

Accredited Standards Committee*

National Committee for Information Technology Standards (NCITS)

Doc. No.: T10/98-214r0

Date: September 23, 1998

Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: T10 Plenary Meeting #28 -- September 17, 1998
St. Petersburg Beach, FL

Agenda

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9. Old Business
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10. New Business
 - 10.1 Results of Letter Ballot on Forwarding EPI to First Public Review
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 - 10.3 World Wide IDs (98-186) [Penokie]
 - 10.4 Actions on Working Group Recommendations

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- 10.4.1 CRC Proposal (98-177r6) [McGrath]
- 10.4.2 QAS Proposal (97-199r9) [Moore]
- 10.4.3 Single-Ended Termination Change (98-220r0) [Grantham]
- 10.4.4 Proposal for Writable Device Identifiers (98-112r3) [Coughlan]
- 10.4.5 Making VPD page 81h (Operating Definition) obsolete? [Weber]
- 10.4.6 New device type code for bridging expanders (98-223r1) [Ham]
- 10.4.7 Parallel Protocol Request Negotiation (98-180r3) [Penokie]
- 10.4.8 Making HVD obsolete in SPI-3 [Milligan]
- 10.5 Electronic Service Fee [Lohmeyer]
- 11. ISO
 - 11.1 ISO Report [Milligan]
 - 11.2 ISO Business [Milligan]
 - 11.2.1 Recommendation on JTC 1 TAG Letter ballot, ISO/IEC DIS 14776-341, Information technology - Small Computer Interface-3 (SCSI-3) - Part 341: Controller Commands (SCSI-3 SCC)
- 12. Liaison Reports
 - 12.1 T11 Liaison Report [Cummings]
 - 12.2 T13 Liaison Report [Milligan]
 - 12.3 SFF Industry Group [Allan]
 - 12.4 IEEE 1394 [Johansson]
 - 12.5 IEEE P1285 Status
 - 12.6 IEEE P1596.8 Status
 - 12.7 SCSI Trade Association (STA) [Jones/Aloisi]
- 13. Review of Action Items
- 14. Meeting Schedule
 - 14.1 Authorization of Working Group Meetings
- 15. Adjournment

Results of Meeting

1. Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:00 a.m., Thursday September 17, 1998. He thanked Chuck Brill of AMP for hosting the meeting. John and the committee congratulated Chuck on his many years of service to the standards community and wished him well on the occasion of his upcoming retirement.

John said that NCITS Subgroup Membership forms and the T10 Mailing Subscription form were available on the document table. He said that people should use the NCITS forms to insure the NCITS Secretariat has the latest membership information. These forms should be mailed directly to the NCITS 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:

- 10.4.1 CRC Proposal (98-177r6) [McGrath]
- 10.4.2 QAS Proposal (97-199r9) [Moore]
- 10.4.3 Single-Ended Termination Change (98-220r0) [Grantham]
- 10.4.4 Proposal for Writable Device Identifiers (98-112r3) [Coughlan]
- 10.4.5 Making VPD page 81h (Operating Definition) obsolete? [Weber]

- 10.4.6 New device type code for bridging expanders (98-223r1) [Ham]
- 10.4.7 Parallel Protocol Request Negotiation (98-180r3) [Penokie]
- 10.5 Electronic Service Fee [Lohmeyer]

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

- 10.4.8 Making HVD obsolete in SPI-3 [Milligan]

3. Attendance and Membership

The membership requirements were reviewed. NCITS rules permit one vote per organization. An individual from a new organization must attend two out of three consecutive plenary meetings. He/she may apply for voting membership the second meeting via a letter to the Chair of T10. The individual may vote at the second plenary meeting. Working group meetings do not count toward attendance requirements.

Organizations must also pay the NCITS Service Fee (\$300) to maintain membership. The ANSI International Program Fee (also \$300) is billed at the same time.

John Lohmeyer announced that the experimental Organizational Membership is being discontinued next year. NCITS spent more effort collecting the Organizational Membership fees than they collected in fees. From NCITS perspective, the Organizational Membership experiment was a failure.

John briefly discussed the mailing fees. Complete pricing information is contained in the 1998 membership form (available at ftp://ftp.symbios.com/t10/pub/standards/io/t10/mem_form.txt).

The Chair said he had sent letters to 9 people from 5 organizations informing them that their membership was in jeopardy due to non-attendance (see 98-013r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

AMP, Inc.
Cable Design Technologies
Ciprico Inc.
Eastman Kodak Co.
Toshiba America Electronics Corp.

All of the organizations were present except:

Ciprico Inc.
Eastman Kodak Co.

They were terminated due to lack of attendance (i.e., the principal member was changed to observer status and the first alternate member, if any, was dropped; additional alternates, if any, were changed to observers).

John Lohmeyer reported that since the last meeting LSI Logic acquired Symbios, Inc. So the Symbios membership was combined with the LSI Logic membership.

The following organization requested new membership at this meeting:

Lasercard Systems Corp. with Hayden Smith as the principal member.

The T10 membership during the meeting was 47 organizations down from 49 organizations last time. Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current T10 membership list.

4. Approval of Minutes - July '98 Meeting Portland, ME (T10/98-202r1)

John Lohmeyer reported that Portland, ME minutes were revised since the last mailing based on comments received from Gene Milligan. The revised minutes will appear in the next mailing. The minutes were approved as written at revision 1.

5. Document Distribution

Members who have any problems with their mailing subscription should deal directly with Judy Gales (jgales@itic.nw.dc.us) (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 September 24, 1998. Documents received after this time will 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.

The electronic copies can be sent directly to John by e-mail (at lohmeyer@ix.netcom.com), placed on the SCSI BBS (719-533-7950), or they can be transferred by ftp protocol to ftp.symbios.com and placed in the /pub/standards/io/incoming directory. In the latter two cases, please also send e-mail to John informing him of the file name and location of the file.

As usual, minutes are also available on the SCSI BBS (719-533-7950), the T10 World Wide Web page (see below), and will be distributed to the T10 Reflector.

To be added to the T10 Reflector, send an e-mail to majordomo@symbios.com with the line 'subscribe t10' in the message body. The NCITS Secretariat maintains a World Wide Web page at <http://www.ncits.org/>. Symbios maintains a World Wide Web page on behalf of T10 at <http://www.symbios.com/t10/>.

The current document register is enclosure (3). The T10 document register is also available on the SCSI BBS in file DR.TXT and at <ftp://ftp.symbios.com/pub/standards/io/t10/dr.txt>.

6. Call for Patents

This is a regular agenda item to identify any potential patent issues with developing standards. A call was made and no one identified any patents issues.

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.ncits.org/help/ansi_sdo.html. Section 1.2.11 contains the ANSI patent policy. Amy Marasco manages patent issues for ANSI and can be contacted at amarasco@ansi.org or 212-642-4954.

7. Review of Old Action Items

- 266) All project editors will return the project abstract forms regarding their project(s) to the Chair. *Carryover*
- 276) Gene Milligan will forward SBP-2 revision 4 along with a new work item proposal to ISO/IEC SC 25 WG 4. *Complete*
- 278) Ralph Weber will make extent reservations obsolete in the next SPC-2 revision. *Complete*

- 279) Ralph Weber will make the CHANGE DEFINITION command obsolete in the next SPC-2 revision. *Complete*
- 280) George Penokie will prepare SPI-2 revision 20b at the convenience of the T10 chair. *Complete*
- 281) John Lohmeyer will substitute SPI-2 revision 20b for SPI-2 revision 20a prior to NCITS letter ballot if no public review comments are received. *Complete*
- 282) John Lohmeyer will conduct a letter ballot on forwarding EPI revision 15 to first public review. *Complete*
- 283) John Lohmeyer will conduct a letter ballot on forwarding RBC revision 5 to first public review. *Complete*

8. Project Status Reports

8.1 Project Status Summary and NCITS/OMC Liaison [Lohmeyer]

John Lohmeyer said that the current T10 project status summary was included in the T10 Information Packages and will be included in the mailing as usual.

