold the ADC Letter Ballot before or immediately after the September meeting, and the ADT Letter Ballot after that.

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

This topic was covered in item 8.14.

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

Rob Elliott reported on the SES-2 activities undertaken in the CAP working group (minutes in 03-247). He stated that revision 3 containing changes approved by the last meeting has been posted and that revision 4 containing changes approved by this meeting will be posted in time for the next mailing.

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

Dave Peterson reported that FCP-3 r01 has been posted for inclusion in the next mailing. He informed the committee that the first FCP-3 working group meeting will be held during the September T10 meeting week.

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

Ralph Weber reported that revision 8 will be available in time for the mailing. He noted that no SAM-3 changes are on the agenda for approval by this meeting, but that a new SAM-3 revision is needed to correct a non-substantive conflict between the QErr definitions in SPC-3 and SAM-3.

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

John Lohmeyer reported that the SAS first Public Review closed on July 7th with no comments received.

Rob Elliott reported on the SAS-related activities of the SAS Protocol working group (minutes in 03-246). He noted that two sets of proposed SAS changes are on the agenda for consideration under item 10.1 and that the result of approving these changes, as recommended by the SAS working group, will be a second Public Review for SAS.

Rob noted that SAS r05 has been posted and will be available for the next mailing.

# 8.20 Serial Attached SCSI - 1.1 (SAS-1.1) {Project 1601-D} [Elliott]

Rob Elliott reported on the activities related to SAS-1.1 of the SAS Protocol working group (minutes in 03-246).

He stated that SAS-1.1 r00, which will be identical to SAS r05, will be uploaded in time for the next mailing.

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

Dave Peterson reported that the SSC-3 working group plans to ask for meeting time during the November meeting week.

#### 9. Old Business

### 9.1 ANSI INCITS 330-2000 Defect Report (03-021) (RBC AM1) [Atkinson, Roberts]

John Lohmeyer reported that the RBC Amendment letter ballot passed 37:0:3:2=42. Two yes ballots (Weber and Lohmeyer) included editorial comments. Since there were no unresolved negatives, RBC AM1 automatically went to INCITS for management review and first public review (expected to start in mid-August). The editorial comments received from Weber and Lohmeyer will be dealt with during the ANSI pre-publication edit.

