### Accredited Standards Committee\*

## InterNational Committee for Information Technology Standards (INCITS)

Doc. No.: T10/02-029r0

Date: January 21, 2002

Reply to: John Lohmeyer

To: T10 Membership

From: Ralph Weber / John Lohmeyer

Subject: Minutes of T10 Plenary Meeting #47 -- January 17, 2002

Houston, TX

## Agenda

- 1. Opening Remarks
- 2. Approval of Agenda
- 3. Attendance and Membership
- 4. Approval of Minutes November 2001 Meeting Seaside, CA (T10/01-324r0)
- 5. Document Distribution
- 6. Call for Patents
  - 6.1 Crossroads 5,941,972 Patent Letter (02-033) [Griswold]
- 7. Review of Old Action Items
- 8. Project Status Reports
  - 8.1 Project Status Summary and INCITS Liaison [Lohmeyer]
  - 8.2 SCSI Fibre Channel Protocol 2 (FCP-2) {Project 1144-D} [Snively]
  - 8.3 SCSI Architecture Model 2 (SAM-2) {Project 1157-D} [Weber]
  - 8.4 SCSI Primary Commands 2 (SPC-2) Status {Project 1236-D} [Weber]
  - 8.5 MultiMedia Command Set 3 (MMC-3) {Project 1363-D} [McFerrin]
  - 8.6 SCSI Parallel Interface 4 (SPI-4) {Project 1365-D} [Penokie]
  - 8.7 SCSI Domain Validation Technical Report (SDV) {Project 1378-DT} [Gibbons]
  - 8.8 SCSI on Scheduled Transfer (SST) {Project 1380-D} []
  - 8.9 SCSI Medium Changer Commands 2 (SMC-2) {Project 1383-D} [Oetting]
  - 8.10 SCSI Signal Modeling (SSM) {Project 1414-DT} [Aloisi]
  - 8.11 SCSI RDMA Protocol (SRP) {Project 1415-D} [Gardner]
  - 8.12 SCSI Primary Commands 3 (SPC-3) {Project 1416-D} [Weber]
  - 8.13 SCSI Block Commands 2 (SBC-2) {Project 1417-D} [Elliott]
  - 8.14 Object-based Storage Devices Commands (OSD) {Project 1355-D} [Weber]
  - 8.15 SCSI Stream Commands 2 (SSC-2) {Project 1434-D} [Peterson]
  - 8.16 SCSI Passive Interconnect Performance (PIP) {Project 1439-D} [Daggett]
  - 8.17 SCSI Serial Bus Protocol -3 (SBP-3) {Project 1467-D} [Johansson]
  - 8.18 SCSI Signal Modeling 2 (SSM-2) {Project 1514-D} [Aloisi]
  - 8.19 SCSI RDMA Protocol 2 (SRP-2) {Project 1524-D} [Simpson]
  - 8.20 SCSI Parallel Interface 5 (SPI-5) {Project 1525-D} [Penokie]
  - 8.21 SCSI Management Server Commands (MSC) {Project 1528-D} [Penokie/Elliott]
- 9. Old Business
  - 9.1 Style Guide [Moore]
  - 9.2 Project Proposal for an RBC-2 Standard (01-098) [Roberts]
  - 9.3 Project Proposal for a SCSI Parallel Interface 6 (SPI-6) Standard (01-145) [Lohmeyer]
  - 9.4 A/V Direct-Access Project Proposal (01-337) [Johannson]
- 10. New Business
  - 10.1 Results of letter ballot 01-350 on forwarding SSC-2 to 1PR (01-351) [Peterson]

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- 10.2 Actions on Parallel SCSI Working Group Recommendations
  - 10.2.1 Duplicate Tag ASC Correction in SPI-4 (02-034r1) [Penokie]
- 10.3 Actions on CAP Working Group Recommendations
  - 10.3.1 Names, Addresses, Identifiers, Oh my! (01-084r6) [Penokie]
  - 10.3.2 SMC-2 INITIALIZE ELEMENT STATUS WITH RANGE command (01-308r2) [Elliott]
  - 10.3.3 SBC-2 Long LBA PMI support for READ CAPACITY (01-246r1) [Elliott]
  - 10.3.4 SPC-3 SBC-2 SSC-2 sense data changes (01-199r3) [Elliott]
  - 10.3.5 Assign ASC/ASCQ 14h/07h to LOCATE OPERATION FAILURE for tapes [Weber]
  - 10.3.6 SPC-3 sense data size limit (02-017r0) [Elliott]
  - 10.3.7 SPC-3 Unit Attention interlock and Asynchronous Event Reporting (02-025r0) [Elliott]
  - 10.3.8 SPC-3 REQUEST SENSE during pending-enrolled state (02-026r1) [Elliott]
  - 10.3.9 SPC-3 TST field description (02-016r1) [Elliott]
  - 10.3.10 SPC-3 Letting persistent reservations ignore target ports (01-099r6) [Elliott]
  - 10.3.11 Report Supported Operation Codes Command (01-253r3) [Penokie]
  - 10.3.12 Proposal for an additional Persistent Reservations Type in SPC-3 (01-204r2) [Cummings]
- 10.4 Actions on Other Working Group Recommendations
  - 10.4.1 Project proposal for ADI Physical Layer (ADP) (02-010) [Suhler]
  - 10.4.2 Project proposal for ADI Transport Protocol (ADT) (02-009) [Suhler]
  - 10.4.3 Project proposal for ADI Commands (ADC) (02-008) [Suhler]
- 11. ISO/IEC
  - 11.1 ISO/IEC Report [Robinson]
  - 11.2 ISO/IEC Business [Robinson]
    - 11.2.1 ISO/IEC SPI-4 [Penokie]
- 12. Liaison Reports
  - 12.1 T11 Liaison Report [Snively]
  - 12.2 T13 Liaison Report [Colegrove]
  - 12.3 SFF Industry Group [Allan]
  - 12.4 IEEE 1394 [Johansson]
  - 12.5 SCSI Trade Association (STA) [Jones/Aloisi]
  - 12.6 IETF SCSI over IP [Black/Robinson]
  - 12.7 INCITS H2 (Database Languages) [Hare]
- 13. Review of Action Items
- 14. Meeting Schedule
  - 14.1 Authorization of Working Group Meetings
  - 14.2 SBP-3 Tentative Meeting Schedule
- 15. Adjournment

# **Results of Meeting**

## 1. Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:10 a.m., Thursday January 17, 2002. He thanked Rob Elliott of Compaq for hosting the meeting.