John noted that NCITS would meet the following week in Breaver Creek, CO. He planned to attend part of the meeting to present the T10 annual report.

8.2 SPI Amendment (SPIAmnd) {Project 0855-D} [Johansson/Lamers]

John Lohmeyer reported the SPI Amendment is awaiting publication.

8.3 SCSI Common Access Method - 3 (CAM-3) Status {Project 990-D} [Dallas]

In the absence of Bill Dallas, no report was available.

8.4 SCSI-3 Stream Commands (SSC) Status {Project 997-D} [Peterson]

In the absence of Dale Peterson, Erich Oetting reported that the joint T10/T11.3 Tape meeting (minutes in T11/98-473v0) is making progress. It has been agreed to accept the "tape alert" proposal for inclusion in SSC. The plan is to do a forwarding of SSC toward first public review after the November meeting.

8.5 SCSI-3 Medium Changer Commands (SMC) Status {Project 999-D} [Oetting]

Erich Oetting reported that he has not yet been contacted by ANSI regarding SMC publication.

8.6 Multimedia Command Set (MMC) Status {Project 1048-D} [Roberts]

Ron Roberts reported that he has received the published MMC standard (ANSI X3.304:1997). This item will be removed from future agendas.

8.7 SCSI Parallel Interface - 2 (SPI-2) {Project 1142-D} [Ham/Penokie]

John Lohmeyer reported that SPI-2 is on the NCITS agenda for approval next week.

8.8 SCSI Enhanced Parallel Interface (EPI) Technical Report {Project 1143-D} [Ham]

Bill Ham reported that the EPI letter ballot review was held Monday. Bill has prepared EPI revision 16 addressing the letter ballot comments. The issues around a device type for bridging expanders were discussed. See also items 10.1 and 10.4.6, below.

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

Bob Snively reported that he plans to have a first draft of FCP-2 at the end of the month, but not in time to make the next mailing.

8.10 Serial Bus Protocol - 2 (SBP-2) {Project 1155-D} [Johansson]

Pete McLean reported that the SBP-2 public review closed with no comments. The SBP-2 that passed public review is on the NCITS agenda for approval next week.

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

Ralph Weber reported that a SAM-2 review on Monday uncovered problems with the first draft multi-port device model. The problems included:

- 1) A missing requirement that all ports in a multi-port device map to shared device servers (and/or logical units)
- 2) Use of "Multi-Port SCSI Device" as an object name causes confusion with the object named "SCSI Device"
- 3) Several potential problems with connection mapping across the SCSI bus.

Ralph stated that a new SAM-2 draft will be ready for the next meeting, but possibly not in time for the mailing. SAM-2 revision 9, prepared shortly before this meeting, will be in the next mailing.

8.12 SCSI-3 Enclosure Commands (SES) {Project 1212-D} [Snively]

Bob Snively reported that publication has been pending since May and he has not been contacted ANSI.

John Lohmeyer took an action item to investigate the status of T10 projects that have been at ANSI pending publication for several months.

8.13 High Availability Profile (HAP) Technical Report {Project 1224-DT} [open]

John Lohmeyer reported that Doug Hagerman has resigned as project editor for HAP. John asked anyone interested in editing HAP to contact him. John noted that, if no volunteers appear by the November meeting, he would propose withdrawing the HAP project.

8.14 SCSI Controller Commands - 2 (SCC-2) {Project 1225-D} [Penokie]

John Lohmeyer reported that SCC-2 should be in the publication department at ANSI. It was approved by BSR June 9, 1998.

8.15 Multimedia Command Set - 2 (MMC-2) Status {Project 1228-D} [Roberts]

Ron Roberts reported that he is preparing MMC-2 revision 8 for the next mailing. He requested a letter ballot for forwarding MMC-2 to first public review. John Lohmeyer took an action item to conduct a letter ballot on MMC-2 revision 8 for forwarding to first public review.

8.16 SCSI Primary Commands - 2 (SPC-2) Status {Project 1236-D} [Weber]

Ralph Weber reported that a revision of SPC-2 will be prepared in time for the mailing and will contain all the change proposals approved during this meeting.

Ralph ask the committee to consider the possibility that SPC-2 to should be forwarded towards first public review at the November or March meetings. Once the persistent reservations proposal is incorporated, Ralph felt that SPC-2 should become a dpANS to give wide distribution to the persistent reservations changes and to support RBC, which is progressing to public review.

8.17 Reduced Block Commands (RBC) {Project 1240-D} [Bryan]

Pete McLean reported on the letter ballot review meeting for RBC (minutes in 98-221). He noted that an incomplete comments resolution document will be provided for the next mailing (98-222r0). Pete stated that completion of the resolution of letter ballot comments will be accomplished at a working group meeting in November. Pete requested working group meeting time on Monday afternoon and all day Tuesday during the November meeting week.

8.18 SCSI Socket/SSL Services Command Set (SSS) {Project 1246-D} [Parker]

John Lohmeyer reported that SSS revision 0 was placed on the web site before this meeting. He noted that Keith Parker had requested a document number for a status report, but John had not received the report yet.

8.19 SCSI Parallel Interface - 3 (SPI-3) {Project 1302-D} [Penokie]

George Penokie reported that SPI-3 is still at revision 0, but revision 1 will be prepared in time for the next meeting, but not in time for the mailing. Revision 1 will contain all the proposals approved during this meeting.

George also reported that the universal backplane annex (89-101) developed by Dean Wallace will be incorporated in SPI-3. George noted that since the annex will be informative, no formal action is required.

8.20 SCSI Enclosure Profile (SEP) Technical Report {Project 1303-DT} [Weber]

Ralph Weber reported no progress on this project.

9. Old Business

9.1 Background Scan in Informational mode page (98-205) for SPC-2 [Williams]

Jeff Williams presented 98-205r3. Based on the unanimous recommendation of the working group, Jeff Williams moved that 98-205r3 be accepted for inclusion in SPC-2. Erich Oetting seconded the motion. The motion passed 27:0:0:20=47.

9.2 SPI-3 Timing Proposals (98-153r6) [Milligan]

Gene Milligan presented the proposal that defines the basic properties of Fast-80 (98-153r6). Based on the 11:3 vote of the working group, Gene moved that 98-153r6 be accepted for inclusion in SPI-3. Mark Evans seconded the motion. The motion passed 29:1:0:17=47. Rob Elliott stated that his no vote was based on the belief that there is not enough timing budget for the bus interconnect.

10. New Business

10.1 Results of Letter Ballot on Forwarding EPI to First Public Review

John Lohmeyer reported the results of the EPI letter ballot (98-016r0). The ballot had passed 47:1:0:0=48. John stated that all letter ballot comments have been resolved (98-227r0).

George Penokie requested that his no vote on the letter ballot be changed to a yes vote.

Bill Ham moved that 98-227r0 be accepted as containing the EPI letter ballot comments resolutions and EPI revision 16 be accepted as incorporating the comments resolutions. The two-thirds vote motion passed 32:0:0:15=47. John Lohmeyer took an action item to forward EPI revision 16 to NCITS for processing toward first public review.

10.2 Results of Letter Ballot on Forwarding RBC to First Public Review

John Lohmeyer reported on the results of the RBC letter ballot (98-107r0). The ballot had passed 41:5:0:2=48. Pete McLean noted that the RBC working group did not complete resolving the letter ballot comments. A vote on accepting letter ballot comments resolution is anticipated at the November meeting.

10.3 World Wide IDs (98-186) [Penokie]

George Penokie reported that the July working group recommended SPC-2 be revised to state that the "canonical" IEEE company identifiers shall be used (98-186). George Penokie moved that 98-186 be accepted for inclusion in SPC-2. Roger Cummings seconded the motion. The motion passed 28:0:1:18=47.

10.4 Actions on Working Group Recommendations

10.4.1 CRC Proposal (98-177r6) [McGrath]

Skip Jones moved that 98-177r6 be accepted for inclusion in SPI-3. Ed Gardner seconded the motion. The motion passed 30:1:0:16=47. Dal Allan stated that his no vote was based on the belief that CRC support should be backward compatible as well as forward compatible.

