

Accredited Standards Committee\*  
**InterNational Committee for Information Technology Standards (INCITS)**

**Doc. No.:** T10/02-102r0

**Date:** March 18, 2002

**Reply to:** John Lohmeyer

To: T10 Membership  
From: Ralph Weber / John Lohmeyer  
Subject: Minutes of T10 Plenary Meeting #48 -- March 14, 2002  
Dallas, TX

## Agenda

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  - 8.16 SCSI Serial Bus Protocol -3 (SBP-3) {Project 1467-D} [Johansson]
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  - 8.18 SCSI RDMA Protocol - 2 (SRP-2) {Project 1524-D} [Simpson]
  - 8.19 SCSI Parallel Interface - 5 (SPI-5) {Project 1525-D} [Penokie]
  - 8.20 SCSI Management Server Commands (MSC) {Project 1528-D} [Penokie/Elliott]
  - 8.21 MultiMedia Command Set - 4 (MMC-4) {Project 1545-D} [McFerrin]
  - 8.22 Automation/Drive Interface - Physical Layer (ADP) {Project \_\_\_\_-D} [Suhler/Griswold]
  - 8.23 Automation/Drive Interface - Transport Protocol (ADT) {Project \_\_\_\_-D} [Suhler/Griswold]
  - 8.24 Automation/Drive Interface - Commands (ADC) {Project \_\_\_\_-D} [Suhler/Griswold]
9. Old Business
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  - 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]

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**INCITS Secretariat, Information Technology Industry Council (ITI)**

1250 Eye Street NW, Suite 200, Washington, DC 20005-3922

Email: [incits@itic.org](mailto:incits@itic.org) Telephone: 202-737-8888 FAX: 202-638-4922

- 9.4 A/V Direct-Access Project Proposal (01-337) [Johansson]
- 9.5 Project proposal for ADI Physical Layer (ADP) (02-010) [Suhler]
- 9.6 Project proposal for ADI Transport Protocol (ADT) (02-009) [Suhler]
- 9.7 Project proposal for ADI Commands (ADC) (02-008) [Suhler]
- 10. New Business
  - 10.1 Project proposal for SCSI Enclosure Services - 2 (SES-2) (02-094) [Elliott]
  - 10.2 Actions on Parallel SCSI Working Group Recommendations
    - 10.2.1 SPI-5 Programmable Termination (01-270r2) [Aloisi]
    - 10.2.2 Ultra640 SCSI Training Pattern Proposal (02-039r0) [Evans]
    - 10.2.3 Proposal for offset correction for Ultra640 SCSI for SPI-5 (02-079r1) [Evans]
    - 10.2.4 SPI-5 timing budget (02-113r0) [Petty]
  - 10.3 Actions on CAP Working Group Recommendations
    - 10.3.1 SAM-2 Remove TAGGED OVERLAPPED TASKS additional sense code (02-067r0) [Elliott]
    - 10.3.2 SAM-2 Execute Command output descriptions (02-070r0) [Elliott]
    - 10.3.3 Logical Unit Unique Identifier/Type (02-035r2) [Peterson]
    - 10.3.4 SPC-3 table 230 incorrect (02-115r0) [Houlder]
    - 10.3.5 EUI-48 protocol ID VPD page (02-075r1) [Johansson]
    - 10.3.6 SPC-3 Persistent reservations corrections (02-065r2) [Elliott]
    - 10.3.7 SPC-3 Letting persistent reservations ignore initiator ports (01-100r4) [Elliott]
    - 10.3.8 Assign a new device type code to the ADI command set [Griswold]
    - 10.3.9 Limiting 3rd-party Reservations to a Single Protocol (02-056r2) [Penokie]
  - 10.4 Actions on Other Working Group Recommendations
  - 10.5 2002 Five-Year Maintenance Review of Standards (02-068) [Donovan]
  - 10.6 Stabilizing SBP-3 FAST\_START feature [Johansson]
  - 10.7 Obsolete Reserve/Release (02-108r0) [Peterson]
- 11. ISO/IEC
  - 11.1 ISO/IEC Report [Robinson]
  - 11.2 ISO/IEC Business [Robinson]
    - 11.2.1 NWIP for SPI-4 (02-074) [Robinson]
    - 11.2.2 NWIP for FCP2 (02-080) [Robinson]
    - 11.2.3 Recommendation on ISO/IEC FDIS 14776-326 (RBC) [Robinson]
    - 11.2.4 Recommendation on ISO/IEC FDIS 14776-331 (SSC) [Robinson]
- 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]
- 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 9:00 a.m., Thursday March 14, 2002. He thanked Paul Aloisi of Texas Instruments for hosting the meeting.

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:

- 10.2.1 SPI-5 Programmable Termination (01-270r2) [Aloisi]
- 10.2.2 Ultra640 SCSI Training Pattern Proposal (02-039r0) [Evans]
- 10.2.3 Proposal for offset correction for Ultra640 SCSI for SPI-5 (02-079r1) [Evans]
- 10.2.4 SPI-5 timing budget (02-113r0) [Petty]
- 10.3.1 SAM-2 Remove TAGGED OVERLAPPED TASKS additional sense code (02-067r0) [Elliott]
- 10.3.2 SAM-2 Execute Command output descriptions (02-070r0) [Elliott]
- 10.3.3 Logical Unit Unique Identifier/Type (02-035r2) [Peterson]
- 10.3.4 SPC-3 table 230 incorrect (02-115r0) [Houlder]
- 10.3.5 EUI-48 protocol ID VPD page (02-075r1) [Johansson]
- 10.3.6 SPC-3 Persistent reservations corrections (02-065r2) [Elliott]
- 10.3.7 SPC-3 Letting persistent reservations ignore initiator ports (01-100r4) [Elliott]
- 10.3.8 Assign a new device type code to the ADI command set [Griswold]
- 10.3.9 Limiting 3rd-party Reservations to a Single Protocol (02-056r2) [Penokie]
- 10.7 Obsolete Reserve/Release (02-108r0) [Peterson]

No agenda 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 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](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 10 people from 6 organizations informing them that their membership was in jeopardy due to non-attendance (see 02-062r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

Ancot Corp.  
Congruent Software, Inc.  
Exabyte Corp.  
General Dynamics

Pirus Networks  
Woven Electronics

All organizations in attendance jeopardy were present except:

Ancot Corp.  
Woven Electronics

These organizations were changed to non-voting status.

No organizations joined the committee at this meeting.

The T10 membership during the meeting was 43 organizations down from 45 following the last 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 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 - January 2002 Meeting - Houston, TX (T10/02-029r0)**

The minutes were approved as written.

#### **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 March 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 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](mailto: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](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](mailto: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.

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

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

John Lohmeyer reported that Crossroads has sent a letter to T10 regarding U.S. Patent No. 6,148,421 which Crossroads believes is applicable to the FC-Tape error recovery portion of the FCP-2 standard. Bob Griswold stated that this patent disclosure is a repeat of a previous disclosure with clarifications.

John Lohmeyer reported that 02-099 contains a patent disclosure related to the ADI work.

## 7. Review of Old Action Items

- 436 Gary Robinson will determine how ISO standards can reference ANSI Technical Reports. *Complete*
- 454 John Lohmeyer will report to INCITS that T10 has found the ANSI editor's changes in MMC-3 all to be non-substantive. *Complete*
- 455 John Lohmeyer will forward SPI-4 rev 9 to INCITS for processing toward first public review. *Complete*
- 456 John Lohmeyer will inform INCITS of the T10 recommendation to close project 1380-D due to lack of resources. *Complete*

- 457 John Lohmeyer will forward 02-010r0 to INCITS for processing as a new project proposal for ADI Physical Layer. *Complete and Carryover -- The INCITS Secretariat rejected the previous forwarding.*
- 458 John Lohmeyer will forward 02-009r0 to INCITS for processing as a new project proposal for ADI Transport Protocol. *Complete and Carryover -- The INCITS Secretariat rejected the previous forwarding.*
- 459 John Lohmeyer will forward 02-008r0 to INCITS for processing as a new project proposal for ADI Commands. *Complete and Carryover -- The INCITS Secretariat rejected the previous forwarding.*

## **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.

Terry Nelson reported that INCITS met February 20-22, 2002 in Santa Clara.

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

John Lohmeyer reported that progress on FCP-2 is waiting for the technical editor to incorporate changes from the ANSI editor. Brian Ford reported that Bob Snively is working with the ANSI editor to incorporate the changes.

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

Ralph Weber reported that the CAP working group voted 18:1:1 to recommend that SAM-2 be sent to letter ballot towards first public review. No objections were raised regarding this action.

Ralph Weber took an action item to prepare SAM-2 revision 23. John Lohmeyer took an action item to conduct a letter ballot on forwarding SAM-2 revision 23 to first public review.

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

John Lohmeyer reported that MMC-3 finished first public review on 11 February with no comments received. It is now at INCITS for approval.

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

John Lohmeyer reported that the SPI-4 public review closes April 8th. John noted that the SPI working group (minutes in 02-100) identified a small number of non-critical errors in SPI-4 that will be corrected in SPI-5. If SPI-4 must be revised for other reasons, the errors will be corrected at that time.

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

John Lohmeyer reported that SDV had been approved by INCITS and will be published as INCITS/TR-28:2002.

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

John Lohmeyer reported that INCITS had closed this project at T10's request. It will be removed from subsequent agendas.

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

Erich Oetting reported that the current revision is 3 and a revision 4 will be provided for the mailing with editorial changes. Erich noted that a small number of proposed changes are in the works but not yet ready for approval.

**8.9 SCSI Signal Modeling (SSM) {Project 1414-DT} [Aloisi]**

John Lohmeyer reported that SSM had been approved by INCITS and will be published as INCITS/TR-29:2002.

**8.10 SCSI RDMA Protocol (SRP) {Project 1415-D} [Simpson]**

Cris Simpson reported that the resolution of all the technical issues from the letter ballot is nearing completion. He stated that completion letter ballot resolution is anticipated in May.

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

Ralph Weber reported that SPC-3 r05 was uploaded to the T10 web site earlier this week. SPC-3 r05 is the first SPC-3 revision to incorporate all T10 approved proposals.

Ralph stated that SPC-3 r06 incorporating all proposals approved at this meeting will be available in the next two weeks, but possibly not in time for the mailing. He informed the committee of his plan to request that SPC-3 r06 be accepted as a committee working draft in May.

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

Rob Elliott reported that revision 5 and 5a have been released since the last meeting. Revision 5 incorporated all approved proposals and 5a added some editorial changes.

Rob Elliott moved that SBC-2 revision 5a be accepted as a committee working draft. George Penokie seconded the motion. In the absence of any objections, the motion passed unanimously.

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

Ralph Weber reported that OSD revision 5 should be available sometime in the next two weeks, but possibly not in time for the next mailing. The OSD CDB structure and security mechanisms have been substantially revised in revision 5.

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

Dave Peterson reported on the activities of the SSC-2 working group on letter ballot comments resolution (minutes in 02-076).

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

Bill Ham reported PIP is on an aggressive schedule to conduct a letter ballot subsequent to the May meeting.

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

Peter Johansson reported that the SBP-3 working group met January 21- 22 in Waikoloa, HI and March 12-13 in Dallas, TX. Upon the anticipated stabilization of the FAST\_START protocols at this plenary, work continues work in two principal areas: isochronous facilities and bridge-awareness for IEEE P1394.1. See the working group minutes, which are to be uploaded soon, for additional detail.

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

Paul Aloisi reported on that activities of the SSM-2 working group (minutes in 02-072) and provided an electronic report in 02-111r0.

**8.18 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.

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

George Penokie reported on the activities related to SPI-5 (minutes in 02-100). He noted SPI-5 rev 0 will be prepared in April. He noted that there are problems with the timing budget that may lead to incomplete values in revision 0.