John announced that this would be Ken Moe's last T10 meeting as he is retiring from Sun Microsystems. He thanked Ken for his many contributions to the standards process over his career.

John said that INCITS Subgroup Membership forms and the T10 Mailing Subscription form were available from the head table. He said that people should use the INCITS forms to insure 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

The draft agenda was approved with the following additions/changes:

- 6.1 Crossroads 5,941,972 Patent Letter (02-033) [Griswold]
- 8.1 Project Status Summary and INCITS Liaison [Lohmeyer]
- 10.2.1 Duplicate Tag ASC Correction in SPI-4 (02-034r1) [Penokie]
- 10.3.1 Names, Addresses, Identifiers, Oh my! (01-084r6) [Penokie]
- 10.3.2 SMC-2 INITIALIZE ELEMENT STATUS WITH RANGE command (01-308r2) [Elliott]
- 10.3.3 SBC-2 Long LBA PMI support for READ CAPACITY (01-246r1) [Elliott]
- 10.3.4 SPC-3 SBC-2 SSC-2 sense data changes (01-199r3) [Elliott]
- 10.3.5 Assign ASC/ASCQ 14h/07h to LOCATE OPERATION FAILURE for tapes [Weber]
- 10.3.6 SPC-3 sense data size limit (02-017r0) [Elliott]
- 10.3.7 SPC-3 Unit Attention interlock and Asynchronous Event Reporting (02-025r0) [Elliott]
- 10.3.8 SPC-3 REQUEST SENSE during pending-enrolled state (02-026r1) [Elliott]
- 10.3.9 SPC-3 TST field description (02-016r1) [Elliott]
- 10.3.10 SPC-3 Letting persistent reservations ignore target ports (01-099r6) [Elliott]
- 10.3.11 Report Supported Operation Codes Command (01-253r3) [Penokie]
- 10.3.12 Proposal for an additional Persistent Reservations Type in SPC-3 (01-204r2) [Cummings]
- 10.4.1 Project proposal for ADI Physical Layer (ADP) (02-010) [Suhler]
- 10.4.2 Project proposal for ADI Transport Protocol (ADT) (02-009) [Suhler]
- 10.4.3 Project proposal for ADI Commands (ADC) (02-008) [Suhler]
- 12.7 INCITS H2 (Database Languages) [Hare]

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

11.2.1 ISO/IEC SPI-4 [Penokie]

## 3. Attendance and Membership

The membership requirements were reviewed. INCITS rules permit one vote per organization. An individual from a new organization must attend at least one T10 plenary meeting as an Advisory Member. He/she may apply for voting membership at this meeting, which becomes effective following adjournment of the meeting. Voting privileges begin upon receipt by the INCITS Secretariat of applicable fees for the membership year.

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

John briefly discussed the mailing fees. Complete pricing information is contained in the 2002 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 9 people from 5 organizations informing them that their membership was in jeopardy due to non-attendance (see 01-344r1) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

**EMC** 

Exabyte Corp. Genroco, Inc. Iomega Corp. Troika Networks, Inc.

All organizations in attendance jeopardy were present except:

Genroco, Inc. Troika Networks, Inc.

These organizations were changed to non-voting status.

No organizations joined the committee at this meeting. Silicon Image joined the committee following the meeting.

The T10 membership during the meeting was 44 organizations down from 46 following the last meeting. Membership following the meeting was 45 organizations. Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current T10 membership list.

John Lohmeyer reminded members that failure to vote on two out of the last three letter ballots also would result in membership jeopardy and then reported on the status of companies that have not voted on recent letter ballots. John noted that no organization is in letter ballot jeopardy because all organizations voted on the most recent letter ballot.

## 4. Approval of Minutes - November 2001 Meeting - Seaside, CA (T10/01-324r0)

John Lohmeyer reported that an error has been discovered in the 01-324r0 minutes. 01-303r1 was referenced as the document containing the letter ballot resolution for SSM. The correct reference is to 01-303r0.

The minutes were approved as corrected. John noted that the above correction notification is sufficient and that he would not issue a revision 1 of the November 2001 minutes.

### 5. Document Distribution

Members who have any problems with their mailing subscription should deal directly with Monica Vago (mvago@itic.org) (202) 626-5741.

John Lohmeyer requested that all documents for the next mailing be in his hands in electronic format by 10:30 a.m. on Thursday January 21, 2002. 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 email. 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 email 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 current document register is enclosure (3). The T10 document register is also 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 presented a foil containing 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 asked that anyone who knows of applicable patents contact him.

There was response to the call for patents from Crossroads (see item 6.1).

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

### 6.1 Crossroads 5,941,972 Patent Letter (02-033) [Griswold]

Bob Griswold reported that a disclosure letter regarding patent 5,941,972 that Crossroads has determined impinges on the Access Controls proposal approved for SPC-3. He noted that a letter describing the Crossroad position is available in 02-033r0.

### 7. Review of Old Action Items

- 436 Gary Robinson will determine how ISO standards can reference ANSI Technical Reports. Carry over.
- Gary Robinson will report to the JTC 1 TAG that T10 recommends that the JTC1 TAG approve and forward the NWIP for SCSI Primary Commands 2, SPC-2, to JTC1 for further processing as an international standard. *Complete.*
- 446 Bill McFerrin will prepare MMC-3 revision 10g and 01-167r1. Complete.
- John Lohmeyer will forward MMC-3 revision 10g and 01-167r1 to NCITS for processing toward first public review. *Complete.*
- John Lohmeyer will forward SDV revision 8b and 01-317r1 to NCITS for approval as a technical report. Complete.
- John Lohmeyer will forward SSM revision 5 and 01-303r0 to NCITS for approval as a technical report. Complete.
- 450 Dave Peterson will prepare SSC-2 revision 7. Complete.
- 451 John Lohmeyer will conduct a letter ballot on forwarding SSC-2 revision 7 to first public review. Complete.
- John Lohmeyer will forward 01-166r0 to NCITS for processing as new project proposal for MMC-4 under the new rules. *Complete*.
- 453 Paul Aloisi will report to IDEMA that T10 knows of no SCSI standards problems with supporting 4 KB block sizes. *Complete.*
- John Lohmeyer will announce the call for SST editor on the T10 Reflector. 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 in the T10 Information Packages distributed prior to the meeting and will be included in the mailing as usual.