10.4.2 QAS Proposal (97-199r9) [Moore]

Larry Lamers moved that 98-199r9 be accepted for inclusion in SPI-3. Dal Allan seconded the motion.

Jeff Williams stated that the wording on fairness is not sufficient to meet the requirements he sees and that he would vote no based on those concerns.

The motion passed 24:7:1:15=47.

10.4.3 Single-Ended Termination Change (98-220r0) [Grantham]

Louis Grantham reviewed a proposal to change termination current requirements to relax values towards greater compatibility with the values found in SCSI-2 (98-220r0). Louis reported that the working group recommended accepting 98-220r0 for inclusion in SPI-3 on a vote of 10:3:3. Paul Aloisi presented the case for leaving the SPI-2 termination current requirements unchanged in SPI-3 (98-226r0). The committee discussed both points of view.

Gene Milligan moved that consideration of 98-220 be deferred to the November meeting and that the November working group be given an action item to prepare a recommendation for the November meeting. Bob Snively seconded the motion. Gene noted that he felt insufficient time had been provided for consideration of the proposal by his technical experts. The motion to defer consideration passed unanimously.

10.4.4 Proposal for Writable Device Identifiers (98-112r3) [Coughlan]

George Penokie presented a proposal that two SCC-2 commands, REPORT DEVICE IDENTIFIER and SET DEVICE IDENTIFIER, be duplicated in SPC-2, to allow writing of convenient device identifiers in all devices. Tom Coughlan moved 98-112r3 be accepted for inclusion in SPC-2. Mark Evans seconded the motion.

Mark Evans, Bob Snively, Ed Gardner, Tom Coughlan, and others discussed concerns about the size of the identifier. Mark Evans moved to amend the proposal to set a maximum identifier size of 256 bytes (generally,

98-112r3 was read to require a minimum of 64 bytes). Ed Gardner seconded the motion. The motion to amend failed 5:9:14:19=47.

Gene Milligan stated that he would vote against the original motion based on the lack of a maximum identifier size and the problems with supporting the proposal in CD-ROM devices.

The original motion failed 10:10:8:19=47.

To address the committee's concerns, Tom Coughlan prepared 98-112r4, which added a maximum identifier length of 512 bytes..

Dal Allan moved to reconsider the motion on 98-112r3. Mark Evans seconded the motion to reconsider. Dal and Mark confirmed that they were on the prevailing side for the previous vote. The motion to reconsider passed 31:0:0:16=47. John Lohmeyer proposed a friendly amendment to the original motion to bump the revision number from 3 to 4. Tom and Mark agreed to a friendly amendment. The amended, reconsidered motion passed 28:0:1:18=47.

10.4.5 Making VPD page 81h (Operating Definition) obsolete? [Weber]

Ralph Weber noted that the July decision to make the CHANGE DEFINITION command obsolete did not specifically cover the Operating Definition VPD page (81h). He described the contents of the page and its total dependency on the CHANGE DEFINITION commands.

Ralph moved that VPD page 81h be made obsolete in SPC-2. Bob Snively seconded the motion. The motion passed 22:0:3:22=47.

10.4.6 New device type code for bridging expanders (98-223r1) [Ham]

Ralph Weber described the need for a device type code for EPI bridging expanders, and the requirement, set by the working group, that the device type code be reserved as opposed to assigned. Ralph moved that 98-223r1 be accepted for inclusion in SPC-2. Bill Ham seconded the motion. The motion passed 22:0:1:24=47.

10.4.7 Parallel Protocol Request Negotiation (98-180r3) [Penokie]

Larry Lamers moved that PPR (98-180r3, as revised by the working group) be incorporated in SPI-3. Mark Evans seconded the motion. George Penokie noted that the working group had not recommended inclusion of 98-180r3 as revised in SPI-3. Speaking in favor of the motion, Larry noted he would have difficulty getting engineering review of SPI-3 in the absence of this key capability. The motion passed 22:0:1:24=47.

10.4.8 Making HVD obsolete in SPI-3 [Milligan]

Gene Milligan moved that HVD be made obsolete in SPI-3. Paul Aloisi seconded the motion. The committee discussed the details of how making HVD obsolete would be presented in SPI-3. The motion passed 24:0:1:22=47.

10.5 Electronic Service Fee [Lohmeyer]

John Lohmeyer reported that several of the T committees are having difficulties with finding homes for their web sites. At LSI Logic, an external web server company is contracted to handle all external web site activities, which was not the case for Symbios. It is not clear whether LSI Logic will be able to continue the ftp and web servers for T10. Also, the symbios.com domain name will be shutdown at the end of the year, so the URLs for T10 will have to change. John reported on an offer to move the T10 web site to a web server already supporting FC-LC (Fibre Channel Loop Community).

Dal Allan provided details of the service. Dal described the usage of a proposed, new electronic services fee. Some of the fees would be used to purchase new hardware and establish an independent operating facility for the T10 web site, while the remainder would pay the monthly charges for half access to a T1 link. Dal described how he plans to work with NCITS to keep open access to standards.

In response to a question from George Penokie, John reported that \$50 of the subscription fee goes to the editor's fund. Dal reported that the electronic service fee has been estimated at \$100 per membership.

Roger Cummings described the on-going situation regarding limiting access to draft standards, and noted several concerns that might be reflected in relationships with NCITS.

Roger Cummings moved that T10 approve the principle of levying an electronic service fee not to exceed \$100 with the understanding that the T10, T11, and T13 chairs will prepare a detailed proposal ASAP. Erich Oetting seconded the motion.

Dal Allan moved that the words "principle of" be removed the motion. Larry Lamers seconded the motion to amend. The motion to amend passed 28:5:0:14=47.

The amended motion became "that T10 approve the levying an electronic service fee not to exceed \$100 with the understanding that the T10, T11, and T13 chairs will prepare a detailed proposal ASAP."

Ed Gardner moved that the references to T11 and T13 be removed from motion. Roger and Erich accepted Ed's proposal as a friendly amendment.

The amended motion became "that T10 approve the levying an electronic service fee not to exceed \$100 with the understanding that the T10 chair will prepare a detailed proposal ASAP." Gene Milligan noted that there is an intention to coordinate the electronic services program with the other T committees that cannot be reflected as a formal part of the motion. The amended motion passed 29:4:1:13=47.

John Lohmeyer took an action item to prepare a detailed proposal for the levying and usage of the electronic service fee ASAP.

Chair's note: This item may be overcome by events. I have received an email saying LSI Logic is willing to continue hosting T10 (although the URL will have to change). Also, I believe STA is willing to host the T10 site should it become necessary. In any case, it appears that we have more time to make a decision and more options than we thought.

11. ISO

11.1 ISO Report [Milligan]

Gene Milligan presented an oral report to the committee and provided the following electronic report for the minutes:

ISO Report 9/17/98

ISO/IEC JTC 1 N 5508

DATE: 1998-09-02

DOC TYPE: Summary of Voting/Table of Replies

TITLE: Summary of Voting on Document JTC 1 N 5386, Proposal for a New Work

Item on ISO/IEC 14776-342: INFORMATION TECHNOLOGY - Small Computer System Interface - Part 342: Controller Commands-2 (SCSI SCC-2)

PROJECT: NP 18006

STATUS: This proposal has met the criteria for acceptance into the JTC 1 Programme of Work. SC 25 is instructed to begin development of this item taking into account the National Body comments received.

Voting Summary of JTC 1 N 5386 'P' Members

Q.1 Do you accept the proposal in document JTC 1 N XXXX as a sufficient definition of the new work item?
24:0:2

Q.2 Do you support the addition of the new work item to the programme of work of the joint technical committee?
24:0:2

Q.3 Do you commit yourself to participate in the development of this new work item?9:16:1

Q.4 Are you able to offer a project editor who will dedicate his/her efforts to the advancement and maintenance of this project? 5:20:1

Q.5 Do you have a major contribution or a reference document ready for submittal?1:24:1

Q.6 Will you have such a contribution in ninety days?1:24:1

Canada

Q4 YES (Carman Mondello)

COMMENTS: "Canada encourages SC25 to consider whether similar specifications might be more efficiently processed in the future as Fast Track submissions".