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

George Penokie reported that Bob Griswold has prepared a skeleton for the MSC document. He indicated that the need to work on other projects has decreased the focus on MSC, with activities expected to start up again at the end of the summer.

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

Bill McFerrin reported that delays in publication of new DVD media formats are affecting the ability to add new work in MMC-4.

**8.22 Automation/Drive Interface - Physical Layer (ADP) {Project \_\_\_\_-D} [Suhler/Griswold]**

John Lohmeyer reported that the projects have not been approved yet.

Paul Entzel reported on the activities of the ADI working group (minutes in 02-084). Bob Griswold stated that revision 0 of ADT and ADC will be available around the time of the July meeting.

**8.23 Automation/Drive Interface - Transport Protocol (ADT) {Project \_\_\_\_-D} [Suhler/Griswold]**

This topic was covered in item 8.22.

**8.24 Automation/Drive Interface - Commands (ADC) {Project \_\_\_\_-D} [Suhler/Griswold]**

This topic was covered in item 8.22.

**9. Old Business****9.1 Style Guide [Moore]**

In the absence of Dennis Moore, there was no report.

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

Ron Roberts asked that item be removed from this and future agendas.

**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) [Johansson]**

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

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

John Lohmeyer said that INCITS had stopped allowing the use of the 'old rules' and now requires that all project proposals be approved under the 'new rules'. This means that our forwarding motions at the January meeting were not accepted because the three ADI project proposals had not been included on the January meeting agenda at least two weeks prior to the meeting. While this delayed the approval of the project proposals, it should not delay the projects.

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 28:0:0:15=43.

The action item for John Lohmeyer to forward 02-010r0 to INCITS for processing as a new project proposal for ADI Physical Layer was carried over from January. The action item for John Lohmeyer to forward 02-009r0 to INCITS for processing as a new project proposal for ADI Transport Protocol was carried over from January. The action item for John Lohmeyer to forward 02-008r0 to INCITS for processing as a new project proposal for ADI Commands was carried over from January.

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

Action on this item was taken in item 9.5.

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

Action on this item was taken in item 9.5.

## **10. New Business**

### **10.1 Project proposal for SCSI Enclosure Services - 2 (SES-2) (02-094) [Elliott]**

Rob Elliott presented 02-094r0, a project proposal for SCSI Enclosure Services -2 (SES-2). Rob Elliott moved that T10 forward 02-094r0 to INCITS for processing as a new project proposal for SCSI Enclosure Services -2 (SES-2). Bill Galloway seconded the motion.

Rob stated that he will be the editor for the SES-2 project and that the work will be conducted in the CAP working group.

The motion passed on a vote of 34:0:0:9=43.

John Lohmeyer took an action item to forward 02-094r0 to INCITS for processing as a new project proposal for SCSI Enclosure Services -2 (SES-2).

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

#### **10.2.1 SPI-5 Programmable Termination (01-270r2) [Aloisi]**

George Penokie reviewed the contents of 01-270r2 (increasing the flexibility of termination requirements), 02-039r0 (stating that the length of the training pattern is based on time not number of pulses), 02-079r1 (adding offset correction as a SPI-5 compensation technology), and 02-113r0 (a preliminary timing budget).

Mark Evans moved that 01-270r2, 02-039r0, 02-079r1, and 02-113r0 be approved for inclusion in SPI-5. Paul Aloisi seconded the motion. The motion passed on a vote of 25:0:2:16=43.

#### **10.2.2 Ultra640 SCSI Training Pattern Proposal (02-039r0) [Evans]**

Action on this item was taken under item 10.2.1.

#### **10.2.3 Proposal for offset correction for Ultra640 SCSI for SPI-5 (02-079r1) [Evans]**

Action on this item was taken under item 10.2.1.

#### **10.2.4 SPI-5 timing budget (02-113r0) [Petty]**

Action on this item was taken under item 10.2.1.

### **10.3 Actions on CAP Working Group Recommendations**

#### **10.3.1 SAM-2 Remove TAGGED OVERLAPPED TASKS additional sense code (02-067r0) [Elliott]**

George Penokie and Ralph Weber described the contents of SAM-2 proposals 02-067r0 (removing use of the TAGGED OVERLAPPED tasks additional sense code in SAM-2), and 02-070r0 (clarifying that Execute Command output parameters are invalid after a SCSI Protocol error).

Rob Elliott moved that 02-067r0 and 02-070r0 be approved for inclusion in SAM-2. Bill Galloway seconded the motion. The motion passed on a vote of 30:0:1:12=43.

#### **10.3.2 SAM-2 Execute Command output descriptions (02-070r0) [Elliott]**

Action on this item was taken under item 10.3.1.

#### **10.3.3 Logical Unit Unique Identifier/Type (02-035r2) [Peterson]**

George Penokie and Ralph Weber described the contents of SPC-3 proposals 02-035r2 (adding a VPD Device Identifier based on a hash function for use by bridges), 02-115r0 (correcting the location of the protocol identifier field to match SPI-4), 02-075r1 (adding a software interface VPD page based on EUI-48 values), 02-065r2 (correcting errors in the persistent reservations definitions, some of which were added with the recent All Registrants definitions), and 01-100r4 (defining a mechanism whereby one Register function can register several initiator ports). George also noted that the CAP working group had recommended assigning a device type code value to the ADI command set (ADC).

Rob Elliott moved that the editor be instructed to assign a device type code to ADC and that 02-035r2, 02-115r0, 02-075r1, 02-065r2, and 01-100r4 be approved for inclusion in SPC-3. Bill Galloway seconded the motion. The motion passed on a vote of 30:0:0:13=43.

#### **10.3.4 SPC-3 table 230 incorrect (02-115r0) [Houlder]**

Action on this item was taken under item 10.3.3.

#### **10.3.5 EUI-48 protocol ID VPD page (02-075r1) [Johansson]**

Action on this item was taken under item 10.3.3.

**10.3.6 SPC-3 Persistent reservations corrections (02-065r2) [Elliott]**

Action on this item was taken under item 10.3.3.

**10.3.7 SPC-3 Letting persistent reservations ignore initiator ports (01-100r4) [Elliott]**

Action on this item was taken under item 10.3.3.

**10.3.8 Assign a new device type code to the ADC command set [Griswold]**

Action on this item was taken under item 10.3.3.

**10.3.9 Limiting 3rd-party Reservations to a Single Protocol (02-056r2) [Penokie]**

George Penokie described 02-056r2 as addressing a problem that prevents third-party Reserve/Release operation from working in a device with interfaces to multiple SCSI protocols by eliminating the requirement that third party reservations be supported. He also explained that the issue cannot be addressed in SPC-3 because it is expected that Reserve/Release reservations will be made obsolete in SPC-3.

George Penokie moved that 02-056r2 be approved for inclusion in the ISO FCD for SPC-2. Mark Evans seconded the motion. The motion passed on a vote of 30:0:0:13=43.

Ralph Weber took an action item to send the IR a new FDIS for SPC-2 that incorporates 02-056r2.

**10.4 Actions on Other Working Group Recommendations**

No recommendations from other working groups were brought before the committee.

**10.5 2002 Five-Year Maintenance Review of Standards (02-068) [Donovan]**

John Lohmeyer reviewed the T10 standards requiring five-year maintenance review action (02-068r0).

Ron Roberts moved that T10 recommend withdrawal of X3.304:1997 SCSI-3 Multimedia Commands (MMC) and recommend reaffirmation of X3.91M:1987 [R1997] Storage Module Interfaces (SMD-E), X3.301:1997 SCSI-3 Primary Commands (SPC), X3.301:1997 SCSI-3 Primary Commands (SPC), NCITS 309:1997 Serial Storage Architecture - SCSI-3 Protocol (SSA-S3P), NCITS 307:1997 Serial Storage Architecture - Physical Layer 2 (SSA-PH2), NCITS 308:1997 Serial Storage Architecture - Transport Layer 2 (SSA-TL2). Brian Ford seconded the motion.

Peter Johansson asked that withdrawal of MMC be divided from the motion. Erich Oetting asked that the reaffirmation SMD-E be divided from the motion.

The divided motion to reaffirm X3.301:1997 SCSI-3 Primary Commands (SPC), X3.301:1997 SCSI-3 Primary Commands (SPC), NCITS 309:1997 Serial Storage Architecture - SCSI-3 Protocol (SSA-S3P), NCITS 307:1997 Serial Storage Architecture - Physical Layer 2 (SSA-PH2), NCITS 308:1997 Serial Storage Architecture - Transport Layer 2 (SSA-TL2) passed on a roll call vote of 33:0:0:10=43, details of the roll call vote were as follows:

Organization	Stat	Name	Yes	No	Abs	NP
Adaptec, Inc.	P	Mr. Ron Roberts	1			
Amphenol Interconnect						1
Andiamo Systems, Inc.						1
BREA Technologies, Inc.	P	Mr. Bill Galloway	1			
Brocade Comm. Systems, Inc.	P	Mr. Brian Forbes	1			
Cisco Systems, Inc.	P	Mr. David Peterson	1			
Compaq Computer Corp.	P	Mr. Robert C. Elliott	1			

Congruent Software, Inc.	P	Mr. Peter Johansson	1	
Crossroads Systems, Inc.	P	Mr. Robert Griswold	1	
Dallas Semiconductor				1
Dell Computer Corp.				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	P	Mr. Nathan Hastad	1	
Hewlett Packard Co.	P	Mr. Randy Haagens	1	
Hitachi Cable Manchester				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.				1
Nishan Systems Inc.	P	Mr. Charles Monia	1	
Ophidian Designs	P	Mr. Edward A. Gardner	1	
Panasonic Technologies, Inc	P	Dr. Terence J. Nelson	1	
Philips Electronics/CD Edge	P	Mr. William P. McFerrin	1	
Pirus Networks	P	Mr. Charles Binford	1	
QLogic Corp.				1
Quantum Corp.	P	Mr. Paul Entzel	1	
Seagate Technology	P	Mr. Gerald Houlder	1	
Silicon Image				1
Storage Technology Corp.	P	Mr. Erich Oetting	1	
Sun Microsystems, Inc.	P	Mr. Vit Novak	1	
Texas Instruments	P	Mr. Paul D. Aloisi	1	
Toshiba America Elec. Comp.	P	Mr. Tasuku Kasebayashi	1	
TycoElectronics				1
Veritas Software	P	Mr. Roger Cummings	1	

33 0 0 10 = 43

The divided motion to reaffirm X3.91M:1987 [R1997] Storage Module Interfaces (SMD-E) passed on a roll call vote of 32:1:0:10=43, details of the roll call vote were as follows:

Organization	Stat	Name	Yes	No	Abs	NP
Adaptec, Inc.	P	Mr. Ron Roberts	1			
Amphenol Interconnect						1
Andiamo Systems, Inc.						1
BREA Technologies, Inc.	P	Mr. Bill Galloway	1			
Brocade Comm. Systems, Inc.	P	Mr. Brian Forbes	1			
Cisco Systems, Inc.	P	Mr. David Peterson	1			
Compaq Computer Corp.	P	Mr. Robert C. Elliott	1			
Congruent Software, Inc.	P	Mr. Peter Johansson	1			
Crossroads Systems, Inc.	P	Mr. Robert Griswold	1			
Dallas Semiconductor						1
Dell Computer Corp.						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	P	Mr. Nathan Hastad	1	
Hewlett Packard Co.	P	Mr. Randy Haagens	1	
Hitachi Cable Manchester				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.				1
Nishan Systems Inc.	P	Mr. Charles Monia	1	
Ophidian Designs	P	Mr. Edward A. Gardner	1	1
Panasonic Technologies, Inc	P	Dr. Terence J. Nelson	1	
Philips Electronics/CD Edge	P	Mr. William P. McFerrin	1	
Pirus Networks	P	Mr. Charles Binford	1	
QLogic Corp.				1
Quantum Corp.	P	Mr. Paul Entzel	1	
Seagate Technology	P	Mr. Gerald Houlder	1	
Silicon Image				1
Storage Technology Corp.	P	Mr. Erich Oetting	1	
Sun Microsystems, Inc.	P	Mr. Vit Novak	1	
Texas Instruments	P	Mr. Paul D. Aloisi	1	
Toshiba America Elec. Comp.	P	Mr. Tasuku Kasebayashi	1	
TycoElectronics				1
Veritas Software	P	Mr. Roger Cummings	1	

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The divided motion to withdraw X3.304:1997 SCSI-3 Multimedia Commands (MMC) was discussed with Gary Robinson moving to change the divided motion from “withdraw” to “reaffirm”. Paul Aloisi seconded the motion to amend.