## 10. New Business

## 10.1 Actions on SAS Protocol Working Group Recommendations

John Lohmeyer described the following proposals recommended for inclusion in SAS by the SAS Protocol working group:

```
03-223r1 (SAS Changes from sas-r04 to sas-r05) [Elliott] 03-228r2 (SAS: Notify primitive issues) [Penokie]
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He noted that both proposals contain substantive changes to the SAS dpANS following first Public Review and that both proposals were unanimously recommended for inclusion in SAS r05. He reminded the committee that one of the recommended changes was to increase the output signal levels.

Rob Elliott moved that 03-223r1 and 03-228r2 be approved for inclusion in SAS r05. Gerry Houlder seconded the motion. In the absence of any objections, the motion passed unanimously.

John Lohmeyer moved that SAS revision 05, containing the substantive changes, be forwarded to INCITS for processing toward second Public Review. Mark Evans seconded the motion. The motion passed on a roll call vote of 30:0:0:12:=42, meeting the two-thirds rule. Details of the roll call vote were as follows:

Organization	Stat	Nam	e	Yes	No	Abs	NP
Adaptec, Inc.	P	Mr.	Ron Roberts	1			
Agilent Technologies	P	Ms.	Pat Thaler	1			
Amphenol Interconnect	P	Mr.	Michael Wingard	1			
Andiamo Systems, Inc.	P	Dr.	Claudio DeSanti	1			
Brocade Comm. Systems, Inc.	P	Mr.	Robert Snively	1			
Congruent Software, Inc.							1
Crossroads Systems, Inc.							1
Dallas Semiconductor	P	Mr.	James A. Lott, Jr.	1			
Dell Computer Corp.	P	Mr.	Kevin Marks	1			
EMC Corp.	P	Mr.	Gary S. Robinson	1			
Emulex	P	Mr.	Robert H. Nixon	1			
ENDL Texas	P	Mr.	Ralph O. Weber	1			
FCI	P	Mr.	Douglas Wagner	1			
Fujitsu	P	Mr.	Mike Fitzpatrick	1			
General Dynamics							1
Hewlett Packard Co.	P	Mr.	Rob Elliott	1			
Hitachi Cable Manchester							1
Hitachi Global Storage Tech.	P	Mr.	Dan Colegrove	1			
Honda Connectors							1
IBM / Tivoli Systems	P	Mr.	George O. Penokie	1			
Intel Corp.	P	Mr.	Cris Simpson	1			
Iomega Corp.	P	Mr.	Hiromichi Oribe	1			
KnowledgeTek, Inc.	P	Mr.	Dennis Moore	1			
LSI Logic Corp.	P	Mr.	John Lohmeyer	1			
Madison Cable Corp.							1
Maxtor Corp.	P	Mr.	Mark Evans	1			
Microsoft Corp.	P	${\tt Ms.}$	Emily Hill	1			
Molex Inc.							1
Network Appliance Inc.							1
Panasonic Technologies, Inc	P		Terence J. Nelson	1			
Philips Electronics/CD Edge	P	Mr.	William P. McFerrin	1			
Pivot3, Inc.							1
QLogic Corp.	A#	Mr.	Craig W. Carlson	1			
Quantum Corp.	P	Mr.	Paul Entzel	1			
Seagate Technology	P	Mr.	Gerald Houlder	1			

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Storage Technology Corp. P Mr. Erich Oetting 1
Sun Microsystems, Inc. P Mr. Vit Novak 1
Texas Instruments A. Mr. Robert Kando 1
Toshiba 1
UNISYS Corporation 1
Veritas Software 1
Vixel Corp. P Mr. Kenneth Hirata 1
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John Lohmeyer took an action item to forward SAS revision 05 for processing toward second Public Review.

### 10.2 Actions on CAP Working Group Recommendations

George Penokie described the following proposals recommended for inclusion in SPC-3:

```
03-203r2 (SPC-3: TransportID Cleanup) [Weber]
03-209r0 (Limiting the MD5 logical unit identifier to logical units) [Weber]
03-227r1 (Add additional sense code values to SPC-3 for ADC) [Entzel]
03-230r3 (Persistent All Registrants Fix) [Penokie]
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It was noted that 03-227r1 and 03-230r3 were modified by the CAP working group (minutes in 03-247) and that all the proposals were approved unanimously except 03-227r1 where an 18:0:2 approval vote was recorded.

Ralph Weber moved that 03-203r2, 03-209r0, 03-227r1, and 03-230r3 be approved for inclusion in SPC-3. Mark Evans seconded the motion. The motion passed on a vote of 30:0:012=42.