USA

Q4: YES (Gene Milligan as Editor Coordinator)

Q5: YES (Already submitted)

Q6: YES (Already submitted)

ISO/IEC JTC 1 N 5509

DATE: 1998-09-02

TITLE: Summary of Voting on Document JTC 1 N 5387, Proposal for a New Work Item on ISO/IEC 14776-351: INFORMATION TECHNOLOGY - Small Computer System Interface - Part 351: Medium Changer Commands (SCSI-3 SMC)

PROJECT: NP 18007

STATUS: This proposal has met the criteria for acceptance into the JTC 1 Programme of Work. SC 25 is instructed to begin development of this item taking into account the National Body comments received.

ISO/IEC JTC 1 N 5510

DATE: 1998-09-02

TITLE: Summary of Voting on Document JTC 1 N 5388, Proposal for a New Work Item on ISO/IEC 14776-371: INFORMATION TECHNOLOGY - Small Computer System Interface - Part 371: Enclosure Services (SCSI SES)

PROJECT: NP 18008

STATUS: This proposal has met the criteria for acceptance into the JTC 1 Programme of Work. SC 25 is instructed to begin development of this item taking into account the National Body comments received.

ISO/IEC JTC 1 N 5507

DATE: 1998-09-02

TITLE: Summary of Voting on Document JTC 1 N 5385, Proposal for a New Work Item on ISO/IEC 14776-112: INFORMATION TECHNOLOGY - Small Computer System Interface - Part 112: Parallel Interface - 2 (SCSI SPI-2)

PROJECT: NP 18005

STATUS: This proposal has met the criteria for acceptance into the JTC 1 Programme of Work. SC 25 is instructed to begin development of this item taking into account the National Body comments received.

Five additional FDDI standards ISO/IEC 9314--6, -7, -8, -13; and -25 were published.

Voting on ISO/IEC DIS 14165-111 FC-PH started 98-05-14 and terminates 98-11-14.

IEC TC 100 has circulated a draft standard on safety requirements for multimedia and similar equipment.

11.2 ISO Business [Milligan]

11.2.1 Recommendation on JTC 1 TAG Letter ballot, ISO/IEC DIS 14776-341, Information technology - Small Computer Interface-3 (SCSI-3) - Part 341: Controller Commands (SCSI-3 SCC)

Gene Milligan moved that T10 recommend to the JTC 1 TAG that they respond in the affirmative to the ballot on ISO/IEC DIS 14776-341, Information technology - Small Computer Interface-3 (SCSI-3) - Part 341: Controller Commands (SCSI-3 SCC). Erich Oetting seconded the motion. The roll call vote passed 33:0:0:14=47. Details of the roll call vote were as follows:

Organization	Name	Yes	No	Abs	NP
Adaptec, Inc.	Mr. Lawrence J. Lamers	1			
AMP, Inc.	Mr. Charles Brill	1			
Amphenol Interconnect					1
Ancot Corp.	Mr. Bart Raudebaugh	1			
Apple Computer	Mr. Ron Roberts	1			
Berg Electronics					1
Cable Design Technologies	Mr. Richard Wagner	1			
Circuit Assembly Corp.					1
Compaq Computer Corp.	Mr. Robert C. Elliott	1			
Congruent Software, Inc.					1
Dallas Semiconductor	Mr. Charles Tashbook	1			
Data General / Clariion					1
Distributed Processing Tech.	Mr. Roger Cummings	1			
ENDL	Mr. I. Dal Allan	1			
Exabyte Corp.	Mr. Tom Jackson	1			
Fujitsu (FCPA)	Mr. Ben-Koon Lin	1			
Harting, Inc. of N. America	Mr. Marcos Barrionuevo	1			
Hewlett Packard Co.					1
Hitachi Cable Manchester, Inc	Mr. Zane Daggett	1			
Hitachi Storage Products	Mr. Anthony Yang	1			
Honda Connectors					1
IBM Corp.	Mr. George Penokie	1			
Iomega Corp.	Mr. Tim Bradshaw	1			
KnowledgeTek, Inc.					1
Lasercard Systems Corp.	Mr. Hayden Smith	1			
Linfinity Micro	Mr. Louis Grantham	1			
LSI Logic Corp.	Mr. John Lohmeyer	1			
Madison Cable Corp.					1
Maxtor Corp.	Mr. Pete McLean	1			
Methode Electronics, Inc.	Mr. Bob Masterson	1			
Molex Inc.	Mr. Jay Neer	1			
Mylex Corp.					1
Ophidian Designs	Mr. Edward A. Gardner	1			
Philips Electronics					1
QLogic Corp.	Mr. Skip Jones	1			
Quantum Corp.	Mr. Mark Evans	1			
Seagate Technology	Mr. Gene Milligan	1			
Silicon Systems, Inc.	Mr. Dave Guss	1			
Sony Electronics, Inc.					1
Storage Technology Corp.	Mr. Erich Oetting	1			
Sun Microsystems Computer Co	Mr. Robert N. Snively	1			
SyQuest Technology, Inc.					1

Toshiba America	Mr. John Hoy	1	
UNISYS Corporation			1
Unitrode Corporation	Mr. Paul D. Aloisi	1	
Western Digital Corporation	Mr. Jeffrey L. Williams	1	
Woven Electronics	Mr. Doug Piper	1	

Totals: 33 0 0 14 = 47

Gene Milligan took an action item to report the affirmative recommendation of T10 on the letter ballot for ISO/IEC DIS 14776-341, Information technology - Small Computer Interface-3 (SCSI-3) - Part 341: Controller Commands (SCSI-3 SCC) to the JTC 1 TAG.

12. Liaison Reports

12.1 T11 Liaison Report [Cummings]

Roger Cummings presented an oral report to the committee.

12.2 T13 Liaison Report [Milligan]

Gene Milligan reported on the activities of the most recent T13 meeting.

Editorial corrections were approved to ATA/ATAPI-4 for BSR and ANSI publication.

Several proposals were accepted into ATA/ATAPI-5:

- Power up on standby
- nIEN clarification
- State diagrams (delete flow)
- New ID word (dev # etc.)
- Sleep to standby
- Connectors & cable

The committee debated a requirement to exit sleep with a device reset command, discussed a 32 bit ATA/ATAPI, and discussed an address offset feature that allows booting from the protected diagnostic area. There are three proposals on the latter feature and a meeting on 22 and 23 September will attempt to resolve them.

12.3 SFF Industry Group [Allan]

Dal Allan made an oral report to the committee and provided the following electronic report for the minutes.

At the HSS (High Speed Serial) Testing SSWG (Specific Subject Working Group) another test was added to the set of four Level 1 tests. Significant progress continues to be made in refining the basic procedures. The content has been re-defined to be a separate specification rather than included as part of the serial connector specifications.

Final details on the SCA-2 and VHDCI connectors were received, and the next revisions should be for a publication ballot.

The new dimensions on HSSDC, which caused such a stir at the last meeting, have been agreed to by all parties. An analysis by Molex of the worst case tolerances identified a missing dimension between the retention relative to the mating pins, and there is the possibility of negative wipe (pins not making contact).

The new material on MT-RJ has been incorporated into a new revision, and the discovery made that optical connectors require a new way of describing form, fit and function.

Bill Ham expressed his appreciation to AMP for the significant amount of material and technical assistance received since the last meeting.

The technical content on HSS DB9 is now complete and a revised specification will be prepared.

The shroud chamfer dimensions on the 4-pin power connector were modified to become reference dimensions, and a note was added to say that the sum of the tolerance buildups could not exceed a defined minimum.

A response on 8070i for ATAPI Removable Rewritable Media was received which indicates an intent to remove the optical content and retain the magnetic removable information.

12.4 IEEE 1394 [Johansson]

Gene Milligan reported that a ballot resolution is being formed for 1394a.

12.5 IEEE P1285 Status

No report.