The motion to amend passed on vote 24:5:0:14=43.

The motion as amended “to reaffirm” failed on a roll vote of 19:9:5:10=43, details of the roll call vote were as follows:

Organization	Stat	Name	Yes	No	Abs	NP
Adaptec, Inc.	P	Mr. Ron Roberts			1	
Amphenol Interconnect						1
Andiamo Systems, Inc.						1
BREA Technologies, Inc.	P	Mr. Bill Galloway	1			
Brocade Comm. Systems, Inc.	P	Mr. Brian Forbes	1			
Cisco Systems, Inc.	P	Mr. David Peterson	1			
Compaq Computer Corp.	P	Mr. Robert C. Elliott	1			
Congruent Software, Inc.	P	Mr. Peter Johansson	1			
Crossroads Systems, Inc.	P	Mr. Robert Griswold			1	
Dallas Semiconductor						1
Dell Computer Corp.						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	P	Mr. Nathan Hastad	1	
Hewlett Packard Co.	P	Mr. Randy Haagens	1	
Hitachi Cable Manchester				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.				1
Nishan Systems Inc.	P	Mr. Charles Monia		1
Ophidian Designs	P	Mr. Edward A. Gardner	1	
Panasonic Technologies, Inc	P	Dr. Terence J. Nelson	1	
Philips Electronics/CD Edge	P	Mr. William P. McFerrin		1
Pirus Networks	P	Mr. Charles Binford	1	
QLogic Corp.				1
Quantum Corp.	P	Mr. Paul Entzel	1	
Seagate Technology	P	Mr. Gerald Houlder		1
Silicon Image				1
Storage Technology Corp.	P	Mr. Erich Oetting	1	
Sun Microsystems, Inc.	P	Mr. Vit Novak	1	
Texas Instruments	P	Mr. Paul D. Aloisi	1	
Toshiba America Elec. Comp.	P	Mr. Tasuku Kasebayashi		1
TycoElectronics				1
Veritas Software	P	Mr. Roger Cummings		1

19 9 5 10 = 43

All those who abstained stated that their reason for abstaining was that the motion does not materially affect them. Ron Roberts stated that his reason for voting no is that the industry is currently three levels beyond the contents of MMC and that all the documents that might reference MMC reference new standards. Ralph Weber stated that his reason for voting no was the belief that the committee should follow the advice of the MMC-3 editor to withdraw MMC.

John Lohmeyer took an action item to inform INCITS that T10 recommends reaffirmation of X3.91M:1987 [R1997] Storage Module Interfaces (SMD-E). John Lohmeyer took an action item to inform INCITS that T10 recommends reaffirmation of X3.301:1997 SCSI-3 Primary Commands (SPC), X3.301:1997 SCSI-3 Primary Commands (SPC). John Lohmeyer took an action item to inform INCITS that T10 recommends reaffirmation of NCITS 309:1997 Serial Storage Architecture - SCSI-3 Protocol (SSA-S3P). John Lohmeyer took an action item to inform INCITS that T10 recommends reaffirmation of NCITS 307:1997 Serial Storage Architecture - Physical Layer 2 (SSA-PH2). John Lohmeyer took an action item to inform INCITS that T10 recommends reaffirmation of NCITS 308:1997 Serial Storage Architecture - Transport Layer 2 (SSA-TL2). John Lohmeyer took an action to inform INCITS that T10 is unable to reach a consensus vote regarding reaffirmation or withdrawal of X3.304:1997 SCSI-3 Multimedia Commands (MMC).

Ed Gardner moved that T10 request that INCITS investigate creation of an "Obsolete" category for standards where the standards are available for purchase but clearly marked as "No Longer Recommended for Implementation." Paul Aloisi seconded the motion. The motion passed on a vote of 31:0:1:11=43.

John Lohmeyer took an action item to request INCITS to investigate creation of an "Obsolete" category for standards where the standards are available for purchase but clearly marked as "No Longer Recommended for Implementation."

Ed Gardner moved that it is the sense of T10 that X3/TR-16:1997 Technical Report for Generic Packetized Protocol (GPP) is not currently valid or useful. George Penokie seconded the motion.

The committee discussed the history of GPP and how it became a technical report. Concerns were raised that GPP might contain useful information. Such claims were derided by others.

Several of those present failed to understand the question as posed by INCITS in 02-068r0. Does the question seek to guide a withdrawal action? Is the question advisory in some other way?

Peter Johansson moved to call the question. Bob Griswold seconded the motion to call the question. The motion to call the question passed on a vote of 20:2:0:21=43.

The motion to advise INCITS passed on a vote of 14:5:13:11=43. Ron Roberts stated that his no vote was based on the lack of knowledge regarding whether GPP has been useful. Vit Novak stated that his no vote was because Ancot had implemented GPP and proved that it worked and that GPP solved the tape backup problem that Fibre Channel has been struggling with for years.

John Lohmeyer took an action item to inform INCITS that the sense of T10 is that X3/TR-16:1997 Technical Report for Generic Packetized Protocol (GPP) is not currently valid or useful.

### **10.6 Stabilizing SBP-3 FAST\_START feature [Johansson]**

Based on the successful implementation of SBP-3 FAST\_START, Peter Johansson moved on behalf of the SBP-3 working group that clauses 5.2.3 (Node selectors), 6.4.6 (FAST\_START register), 7.7.11 (Fast\_Start entry), and 9.1.5 (Fetch agent state machine) in SBP-3 Revision 1f be marked "stabilized" in future revisions of the draft. As the motion was made on behalf of a working group, no second was necessary.

The motion passed on a vote of 25:0:5:13=43.

### **10.7 Obsolete Reserve/Release (02-108r0) [Peterson]**

George Penokie reported that the CAP working group recommended making RESERVE and RELEASE obsolete in SPC-3, however, the working group also recommended placing the action on the May T10 agenda. So George's report was informative and no action was taken.

## **11. ISO/IEC**

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

Gary Robinson provided and presented an ISO status report (02-105r0).

### **11.2 ISO/IEC Business [Robinson]**

#### **11.2.1 NWIP for SPI-4 (02-074) [Robinson]**

Gary Robinson moved the following:

1. T10 recommends that the JTC1 TAG approve and forward the NWIP (T10/02-074r0) for SCSI Parallel Interface - 4 to JTC1 for further processing as an international standard project. The proposed Project Editor is Gary S. Robinson;
2. T10 recommends that the JTC1 TAG approve and forward the NWIP (T10/02-080r0) for SCSI Fibre Channel Protocol - 2 to JTC1 for further processing as an international standard project. The proposed Project Editor is Gary S. Robinson;
3. T10 has reviewed the FDIS, SC25 14776-326 (RBC) and recommends that the JTC1 TAG vote to approve FDIS, SC25 14776-326 (RBC), Reduced Block Commands;

4. T10 has reviewed the FDIS, SC25 14776-331 (SSC) and recommends that the JTC1 TAG vote to approve FDIS, SC25 14776-331 (SSC), SCSI Stream Commands.

Paul Aloisi seconded the motion.

The motion passed on a roll call vote of 32:1:0:10=43, details of the vote were as follows:

Organization	Stat	Name	Yes	No	Abs	NP
Adaptec, Inc.	P	Mr. Ron Roberts	1			
Amphenol Interconnect						1
Andiamo Systems, Inc.						1
BREA Technologies, Inc.	P	Mr. Bill Galloway	1			
Brocade Comm. Systems, Inc.	P	Mr. Brian Forbes	1			
Cisco Systems, Inc.	P	Mr. David Peterson	1			
Compaq Computer Corp.	P	Mr. Robert C. Elliott	1			
Congruent Software, Inc.	P	Mr. Peter Johansson	1			
Crossroads Systems, Inc.	P	Mr. Robert Griswold	1			
Dallas Semiconductor						1
Dell Computer Corp.						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	P	Mr. Nathan Hastad	1			
Hewlett Packard Co.	P	Mr. Randy Haagens	1			
Hitachi Cable Manchester						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.						1
Nishan Systems Inc.	P	Mr. Charles Monia	1			
Ophidian Designs	P	Mr. Edward A. Gardner		1		
Panasonic Technologies, Inc	P	Dr. Terence J. Nelson	1			
Philips Electronics/CD Edge	P	Mr. William P. McFerrin	1			
Pirus Networks	P	Mr. Charles Binford	1			
QLogic Corp.						1
Quantum Corp.	P	Mr. Paul Entzel	1			
Seagate Technology	P	Mr. Gerald Houlder	1			
Silicon Image						1
Storage Technology Corp.	P	Mr. Erich Oetting	1			
Sun Microsystems, Inc.	P	Mr. Vit Novak	1			
Texas Instruments	P	Mr. Paul D. Aloisi	1			
Toshiba America Elec. Comp.	P	Mr. Tasuku Kasebayashi	1			
TycoElectronics						1
Veritas Software	P	Mr. Roger Cummings	1			

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Ed Gardner stated that his reason for voting no was that ISO standards are not necessary to the success of SCSI.

### **11.2.2 NWIP for FCP2 (02-080) [Robinson]**

Action on this item was taken under item 11.2.1.

### **11.2.3 Recommendation on ISO/IEC FDIS 14776-326 (RBC) [Robinson]**

Action on this item was taken under item 11.2.1.

### **11.2.4 Recommendation on ISO/IEC FDIS 14776-331 (SSC) [Robinson]**

Action on this item was taken under item 11.2.1.

## **12. Liaison Reports**

### **12.1 T11 Liaison Report [Forbes]**

John Lohmeyer thanked Bob Snively for his service as T11 liaison and welcomed the new liaison, Brian Forbes.

Brian Forbes presented the T11 liaison report contained in T10/02-107r0.

### **12.2 T13 Liaison Report [Colegrove]**

Dan Colegrove presented the following electronic report from Pete McLean:

T13 Liaison Report - February 25, 2002

T13 met last in Placerville, CA on February 19 through 20 with 27 people present. Membership is currently 21 voting organizations.

Maintenance is required on ATA -3, ANSI X3.298-1997, by June 18. Withdrawal of the standard was discussed but a decision was postponed until the April meeting to allow PCMCIA and CompacFlash to express any problem they may have with this.

The ATA/ATAPI-6 draft standard, T13/1410D, has had public review. Comments were received from three individuals. These comments were resolved and the results forwarded to NCITS.

BIOS Enhanced Disk Drive Services, T13/1484D, has passed letter ballot and the letter ballot comments resolved. The draft standard will be forwarded to NCITS for public review.

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

The ATA/ATAPI-7, T13/1532D, is in development. Proposals for UDMA 133 and Selective self-test were approved for inclusion.

T13 has received a letter from the Serial ATA consortium asking if T13 would be interested in a project to make Serial ATA an ANSI standard. T13 has responded that it would be very interested in doing so.

Seagate Technology will host the next plenary meeting April 23-25, 2002 at the Raintree Plaza Hotel, 1900 Ken Pratt Boulevard, Longmont, CO 80501. The meeting will start at 9 AM.

For further T13 information access <ftp:t13.org> or [www.t13.org](http://www.t13.org).

### 12.3 SFF Industry Group [Allan]

In the absence of Dal Allan, Bill Ham reported that SFF has approved a project to do a 2.5 inch form factor with an SCA-2 connector, with parallel SCSI and Fibre Channel connector types. Bill noted that the form factor will be hot pluggable. The committee discussed other 2.5 inch form factor projects, not all of which are being undertaken by SFF.