John Lohmeyer announced to that NCITS has changed their name to INCITS (InterNational Committee for Information Technology Standards). INCITS is still pronounced "insights".

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

John Lohmeyer reported that no information is available on the status of the INCITS letter ballot on FCP-2. Bob Snively noted that an editorial error is in the process of being corrected.

Chair's note: The INCITS letter ballot is being delayed until the editorial error is corrected and the final draft is available to attach to the letter ballot.

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

Ralph Weber reported that the issues with CA and ACA in SAM-2 r21 were resolved in the CAP working group (minutes 02-028). A new revision will be prepared in time for the mailing.

### 8.4 SCSI Primary Commands - 2 (SPC-2) Status (Project 1236-D) [Weber]

John Lohmeyer reported that INCITS had not provided status on the approval for SPC-2.

Chair's note: SPC-2 has been approved and published. Congratulations, Ralph!

Ralph Weber reported that an A4 SPC-2 draft is being prepared for Gary Robinson to send to ISO.

#### 8.5 MultiMedia Command Set - 3 (MMC-3) {Project 1363-D} [McFerrin]

John Lohmeyer reported that MMC-3 is at public review, which closes on 11 February. Bill McFerrin reported that ANSI editor found several potential errors in the MMC-3 that the working group has found to be entirely non-substantive.

Bill McFerrin moved that T10 report to INCITS that it has reviewed the ANSI editor changes to MMC-3 and found them all to be non-substantive. Paul Aloisi seconded the motion. The motion passed on a vote of 31:0:0:13=44.

John Lohmeyer took an action item report to INCITS that T10 has found the ANSI editor's changes in MMC-3 all to be non-substantive.

Bill McFerrin reported on the MMC-4 working group meeting (minutes in 02-057).

### 8.6 SCSI Parallel Interface - 4 (SPI-4) {Project 1365-D} [Penokie]

George Penokie reported on the SPI-4 letter ballot resolution activities in the SPI working group (minutes in 02-027). George Penokie moved that 01-340r1 be accepted as resolving the letter ballot comments on SPI-4 and that SPI-4 rev 9 be accepted as incorporating the letter ballot comment resolution. Mark Evans seconded the motion. The motion passed on a vote of 33:0:2:9=44.

In view of the satisfactory resolution of the letter ballot comments, Ralph Weber and Bill Ham asked that their "no" votes on the SPI-4 letter ballot be changed to "yes".

John Lohmeyer took an action item to forward SPI-4 rev 9 to INCITS for further processing toward first public review.

#### 8.7 SCSI Domain Validation Technical Report (SDV) {Project 1378-DT} [Gibbons]

John Lohmeyer reported that no information is available on the progress of SDV at INCITS.

### 8.8 SCSI on Scheduled Transfer (SST) {Project 1380-D} []

John Lohmeyer reported that no one has responded to the call for an SST Technical Editor. John Lohmeyer moved that T10 recommend that INCITS close project 1380-D due to lack of resources to complete it. Ed Gardner seconded the motion. The motion passed 31:0:1:12=44.

John Lohmeyer took an action item to inform INCITS of the T10 recommendation to close project 1380-D due to lack of resources.

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

Erich Oetting reported that SMC-2 is currently at rev 2 and there is one proposal recommended by the CAP working group (minutes in 02-028). Erich stated that if the proposal is approved a new SMC-2 revision will be prepared in time for the next meeting. He stated that the SMC-2 letter ballot will not commence until after the March plenary meeting.

#### 8.10 SCSI Signal Modeling (SSM) {Project 1414-DT} [Aloisi]

John Lohmeyer reported that the editor of SSM had been the victim of a reduction in force the previous day and the status of completing the project is unclear. Bill Ham volunteered to complete SSM if no other editor is available.

### 8.11 SCSI RDMA Protocol (SRP) {Project 1415-D} [Gardner]

Ed Gardner reported that SRP is in the process of completing letter ballot comment resolution. There will be a meeting to that end following the plenary meeting.

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

Ralph Weber reported that SPC-3 r3 was uploaded last week containing many but not all of the approved proposals. A new revision will be prepared in time for the mailing and will include most (hopefully all) of the proposals approved this week. Ralph reminded the committee that only approved proposal revisions will be used for incorporation in SPC-3 and that incorporation of a proposal will be deferred until the approved revision has been posted on the T10 web site.

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

Rob Elliott reported that no changes have been made in SBC-2 since the last meeting. He will have a new revision ready in time for the next meeting, based on the proposals approved at this meeting.

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

Ralph Weber reported that the SNIA OSD working group will be meeting next week after which a new OSD revision will be prepared, perhaps not in time for the mailing.

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

Dave Peterson was unable to attend but provided the following electronic report:

- Completed letter ballot comment period on 12/17/01.
- Received 641 comments, majority are editorial.
- Have addressed 51 technical comments so far.
- Plan for conference call(s) in the interim to address any technical or editorial comments that need to be discussed by the group.

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

Bill Ham reported on the activities of the PIP working group (minutes in 02-019). He stated that the goal is to have a PIP document ready for letter ballot in the next six months.

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

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

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

Paul Aloisi reported on that activities of the SSM-2 working group (minutes in 02-020) and provided an electronic report in 02-049r0.

John Lohmeyer reported that the editor of SSM-2 had been the victim of a reduction in force the previous day and the status of completing the project is unclear. Paul Aloisi noted that efforts to find an editor will begin immediately.

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

Cris Simpson reported that work on SRP-2 is on hold until the SRP letter ballot resolution is finished.

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

George Penokie reported on the activities related to SPI-5 (minutes in 02-027). He noted SPI-5 rev 0 will be prepared in April.

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

George Penokie reported that one proposal for MSC was presented at the CAP meeting (minutes in 02-028). He expressed the belief that MSC rev 0 will be published sometime in the summer.

### 9. Old Business

### 9.1 Style Guide [Moore]

Dennis Moore's proposal 01-313r2 was discussed at the editor's meeting earlier this week and a new revision will be prepared for the next meeting. He also noted that a FrameMaker template should be available in the next few days.

### 9.2 Project Proposal for an RBC-2 Standard (01-098) [Roberts]

Ron Roberts asked that discussion of this topic be deferred to the next meeting.