12.6 IEEE P1596.8 Status

Bob Snively reported that no new information is available.

12.7 SCSI Trade Association (STA) [Jones/Aloisi]

Paul Aloisi presented the following report:

STA has developed a press release on Ultra3, including questions and answers. A press tour is being planned for Ultra3.

The STA technical committee reviewed revision 2 of the SCSI Harbor document in July in Portland, ME. Revision 3 will be reviewed later today.

13. Review of Action Items

- 266) All project editors will return the project abstract forms regarding their project(s) to the Chair.
- 284) John Lohmeyer will investigate the status of T10 projects that have been pending publication at ANSI for several months.
- 285) John Lohmeyer will conduct a letter ballot on MMC-2 revision 8 for forwarding to first public review.
- 286) John Lohmeyer will forward EPI revision 16 to NCITS for processing toward first public review.
- 287) John Lohmeyer will prepare a detailed proposal for the levying and usage of the electronic service fee ASAP.
- 288) Gene Milligan will report the affirmative recommendation of T10 on the letter ballot for ISO/IEC DIS 14776-341, Information technology - Small Computer Interface-3 (SCSI-3) - Part 341: Controller Commands (SCSI-3 SCC) to the JTC 1 TAG.
- 289) The November SPI-3 Working Group will prepare an recommendation on the disposition of 98-220, changes in termination current requirements for consideration by the November plenary.

14. Meeting Schedule

The next plenary meeting of T10 will be November 5, 1998 in Palm Springs, CA at the Hyatt Regency Suites of Palm Springs (619-322-9000), hosted by Adaptec, Inc. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

November '98 Meeting Map
(9/18/98 Version)

Monday 11/2	9	10	11	12	1	2	3	4	5	6	7	8	9	
	+-----+													
	DMTF Mass Storage WG/Domain Validation												(25)	
	+-----+													
	Fibre Channel FC-AL3												(40)	
	+-----+													
	RBC Comments Res												(20)	
	+-----+													
Tuesday 11/3	9	10	11	12	1	2	3	4	5	6	7	8	9	
	+-----+													
	SPI-3 WG / SCSI WG (*)												(50)	
	+-----+													
	MMC-2 WG												(15)	
	+-----+													
	RBC Comments Resolution												(20)	
	+-----+													
	T10/T11.3 Tape WG												(40)	
	+-----+													
(*) - SCSI WG meeting begins after SPI-3 but not before 1:00 pm														
Wednesday 11/4	9	10	11	12	1	2	3	4	5	6	7	8	9	
	+-----+													
	SCSI WG												(50)	
	+-----+													
	MMC-2 WG												(15)	
	+-----+													
	SFF SSWGs												(40)	
	+-----+													
Thursday 11/5	9	10	11	12	1	2	3	4	5	6	7	8		
	+-----+													
	T10 Plenary / SCSI Harbor (*)												(60/40)	
	+-----+													
	STA Marcom												(15)	
	+-----+													
(*) - SCSI Harbor meeting begins 30 minutes after T10 plenary but not before 2:30 pm														
Friday 11/6	8	9	10	11	12	1	2	3	4	5				
	+-----+													
	SCSI Trade Association (STA)											(30)		
	+-----+													

Meetings marked with == are T10-authorized meetings.
Meetings marked with -- are authorized by other groups and may change without notice.

Meeting	Date	Location / Contact
T10/T11.3 Joint Tape WG	10/6/98 Tue	Ft. Lauderdale, FL / T11

Meeting Map Abbreviation Key:

Amnd: Amendment

CAM: Common Access Method

CAM-3: Next generation CAM for SCSI-3

EPI: SCSI Enhanced Parallel Interface (Technical Report)

Encl Profile Enclosure Profile Study Group

Fast-20: Data Transfer at 20 Mega-transfers/second (a.k.a., Ultra)

Fast-40: Data Transfer at 40 Mega-transfers/second (a.k.a., Ultra2)

Fast-80: Data Transfer at 80 Mega-transfers/second (a.k.a., Ultra3)

FC: Fibre Channel

FC-AL: Fibre Channel - Arbitrated Loop (a T11 project)

FCLC: Fibre Channel Loop Community (not an NCITS activity)

I/F: Interface

HAP: High Availability Profile (Technical Report)

LB: Letter Ballot

MMC-2: Multimedia Commands - 2 (CD-ROM, DVD, etc.)

PH: Physical (Connectors, Cables, Transceivers, etc.)

Plenary: Full Committee Meeting

RAID: Redundant Array of Independent Devices

RBC: Reduced Block Commands

SBC: SCSI-3 Block Commands

SBP-2: Serial Bus Protocol for IEEE 1394 (2nd generation protocol)

SCC-2: SCSI Controller Commands - 2 (2nd generation RAID command set)

SCSI: Small Computer System Interface

SES: SCSI Enclosure Services

SCSI Harbor: A STA project on defining a wrapper for SCSI devices

SFF: SFF Industry Group (not an NCITS activity)

SG: Study Group

SMC: SCSI-3 Medium Changer Commands

SPC-2: SCSI Primary Commands - 2 (2nd generation)

SPI-2: Second Generation SCSI Parallel Interface

SPI-3: Third Generation SCSI Parallel Interface

SSA: Serial Storage Interface

SSC: SCSI-3 Stream Commands (includes Tape)

SSWGs: Specific-Subject Working Groups

STA: SCSI Trade Association (not an NCITS activity)

STA Tech: STA Technical Meeting (T10 members invited)

T10: Lower Level Interfaces Technical Committee

WG: Working Group (same as Ad Hoc Group)

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

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FCP, FCP-2, SES	Robert Snively	(415) 336-5332 Bob.Snively@eng.sun.com

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SSS	Keith Parker	(503) 255-1035 diogenes@europa.com
Other Activities	John Lohmeyer	(719) 533-7560 lohmeier@ix.netcom.com

The long-term T10 meeting week schedule is:

Date	Location	Host/Comments
Nov 2-6, 1998	Palm Springs, CA	Adaptec
Mar 8-12, 1999	Sarasota, FL	AMP
May 3-7, 1999	Manchester, NH	Hitachi Cable
Jul 12-16, 1999	Colorado Springs, CO	LSI Logic
Sep 13-17, 1999	Huntington Beach, CA	QLogic
Nov 8-12, 1999	Palm Springs, CA	Adaptec
Jan 10-14, 2000	Brisbane, Australia	ENDL Pacific Technologies
Mar 6-10, 2000	RTP, NC or Dallas, TX	Unitrode
May 8-12, 2000	Manchester, NH	Hitachi Cable
Jul 10-14, 2000	Colorado Springs, CO	LSI Logic
Sep 11-15, 2000	Huntington Beach, CA	QLogic
Nov 6-10, 2000	To be determined	Adaptec

14.1 Authorization of Working Group Meetings

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

Bob Snively moved that T10 authorize the T10-related meetings and events in the list above. Jeff Williams seconded the motion. The motion passed unanimously.

Dal Allan asked the committee to provide a confirmation of the decision hold the January 2000 meeting in Brisbane, Australia. Dal's confirmation was the lack of any motion to reconsider the decision to hold the January 2000 meetings in Brisbane.

15. Adjournment

The meeting was adjourned at 1:05 p.m. on Thursday September 17, 1998.