### 12.4 IEEE 1394 [Johansson]

Peter Johansson provided the following electronic report:

IEEE P1394b, High Performance Serial Bus---Amendment 2, has successfully completed its recirculation ballot and is in preparation for submission to IEEE RevCom for final approval as an IEEE standard. This amendment extends Serial Bus to speeds in the range of 800 Mbps to 1600 Mbps and provides for fiber-optic media. Contact the Chair, David Wooten (DW@Cypress.com) for details.

IEEE P1394.1, High Performance Serial Bus Bridges, has completed its Sponsor Ballot and, technically, meets IEEE criteria for approval. Because of significant comments received, a BRC and eventual recirculation ballot are anticipated this year. Contact the Chair, Peter Johansson (PJohansson@ACM.org) for details.

IEEE P1394.3, Peer to Peer Data Transport, a protocol built upon SBP-2, also completed its Sponsor Ballot. The BRC is close to the completion of its work and anticipates approval of PPDT as a standard in 2002. Contact the Vice Chair, Alan Berkema (Alan\_Berkema@HP.com) for details.

The 1394 Trade Association Wireless working group is developing a "protocol adaption layer" (PAL) to enable IEEE 1394 applications to interoperate with like applications in IEEE P802.11e devices. Some of the work is active in the IEEE P802.11e (quality of service) working group. Contact Steve.Bard@intel.com for details.

### 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 02-112r0.

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

In the absence of David Black, Randy Haagens reported that IPS working group meet in interim meeting with T11 in Huntington Beach and will be again during the general IETF week in Minneapolis, MN, March 19 and 20. Randy reported that iSCSI is unlikely to go to last call (like letter ballot) immediately after the Minneapolis meeting week.

Randy also noted that an iWARP Birds-Of-a-Feather meeting will be held during the IETF week.

## 13. Review of Action Items

- 457 John Lohmeyer will forward 02-010r0 to INCITS for processing as a new project proposal for ADI Physical Layer.
- 458 John Lohmeyer will forward 02-009r0 to INCITS for processing as a new project proposal for ADI Transport Protocol.
- 459 John Lohmeyer will forward 02-008r0 to INCITS for processing as a new project proposal for ADI Commands.
- 460 Ralph Weber will prepare SAM-2 revision 23.
- 461 John Lohmeyer will conduct a letter ballot on forwarding SAM-2 revision 23 to first public review.
- 462 John Lohmeyer will inform INCITS that T10 recommends reaffirmation of X3.91M:1987 [R1997] Storage Module Interfaces (SMD-E).

- 463 John Lohmeyer will inform INCITS that T10 recommends reaffirmation of X3.301:1997 SCSI-3 Primary Commands (SPC), X3.301:1997 SCSI-3 Primary Commands (SPC).
- 464 John Lohmeyer will inform INCITS that T10 recommends reaffirmation of NCITS 309:1997 Serial Storage Architecture - SCSI-3 Protocol (SSA-S3P).
- 465 John Lohmeyer will inform INCITS that T10 recommends reaffirmation of NCITS 307:1997 Serial Storage Architecture - Physical Layer 2 (SSA-PH2).
- 466 John Lohmeyer will inform INCITS that T10 recommends reaffirmation of NCITS 308:1997 Serial Storage Architecture - Transport Layer 2 (SSA-TL2).
- 467 John Lohmeyer will inform INCITS that T10 is unable to reach a consensus vote regarding reaffirmation or withdrawal of X3.304:1997 SCSI-3 Multimedia Commands (MMC).
- 468 Ralph Weber will send the IR a new FCD for SPC-2 that incorporates 02-056r2.
- 469 John Lohmeyer will forward 02-094r0 to INCITS for processing as a new project proposal for SCSI Enclosure Services -2 (SES-2).
- 470 John Lohmeyer will inform INCITS that the sense of T10 is that X3/TR-16:1997 Technical Report for Generic Packetized Protocol (GPP) is not currently valid or useful.
- 471 John Lohmeyer will request INCITS to investigate creation of an "Obsolete" category for standards where the standards are available for purchase but clearly marked as "No Longer Recommended for Implementation."

## 14. Meeting Schedule

The next plenary meeting of T10 will be Thursday May 2, 2002 in Nashua, NH at the Sheraton Nashua Hotel (603-888-9970), hosted by Hitachi Cable Manchester. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

May 2002 Meeting Map  
(2002/03/14 Version)

Monday 4/29	9	10	11	12	1	2	3	4	5	6	7	8	9	
					+=====+									
					SSC-2 WG								(20)	
					+=====+									
					Par. SCSI WG   Serial Attached SCSI SG								(45)	
					+=====+									
Tuesday 4/30	8	9	10	11	12	1	2	3	4	5	6	7	8	9
						+=====+								
					Serial Attached SCSI SG								(45)	
					+=====+									
					ADI WG (tape library)								(15)	
					+=====+									
					PIP Edit Session								(10)	
					+=====+									
Wednesday 5/1	9	10	11	12	1	2	3	4	5	6	7	8	9	
					+=====+									
					SCSI Commands, Arch., & Protocol WG								(35)	
					+=====+									
					MMC WG								(10)	
					+=====+									
					SFF SSWG								(20)	
					+=====+									
					SAS PHY SG   STA Tech   STA Marcom								(25)	
					+=====+									
Thursday 5/2	8	9	10	11	12	1	2	3	4	5	6	7	8	
						+=====+								
					T10 Plenary   SRP WG (*)								(50/20)	
					+=====+									
					SAS PHY SG   SCSI Trade Assoc								(25)	
					+=====+									
(*) - Meeting begins 1 hour after T10 meeting														
Friday 5/3	8	9	10	11	12	1	2	3	4	5				
(no meetings planned for Friday)														

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
PIP Edit	03/18/02	Shrewsbury, MA / Ham
PIP WG	04/02/02	Nashua, NH / Hitachi Cable
PIP Edit	04/03/02	Nashua, NH / Hitachi Cable
SSM WG	04/04/02	Nashua, NH / Hitachi Cable
PIP Edit	04/19/02	Shrewsbury, MA / Ham
OSD WG	04/[23 24 25]/02	Colorado Springs / Michael Mesnier
SBP-3 WG	05/29-30/02	Portland, OR / Johansson
SSM Edit	06/18/02	Lisle, IL / Molex
SSM WG	06/19/02	Lisle, IL / Molex
PIP WG	06/20/02	Lisle, IL / Molex

## Map Abbreviation Key:

ADI: Automation Drive Interface (tape library interface)  
 Amnd: Amendment  
 CAP: Commands, Architecture, and Protocols  
 DVD: Digital Versatile Device (not an NCITS activity)  
 Fast-20: Data Transfer at 20 Mega-transfers/sec. (a.k.a., Ultra)  
 Fast-40: Data Transfer at 40 Mega-transfers/sec. (a.k.a., Ultra2)  
 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, Domain Validation)  
 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  
 SCSI: Small Computer System Interface  
 SES: SCSI Enclosure Services  
 SFF: SFF Industry Group (not an NCITS activity)  
 SG: Study Group  
 SMC-2: SCSI Medium Changer - 2 Commands  
 SPC-2: SCSI Primary Commands - 2 (2nd generation)  
 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 (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, PIP-2	Zane Daggett	(603) 669-4347 x236 zdaggett@hcm.hitachi.com
FCP-2, SES	Robert Snively	(408) 487-8135 rsnively@brocade.com
SBC-2, SES-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	(510) 527-3926 PJohansson@ACM.org
SCC-2, SPI-4, SPI-5, MSC	George Penokie	(507) 253-5208 gpenokie@tivoli.com
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, SRP-2	Cris Simpson	(503) 712-4333 cris.simpson@intel.com
SSM, SSM-2	Paul Aloisi	(603) 222-8687 paul_aloisi@ti.com
Other Activities	John Lohmeyer	(719) 533-7560 lohmeier@t10.org

The long-term T10 meeting week schedule is:

Date	Location	Host/Comments
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.

Mark Evans moved that T10 authorize the T10-related meetings and events in the list above that had not previously been approved through the end of June 2002. Paul Aloisi seconded the motion. The motion passed on vote of 23:0:0:20=43.

#### **14.2 SBP-3 Tentative Meeting Schedule**

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

May 29 - 30 (Portland, OR)

July 16 - 17 (Colorado Springs, CO) [two-day meeting that week]

#### **15. Adjournment**

The meeting was adjourned at 12:45 p.m. on Thursday March 14, 2002.

**Enclosure(1) -- Meeting Attendees**

Name	S	Organization	Electronic Mail Address
Mr. Ron Roberts	P	Adaptec, Inc.	Ron_Roberts@adaptec.com
Mr. Bill Galloway	P	BREA Technologies, Inc.	billg@breatech.com
Mr. Brian Forbes	P	Brocade Comm. Systems, Inc.	bforbes@brocade.com
Mr. David Peterson	P	Cisco Systems, Inc.	dap@cisco.com
Mr. Robert C. Elliott	P	Compaq Computer Corp.	Robert.Elliott@compaq.com
Dr. William Ham	A	Compaq Computer Corp.	bill_ham@ix.netcom.com
Mr. Peter Johansson	P	Congruent Software, Inc.	PJohansson@ACM.org
Mr. Robert Griswold	P	Crossroads Systems, Inc.	rgriswold@crossroads.com
Mr. Gary S. Robinson	P	EMC	robinson_gary@emc.com
Mr. Robert H. Nixon	P	Emulex	bob.nixon@emulex.com
Mr. Ralph O. Weber	P	ENDL Texas	roweber@acm.org
Mr. Joe Breher	P	Exabyte Corp.	joebre@exabyte.com
Mr. Douglas Wagner	P	FCI	dwagner@fciconnect.com
Mr. Eugene Lew	P	Fujitsu	elew@fcpa.fujitsu.com
Mr. Nathan Hastad	P	General Dynamics	nathan.hastad@gd-ais.com
Mr. Randy Haagens	P	Hewlett Packard Co.	randy_haagens@hp.com
Mr. George O. Penokie	P	IBM / Tivoli Systems	gop@us.ibm.com
Mr. Cris Simpson	P	Intel Corp.	cris.simpson@intel.com
Mr. Tim Bradshaw	P	Iomega Corp.	bradshat@iomega.com
Mr. John Lohmeyer	P	LSI Logic Corp.	lohmeier@t10.org
Mr. Mark Evans	P	Maxtor Corp.	mark_evans@maxtor.com
Mr. Nathan Obr	A#	Microsoft Corp.	natobr@microsoft.com
Mr. Charles Monia	P	Nishan Systems Inc.	cmonia@nishansystems.com
Mr. Edward A. Gardner	P	Ophidian Designs	eag@ophidian.com
Dr. Terence J. Nelson	P	Panasonic Technologies, Inc	terry@tjnelson.com
Mr. William P. McFerrin	P	Philips Electronics/CD Edge	bill.mcferrin@cdedge.com
Mr. Charles Binford	P	Pirus Networks	charles.binford@pirus.com
Mr. Paul Entzel	P	Quantum Corp.	paul.entzel@quantum.com
Mr. Gerald Houlder	P	Seagate Technology	gerry_houlder@seagate.com
Mr. Erich Oetting	P	Storage Technology Corp.	erich_oetting@stortek.com
Mr. Vit Novak	P	Sun Microsystems, Inc.	vit.novak@sun.com
Mr. Paul D. Aloisi	P	Texas Instruments	Paul_Aloisi@ti.com
Mr. Donald R. Getty	A	Texas Instruments	donald_getty@ti.com
Mr. Alan Wetzel	V	Texas Instruments	awetzel@ti.com
Mr. Tasuku Kasebayashi	P	Toshiba America Elec. Comp.	task.kasebayashi@tais. toshiba.com
Mr. Roger Cummings	P	Veritas Software	roger.cummings@veritas. com