### 9.3 Project Proposal for a SCSI Parallel Interface - 6 (SPI-6) Standard (01-145) [Lohmeyer]

John Lohmeyer asked that discussion of this topic be deferred to the next meeting.

#### 9.4 A/V Direct-Access Project Proposal (01-337) [Johannson]

Peter Johansson via email asked that discussion of this topic be deferred to the next meeting.

#### 10. New Business

#### 10.1 Results of letter ballot 01-350 on forwarding SSC-2 to 1PR (01-351) [Peterson]

John Lohmeyer reported on the results of the letter ballot on forwarding SSC-2 to first public review (01-351r0). The letter ballot passed on a vote of 38:4:4:0=46.

#### 10.2 Actions on Parallel SCSI Working Group Recommendations

#### 10.2.1 Duplicate Tag ASC Correction in SPI-4 (02-034r1) [Penokie]

George Penokie reported that a correction to the description of duplicate tag handling was recommended unanimously by the SPI-4 working group (minutes in 02-027). George Penokie moved that 02-034r1 (r0 as modified) be approved for inclusion in SPI-4. Mark Evans seconded the motion. The motion passed on a vote of 35:0:1:8=44.

### 10.3 Actions on CAP Working Group Recommendations

### 10.3.1 Names, Addresses, Identifiers, Oh my! (01-084r6) [Penokie]

George Penokie described the informative annex proposed in 01-084r6. George Penokie moved that 01-084r6 (r5 as revised) be approved for incorporation in SAM-2 as an informative annex. Mark Evans seconded the motion. The motion passed on a vote of 29:0:0:15=44.

### 10.3.2 SMC-2 INITIALIZE ELEMENT STATUS WITH RANGE command (01-308r2) [Elliott]

Ralph Weber described the SMC-2 command proposal (01-308r2). Rob Elliott moved that 01-308r2 (r1 as revised) be approved for inclusion in SMC-2. Erich Oetting seconded the motion. The motion passed on a vote of 29:0:0:15=44.

#### 10.3.3 SBC-2 Long LBA PMI support for READ CAPACITY (01-246r1) [Elliott]

George Penokie and Rob Elliott described the READ CAPACITY(10) command changes and new READ CAPACITY(16) command proposed for SBC-2 in 01-246r1. Rob Elliott moved that 01-246r1 be approved for inclusion in SBC-2. Ron Roberts seconded the motion. The motion passed on a vote of 29:0:0:15=44.

### 10.3.4 SPC-3 SBC-2 SSC-2 sense data changes (01-199r3) [Elliott]

George Penokie and Ralph Weber described the changes in sense data format proposed in 01-199r3. Rob Elliott moved that 01-199r3 (r2 as revised) be approved for inclusion in SPC-3, SBC-2 and SSC-2. Joe Breher seconded the motion. The motion passed on a vote of 29:0:0:15=44.

### 10.3.5 Assign ASC/ASCQ 14h/07h to LOCATE OPERATION FAILURE for tapes [Weber]

Ralph Weber reviewed the assignment of new ASC/ASCQ values for SSC-2 LOCATE OPERATION FAILURE. Ralph continued by describing the contents of 02-017r0, 02-025r0, 02-026r1, 02-016r1, 01-099r6, and 01-204r2. Rob Elliott moved that the assignment of ASC/ASCQ 14h/07h to LOCATE OPERATION FAILURE, 02-017r0, 02-025r0, 02-026r1 (r0 as revised), 02-016r1 (r0 as revised), 01-099r6 (r5 as revised), and 01-204r2 be approved for inclusion in SPC-3. Roger Cummings seconded the motion. The motion passed on a vote of 32:0:0:12=44.

#### 10.3.6 SPC-3 sense data size limit (02-017r0) [Elliott]

Action on this item was taken in item 10.3.5.

### 10.3.7 SPC-3 Unit Attention interlock and Asynchronous Event Reporting (02-025r0) [Elliott]

Action on this item was taken in item 10.3.5.

### 10.3.8 SPC-3 REQUEST SENSE during pending-enrolled state (02-026r1) [Elliott]

Action on this item was taken in item 10.3.5.

### 10.3.9 SPC-3 TST field description (02-016r1) [Elliott]

Action on this item was taken in item 10.3.5.

#### 10.3.10 SPC-3 Letting persistent reservations ignore target ports (01-099r6) [Elliott]

Action on this item was taken in item 10.3.5.

### 10.3.11 Report Supported Operation Codes Command (01-253r3) [Penokie]

George Penokie described the new command for determining operation code and service action support proposed in 01-253r3. George Penokie moved that 01-253r3 (r2 as revised) be approved for inclusion in SPC-3. Bill Galloway seconded the motion. George noted that the working group voted 15:2:1 to recommend approval of the proposal.

Ed Gardner spoke against the motion stating that profiles should be developed instead of the proposal. Mark Evans spoke against the motion stating that the proposal adds extra testing and firmware that has no benefit. Roger Cummings described past experience with similar features as beneficial.

The motion passed on a vote of 22:1:11:10=44.

#### 10.3.12 Proposal for an additional Persistent Reservations Type in SPC-3 (01-204r2) [Cummings]

Action on this item was taken in item 10.3.5.

#### 10.4 Actions on Other Working Group Recommendations

### 10.4.1 Project proposal for ADI Physical Layer (ADP) (02-010) [Suhler]

John Lohmeyer reported the organizing activities of the ADI study group working on interfaces between drives and media changers.

Bob Griswold moved that 02-010r0 be forwarded to INCITS for processing as a new project proposal for ADI Physical Layer, that 02-009r0 be forwarded to INCITS for processing as a new project proposal for ADI Transport Protocol, and that 02-008r0 be forwarded to INCITS for processing as a new project proposal for ADI Commands. Paul Entzel seconded the motion. The motion passed on a vote of 35:0:1:8=44.

John Lohmeyer took an action item to forward 02-010r0 to INCITS for processing as a new project proposal for ADI Physical Layer. John Lohmeyer took an action item to forward 02-009r0 to INCITS for processing as a new project proposal for ADI Transport Protocol. John Lohmeyer took an action item to forward 02-008r0 to INCITS for processing as a new project proposal for ADI Commands.

#### 10.4.2 Project proposal for ADI Transport Protocol (ADT) (02-009) [Suhler]

Action on this item was taken in item 10.4.1.