Meeting Attendees -- Enclosure (1)

Name	S	Organization	Electronic Mail Address
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48 People Present

Status Key: P - Principal
A,A# - Alternate
O - Observer
L - Liaison
V - Visitor

T10 Attendance Database on 1998/09/22 at 16:09:42 -- Enclosure (2)

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T10 Document Database on 1998/09/22 at 16:07:58 -- Enclosure (3)

T10/98-001R0 Date: 1997/12/05 Author: J. Lohmeyer Mailing: 1998_1
Agenda for T10 Meeting #26 (May '98)

T10/98-002R0 Date: 1997/12/05 Author: J. Lohmeyer Mailing: 1998_1
T10 Project Summary - Mar '98

T10/98-003R0 Date: 1997/12/05 Author: J. Lohmeyer Mailing: 1998_1
Jeopardy letter for May '98 meeting

T10/98-004R0 Date: 1997/12/05 Author: J. Lohmeyer Mailing: 1998_1
Letter Ballot on Forwarding SPI-2 to First Public Review

T10/98-005R0 Date: 1998/01/13 Author: J. Lohmeyer Mailing: 1998_1
Results of letter ballot 97-038 on forwarding SBP-2

T10/98-006R0 Date: 1998/01/13 Author: J. Lohmeyer Mailing: 1998_1
Results of letter ballot 98-004 on forwarding SPI-2

T10/98-007R0 Date: 1998/01/26 Author: J. Lohmeyer Mailing: 1998_1
Ltr. to Ken Bush (Compaq) re Security Patents

T10/98-008R0 Date: 1998/05/13 Author: J. Lohmeyer Mailing: 1998_2
Agenda for T10 Meeting #27 (July '98)

T10/98-009R0 Date: 1998/05/13 Author: J. Lohmeyer Mailing: 1998_2
T10 Project Summary - May '98

T10/98-009R1 Date: 1998/05/20 Author: J. Lohmeyer Mailing: 1998_2
T10 Project Summary - May '98

T10/98-010R0 Date: 1998/05/13 Author: J. Lohmeyer Mailing: 1998_2
Jeopardy letter for Jul '98 meeting

T10/98-011R0 Date: 1998/07/20 Author: J. Lohmeyer Mailing: 1998_3
Agenda for T10 Meeting #28 (Sept '98)

T10/98-012R0 Date: 1998/07/20 Author: J. Lohmeyer Mailing: 1998_3
T10 Project Summary - Jul '98

T10/98-013R0 Date: 1998/07/20 Author: J. Lohmeyer Mailing: 1998_3
Jeopardy letter for Sep '98 meeting

T10/98-014R0 Date: 1998/07/22 Author: J. Lohmeyer Mailing: 1998_3
Letter Ballot on forwarding EPI to 1PR

T10/98-015R0 Date: 1998/07/31 Author: J. Lohmeyer Mailing: 1998_4
Letter Ballot on forwarding RBC to 1PR

T10/98-016R0 Date: 1998/08/26 Author: J. Lohmeyer Mailing: 1998_4
Results of letter ballot 98-014 on forwarding EPI

T10/98-017R0 Date: 1998/09/05 Author: J. Lohmeyer Mailing: 1998_4
Results of letter ballot 98-015 on forwarding RBC

T10/98-018R0 Date: 1998/08/27 Author: J. Lohmeyer Mailing: 1998_4
T10 Annual Report for 1997/1998

T10/98-019R0 Date: 1998/09/21 Author: J. Lohmeyer Mailing: 1998_4
Agenda for T10 Meeting #29 (Nov '98)

T10/98-020R0 Date: 1998/09/21 Author: J. Lohmeyer Mailing: 1998_4
T10 Project Summary - Sep '98

T10/98-021R0 Date: 1998/09/21 Author: J. Lohmeyer Mailing: 1998_4
Jeopardy letter for Nov '98 meeting

T10/98-101R0 Date: 1997/12/02 Author: Dean Wallace Mailing: 1998_1
Universal Backplane Annex

T10/98-102R0 Date: 1997/12/07 Author: L. Lamers Mailing: 1998_1
Minutes of Protocol Study Group - 12/97

T10/98-103R0 Date: 1997/12/04 Author: Craig McCombs Mailing: 1998_1
Predicting Performance Benefits of Packtized SCSI

T10/98-104R0 Date: 1997/12/04 Author: Drew Wilson Mailing: 1998_1
U3 SCSI Performance

T10/98-105R0 Date: 1997/12/05 Author: George Penokie Mailing: 1998_1
SCSI Usable Bandwidth - Fixed Select Times; Varying Data Rate

T10/98-106R0 Date: 1998/01/01 Author: Gerry Houlder Mailing: 1998_1
Add PLPB feature to mode page 19h

T10/98-106R1 Date: 1998/04/24 Author: Gerry Houlder Mailing: 1998_2
Add PLPB feature to mode page 19h

T10/98-107R0 Date: 1997/12/12 Author: John Lohmeyer Mailing: 1998_1
Document Retention Policy

T10/98-107R1 Date: 1998/03/19 Author: John Lohmeyer Mailing: 1998_1
Document Retention Policy

T10/98-108R0 Date: 1998/01/14 Author: George Penokie Mailing: 1998_1
Comment resolution on SPI-2 letter ballot

T10/98-108R1 Date: 1998/01/14 Author: George Penokie Mailing: 1998_1
Comment resolution on SPI-2 letter ballot

T10/98-108R2 Date: 1998/03/18 Author: George Penokie Mailing: 1998_1
Comment resolution on SPI-2 letter ballot

T10/98-109R0 Date: 1998/01/23 Author: Peter Johansson Mailing: 1998_1
Comment Resolution on SBP-2 letter ballot - Revision 3

T10/98-109R1 Date: 1998/02/28 Author: Peter Johansson Mailing: 1998_1
Comment Resolution on SBP-2 letter ballot - Revision 3

T10/98-109R2 Date: 1998/03/21 Author: Peter Johansson Mailing: 1998_1
Comment Resolution on SBP-2 letter ballot - Revision 3

T10/98-110R0 Date: 1998/01/15 Author: Ron Roberts Mailing: 1998_1
Minutes of MMC-2 Working Group - 1/98

T10/98-111R0 Date: 1998/01/19 Author: J. Lohmeyer Mailing: 1998_1
Minutes of SPI-3 Physical SG 1/22/98

T10/98-112R0 Date: 1998/02/02 Author: T. Coughlan Mailing: 1998_1
Writable Device Identifiers

T10/98-112R1 Date: 1998/07/15 Author: T. Coughlan Mailing: 1998_4
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T10/98-112R2 Date: 1998/09/11 Author: T. Coughlan Mailing: 1998_4
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T10/98-112R3 Date: 1998/09/16 Author: T. Coughlan Mailing: 1998_4
Writable Device Identifiers

T10/98-112R4 Date: 1998/09/17 Author: T. Coughlan Mailing: 1998_4
Writable Device Identifiers

T10/98-113R0 Date: 1998/01/21 Author: V. Bastiani Mailing: 1998_1
Initial test results on dual-edge clock signals

T10/98-114R0 Date: 1998/01/21 Author: W.C. Gintz Mailing: 1998_1
Hot Plugging on Ultra3 Busses

T10/98-115R0 Date: 1998/01/30 Author: Ralph Weber Mailing: 1998_1
Sundry Minor Enhancements for SPC-2

T10/98-115R1 Date: 1998/02/10 Author: Ralph Weber Mailing: 1998_1
Sundry Minor Enhancements for SPC-2

T10/98-115R3 Date: 1998/03/17 Author: Ralph Weber Mailing: 1998_1
Sundry Minor Enhancements for SPC-2

T10/98-116R0 Date: 1998/02/04 Author: Ron Roberts Mailing: 1998_1
MMC-2 Features and Parameters Clause

T10/98-117R0 Date: 1998/02/28 Author: Peter Johansson Mailing: 1998_1
Comment Resolution on SBP-2 letter ballot - More on Revision 3

T10/98-117R1 Date: 1998/02/28 Author: Peter Johansson Mailing: 1998_1
Comment Resolution on SBP-2 letter ballot - More on Revision 3

T10/98-118R0 Date: 1998/01/21 Author: Darrell Redford Mailing: 1998_1
RBC Generic Command Set Issues

T10/98-118R1 Date: 1998/03/03 Author: Darrell Redford Mailing: 1998_1
RBC Generic Command Set Issues

T10/98-119R0 Date: 1998/02/11 Author: Pete McLean Mailing: 1998_1
Minutes of RBC working group - 2/98

T10/98-120R0 Date: 1998/02/28 Author: Peter Johansson Mailing: 1998_1
Comment Resolution on SBP-2 letter ballot: Isochronous or Not?