36 People Present

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

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

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Mr. Ron Roberts (P) Phone: (408) 957-5640  
Adaptec, Inc. Fax: (530) 677-1218  
691 S. Milpitas Blvd. Email: Ron\_Roberts@adaptec.com  
Milpitas, CA 95035

Mr. Ram Rangarajan (AV) Phone: (408) 383-5719  
Advansys Fax: (408) 383-9612  
1150 Ringwood Ct. Email: rrangarajan@advansys.com  
San Jose, CA 95131

Mr. Steven P. Ego (AV) Phone: (512) 258-2303  
Aeronics Inc. Fax: (512) 258-4392  
12741 Research Blvd #500 Email:  
Austin, TX 78759

Mr. Litko Chan (AV) Phone: (408) 970-3020  
Agilent Technologies Fax:  
3175 Bowers Ave., MS 88R Email: lito\_chan@agilent.com  
Santa Clara, CA 95054

Mr. Matt Wakeley (AV) Phone: (916) 788-5670  
Agilent Technologies Fax:  
1101 Creekside Ridge Dr #100 Email: matt\_wakeley@agilent.com  
P.O. Box 619051  
Roseville, CA 95661-9051

Mr. Michael Wingard (P) Phone: (607) 786-4241  
Amphenol Interconnect Fax: (607) 786-4311  
20 Valley St. Email: mikwingard@aol.com  
Endicott, NY 13760

Mr. John Majernik (A) Phone: (607) 786-4249  
Amphenol Interconnect Fax: (607) 786-4311  
20 Valley St. Email: john.majernik@aipce.com  
Endicott, NY 13760

Mr. Bart Raudebaugh (AV) Phone: (415) 322-5322  
Ancot Corp. Fax: (415) 322-0455  
115 Constitution Dr. Email: bart@ancot.com  
Menlo Park, CA 94025

Mr. Ward Winburn (AV) Phone: (650) 322-5322  
Ancot Corp. Fax: (650) 322-0455  
115 Constitution Dr. Email: ward@ancot.com  
Menlo Park, CA 94025

Dr. Claudio DeSanti (P) Phone: (408) 853-9172  
Andiamo Systems, Inc. Fax: (408) 853-9172

375 E. Tasman Dr.  
San Jose, CA 95134

Email: cds@andiamo.com

Mr. Dinesh Dutt (A)  
Andiamo Systems, Inc.  
375 E. Tasman Dr.  
San Jose, CA 95134

Phone: (408) 527-0955  
Fax: (408) 527-0955  
Email: ddutt@andiamo.com

Mr. Harlan Andrews (AV)  
Apple Computer  
6 Infinite Loop MS 306-2MS  
Cupertino, CA. 95014

Phone: (408) 974-6430  
Fax: (408) 862-7577  
Email: hea@apple.com

Mr. James R. Bergsten (AV)  
Ark Research Corp.  
1190 Saratoga Ave. #110  
San Jose, CA 95129-3433

Phone: (408) 260-5900  
Fax: (408) 260-5908  
Email: bergsten@arkres.com

Mr. Brian A. Berg (AV)  
Berg Software Design  
P.O. Box 3488  
14500 Big Basin Way, Suite F  
Saratoga, CA 95070

Phone: (408) 741-5010  
Fax: (408) 741-5234  
Email: bberg@bswd.com

Mr. Bill Galloway (P)  
BREA Technologies, Inc.  
14902 Mesita Dr.  
Houston, TX 77083

Phone: (281) 530-3063  
Fax: (281) 988-0358  
Email: billg@breatech.com

Mr. Brian Forbes (P)  
Brocade Comm. Systems, Inc.  
1745 Technology Drive  
San Jose, CA 95110

Phone: (408) 501-8796  
Fax:  
Email: bforbes@brocade.com

Mr. Robert Snively (A)  
Brocade Comm. Systems, Inc.  
1745 Technology Drive  
San Jose, CA 95110

Phone: (408) 487-8135  
Fax: (408) 392-6676  
Email: rsnively@brocade.com

Mr. Joseph Basista (AV)  
C&M Corp.  
49 Middle Road  
Owego, NY 13827

Phone: (607) 687-1044  
Fax: (607) 687-7534  
Email: joebasista@aol.com

Mr. Gerry Johnsen (AV)  
Ciprico Inc.  
2800 Campus Dr. Suite 60  
Plymouth, MN 55441

Phone: (612) 551-4000  
Fax: (612) 551-4002  
Email: gerry@ciprico.com

Mr. Leroy Fong (AV)

Phone: (949) 855-7887

Circuit Assembly Corp.  
18 Thomas St.  
Irvine, CA 92618

Fax: (949) 837-8660  
Email: leroyf@circuitassembly.com

Mr. Dennis Lang (AV)  
Circuit Assembly Corp.  
18 Thomas St.  
Irvine, CA 92618

Phone: (949) 855-7887  
Fax: (949) 855-4298  
Email: dennisl@circuitassembly.com

Mr. Ian Morrell (AV)  
Circuit Assembly Corp.  
18 Thomas St.  
Irvine, CA 92718-2703

Phone: (949) 598-1780  
Fax: (949) 855-4298  
Email: ianm@circuitassembly.com

Mr. Ben Chang (AV)  
Cirrus Logic Inc.  
3100 W. Warren Ave.  
Fremont, Ca 94538

Phone: (510) 226-2394  
Fax:  
Email: ben@corp.cirrus.com

Mr. David Peterson (P)  
Cisco Systems, Inc.  
6450 Wedgwood Road  
Maple Grove, MN 55311

Phone: (612) 802-3299  
Fax: (763) 398-1001  
Email: dap@cisco.com

Mr. Edward Haske (AV)  
CMD Technology  
1 Vanderbilt  
Irvine, CA 92718

Phone: (949) 454-0800  
Fax: (949) 455-1656  
Email: haske@cmd.com

Mr. Robert C. Elliott (P)  
Compaq Computer Corp.  
MS 120810  
PO Box 692000  
Houston, TX 77269-2000

Phone: (281) 518-5037  
Fax: (281) 518-7135  
Email: Robert.Elliott@compaq.com

Dr. William Ham (A)  
Compaq Computer Corp.  
SHR3-2/W04  
334 South Street  
Shrewsbury, MA 01545

Phone: (978) 828-9102  
Fax: (508) 841-5266  
Email: bill\_ham@ix.netcom.com

Mr. Peter Johansson (P)  
Congruent Software, Inc.  
98 Colorado Avenue  
Berkeley, CA 94707

Phone: (510) 527-3926  
Fax: (510) 527-3856  
Email: PJohansson@ACM.org

Mr. Robert Griswold (P)  
Crossroads Systems, Inc.  
8300 N. Mopac Blvd.  
Austin, TX 78759

Phone: (512) 928-7272  
Fax: (512) 928-7403  
Email: rgriswold@crossroads.com

Mr. John Tyndall (A) Phone:  
Crossroads Systems, Inc. Fax:  
8300 North Mopac Expressway Email: jtyndall@crossroads.com  
Austin, TX 78749

Mr. Titkwan Hui (P) Phone: (972) 371-4340  
Dallas Semiconductor Fax: (972) 371-4370  
4401 S. Beltwood Pkwy. Email: tk.hui@dalsemi.com  
Dallas, TX 75244-3292

Mr. James A. Lott, Jr. (A) Phone: (972) 371-4939  
Dallas Semiconductor Fax: (972) 371-4370  
4401 S. Beltwood Pkwy. Email: jim.lott@dalsemi.com  
Dallas, TX 75244-3292

Mr. Bill Anderson (AV) Phone: (408) 980-8344  
DDK Electronics Fax: (408) 980-9750  
3001 Oakmead Village Dr. Email: bill\_anderson@ddkconnectors.com  
Santa Clara, CA 95051

Mr. Kevin Marks (P) Phone: (512) 723-8784  
Dell Computer Corp. Fax: (512) 723-6657  
One Dell Way Email: kevin\_marks@dell.com  
Round Rock, TX 78682

Mr. Ronald Stockford (A) Phone: (512) 728-2636  
Dell Computer Corp. Fax: (512) 289-1111  
One Dell Way Email: ron\_stockford@dell.com  
MS 8530  
Round Rock, TX 78682

Mr. James Benfer (AV) Phone: (301) 498-0200  
Digi-Data Corp. Fax:  
8580 Dorsey Run Road Email:  
Jessup, MD 20794

Mr. Robert Reisch (AV) Phone: (716) 588-0573  
Eastman Kodak Co. Fax: (716) 588-2624  
460 Buffalo Road Email: reisch@kodak.com  
Rochester, NY 14652-3816

Mr. Terry Maezawa (AV) Phone: (404) 487-5815  
Electronic&Ind. Enterprises Fax:  
Suite 216 Email:  
21 Eastbrook Bend  
Peachtree City, GA 30269

Mr. Gary S. Robinson (P) Phone: (617) 300-7242  
EMC Fax:  
228 South St. Email: robinson\_gary@emc.com  
Hopkinton, MA 01748

Mr. David Black (A) Phone: (508) 435-1000 x75140  
EMC Corp. Fax: (508) 497-6909  
42 South St. Email: black\_david@emc.com  
Hopkinton, MA 01748

Mr. Robert H. Nixon (P) Phone: (714) 513-8117  
Emulex Fax: (714) 513-8265  
3535 Harbor Blvd Email: bob.nixon@emulex.com  
Costa Mesa, CA 92626

Mr. I. Dal Allan (A) Phone: (408) 867-6630  
ENDL Fax: (408) 867-2115  
14426 Black Walnut Ct. Email: endlcom@acm.org  
Saratoga, CA 95070

Mr. Ralph O. Weber (P) Phone: (214) 912-1373  
ENDL Texas Fax: (972) 596-2775  
Suite 102#178 Email: roweber@acm.org  
18484 Preston Rd.  
Dallas, TX 75252

Mr. Alan Johnson (AV) Phone:  
Eurologic Systems Ltd. Fax: 43 53 1 206 1200  
South County Business Park Email: ajohnson@eurologic.com  
Leopardstown  
County Dublin Ireland

Mr. Joe Breher (P) Phone: (303) 417-5897  
Exabyte Corp. Fax: (303) 417-7829  
1685 38th Street Email: joebre@exabyte.com  
Boulder, CO 80301

Mr. Carl Mazingo (A) Phone:  
Exabyte Corp. Fax:  
1685 38th Street Email: carlm@exabyte.com  
Boulder, CO 80301

Mr. Douglas Wagner (P) Phone: (805) 498-0325  
FCI Fax: (805) 498-0702  
472 Delwood Ct. Email: dwagner@fciconnect.com  
Newbury Park, CA 91320-4819

Mr. Jim Koser (A) Phone: (717) 938-7679  
FCI Fax: (717) 938-7991  
825 Old Trail Road Email: jkoser@fciconnect.com  
Etters, PA 17319

Mr. Steve Wong (A#) Phone: (562) 356-2527  
FCI Fax: (562) 356-2520  
5700 Warland Dr. Email: sywong@fciconnect.com  
Cypress, CA 90630





700 71st. Ave.  
Greeley, CO 80631

Email: brad-culp@hp.com

Mr. Werner Glinka (AV)  
Hitachi America  
214 Swett Rd.  
Woodside, CA 94062

Phone: (650) 851-5909  
Fax:  
Email: werner.glinka@attglobal.net

Mr. Zane Daggett (P)  
Hitachi Cable Manchester  
900 Holt Ave.  
Manchester, NH 03109

Phone: (603) 669-4347 x236  
Fax: (603) 669-9621  
Email: zdaggett@hcm.hitachi.com

Mr. Randy Wasylak (A)  
Hitachi Cable Manchester  
900 Holt Ave.  
Manchester, NH 03109-5604