### 10.4.3 Project proposal for ADI Commands (ADC) (02-008) [Suhler]

Action on this item was taken in item 10.4.1.

### 11. ISO/IEC

#### 11.1 ISO/IEC Report [Robinson]

Gary Robinson provided and presented an ISO status report (02-053r0).

### 11.2 ISO/IEC Business [Robinson]

### 11.2.1 ISO/IEC SPI-4 [Penokie]

George Penokie moved that the IR be instructed to prepare and forward to the JTC1 TAG a NWIP for SPI-4 and to forward the FCD for SPI-4 when appropriate. Gary Robinson seconded the motion. The motion passed on a roll call vote of 34:1:0:9=44. Details of the roll call vote were as follows.

rganization	Stat	Name		Yes	No	Abs	NP
Adaptec, Inc.	P	Mr.	Ron Roberts	1			
Amphenol Interconnect							1
Ancot Corp.							1
Andiamo Systems, Inc.	P	Dr.	Claudio DeSanti	1			
BREA Technologies, Inc.	P	Mr.	Bill Galloway	1			
Brocade Comm. Systems, Inc.	P	Mr.	Brian Forbes	1			
Cisco Systems, Inc.							1
Compaq Computer Corp.	P	Mr.	Robert C. Elliott	1			
Congruent Software, Inc.							1
Crossroads Systems, Inc.	P	Mr.	Robert Griswold	1			
Dallas Semiconductor	A	Mr.	James A. Lott, Jr.	1			
Dell Computer Corp.	P	Mr.	Kevin Marks	1			
EMC	P	Mr.	Gary S. Robinson	1			
Emulex	P	Mr.	Robert H. Nixon	1			
ENDL Texas	P	Mr.	Ralph O. Weber	1			
Exabyte Corp.	P	Mr.	Joe Breher	1			
FCI	P	Mr.	Douglas Wagner	1			
Fujitsu	P	Mr.	Eugene Lew	1			
General Dynamics							1
Hewlett Packard Co.	A#		Marjorie Krueger	1			
Hitachi Cable Manchester	A	Mr.	Randy Wasylak	1			
IBM / Tivoli Systems	P	Mr.	George O. Penokie	1			
Intel Corp.	P	Mr.	Cris Simpson	1			
Iomega Corp.	P	Mr.	Tim Bradshaw	1			
KnowledgeTek, Inc.							1
LSI Logic Corp.	P	Mr.	John Lohmeyer	1			
Maxtor Corp.	P	Mr.	Mark Evans	1			
Microsoft Corp.	A#	Mr.	Nathan Obr	1			
Molex Inc.	P	Mr.	Jay Neer	1			
Nishan Systems Inc.	P	Mr.	Charles Monia	1			
Ophidian Designs	P	Mr.	Edward A. Gardner		_	L	
Panasonic Technologies, Inc			Terence J. Nelson	1			
Philips Electronics/CD Edge	P	Mr.	William P. McFerrin	1			
Pirus Networks							1
QLogic Corp.	A	Mr.	Ting Li Chan	1			
Quantum Corp.	P	Mr.	Paul Entzel	1			
Seagate Technology	P		Gerald Houlder	1			
Storage Technology Corp.	P	Mr.	Erich Oetting	1			
Sun Microsystems, Inc.	P		Kenneth Moe	1			
Texas Instruments	P		Paul D. Aloisi	1			
Toshiba America Elec. Comp.	P	Mr.	Tasuku Kasebayashi	1			
TycoElectronics							1
Veritas Software	P	Mr.	Roger Cummings	1			
Woven Electronics							1
				34	1	L 0	9 = 44

Ed Gardner stated that the reason for his no vote was his usual disagreement with doing ISO/IEC standards in T10.

## 12. Liaison Reports

### 12.1 T11 Liaison Report [Snively]

Bob Snively presented the T11 liaison report contained in T10/02-018r0.

### 12.2 T13 Liaison Report [Colegrove]

Dan Colegrove provided an oral report to the committee and Pete McLean provided the following electronic report:

T13 met last in Irvine, CA on December 11 through 12 with 21 people present. Membership is currently 21 voting organizations.

The erratum for ATA/ATAPI-5 ANSI NCITS 340-2000 has been published by ANSI.

The ATA/ATAPI-6 draft standard T13/1410D letter ballot passed 18-0-0-2 and comments were resolved. Revision 3a of the draft standard has been forwarded to NCITS for first public review.

BIOS Enhanced Disk Drive Services T13/1484D, was reviewed and a letter ballot to forward the draft standard issued. The letter ballot closes 1/21/02.

Host Adapter Standard, T13/1510D, was reviewed. It is expected that this draft standard may go to letter ballot in February.

The format and new proposals were presented for ATA/ATAPI-7, T13/1532D.

Adaptec Corporation will host the next plenary meeting February 19-21, 2002 at the Placerville Inn, 6850 Greenleaf Drive, Placerville, CA 95667. The meeting will start at 9 AM.

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

### 12.3 SFF Industry Group [Allan]

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) [Jones/Aloisi]

Paul Aloisi reported on the activities of STA and provided an electronic report that can be found in 02-050r0.

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

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

#### 12.7 INCITS H2 (Database Languages) [Hare]

Terry Nelson reported that based on his interactions with INCITS he believes that this agenda item can be discontinued.

### 13. Review of Action Items

- 436 Gary Robinson will determine how ISO standards can reference ANSI Technical Reports.
- John Lohmeyer will report to INCITS that T10 has found the ANSI editor's changes in MMC-3 all to be non-substantive.
- John Lohmeyer will forward SPI-4 rev 9 to INCITS for processing toward first public review.
- John Lohmeyer will inform INCITS of the T10 recommendation to close project 1380-D due to lack of resources.
- John Lohmeyer will forward 02-010r0 to INCITS for processing as a new project proposal for ADI Physical Layer.
- John Lohmeyer will forward 02-009r0 to INCITS for processing as a new project proposal for ADI Transport
- John Lohmeyer will forward 02-008r0 to INCITS for processing as a new project proposal for ADI Commands.