T10/98-121R0 Date: 1998/02/20 Author: Greg Shue Mailing: 1998_1
Serial Bus Protocol 2 - Programmable Reconnect Interval Extension

T10/98-121R1 Date: 1998/03/30 Author: Greg Shue Mailing: 1998_1
Serial Bus Protocol 2 - Programmable Reconnect Interval Extension

T10/98-121R2 Date: 1998/05/08 Author: Greg Shue Mailing: 1998_2

Serial Bus Protocol 2 - Programmable Reconnect Interval Extension

T10/98-122R0 Date: 1998/03/02 Author: Ron Roberts Mailing: 1998_1
Proposal Clause 4 MMC-2

T10/98-123R0 Date: 1998/03/15 Author: Jeff Williams Mailing: 1998_1
Removal of Tag Checking Requirement in SPI-2

T10/98-123R1 Date: 1998/03/17 Author: Jeff Williams Mailing: 1998_1
Removal of Tag Checking Requirement in SPI-2

T10/98-124R0 Date: 1998/03/13 Author: Robert Snively Mailing: 1998_1
SPC-2, Persistent Reservation: Additional proposed corrections

T10/98-124R1 Date: 1998/05/01 Author: Robert Snively Mailing: 1998_2
SPC-2, Persistent Reservation: Additional proposed corrections

T10/98-124R2 Date: 1998/05/15 Author: Robert Snively Mailing: 1998_2
SPC-2, Persistent Reservation: Additional proposed corrections

T10/98-125R0 Date: 1998/03/26 Author: Weber/Lohmeyer Mailing: 1998_1
Minutes of SPI-3 Working Group - 3/98

T10/98-125R1 Date: 1998/03/30 Author: Weber/Lohmeyer Mailing: 1998_1
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T10/98-126R0 Date: 1998/03/26 Author: Weber/Lohmeyer Mailing: 1998_1
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T10/98-126R1 Date: 1998/03/30 Author: Weber/Lohmeyer Mailing: 1998_1
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T10/98-127R0 Date: 1998/03/26 Author: Weber/Lohmeyer Mailing: 1998_1
Minutes of T10 Plenary Meeting #25

T10/98-127R1 Date: 1998/03/31 Author: Weber/Lohmeyer Mailing: 1998_1
Minutes of T10 Plenary Meeting #25 - 3/19/98

T10/98-128R0 Date: 1998/03/13 Author: Robert Snively Mailing: 1998_1
New Log Page Requirements

T10/98-128R1 Date: 1998/04/08 Author: Robert Snively Mailing: 1998_2
New Log Page Requirements

T10/98-128R2 Date: 1998/05/15 Author: Robert Snively Mailing: 1998_2
New Log Page Requirements

T10/98-129R0 Date: 1998/03/14 Author: W.C. Gintz Mailing: 1998_1
Hot Plugging on U3 Busses (Second Report)

T10/98-130R0 Date: 1998/03/18 Author: Keith Parker Mailing: 1998_1
SCSI Socket Services (SSS) Review 98-03-18

T10/98-131R0 Date: 1998/03/16 Author: Greg Kapraun Mailing: 1998_1
0.5pF Balance Capacitance

T10/98-132R0 Date: 1998/03/16 Author: W. Bridgewater Mailing: 1998_1
Bias Reduction Proposal - 3/98

T10/98-133R0 Date: 1998/03/16 Author: Richard Moore Mailing: 1998_1
Presentation on QAS changes

T10/98-134R0 Date: 1998/03/16 Author: Dean Wallace Mailing: 1998_1
Termination Power Requirements

T10/98-135R0 Date: 1998/03/19 Author: Bill Ham Mailing: 1998_1
Section of EPI describing SCSI switches

T10/98-136R0 Date: 1998/03/10 Author: Gene Milligan Mailing: 1998_1
ISO/IEC 8482 issues

T10/98-137R0 Date: 1998/03/19 Author: Steve Finch Mailing: 1998_1
Project Proposal for Serial Bus Isochronous Protocol Standard

T10/98-138R0 Date: 1998/03/19 Author: Pete McLean Mailing: 1998_1
Minutes of SBP-2 Working Group - 3/98

T10/98-139R0 Date: 1998/03/19 Author: Pete McLean Mailing: 1998_1
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T10/98-140R0 Date: 1998/03/19 Author: T. Coughlan Mailing: 1998_1
Clarification of Persistent Reservation

T10/98-141R0 Date: 1998/03/19 Author: Ron Roberts Mailing: 1998_1
Minutes of MMC-2 Working Group - 3/98

T10/98-142R0 Date: 1998/03/17 Author: John Scheible Mailing: 1998_1
Common Database Record Interchange Structure

T10/98-143R0 Date: 1998/03/19 Author: Tom Lagatta Mailing: 1998_1
Storage Networking Industry Association Presentation

T10/98-144R0 Date: 1998/01/14 Author: George Penokie Mailing: 1998_2
CRC on existing SCSI parallel protocol

T10/98-144R1 Date: 1998/04/14 Author: George Penokie Mailing: 1998_2
CRC on existing SCSI parallel protocol

T10/98-145R0 Date: 1998/04/19 Author: R. Weber Mailing: 1998_2
Which port changes for SPC-2

T10/98-145R1 Date: 1998/07/04 Author: R. Weber Mailing: 1998_3
Discovering If This Is SES Port A or Port B

T10/98-146R0 Date: 1998/05/12 Author: Lohmeyer/Weber Mailing: 1998_2
Minutes of SPI-3 Working Group - 5/98

T10/98-146R1 Date: 1998/05/18 Author: Lohmeyer/Weber Mailing: 1998_2
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T10/98-146R3 Date: 1998/05/20 Author: Lohmeyer/Weber Mailing: 1998_2
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T10/98-147R1 Date: 1998/05/18 Author: Weber/Lohmeyer Mailing: 1998_2
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T10/98-148R0 Date: 1998/05/13 Author: Weber/Lohmeyer Mailing: 1998_2
Minutes of T10 Plenary Meeting #26

T10/98-148R1 Date: 1998/05/18 Author: Weber/Lohmeyer Mailing: 1998_2
Minutes of T10 Plenary Meeting #26 - 5/7/98

T10/98-149R0 Date: 1998/04/22 Author: N. Wanamaker Mailing: 1998_2
Tape Error Recovery in Queued Environments

T10/98-150R0 Date: 1998/05/02 Author: Ed Gardner Mailing: 1998_2
Simplified Parallel SCSI CRC Proposal

T10/98-151R0 Date: 1998/05/01 Author: Hideki Hosoya Mailing: 1998_2
Optical Memory Card Read/Write Command Set for T10 review

T10/98-152R0 Date: 1998/04/29 Author: Gene Milligan Mailing: 1998_2
Presentation on Fast-80

T10/98-153R0 Date: 1998/05/02 Author: Gene Milligan Mailing: 1998_2
Fast-80 details

T10/98-153R1 Date: 1998/05/15 Author: Gene Milligan Mailing: 1998_2
Fast-80 details

T10/98-153R2 Date: 1998/06/17 Author: Gene Milligan Mailing: 1998_3
Proposal for the Fast 80 Specifications in the SPI-3 Standard

T10/98-153R3 Date: 1998/07/10 Author: Gene Milligan Mailing: 1998_3
Proposal for the Fast 80 Specifications in the SPI-3 Standard

T10/98-153R4 Date: 1998/08/23 Author: Gene Milligan Mailing: 1998_4
Proposal for the Fast 80 Specifications in the SPI-3 Standard

T10/98-153R5 Date: 1998/09/11 Author: Gene Milligan Mailing: 1998_4
Proposal for the Fast 80 Specifications in the SPI-3 Standard

T10/98-153R6 Date: 1998/09/15 Author: Gene Milligan Mailing: 1998_4
Proposal for the Fast 80 Specifications in the SPI-3 Standard

T10/98-154R0 Date: 1998/05/04 Author: Bruce Leshay Mailing: 1998_2
CRC Proposal

T10/98-155R0 Date: 1998/05/04 Author: Richard Uber Mailing: 1998_2
Hot Swap Technical Issues