Phone: (603) 669-4347 x349  
Fax: (603) 669-9621  
Email: rwasylak@hcm.hitachi.com

Mr. Hitoshi Ogawa (AV)  
Hitachi Ltd.  
Systems Development Lab  
292 Yoshida-Cho  
Yokohama-Shi 244 Japan

Phone: 1181-45881-1241  
Fax: 1181-45860-1674  
Email: hogawa@yokolab.sdl.hitachi.co.jp

Mr. Anthony Yang (AV)  
Hitachi Storage Products  
1971 Milmont Drive  
Milpitas, CA 95035

Phone: (408) 941-7048  
Fax: (408) 946-1062  
Email: anthony.yang@hal.hitachi.com

Mr. Terry Enright (AV)  
Honda Connectors  
960 Corporate Woods Parkway  
Vernon Hill, IL 60061

Phone: (847) 913-9566  
Fax: (847) 913-9587  
Email:

Mr. Thomas J. Kulesza (AV)  
Honda Connectors  
960 Corporate Woods Parkway  
Vernon Hill, IL 60061

Phone: (847) 913-9566  
Fax: (847) 913-9587  
Email: tkulesza@hondaconnectors.com

Mr. George O. Penokie (P)  
IBM / Tivoli Systems  
MS 2C6  
3605 Highway 52 N.  
Rochester, MN 55901

Phone: (507) 253-5208  
Fax: (507) 253-2880  
Email: gop@us.ibm.com

Mr. John P. Scheible (A)  
IBM Corp.  
Bldg 815 MS 4051  
11400 Burnett Rd.  
Austin, TX 78758

Phone: (512) 918-3187  
Fax: (512) 823-0758  
Email: Scheible@vnet.ibm.com

Mr. Kevin Butt (AV)

Phone: (520) 799-5280

IBM Corp.  
M/S 9032-2 65U  
9000 S. Rita Rd.  
Tucson, AZ 85744

Fax:  
Email: kdbutt@us.ibm.com

Mr. Bill Troop (AV)  
IBM Corp.  
3039 Cornwallis Rd.  
MS: FROA/B205  
RTP, NC 27709

Phone: (919) 254-2695  
Fax:  
Email: troop@us.ibm.com

Mr. Cris Simpson (P)  
Intel Corp.  
2111 N.E. 25th Ave.  
JF5-355  
Hillsboro, OR 97124

Phone: (503) 712-4333  
Fax: (503) 712-2200  
Email: cris.simpson@intel.com

Mr. Tim Bradshaw (P)  
Iomega Corp.  
1821 Iomega Way  
Roy, UT 84067

Phone: (801) 332-4262  
Fax: (801) 778-4170  
Email: bradshat@iomega.com

Mr. Dennis Moore (P)  
KnowledgeTek, Inc.  
7230 West 119th Pl, Suite C  
Broomfield, CO 80020

Phone: (303) 465-1800  
Fax: (303) 426-1350  
Email: dmoore@ix.netcom.com

Mr. Hayden Smith (AV)  
Lasercard Systems Corp.  
2644 Bayshore Parkway  
Mountain View, CA 94043

Phone: (650) 969-4428  
Fax: (650) 967-6524  
Email: hsmith@lasercard.com

Mr. Louis Grantham (AV)  
Linfinity Micro  
101 W. McDermott  
Allen, TX 75013

Phone: (972) 396-7002  
Fax: (972) 396-7533  
Email: lgrantham@linfinity.com

Mr. John Lohmeyer (P)  
LSI Logic Corp.  
4420 ArrowsWest Dr.  
Colorado Springs, CO 80907

Phone: (719) 533-7560  
Fax: (719) 533-7183  
Email: lohmeier@t10.org

Mr. William Petty (A)  
LSI Logic Corp.  
4420 ArrowsWest Dr.  
Colorado Springs, CO 80907

Phone: (719) 533-7461  
Fax: (719) 533-7180  
Email: william.petty@lsil.com

Ms. Jie Fan (A)  
Madison Cable Corp.  
125 Goddard Memorial Dr.  
Worcester, MA 01603

Phone: (508) 752-2884 x306  
Fax: (508) 752-4230  
Email: jie.fan@madisoncable.com

Mr. Chuck Grant (A#) Phone: (508) 752-2884 x725  
Madison Cable Corp. Fax: (508) 752-4230  
125 Goddard Memorial Drive Email: cgrant@madisoncable.com  
Worcester, MA 01603

Mr. Himmeler Themistocle (A#) Phone: (508) 752-2884  
Madison Cable Corp. Fax: (508) 752-4230  
125 Goddard Memorial Dr. Email: hthemistocle@madisoncable.com  
Worcester, MA 01603

Mr. Takaharu Ai (AV) Phone: +81-6-6906-2330  
Matsushita Elec. Indust. Co. Fax: +81-6-906-1549  
4-16-12 Email: aiai@dtd.mei.co.jp  
Matsuo-cho  
Kadoma, Osaka 571-8504 Japan

Mr. Hiroshi Ueda (AV) Phone: +81-6-6900 9259  
Matsushita Electric Fax:  
1006 Kadoma Kadoma-shi Email: hueda@isl.mei.co.jp  
Osaka, Japan

Mr. Mark Evans (P) Phone: (408) 894-5310  
Maxtor Corp. Fax: (408) 324-7432  
500 McCarthy Blvd. Email: mark\_evans@maxtor.com  
Milpitas, CA 95035

Mr. Lance Flake (A#) Phone: (303) 702-3802  
Maxtor Corp. Fax:  
2190 Miller Dr. Email: lance\_flake@maxtor.com  
Longmont, CO 80501

Mr. Pete McLean (A) Phone: (303) 678-2149  
Maxtor Corp. Fax: (303) 678-2165  
2190 Miller Dr. Email: pete\_mclean@maxtor.com  
Longmont, CO 80501

Mr. Charley Riegger (A#) Phone: (408) 432-4571  
Maxtor Corp. Fax: (408) 432-4432  
510 Cottonwood Dr. Email: charles\_riegger@maxtor.com  
Milpitas, CA 95035

Mr. LeRoy Leach (AV) Phone: (303) 678-2828  
Maxtor Corp. Fax: (303) 678-2308  
2190 Miller Dr. Email: leroy\_leach@maxtor.com  
Longmont, CO 80501-6744

Mr. Randy Banton (AV) Phone: (508) 256-1300 x134  
Mercury Computer Fax:  
199 Riverneck Road Email:  
Chelmsford, MA 01824

Mr. Joe Llorens (AV) Phone: (708) 867-6777  
Methode Electronics Fax: (708) 867-3149  
7444 West Wilson Ave Email: jlllorens@methode.com  
Chicago, IL 60706

Mr. John Daly (AV) Phone: (708) 457-3272  
Methode Electronics, Inc. Fax: (708) 867-3149  
7447 West Wilson Avenue Email: jdaly@methode.com  
Chicaco, IL 60706-4548

Ms. Emily Hill (P) Phone: (425) 705-9595  
Microsoft Corp. Fax: (425) 936-7329  
1 Microsoft Way Email: emhill@microsoft.com  
Redmond, WA 98052

Mr. Rob Haydt (A) Phone: (425) 705-7639  
Microsoft Corp. Fax: (425) 936-7329  
1 Microsoft Way Email: robhay@microsoft.com  
Redmond, WA 98052

Mr. Nathan Obr (A#) Phone: (425) 705-9157  
Microsoft Corp. Fax: (425) 936-7329  
One Microsoft Way Email: natobr@microsoft.com  
Redmond, WA 98052-6399

Mr. Jay Neer (P) Phone: (561) 447-2907  
Molex Inc. Fax: (561) 447-2908  
399 W. Camino Gardens Blvd. Email: jneer@molex.com  
Suite 103  
Boca Raton, FL 33432

Mr. Joe Dambach (AV) Phone: (708) 527-4546  
Molex Inc. Fax: (708) 969-1352  
2222 Wellington Court Email: jdambach@molex.com  
Lisle, IL 60532

Mr. Martin Ogbuokiri (AV) Phone: (630) 527-4370  
Molex Inc. Fax: (630) 969-1352  
2222 Wellington Court Email: mogbuokiri@molex.com  
Data Comm  
Lisle, IL 60532

Mr. Richard Wagner (AV) Phone: (508) 791-3161  
Montrose/CDT Fax: (508) 798-8353  
28 Sword Street Email: rwagner@montrose-cdt.com  
Auburn, MA 01501

Mr. Brian McKean (A#) Phone: (303) 381-4246  
Mylex Corp. Fax: (303) 413-0464  
4900 Pearl East Circle #104 Email: brianm@mylexboulder.com  
Boulder, CO 80301-6108

Mr. Dave Ford (AV) Phone: (781) 895-4949 x236  
Network Appliance Fax: (781) 895-1195  
375 Tatted Pond Rd. Email: dford@orca.com  
Waltham, MA 02454

Mr. Charles Monia (P) Phone: (408) 519-3986  
Nishan Systems Inc. Fax: (408) 435-8385  
3850 North First St. Email: cmonia@nishansystems.com  
San Jose, CA 95134

Mr. Joshua Tseng (A) Phone: (408) 519-3749  
Nishan Systems Inc. Fax: (408) 435-8385  
3850 North First Street Email: jtseng@NishanSystems.com  
San Jose, CA 95134

Mr. Gregg Neely (AV) Phone: (858) 453-9696  
NSTOR Fax: (858) 453-9294  
10140 Mesa Rim Rd. Email: greggn@nstor.com  
San Diego, CA 92121

Mr. Edward A. Gardner (P) Phone: (719) 593-8866  
Ophidian Designs Fax: (719) 593-8989  
1262 Hofstead Terrace Email: eag@ophidian.com  
Colorado Springs, CO 80907

Dr. Terence J. Nelson (P) Phone: (908) 464-1652  
Panasonic Technologies, Inc Fax: (908) 464-0149  
167 Maple St. Email: terry@tjnelson.com  
New Providence, NJ 07974

Mr. Rudolf Vitti (A) Phone: (201) 348-7064  
Panasonic Technologies, Inc Fax: (201) 348-7807  
One Panasonic Way Email: vittir@panasonic.com  
Panazip 1E-6  
Secaucus, NJ 07094

Mr. Randall C. Hines (A) Phone: (303) 651-5406  
Philips Electronics Fax: (303) 682-3029  
1860 Lefthand Circle Email: hinesr@worldnet.att.net  
Longmont, CO 80501

Mr. William P. McFerrin (P) Phone: (720) 320-0790  
Philips Electronics/CD Edge Fax:  
841 Rocky Mtn Place Email: bill.mcferrin@cdedge.com  
Longmont, CO 80501

Mr. Frank Fang (AV) Phone: (408) 991-3348  
Philips Semiconductors Fax: (408) 991-2600  
811 E. Argues Ave. Email: frank.fang@philips.com

Sunnyvale, CA 94088-3409

Mr. Charles Binford (P) Phone: (316) 315-0382 x222  
Pirus Networks Fax: (509) 756-4425  
3450 N. Rock Rd., Suite 301 Email: charles.binford@pirus.com  
Wichita, KS 67226

Mr. Skip Jones (P) Phone: (949) 389-6368  
QLogic Corp. Fax: (949) 389-6114  
26600 Laguna Hills Dr. Email: skip.jones@qlogic.com  
Aliso Viejo, CA 92656

Mr. Richard Moore (A#) Phone: (949) 389-6232  
QLogic Corp. Fax: (949) 389-6121  
26600 Laguna Hills Dr. Email: richard.moore@qlogic.com  
Aliso Viejo, CA 92656

Mr. Dean Wallace (A) Phone: (949) 389-6480  
QLogic Corp. Fax: (949) 389-6128  
26600 Laguna Hills Dr. Email: dean.wallace@qlogic.com  
Aliso Viejo, CA 92656