Rob Elliott described the following proposals recommended for inclusion in SES-2:

```
03-215r0 (SES-2 Array Control and Status changes) [Elliott] {12:0:4} 03-214r1 (SES-2 Updated SAS Device Element Status descriptor) [Elliott] {r0 as modified, 14:0:4}
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It was noted that 03-215r0 was recommended by a 12:0:4 vote. It was noted that 03-214r1 was modified by the CAP working group (minutes in 03-247) and recommended by a 14:0:4 vote.

Rob Elliott moved that 03-215r0 and 03-214r1 be approved for inclusion in SES-2. Mark Evans seconded the motion. The motion passed on a vote of 30:0:0:12=42.

Rob Elliott took an action item to send a warning message to the T10 Reflector regarding the removal of the SES Array Control and Array Status pages. Rob Elliott took an action item to send a warning message to the T10 Reflector in September regarding the removal of the SES Array Control and Array Status pages. Rob Elliott took an action item to prepare a proposal updating the SAS Device Element Status descriptor based on discussions in the CAP working group.

#### 10.3 Actions on Other Working Group Recommendations

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

#### 11. ISO/IEC

#### 11.1 ISO/IEC Report (03-238) [Robinson]

Gary Robinson provided an electronic report in 03-238.

Bob Snively took an action item to provide the ISO format SES PDF and sources to the IR.

# 11.2 ISO/IEC Business [Robinson]

Gary Robinson reported that Bob Snively has agreed to go to the ISO meeting as the U.S. head of delegation.

Gary Robinson moved that T10 recommend Gary Robinson and Bob Snively as delegates to the JTC1/SC25 meeting for 2003. Bob Snively seconded the motion. The motion passed on a roll call vote of 31:0:0:11=42. The detailed results of the roll call vote were as follows:

Organization	Stat	Name	e	Yes	No	Abs	NP
Adaptec, Inc.	P	Mr.	Ron Roberts	1			
Agilent Technologies	P		Pat Thaler	1			
Amphenol Interconnect	P		Michael Wingard	1			
Andiamo Systems, Inc.	P		Claudio DeSanti	1			
Brocade Comm. Systems, Inc.	P		Robert Snively	1			
Congruent Software, Inc.							1
Crossroads Systems, Inc.							1
Dallas Semiconductor	P	Mr.	James A. Lott, Jr.	1			
Dell Computer Corp.	P	Mr.	Kevin Marks	1			
EMC Corp.	P	Mr.	Gary S. Robinson	1			
Emulex	P	Mr.	Robert H. Nixon	1			
ENDL Texas	P	Mr.	Ralph O. Weber	1			
FCI	P	Mr.	Douglas Wagner	1			
Fujitsu	P	Mr.	Mike Fitzpatrick	1			
General Dynamics							1
Hewlett Packard Co.	P	Mr.	Rob Elliott	1			
Hitachi Cable Manchester							1
Hitachi Global Storage Tech.	P	Mr.	Dan Colegrove	1			
Honda Connectors							1
IBM / Tivoli Systems	P	Mr.	George O. Penokie	1			
Intel Corp.	P	Mr.	Cris Simpson	1			
Iomega Corp.	P	Mr.	Hiromichi Oribe	1			
KnowledgeTek, Inc.	P	Mr.	Dennis Moore	1			
LSI Logic Corp.	P	Mr.	John Lohmeyer	1			
Madison Cable Corp.							1
Maxtor Corp.	P	Mr.	Mark Evans	1			
Microsoft Corp.	P	Ms.	Emily Hill	1			
Molex Inc.	P	Mr.	Jay Neer	1			
Network Appliance Inc.							1
Panasonic Technologies, Inc	P	Dr.	Terence J. Nelson	1			
Philips Electronics/CD Edge	P	Mr.	William P. McFerrin	1			
Pivot3, Inc.							1
QLogic Corp.	A#	Mr.	Craig W. Carlson	1			
Quantum Corp.	P	Mr.	Paul Entzel	1			
Seagate Technology	P	Mr.	Gerald Houlder	1			
Storage Technology Corp.	P	Mr.	Erich Oetting	1			
Sun Microsystems, Inc.	P	Mr.	Vit Novak	1			
Texas Instruments	A.	Mr.	Robert Kando	1			
Toshiba							1
UNISYS Corporation							1
Veritas Software							1
Vixel Corp.	P	Mr.	Kenneth Hirata	1			
				2 1	^	_	

 $31 \quad 0 \quad 0 \quad 11 = 42$ 

Gary Robinson took an action item to communicate the T10 JTC1/SC25 delegation recommendation to the INCITS Executive Board.