## 14. Meeting Schedule

The next plenary meeting of T10 will be Thursday Mach 14, 2002 in Dallas, TX at the Crowne Plaza Suites (972-233-7600), hosted by Texas Instruments. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

							Mee	_	_	)				
Monday 1/11		9 10	11	12			3 :====				7	8	9	
							WG							(20)
					+==	====	====	====	====	=+				
Tuesday 1/12	8 9	9 10	11	12	1	2	3	4	5	6	7	8	9	
		+=====   Paral +=====	lel	SCSI	WG							İ		(35)
		MMC W	IG											(10)
		SBP-3 	WG						İ					(15)
	T11	ad hoc	:s											(25)
		ADI W	IG (t	ape	libr	ary)					+			(15)
Wednesday 1/13		9 10										8	9	
	SCSI										(35)			
	MMC W	======+==+===== MMC WG						===:	=+		(10)			
	SBP-3	SBP-3 WG										(15)		
	-	+=====	====	====		5	FF S	SWG	•					(20)
					5	STA I	ech	8	STA M	larco	om			(20)

```
Thursday 1/14 8 9 10 11 12 1
                                 2 3 4
                                             5
                 +============+=====================
                 T10 Plenary | SRP WG (*)
                                                               (50/20)
                 +=======+===+===+
                                | SCSI Trade Assoc|
                                                               (25)
                                 +----+
 (*) - Meeting begins 1 hour after T10 meeting
Friday 1/15 8 9 10 11 12 1 2 3 4 5
Meetings marked with == are T10-authorized meetings.
Meetings marked with -- are other groups and may change without notice.
Other T10-authorized meetings:
Meeting Date
                               Location / Contact
______
SBP-3 WG
            01/21-22/02
                                Waikoloa, HI / Johansson
            02/20/02
                               Scotts Valley, CA / Seagate
SSM WG
            02/21/02
                               Scotts Valley, CA / Seagate
PIP WG
                             Nashua, NH / Hitachi Cable
Nashua, NH / Hitachi Cable
PIP WG
             04/02/02
PIP Edit
            04/03/02
                               Nashua, NH / Hitachi Cable
SSM WG
             04/04/02
Meeting Map Abbreviation Key:
Amnd: Amendment
CAP:
          Commands, Architecture, and Protocols
DVD:
          Digital Versatile Device (not an NCITS activity)
         SCSI Enhanced Parallel Interface (Technical Report)
Fast-20: Data Transfer at 20 Mega-transfers/sec. (a.k.a., Ultra)
         Data Transfer at 40 Mega-transfers/sec. (a.k.a., Ultra2)
Fast-40:
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
          Fibre Channel over Internet Protocol
FCIP:
Harbor: A project on defining a wrapper for physical devices
          Interface
T/F:
          Internet Engineering Task Force (the group that sets
IETF:
          Internet standards)
iFC:
          Internet Fibre Channel
          Internet Protocol SCSI
iscsI:
          Internet SCSI
          Letter Ballot
LB:
          Multimedia Commands (CD-ROM, DVD, etc.)
MMC:
          Object-based Storage Device
OSD:
           Parallel (e.g., SPI-n, Domain Validation)
Par.:
          Physical (Connectors, Cables, Transceivers, etc.)
PIP:
           (SCSI) Passive Interconnect Performance
Plenary: Full Committee Meeting
Res:
          Resolution
SBC-2:
         SCSI Block Commands - 2
         Small Computer System Interface
         SCSI Domain Validation (Technical Report)
         SCSI Enclosure Services
SES:
         SFF Industry Group (not an NCITS activity)
SFF:
          Study Group
SG:
SMC-2: SCSI Medium Changer - 2 Commands
SPC-2: SCSI Primary Commands - 2 (2nd generation)
       Fourth Generation SCSI Parallel Interface
```

SPI-4:

SRP: SCSI RDMA Protocol (was SVP)

SSC-2: SCSI Stream Commands - 2 (includes Tape)
SSM: SCSI Signal Modeling
SST: SCSI on Scheduled Transfer (ST)
SSWGs: Specific-Subject Working Groups
STA: SCSI Trade Association (not an NCITS activity)

STA Marcom: STA Marketing Communications (not an NCITS activity)

STA Tech:

STA Technical Meeting (T10 members invited)
T10:

Lower Level Interfaces Technical Committee
T11:

Device Level Interfaces Technical Committee
WG:

Working Group (same as Ad Hoc Group)

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

Activity	Contact	Telephone/Email
ADP, ADT, ADC	Bob Griswold	(512) 928-7272 rgriswold@crossroads.com
EPI	Bill Ham	(508) 841-2629 bill_ham@ix.netcom.com
PIP	Zane Daggett	(603) 669-4347 x236 zdaggett@hcm.hitachi.com
FCP-2, SES	Robert Snively	
SBC-2	Rob Elliott	(281) 518-5037 Robert.Elliott@compaq.com
MMC-2, MMC-3, MMC-4	Bill McFerrin	(303) 651-5400 bill.mcferrin@cdedge.com
SBP-2 or RBC	Pete McLean	(303) 678-2149 pete_mclean@maxtor.com
SBP-2, SBP-3	Peter Johansson	- —
SCC-2, SPI-4, SPI-5, MSC	George Penokie	_
SDV	Terry Gibbons	(719 533-7499 terry.gibbons@lsil.com
SMC, SMC-2	Erich Oetting	(303) 673-2178 Erich_Oetting@Stortek.com
SPC-2, SPC-3, SAM-2, OSD	Ralph Weber	(214) 912-1373 roweber@acm.org
SSC, SSC-2	Dave Peterson	(612) 802-3299 dap@cisco.com
SRP (was SVP)	Ed Gardner	(719) 593-8866 eag@ophidian.com
SRP-2	Cris Simpson	(503) 712-4333 cris.simpson@intel.com
Other Activities	John Lohmeyer	(719) 533-7560 lohmeyer@t10.org

### The long-term T10 meeting week schedule is:

Date	Location	Host/Comments
Mar 11-15, 2002	Dallas, TX	T.I.
Apr 29-May 3, 2002	Nashua, NH	Hitachi Cable
Jul 15-19, 2002	Colorado Springs, CO	LSI Logic
Sep 9-13, 2002	Minneapolis, MN	Cisco (?) / [CHANGED]
Nov 4-8, 2002	Huntington Beach, CA	QLogic
Jan 13-17, 2003	Portland, OR	Intel
Mar 10-14, 2003	Dallas, TX	T.I.
May 5-9, 2003	Nashua, NH	Hitachi Cable
Jul 14-18, 2003	Colorado Springs, CO	LSI Logic
Sep 8-12, 2003	Seattle, WA	Microsoft
Nov 3-7, 2003	Austin, TX	Crossroads

### 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 April 2002. Paul Aloisi seconded the motion. In the absence of any objections, the motion passed unanimously.