Mr. Paul Entzel (P) Phone: (720) 406-5782  
Quantum Corp. Fax: (720) 406-5762  
4001 Discovery Dr. Email: paul.entzel@quantum.com  
Boulder, CO 80303

Mr. Patrick McGarrah (A) Phone: (408) 944-4438  
Quantum Corp. Fax: (408) 944-4027  
501 Sycamore Blvd. Email: pat.mcgarrah@quantum.com  
Milpitas, CA 95035

Mr. John A. Fobel (AV) Phone: (909) 987-3966  
Rancho Technology, Inc. Fax: (909) 989-2365  
10783 Bell Court Email: johnf@rancho.com  
Rancho Cucamonga, CA 91730

Mr. Yau-Ting Mau (AV) Phone: (408) 631-8177  
Roxio, Inc. Fax:  
461 S. Milpitas Blvd. Email: mau@roxio.com  
Milpitas, CA 95035

Mr. Yasuyuki Suemori (AV) Phone: (630) 875-3513  
Sanyo Fax:  
900 N Arlington Heights Rd. Email: ysue@sanyosales.com  
Suite 300  
Itasca, IL 60143

Mr. Ken-Ichi Kojima (AV) Phone: 584-64-4399  
Sanyo Electric Co., Ltd. Fax: 584-64-5096

180 Ohmori Anpachi-Cho  
Anpachi-Gun  
Gifu-Ken 503-01 Japan

Email:

Mr. Gerald Houlder (P)  
Seagate Technology  
Mailstop SHK231  
1280 Disc Drive  
Shakopee, MN 55379-1863

Phone: (952) 402-2869  
Fax: (952) 402-3471  
Email: gerry\_houlder@seagate.com

Mr. A. Bruce Manildi (A)  
Seagate Technology  
4585 Scotts Valley Dr.  
Scotts Valley, CA 95067

Phone: (831) 439-7229  
Fax: (831) 438-8608  
Email: bruce\_manildi@seagate.com

Mr. Jon P. Baker (AV)  
Seagate Technology  
10323 W. Reno Ave.  
Oklahoma City, OK 73116

Phone: (405) 324-3591  
Fax:  
Email: jon\_baker@seagate.com

Mr. Daniel F. Smith (AV)  
Seagate Technology  
4585 Scotts Valley Dr.  
Scotts Valley, CA 95066-4544

Phone: (831) 439-7146  
Fax: (831) 439-7546  
Email: daniel.f.smith@seagate.com

Mr. Paul Sweazey (AV)  
Seagate Technology  
4585 Scotts Valley Dr.  
Scotts Valley, CA 95066-4544

Phone: (831) 439-7490  
Fax:  
Email: sweazeyp@cdg.stsv.seagate.com

Mr. Van T. Ton (AV)  
Seagate Technology, LLC  
4585 Scotts Valley Dr.  
Mailstop: SV15D1  
Scotts Valley, CA 95066

Phone: (831) 439-7005  
Fax: (831) 439-7541  
Email: Van.T.Ton@seagate.com

Mr. Yasunori Hiyoshi (AV)  
Seiko Epson Corp.  
Corporate Res & Dev  
3-3-5 Owa Suma-Shi  
Nagano-Ken 392-8502 Japan

Phone:  
Fax:  
Email: yasunori.hiyoshi@exc.epson.co.jp

Mr. Erhard Weiss (AV)  
Siemens Nixdorf  
Department: SNI PC SB ESW  
Burgermeister-Ulrich-St  
D-86199 Augsburg Germany

Phone: 49-821-804-3602  
Fax: 49-821-804-2910  
Email: weiss.abg@sni.de

Mr. Mark O'Dell (P)  
Silicon Image  
9501 Jeronimo  
Irvine, CA 92618

Phone: (949) 454-0800  
Fax: (949) 454-0542  
Email: odell@siliconimage.com

Mr. Greg Alvey (AV)

Phone: (408) 338-4285

Solution Technology  
P.O. Box 104  
Boulder Creek, CA 95006

Fax: (408) 338-4374  
Email: kd6hnm@aol.com

Mr. Joe A. Maciel (AV)  
Sony Electronic  
3300 Zanker Rd. SJ2E2  
San Jose, CA 95134-1901

Phone: (408) 955-5547  
Fax:  
Email: joe.maciel@am.sony.com

Mr. Dennis Pak (AV)  
Sony Electronics, Inc.  
3300 Zanker Rd. MS# SJ-3B2  
San Jose, CA 95134

Phone: (408) 955-5247  
Fax: (408) 955-5066  
Email: dennis\_pak@asd.sel.sony.com

Mr. Jeffrey Schroeder (AV)  
ST Microelectronics  
1060 E. Brokaw Rd.  
San Jose, CA 95131

Phone: (408) 487-3965  
Fax: (408) 441-8470  
Email: jeffrey.schroeder@st.com

Mr. Rich Wahler (AV)  
Standard Microsystems Corp.  
300 Kennedy Drive  
Hauppauge, NY 11788

Phone: (516) 435-6174  
Fax: (516) 724-1505  
Email:

Mr. Erich Oetting (P)  
Storage Technology Corp.  
2270 South 88th St.  
Louisville, CO 80028-0268

Phone: (303) 673-2178  
Fax: (303) 673-8196  
Email: erich\_oetting@stortek.com

Mr. Dennis Appleyard (A)  
Storage Technology Corp.  
One StorageTek Dr.  
Louisville, CO 80028

Phone: (303) 673-6685  
Fax:  
Email: dennis\_appleyard@stortek.com

Mr. Vit Novak (P)  
Sun Microsystems, Inc.  
MS NWK16-211  
901 San Antonio Road  
Palo Alto, CA 94303-4900

Phone: (510) 936-3284  
Fax: (510) 936-2527  
Email: vit.novak@sun.com

Mr. Pete Tobias (A#)  
Tandem, a Compaq Company  
Loc 100-03  
10555 Ridgeview Ct.  
Cupertino, CA 95014-0789

Phone: (408) 285-9913  
Fax: (408) 285-9924  
Email: tobias\_pete@tandem.com

Mr. Ken Plourde (AV)  
Temp Flex Cable, Inc.  
11 Depot St.  
S. Grafton, MA 01560

Phone: (508) 839-5987  
Fax: (508) 839-4128  
Email: kplourde@templex.com

Mr. Paul D. Aloisi (P) Phone: (603) 222-8687  
Texas Instruments Fax: (603) 222-8700  
50 Phillipe Cote St. Email: Paul\_Aloisi@ti.com  
Manchester, NH 03101

Mr. Donald R. Getty (A) Phone: (714) 593-9856  
Texas Instruments Fax: (714) 968-9309  
21851 Starfire Lane Email: donald\_getty@ti.com  
Huntington Beach, CA 92646

Mr. Jerry Rossman (AV) Phone: (570) 524-8546  
The JPM Co. Fax: (570) 524-5660  
155 North 15 St. Email: jrossman@jpmco.com  
Lewisburg, PA 17837

Ms. Dora M. Deivert (AV) Phone: (408) 952-3510  
The JPM Company Fax: (408) 435-9775  
2135 Ringwood Ave. Email: dmdeivert@jpmsj.com  
San Jose, CA 95131

Mr. Bob Gannon (AV) Phone: (860) 537-6800  
The JPM Company Fax: (509) 278-7661  
300 Carli Blvd. Email: rgannon@jpmco.com  
Colchester, CT 06415

Ms. Valentina Grigorieva (AV) Phone: (570) 524-8535  
The JPM Company Fax: (570) 524-5660  
155 N. 15th Street Email: vgrigoriev@jpmco.com  
Lewisburg, PA 17837

Mr. Bill Youngman (AV) Phone: (408) 952-3503  
The JPM Company Fax: (408) 435-1109  
2135 Ringwood Ave. Email: byoungman@jpmsj.com  
San Jose, CA 95131

Mr. Fred Hooper (AV) Phone: (203) 840-0583  
Thomas & Betts Fax: (203) 840-0587  
5 Honeysuckle Dr. Email: fhooper@tycoelectronics.com  
Norwalk, CT 06851

Ms. Tanya Huynh (AV) Phone: (949) 707-2290  
Thomas & Betts Corp. Fax:  
76 Fairbanks Email: tanya\_Huynh@tycoelectronics.com  
Irvine, CA

Mr. Tasuku Kasebayashi (P) Phone: (949) 461-3886  
Toshiba America Elec. Comp. Fax: (949) 458-7815  
35 Hammond Email: task.kasebayashi@tais.toshiba.com  
Irvine, CA 92618-1607

Mr. Rick Casaly (AV) Phone: (805) 367-2738  
Troika Networks, Inc. Fax:  
2829 Townsgate Rd. Suite 200 Email: rcasaly@troikanetworks.com  
Westlake, CA 91361

Mr. William C. Terrell (AV) Phone: (805) 371-1377  
Troika Networks, Inc. Fax: (805) 371-1344  
2829 Townsgate Rd. Suite 200 Email: terrell@TroikaNetworks.com  
Westlake, CA 91361

Mr. Charles Brill (P) Phone: (717) 986-6489  
TycoElectronics Fax: (717) 592-6222  
Mail Stop 128-051 Email: cbrill@tycoelectronics.com  
PO Box Box 3608  
Harrisburg, PA 17105-3608

Mr. Michael Wamsley (A#) Phone: (717) 985-2835  
TycoElectronics Fax:  
Mail Stop 128-089 Email: mjwalmsl@tycoelectronics.com  
PO Box Box 3608  
Harrisburg, PA 17105-3608

Mr. Tom J. Zola (A#) Phone: (717) 592-3141  
TycoElectronics Fax: (717) 522-3588  
Mail Stop 258-035 Email: tjzola@tycoelectronics.com  
PO Box 3608  
Harrisburg, PA 17105-3608

Mr. Ron Mathews (AV) Phone: (949) 380-5077  
UNISYS Corporation Fax: (949) 380-5858  
MV201 Email: ronald.mathews@unisys.com  
25725 Jeronimo Road  
Mission Viejo, CA 92691

Mr. Marq Elliott (AV) Phone: (408) 662-7900  
Verisys Fax:  
335-H Spreckels Dr. Email:  
Aptos, CA 95003

Mr. Roger Cummings (P) Phone: (407) 357-7257  
Veritas Software Fax:  
400 International Parkway Email: roger.cummings@veritas.com  
Heathrow, FL 32746

Mr. Ron Martin (A) Phone: (407) 531-7621  
Veritas Software Fax: (407) 531-7720  
400 International Parkway Email: ron.martin@veritas.com  
Heathrow, FL 32746

Mr. James Nelson (AV) Phone: (949) 450-6159  
Vixel Corp. Fax: (949) 753-9500  
15245 Alton Parkway Email: jnelson@vixel.com  
Suite 100



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

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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  
McFerrin  
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

T10/02-019R1 Date: 2002/02/26 Author: William Ham Mailing: 2002\_2  
Approved minutes Dec 2001 PIP

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: 2002\_2  
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  
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: Weber & Lohmeyer Mailing: 2002\_1  
Minutes of Parallel SCSI Working Group - January 15, 2002

T10/02-028R0 Date: 2002/01/16 Author: Weber & Lohmeyer Mailing: 2002\_1  
Minutes of SCSI CAP Working Group - January 16, 2002

T10/02-029R0 Date: 2002/01/21 Author: Weber & Lohmeyer Mailing: 2002\_1  
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: Mailing: Missing  
not used

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

T10/02-034R1 Date: 2002/01/24 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

T10/02-035R1 Date: 2002/03/05 Author: David Peterson Mailing: 2002\_2  
MD5 Logical Unit Identifier

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

T10/02-037R1 Date: 2002/02/28 Author: Robert Griswold Mailing: 2002\_2  
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: 2002\_1  
Resolving ambiguity in sense data information field for sequential buffered  
mode

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

T10/02-047R1 Date: 2002/03/12 Author: Bill Petty Mailing: 2002\_2  
Ultra640 Timing Budget