# 12. Liaison Reports

### 12.1 T11 Liaison Report (03-252) [Snively]

Bob Snively presented the T11 liaison report contained in T10/03-252r0.

### 12.2 T13 Liaison Report [Colegrove]

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

### 12.3 SFF Industry Group [Allan]

In the absence of Dal Allan, Vit Novak reported on two SFF SSWG meetings. One SSWG was on single voltage drives the other was on four-lane SAS internal cabling and connectors.

### 12.4 IEEE 1394 [Johansson]

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

### 12.5 SCSI Trade Association (STA) [Czekalski]

Marty Czekalski provided an electronic report on the activities of the SCSI Trade Association that can be found in 03-256r0.

#### 12.6 IETF SCSI over IP [Black/Robinson]

David Black reported that IETF work on iSCSI has gotten to the point where no meeting will be held during the IETF meeting next week. He noted that assignment of an iSCSI RFC is pending completion work on a couple of security drafts.

### 12.7 SNIA [Cummings]

In the absence of Roger Cummings, David Black reported that SMI-S version 1.0 has been published and work is in progress to fast track it through INCITS. Technical development is in progress on SMI-S version 1.1 with a goal of completing the technical work by early fall.

## 12.8 SATA II [open/Cox]

The SATA II group has not yet designated an official liaison to T10. John Lohmeyer noted that an effort is underway to get a waiver to protect SATA II liaisons from liability regarding disclosing confidential information obtained at SATA II meetings.

Alvin Cox reported on the four lane internal connection work, work on new speed definitions, increased signal launch levels, and SATA backplane applications.

John and Alvin discussed future requirements for liaisons between SATA II and SAS. John and Alvin discussed future meeting requirements for the SAS Phy working group.

## 13. Review of Action Items

- Ralph Weber will notify Gary Robinson that the SAM-2 ISO revision can be found at ftp://ftp.t10.org/t10/drafts/sam2/sam2i25.pdf.
- George Penokie will announce on the T10 Reflector the T10 intention to withdraw the MSC project unless proposals for MSC content are received by the November T10 meeting week.
- George Penokie will announce on the T10 Reflector during the September T10 meeting week the T10 intention to withdraw the MSC project unless proposals for MSC content are received by the November T10 meeting week.
- John Lohmeyer will forward SSC-2 revision 09 to INCITS for processing towards first Public Review.
- John Lohmeyer will forward SAS revision 05 for processing toward second Public Review.
- John Lohmeyer will contact INCITS regarding courtesy copies of EPI, PIP, SSM-2, and SPI-5.
- 538 Bill McFerrin took an action item provide the SPC-3 editor with document references for USB-1, USB-2, and USB Mass.
- Rob Elliott will send a warning message to the T10 Reflector regarding the removal of the SES Array Control and Array Status pages.
- Rob Elliott will send a warning message to the T10 Reflector in September regarding the removal of the SES Array Control and Array Status pages.
- Rob Elliott will prepare a proposal updating the SAS Device Element Status descriptor based on discussions in the CAP working group.
- Bob Snively will provide the ISO format SES PDF and sources to the IR.
- Gary Robinson will communicate the T10 JTC1/SC25 delegation recommendation to the INCITS Executive Board.

# 14. Meeting Schedule

The next plenary meeting of T10 will be Thursday September 11, 2003 in Seattle, WA at the Renaissance Hotel (800-278-4159), hosted by Microsoft Corp. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