### 14.2 SBP-3 Tentative Meeting Schedule

Peter Johansson provided the following tentative meeting schedule for the SBP-3 working group:

```
January 21 - 22 (Waikoloa, HI)
March 12 - 13 (Dallas, TX)
April 30 - May 1 (Nashua, NH)
June 3 - 7 / 10 - 14 (Portland, OR) [two-day meeting one of those two weeks]
July 16 - 17 (Colorado Springs, CO) [two-day meeting that week]
```

## 15. Adjournment

The meeting was adjourned at 11:55 a.m. on Thursday January 17, 2002.

## Enclosure(1) -- Meeting Attendees

	Name	S	Organization	Electronic Mail Address
Mr.	Ron Roberts	 Р	Adaptec, Inc.	Ron_Roberts@adaptec.com
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Mr.	Bill Galloway	P	BREA Technologies, Inc.	billg@breatech.com
Mr.	Brian Forbes	P	Brocade Comm. Systems,	bforbes@brocade.com
			Inc.	
Mr.	Robert Snively	A	Brocade Comm. Systems, Inc.	rsnively@brocade.com
Mr.	Robert C. Elliott	Р	Compaq Computer Corp.	Robert.Elliott@compaq.com
Dr.	William Ham	Α	Compaq Computer Corp.	bill_ham@ix.netcom.com
Mr.	Robert Griswold	Ρ	Crossroads Systems, Inc.	rgriswold@crossroads.com
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	Dan Colegrove	V	IBM Corp.	dcolegro@us.ibm.com
	Cris Simpson	P	Intel Corp.	cris.simpson@intel.com
	Tim Bradshaw	Р	Iomega Corp.	bradshat@iomega.com
Mr.	Dennis Moore	P	KnowledgeTek, Inc.	dmoore@ix.netcom.com
Mr.	John Lohmeyer	P	LSI Logic Corp.	lohmeyer@t10.org
Mr.	Mark Evans	P	Maxtor Corp.	mark_evans@maxtor.com
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Dr.	Terence J. Nelson	Р	Panasonic Technologies, Inc	terry@tjnelson.com
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	errin		Edge	
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	Paul D. Aloisi	P A	Texas Instruments Texas Instruments	<del>_</del>
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Mr.	James Nelson	AV	Vixel Corp.	jnelson@vixel.com

Mr. John Masiewicz V Western Digital john.masiewicz@wdc.com

48 People Present

Status Key: P - Principal

A,A# - Alternate

AV - Advisory Member L - Liaison V - Visitor

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

Generated on 2002/01/21 at 13:45:47

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#### Enclosure(3) -- T10 Document Database

Generated on 2002/01/21 at 18:34:40

T10/02-001R0 Date: 2001/11/21 Author: Greg Vaupotic Mailing: 2002\_1 Absence of Insertion Loss Anti-Resonance in Shielded Pairs having High Skew

T10/02-002R0 Date: 2001/11/27 Author: Paul Suhler Mailing: 2002\_1

ADI: Seagate Encapsulated SCSI Protocol

T10/02-003R0 Date: Author: Mailing: Missing

not used

T10/02-004R0 Date: 2001/11/28 Author: Cris Simpson Mailing: 2002\_1

Proposed Model Clause for SRP

T10/02-005R0 Date: Author: Mailing: Missing

not used

T10/02-006R0 Date: Author: Mailing: Missing

not used

T10/02-007R0 Date: 2001/11/01 Author: Rod Wideman Mailing: 2002\_1

MC\_DTE\_Comments

T10/02-008R0 Date: 2001/12/04 Author: Paul Suhler Mailing: 2002\_1 Project Proposal: ADI: Project Proposal for Automation/Drive Interface -

Commands (ADC)

T10/02-009R0 Date: 2001/12/04 Author: Paul Suhler Mailing: 2002\_1 Project Proposal: ADI: Project Proposal for Automation/Drive Interface -

Transport Protocol (ADT)

T10/02-010R0 Date: 2001/12/04 Author: Paul Suhler Mailing: 2002\_1 Project Proposal: ADI: Project Proposal for Automation/Drive Interface - Physical Layer (ADP)

T10/02-011R0 Date: 2001/12/07 Author: Michael Banther Mailing: 2002\_1 A Specification for a Tape Drive Automation Controller Interface

T10/02-012R0 Date: 2001/12/07 Author: Michael Banther Mailing: 2002\_1 A Specification for an Automation Controller Interface - Slide

T10/02-013R0 Date: 2001/12/07 Author: Paul Entzel Mailing: 2002\_1

ADI Transport Layer Proposal, Paketized Serial Protocol

T10/02-014R0 Date: 2001/12/13 Author: Paul Suhler Mailing: 2002\_1

ADI Working Group Agenda (January 15, 2002)

T10/02-014R1 Date: 2002/01/15 Author: Paul Suhler Mailing: 2002\_1

ADI Working Group Agenda (January 15, 2002)

T10/02-015R0 Date: 2001/12/16 Author: William P. Mailing: 2002\_1

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MMC-4 Document Structural Plan

T10/02-015R1 Date: 2002/01/18 Author: Bill McFerrin Mailing: 2002\_1

MMC-4 Document Structural Plan

T10/02-016R0 Date: 2001/12/18 Author: Robert C. Elliott Mailing: 2002\_1

SPC-3 TST field description

T10/02-016R1 Date: 2002/01/17 Author: Robert C. Elliott Mailing: 2002\_1

SPC-3 TST field description

T10/02-017R0 Date: 2001/12/18 Author: Robert C. Elliott Mailing: 2002\_1

SPC-3 sense data size limit

T10/02-018R0 Date: 2001/12/20 Author: Robert Snively Mailing: 2002\_1

T11 Liaison Report to T10, January 17, 2002

T10/02-019R0 Date: 2001/12/11 Author: William Ham Mailing: 2002\_1

Minutes: Draft minutes PIP Dec 2001

T10/02-020R0 Date: 2001/12/13 Author: William Ham Mailing: 2002\_1

Minutes: Draft minutes SSM Dec 2001

T10/02-021R0 Date: 2001/12/31 Author: Lee Jesionowski Mailing: Missing

ADI - IBM Library/Drive Interface Presentation

T10/02-022R0 Date: 2001/12/31 Author: Lee Jesionowski Mailing: 2002\_1

ADI - IBM Library/Drive Interface Specification

T10/02-023R0 Date: 2002/01/02 Author: Paul Suhler Mailing: 2002\_1

SSC-2 Working Group Agenda (January 14, 2002)