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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: 2002\_1  
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

T10/02-056R1 Date: 2002/01/24 Author: George O. Penokie Mailing: 2002\_1  
Limiting 3rd-party Reservations to a Single Protocol

T10/02-056R2 Date: 2002/03/13 Author: George O. Penokie Mailing: 2002\_2  
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. Mailing: 2002\_1  
McFerrin  
MMC WG Response to ANSI Editor Questions and Comments

T10/02-059R0 Date: 2002/01/15 Author: Paul Suhler Mailing: 2002\_1

Minutes: ADI Working Group (January 15, 2002)

T10/02-060R0 Date: 2002/01/23 Author: John Lohmeyer Mailing: 2002\_1  
Agenda for T10 Meeting #48 (March 2002)

T10/02-060R1 Date: 2002/01/29 Author: John Lohmeyer Mailing: 2002\_2  
Agenda for T10 Meeting #48 (March 2002)

T10/02-060R2 Date: 2002/02/01 Author: John Lohmeyer Mailing: 2002\_2  
Agenda for T10 Meeting #48 (March 2002)

T10/02-060R3 Date: 2002/02/07 Author: John Lohmeyer Mailing: 2002\_2  
Agenda for T10 Meeting #48 (March 2002)

T10/02-060R4 Date: 2002/02/28 Author: John Lohmeyer Mailing: 2002\_2  
Agenda for T10 Meeting #48 (March 2002)

T10/02-061R0 Date: 2002/01/23 Author: John Lohmeyer Mailing: 2002\_1  
T10 Project Summary - January 2002

T10/02-062R0 Date: 2002/01/23 Author: John Lohmeyer Mailing: 2002\_1  
Jeopardy Letter for March 2002 meeting

T10/02-063R0 Date: 2002/01/23 Author: Kevin Gingerich Mailing: 2002\_2  
ADI Electrical-Layer Spec Proposals

T10/02-064R0 Date: 2002/01/23 Author: Edward A. Gardner Mailing: 2002\_1  
SRP normal and solicited message reception (comment OD006)

T10/02-064R1 Date: 2002/01/24 Author: Edward A. Gardner Mailing: 2002\_1  
SRP normal and solicited message reception (comment OD006)

T10/02-064R2 Date: 2002/01/31 Author: Edward A. Gardner Mailing: 2002\_2  
SRP normal and solicited message reception (comment OD006)

T10/02-064R3 Date: 2002/02/15 Author: Edward A. Gardner Mailing: 2002\_2  
SRP normal and solicited message reception (comment OD006)

T10/02-064R4 Date: 2002/03/08 Author: Edward A. Gardner Mailing: 2002\_2  
SRP normal and solicited message reception (comment OD006)

T10/02-065R0 Date: 2002/01/26 Author: Robert C. Elliott Mailing: 2002\_2  
SPC-3 Persistent reservations corrections

T10/02-065R1 Date: 2002/03/07 Author: Robert C. Elliott Mailing: 2002\_2  
SPC-3 Persistent reservations corrections

T10/02-066R0 Date: 2002/01/29 Author: Robert Griswold Mailing: 2002\_2  
Crossroads 421 Patent Letter

T10/02-067R0 Date: 2002/01/29 Author: Robert C. Elliott Mailing: 2002\_2  
SAM-2 Remove TAGGED OVERLAPPED TASKS additional sense code

T10/02-068R0 Date: 2002/01/18 Author: Deborah J. Mailing: 2002\_2  
Donovan  
2002 Five-Year Maintenance Review of Standards

T10/02-069R0 Date: 2002/02/07 Author: Peter Johansson Mailing: 2002\_2  
Bridge-aware SBP-3 target operations

T10/02-070R0 Date: 2002/02/11 Author: Robert C. Elliott Mailing: 2002\_2  
SAM-2 Execute Command output descriptions

T10/02-071R0 Date: 2002/02/20 Author: Robert C. Elliott Mailing: 2002\_2  
SAM-2 Asynchronous event reporting RPC

T10/02-072R0 Date: 2002/02/21 Author: Paul D. Aloisi Mailing: 2002\_2  
SSM minutes for the February 20th meeting

T10/02-073R0 Date: 2002/02/21 Author: Jason Chou Mailing: 2002\_2  
SSM Instrument probe modeling

T10/02-074R0 Date: 2002/02/22 Author: Gary S. Robinson Mailing: 2002\_2  
NWIP for SPI-4

T10/02-075R0 Date: 2002/02/22 Author: Peter Johansson Mailing: 2002\_2  
EUI-48 protocol ID VPD page

T10/02-075R1 Date: 2002/03/01 Author: Peter Johansson Mailing: 2002\_2  
EUI-48 software interface ID VPD page

T10/02-076R0 Date: 2002/02/22 Author: Paul Suhler Mailing: Missing  
Minutes: SSC-2 Working Group (March 11, 2002)

T10/02-077R0 Date: 2002/02/22 Author: Paul Suhler Mailing: 2002\_2  
SSC-2 Working Group Agenda (March 11, 2002)

T10/02-078R0 Date: 2002/02/22 Author: Mallikarjun  
Chadalapaka,  
Randy Haagens  
Reservations & Nexus

T10/02-078R1 Date: 2002/02/27 Author: Mallikarjun  
Chadalapaka,  
Randy Haagens  
Reservations & Nexus

T10/02-079R0 Date: 2002/02/22 Author: Russ Brown Mailing: 2002\_2  
Proposal for offset correction for Ultra640 SCSI for SPI-5

T10/02-079R1 Date: 2002/03/12 Author: Russ Brown Mailing: 2002\_2  
Proposal for offset correction for Ultra640 SCSI for SPI-5

T10/02-080R0 Date: 2002/02/25 Author: Gary S. Robinson Mailing: 2002\_2  
NWIP for FCP2

T10/02-081R0 Date: 2002/02/25 Author: David Peterson Mailing: 2002\_2  
SSC-2 Letter Ballot Comment Responses

T10/02-081R1 Date: 2002/03/05 Author: David Peterson Mailing: 2002\_2  
SSC-2 Letter Ballot Comment Responses

T10/02-082R0 Date: 2002/02/26 Author: William Ham /  
Zane Daggett Mailing: 2002\_2  
Minutes: Draft minutes Feb 2002 PIP

T10/02-083R0 Date: 2002/02/27 Author: Paul Suhler Mailing: 2002\_2  
ADI Working Group Agenda (March 12, 2002)

T10/02-084R0 Date: 2002/03/12 Author: Paul Suhler Mailing: Missing  
Minutes: ADI Working Group (March 12, 2002)

T10/02-085R0 Date: 2002/02/27 Author: Greg Vaupotic Mailing: 2002\_2  
Attenuation #1 Bulk cable round robin 2.xls

T10/02-086R0 Date: 2002/02/27 Author: Greg Vaupotic Mailing: 2002\_2  
Impedance #2 Bulk cable round robin 2.xls

T10/02-087R0 Date: 2002/02/27 Author: Greg Vaupotic Mailing: 2002\_2  
Impedance #3 Bulk cable round robin 2.xls

T10/02-088R0 Date: 2002/02/27 Author: Greg Vaupotic Mailing: 2002\_2  
Impedance #4 Bulk cable round robin 2.xls

T10/02-089R0 Date: 2002/02/27 Author: Greg Vaupotic Mailing: 2002\_2  
Tabular data Bulk cable round robin 2.xls

T10/02-090R0 Date: 2002/02/27 Author: Greg Vaupotic Mailing: 2002\_2  
Attenuation #2 Bulk cable round robin 2.xls

T10/02-091R0 Date: 2002/02/27 Author: Greg Vaupotic Mailing: 2002\_2  
Attenuation #3 Bulk cable round robin 2.xls

T10/02-092R0 Date: 2002/02/27 Author: Greg Vaupotic Mailing: 2002\_2  
Attenuation #4 Bulk cable round robin 2.xls

T10/02-093R0 Date: 2002/02/27 Author: Greg Vaupotic Mailing: 2002\_2  
Impedance #1 Bulk cable round robin 2.xls

T10/02-094R0 Date: 2002/02/28 Author: Robert C. Elliott Mailing: 2002\_2  
Project proposal for SCSI Enclosure Services - 2 (SES-2)

T10/02-095R0 Date: 2002/02/28 Author: Joe Breher Mailing: 2002\_2  
SSC-2 sense data INFORMATION field redux

T10/02-096R0 Date: 2002/03/01 Author: Giles Frazier Mailing: 2002\_2  
Sending Write Data with SRP Commands

T10/02-097R0 Date: 2002/02/28 Author: Rod Wideman Mailing: 2002\_2  
ADI Drive Polling Frames

T10/02-098R0 Date: 2002/03/04 Author: John Lohmeyer Mailing: 2002\_2  
Project Proposal for Serial Attached SCSI

T10/02-099R0 Date: 2002/03/05 Author: Michael Banther Mailing: 2002\_2  
Bi-Directional Control Patent Disclosure

T10/02-100R0 Date: 2002/03/12 Author: Weber & Lohmeyer Mailing: 2002\_2  
Minutes of Parallel SCSI Working Group - March 12, 2002

T10/02-101R0 Date: 2002/03/13 Author: Weber & Lohmeyer Mailing: Missing  
Minutes of SCSI CAP Working Group - March 13, 2002

T10/02-102R0 Date: 2002/03/14 Author: Weber & Lohmeyer Mailing: Missing  
Minutes of T10 Plenary Meeting #48 - March 14, 2002

T10/02-103R0 Date: 2002/03/05 Author: Ralph O. Weber Mailing: 2002\_2

Driving to the March T10 Meeting Site

T10/02-104R0 Date: 2002/03/06 Author: Michael Banther Mailing: 2002\_2  
SMC-2 Proposal: Read Element Status Device Identifier

T10/02-105R0 Date: 2002/03/06 Author: Gary S. Robinson Mailing: 2002\_2  
ISO Project Status Spreadsheet

T10/02-106R0 Date: 2002/03/06 Author: Paul Suhler Mailing: 2002\_2  
ADI: Required and Optional SCSI Commands

T10/02-107R0 Date: 2002/03/06 Author: Robert Snively Mailing: 2002\_2  
T11 Liaison, February 2002

T10/02-108R0 Date: 2002/03/06 Author: David Peterson Mailing: 2002\_2  
Obsolete Reserve/Release in SPC-3

T10/02-109R0 Date: 2002/03/07 Author: Cris Simpson Mailing: 2002\_2  
Bit positions for SOLNT control bits in SRP\_LOGIN\_REQ

T10/02-110R0 Date: 2002/03/09 Author: Ralph O. Weber Mailing: 2002\_2  
SPC-3 Schedule

T10/02-111R0 Date: 2002/03/11 Author: Paul D. Aloisi Mailing: 2002\_2  
SSM Plenary Report

T10/02-112R0 Date: 2002/03/11 Author: Paul D. Aloisi Mailing: 2002\_2  
STA & STATEch Plenary Report

T10/02-113R0 Date: 2002/03/12 Author: William Petty Mailing: 2002\_2  
SPI-5 Timing Budget

T10/02-114R0 Date: 2002/03/12 Author: Gerald Houlder Mailing: 2002\_2  
Inconsistent use of 'assertion and negation' in SPI-4

T10/02-115R0 Date: 2002/03/12 Author: Gerald Houlder Mailing: 2002\_2  
SPC-3 table 230 incorrect

T10/02-116R0 Date: 2002/03/13 Author: Robert Griswold Mailing: 2002\_2  
ADI SG Questions to the CAP

T10/02-117R0 Date: 2002/03/13 Author: William P. Mailing: 2002\_2  
McFerrin  
Minutes: MMC WG Meeting Minutes, 13 March 2002

T10/02-118R0 Date: 2002/05/02 Author: John Lohmeyer Mailing: 2002\_2  
and Ralph Weber  
Project Proposal for SCSI Architecture Model - 3 SAM-3)