```
September 2003 Meeting Map
                  (2003/07/10 Version)
            9 10 11 12 1 2 3 4 5 6 7 8
Monday 9/08
             +========+
             SMC-2 / ADI WG
                                               (15)
             +========+
                    | SAS Protocol WG |
                                               (40)
             +===========+=====================
             SAS PHY WG
                                               (20)
             +========+
Tuesday 9/09
          8 9 10 11 12 1 2 3 4 5 6 7 8
            |SAS Prot|FCP-3 WG| SCSI CAP WG |
                                               (40)
             +======+====+
                                               (15)
                                               (10)
             +=======+---+
             T11 Ad hocs
                                               (15)
             +----+
             | Plugfest Adm * | STA Marcom * |
                                               (20)
             +----+
            9 \quad 10 \quad 11 \quad 12 \quad 1 \quad 2 \quad 3 \quad 4 \quad 5 \quad 6 \quad 7 \quad 8 \quad 9
Wednesday 9/10
            SCSI Commands, Arch., & Protocol WG
                                               (35)
             +======+====+
                   (10)
             +==========+====++----+
                   |SFF: SSWG / 8425
                                               (20)
           +----+
           | STA Plenary * / Plugfest TCC *|
                                               (20)
           +-+---+
             | T11.5 FAIS WG
                                               (20)
Thursday 9/11 8 9 10 11 12 1 2 3 4 5 6 7 8
            +========+
             | T10 Plenary |
                                               (45)
            +========+
Friday 9/12 8 9 10 11 12 1 2 3 4 5 6 7 8
            No meetings are planned for Friday.
Meetings marked with == are T10-authorized meetings.
Meetings marked with -- are other groups and may change without notice.
Meetings marked with (*) are STA closed meetings.
Other T10-authorized meetings:
                       Location / Contact
Meeting Date
______
Data Integrity Aug 19 1:00 - 6:00 Denver, CO / Lohmeyer
SG Aug 20 9:00 - 5:00 ADI Calls Bi-weekly
                        To be announced via T10 reflector
                        To be announced via T10 reflector
SAS Prot Calls
SAS PHY Calls
                        To be announced via T10 reflector
```

T10:

т11:

WG:

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) Fibre Channel Interface I/F: IETF: Internet Engineering Task Force (the group that sets Internet standards) Internet Fibre Channel IPS: Internet Protocol SCSI Internet SCSI iscst: Letter Ballot LB: Multimedia Commands (CD-ROM, DVD, etc.) MMC: OSD: Object-based Storage Device Parallel (e.g., SPI-n) PH or PHY: Physical (Connectors, Cables, Transceivers, etc.) PIP:
Plenary: Full co...
Resolution (SCSI) Passive Interconnect Performance Full Committee Meeting SAS: Serial Attached SCSI SCSI Block Commands - 2 Serial Bus Protocol - 3 SCSI: Small Computer System Interface SES: SCSI Enclosure Services SFF: SFF Industry Group (not an INCITS activity) Study Group SMC-2: SPC-3: SCSI Medium Changer - 2 Commands SCSI Primary Commands - 2 (3rd generation) SPC-3:
SPI-4: Fourth Generation SCSI Parallel Interface
SPI-5: Fifth Generation SCSI Parallel Interface
SRP: SCSI RDMA Protocol (was SVP) Fourth Generation SCSI Parallel Interface 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) Serial ATA Tunneled Protocol

Lower Level Interfaces Technical Committee

Working Group (same as Ad Hoc Group)

Device Level Interfaces Technical Committee

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

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SRP-2	Cris Simpson	(503) 712-4333		
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Other Activities	John Lohmeyer	(719) 533-7560		
		lohmeyer@t10.org		

# The long-term T10 meeting week schedule is:

Date	Location	Host/Comments
Sep 8-12, 2003	Seattle, WA	Microsoft
Nov 3-7, 2003	Austin, TX	Crossroads
Jan 12-16, 2004	Chandler, AZ	Intel
Mar 8-12, 2004	Dana Point, CA	QLogic
May 3-7, 2004	Toronto, Montreal, or Otta	wa Brocade
Jul 12-16, 2004	Colorado Springs, CO	LSI Logic
Sep 13-17, 2004	Nashua, NH	Hitachi Cable
Nov 8-12, 2004	Austin, TX	Crossroads
Approved 2005 dates	:	
Jan 17-21, 2005		
Mar 7-11, 2005		
May 2-6, 2005		
Jul 11-15, 2005		
Sep 12-16, 2005		
Nov 7-11, 2005		

# 14.1 Authorization of Working Group Meetings

John noted that the working group meetings are required to operate under the same voting procedures as does T10 (that is, one vote per organization) and the results of a working group are not binding on the parent committee. Ad hoc groups should strive to achieve consensus prior to bringing issues to T10.

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

# 15. Adjournment

John Lohmeyer moved and Ralph Weber seconded that the meeting be adjourned. In the absence of any objections, the motion passed unanimously. The meeting was adjourned at 11:00 a.m. on Thursday July 10, 2003.

# Enclosure(1) -- Meeting Attendees

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42 People Present

Status Key: P - Principal

A,A# - Alternate
AV - Advisory Member
L - Liaison
V - Visitor

#### Enclosure(2) -- T10 Attendance Database

Generated on 2003/07/11 at 09:45:23

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