T10/02-023R1 Date: 2002/01/14 Author: Paul Suhler Mailing: 2002\_1

SSC-2 Working Group Agenda (January 14, 2002)

T10/02-024R0 Date: 2002/01/14 Author: Paul Suhler Mailing: 2002\_1

Minutes of SSC-2 Working Group (January 14, 2002)

T10/02-025R0 Date: 2002/01/04 Author: Robert C. Elliott Mailing: 2002\_1

SPC-3 Unit Attention interlock and Asynchronous Event Reporting

T10/02-026R0 Date: 2002/01/04 Author: Robert C. Elliott Mailing: 2002\_1

 $\ensuremath{\mathtt{SPC-3}}$  REQUEST SENSE during pending-enrolled state

T10/02-026R1 Date: 2002/01/17 Author: Robert C. Elliott Mailing: 2002\_1

SPC-3 REQUEST SENSE during pending-enrolled state

T10/02-027R0 Date: 2002/01/15 Author: John Lohmeyer Mailing: 2002\_1

Minutes of Parallel SCSI Working Group - January 15,

T10/02-028R0 Date: 2002/01/16 Author: John Lohmeyer Mailing: 2002\_1

Minutes of SCSI CAP Working Group - January 16, 2002

T10/02-029R0 Date: 2002/01/17 Author: Weber & Lohmeyer Mailing: Missing

Minutes of T10 Plenary Meeting #47 - January 17, 2002

T10/02-030R0 Date: 2002/01/08 Author: Michele Hallak- Mailing: 2002\_1

Stamler, Yaron

Lederman

SCSI MIB draft

T10/02-031R0 Date: 2002/01/08 Author: Mark Bakke Mailing: 2002\_1

SCSI MIB UML model

T10/02-032R0 Date: 2002/01/08 Author: Larry Barnes Mailing: Missing

Survey of current literature on PIP measurements

 ${\tt T10/02-033R0~Date:~2002/01/08~Author:~Robert~Griswold~Mailing:~2002\_1}$ 

Crossroads 972 Patent Letter

T10/02-034R0 Date: 2002/01/09 Author: George O. Penokie Mailing:  $2002\_1$ 

Duplicate Tag ASC Correction in SPI-4

T10/02-035R0 Date: 2002/01/10 Author: David Peterson Mailing: 2002\_1

Logical Unit Unique Identifier/Type

T10/02-036R0 Date: 2002/01/10 Author: Paul Entzel Mailing: 2002\_1

Quantum's patent policy for ADI standards

T10/02-037R0 Date: 2002/01/11 Author: Robert Griswold Mailing: 2002\_1

MSC Management commands proposal

T10/02-038R0 Date: 2002/01/11 Author: Russ Brown Mailing: 2002\_1

Ultra640 SCSI Receiver Offset Issues

T10/02-039R0 Date: 2002/01/11 Author: Bruce Leshay Mailing: 2002\_1

Ultra640 SCSI Training Pattern Proposal

T10/02-040R0 Date: Author: Mailing: Missing

not used

T10/02-041R0 Date: Author: Mailing: Missing

not used

T10/02-042R0 Date: Author: Mailing: Missing

not used

T10/02-043R0 Date: 2002/01/11 Author: Marjorie Krueger Mailing: 2002\_1

Understanding the SCSI MIB

T10/02-043R1 Date: 2002/01/16 Author: Marjorie Krueger Mailing: 2002\_1

Understanding the SCSI MIB

T10/02-044R0 Date: 2002/01/14 Author: Joe Breher Mailing: Missing

Resolving ambiguity in sense data information field for sequential buffered

T10/02-045R0 Date: 2002/01/15 Author: Bill Petty Mailing: 2002 1

Driver/Receiver Asymmetry Correction

T10/02-046R0 Date: 2002/01/15 Author: William Ham Mailing: 2002\_1

Background for Compaq no vote on SPI-4

T10/02-047R0 Date: 2002/01/15 Author: Bill Petty Mailing: 2002\_1

Ultra640 Timing Budget

T10/02-047R0 Date: 2002/01/15 Author: Bill Petty Mailing: 2002\_1

Ultra640 Timing Budget

T10/02-048R0 Date: 2002/01/15 Author: Paul D. Aloisi Mailing: 2002\_1

Twist and Flat - Backplane issues for SPI-5

T10/02-049R0 Date: 2002/01/15 Author: Paul D. Aloisi Mailing: 2002\_1

SSM plenary report jan 2002

T10/02-050R0 Date: 2002/01/15 Author: Paul D. Aloisi Mailing: 2002\_1 STA Plenary report Jan 2002 T10/02-051R0 Date: 2002/01/16 Author: Roger Cummings Mailing: 2002\_1 Minutes: 1/14/2002 SCSI MIB Study Group Meeting Summary T10/02-052R0 Date: 2002/01/16 Author: A. Bruce Manildi Mailing: 2002\_1 Cable Models and Procedures T10/02-052R1 Date: 2002/01/16 Author: Bruce Manildi & Mailing: Missing Umesh Chandra Cable Models and Procedures T10/02-053R0 Date: 2002/01/17 Author: Gary Robinson Mailing: 2002\_1 SC25 Projects Status T10/02-054R0 Date: 2002/01/15 Author: Paul Suhler Mailing: 2002\_1 ADI Projects Overview T10/02-055R0 Date: 2002/01/17 Author: Cris Simpson Mailing: 2002\_1 Comments on SRP NOTURG proposal T10/02-056R0 Date: 2002/01/17 Author: George O. Penokie Mailing: 2002\_1 Limiting 3rd-party Reservations to a Single Protocol T10/02-057R0 Date: 2002/01/18 Author: William P. Mailing: 2002\_1 McFerrin Minutes: January 14, 2002 MMC WG Meeting Minutes

T10/02-058R0 Date: 2002/01/18 Author: William P.

MMC WG Response to ANSI Editor Questions and Comments

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Mailing: 2002\_1