T10/98-156R0 Date: 1998/05/04 Author: Wally Bridgewater Mailing: 1998_2
Full Length Cable & 15 Loads, 3 Point Plan

T10/98-157R0 Date: 1998/05/04 Author: James McGrath Mailing: 1998_2
Testing for Old Expanders

T10/98-158R0 Date: 1998/05/04 Author: James McGrath Mailing: 1998_2
Communicating with New Expanders

T10/98-159R0 Date: 1998/05/04 Author: George Penokie Mailing: 1998_2

Presentation on QAS Timing

T10/98-159R1 Date: 1998/06/19 Author: George Penokie Mailing: 1998_3
Presentation on QAS Timing

T10/98-159R2 Date: 1998/06/19 Author: George Penokie Mailing: 1998_4
Presentation on QAS Timing

T10/98-160R0 Date: 1998/05/02 Author: Dan Smith Mailing: 1998_2
Leading Pulse Tests Using Ultra2 REQ Signal

T10/98-161R0 Date: 1998/05/04 Author: Dan Smith Mailing: 1998_2
Cable Skew Tests Using Ultra2 Data Signals

T10/98-162R0 Date: 1998/05/04 Author: Dan Smith Mailing: 1998_2
Setup and Hold Tests Using Ultra2 Data/REQ Signals

T10/98-163R0 Date: 1998/05/05 Author: Gerry Houlder Mailing: 1998_2
SCSI Extensions for Network Attached Storage

T10/98-164R0 Date: 1998/05/19 Author: Robert Snively Mailing: 1998_2
Command behavior under reservations

T10/98-164R1 Date: 1998/07/24 Author: Robert Snively Mailing: 1998_3
Command behavior under reservations

T10/98-165R0 Date: 1998/05/05 Author: Neil Wanamaker Mailing: 1998_2
FCP-2 Enhancements for Tape

T10/98-165R1 Date: 1998/05/05 Author: Neil Wanamaker Mailing: 1998_2
FCP-2 Enhancements for Tape

T10/98-165R3 Date: 1998/07/14 Author: Neil Wanamaker Mailing: 1998_3
FCP-2 Enhancements for Tape

T10/98-166R0 Date: 1998/05/05 Author: Dave Guss Mailing: 1998_2
REQ-ACK Counting

T10/98-167R0 Date: 1998/05/05 Author: Pete Mclean Mailing: 1998_2
Minutes of RBC Working Group - 5/5/98

T10/98-168R0 Date: 1998/05/06 Author: Pete Mclean Mailing: 1998_2
Minutes of SBP-2 Working Group - 5/6/98

T10/98-169R0 Date: 1998/05/06 Author: Rob Sims Mailing: 1998_2
GET CONFIGURATION Overview

T10/98-170R0 Date: 1997/12/04 Author: Rob Sims Mailing: 1998_2
Proposal for additions to SPC

T10/98-171R0 Date: 1998/05/06 Author: Peter Johansson Mailing: 1998_4
SBP-2 Document History

T10/98-172R0 Date: 1998/05/07 Author: Stewart Wyatt Mailing: 1998_2
Minutes of Joint T10/T11.3 Meeting on Fibre Channel Tape - 5/5/98

T10/98-173R0 Date: 1998/05/16 Author: Ralph Weber Mailing: 1998_2
SAM-2 Rev 6 Notes

T10/98-174R0 Date: 1998/05/08 Author: Hank Herrmann Mailing: 1998_2
Dual Conductivity Contact

T10/98-175R0 Date: 1998/05/19 Author: Robert Snively Mailing: 1998_2
Proposal to obsolete CHANGE DEFINITION command in SPC-2

T10/98-176R0 Date: 1998/05/19 Author: Jim McGrath Mailing: 1998_2
Proposal for Parallel SCSI: Domain Validation

T10/98-176R1 Date: 1998/05/21 Author: Jim McGrath Mailing: 1998_2
Proposal for Parallel SCSI: Domain Validation

T10/98-176R2 Date: 1998/06/02 Author: Jim McGrath Mailing: 1998_3
Proposal for Parallel SCSI: Domain Validation

T10/98-176R3 Date: 1998/06/09 Author: Jim McGrath Mailing: 1998_3
Proposal for Parallel SCSI: Domain Validation

T10/98-177R0 Date: 1998/05/19 Author: Jim McGrath Mailing: 1998_2
Proposal for Parallel SCSI: Increase Transfer Rate and Improve Error Detection

T10/98-177R1 Date: 1998/06/02 Author: Jim McGrath Mailing: 1998_3
Proposal for Parallel SCSI: Increase Transfer Rate and Improve Error Detection

T10/98-177R2 Date: 1998/06/08 Author: Jim McGrath Mailing: 1998_3
Proposal for Parallel SCSI: Increase Transfer Rate and Improve Error Detection

T10/98-177R3 Date: 1998/07/11 Author: Jim McGrath Mailing: 1998_3
Proposal for Parallel SCSI: Increase Transfer Rate and Improve Error Detection

T10/98-177R4 Date: 1998/08/17 Author: Jim McGrath Mailing: 1998_4
Proposal for Parallel SCSI: Increase Transfer Rate and Improve Error Detection

T10/98-177R5 Date: 1998/09/11 Author: Jim McGrath Mailing: 1998_4
Proposal for Parallel SCSI: Increase Transfer Rate and Improve Error Detection

T10/98-177R6 Date: 1998/09/15 Author: Jim McGrath Mailing: 1998_4
Proposal for Parallel SCSI: Increase Transfer Rate and Improve Error Detection

T10/98-178R0 Date: 1998/05/19 Author: Erich Oetting Mailing: 1998_2
Known defects in SMC (T10/0999-D Rev 10a)

T10/98-178R1 Date: 1998/07/16 Author: Erich Oetting Mailing: 1998_3
Known defects in SMC (T10/0999-D Rev 10a)

T10/98-179R0 Date: 1998/05/22 Author: J. Lohmeyer Mailing: 1998_3
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T10/98-180R0 Date: 1998/05/13 Author: George Penokie Mailing: 1998_3
Parallel Protocol Requests

T10/98-180R1 Date: 1998/05/13 Author: George Penokie Mailing: 1998_3
Parallel Protocol Requests

T10/98-180R2 Date: 1998/07/16 Author: George Penokie Mailing: 1998_3
Parallel Protocol Requests

T10/98-180R3 Date: 1998/07/16 Author: George Penokie Mailing: 1998_4
Parallel Protocol Requests

T10/98-181R0 Date: 1998/05/22 Author: Vince Bastiani Mailing: 1998_3
Fast-80 Eye Pattern Testing

T10/98-182R0 Date: 1998/05/21 Author: Dan Smith Mailing: 1998_3
Ultra-3 Cable Tests

T10/98-183R0 Date: 1998/09/01 Author: Keith Parker Mailing: 1998_4
SSS & IP packets over SCSI

T10/98-184R0 Date: 1998/06/17 Author: Larry Lamers Mailing: 1998_3
Extended Modes for READ/WRITE BUFFER

T10/98-184R1 Date: 1998/09/08 Author: Larry Lamers Mailing: 1998_4
Extended Modes for READ/WRITE BUFFER

T10/98-186R0 Date: 1998/06/04 Author: George Penokie Mailing: 1998_3
World Wide IDs

T10/98-187R0 Date: 1998/06/19 Author: Gerry Houlder Mailing: 1998_3
Considerations for mode pages common to several LUNs

T10/98-187R1 Date: 1998/09/09 Author: Gerry Houlder Mailing: 1998_4
Considerations for mode pages common to several LUNs

T10/98-188R0 Date: 1998/06/26 Author: Gerry Houlder Mailing: 1998_3
Method for defining very long command blocks

T10/98-188R1 Date: 1998/09/09 Author: Gerry Houlder Mailing: 1998_4
Method for defining very long command blocks

T10/98-189R0 Date: 1998/06/16 Author: Larry Lamers Mailing: 1998_3
Presentation on Basic Host Initiated Validation (B-HIV)

T10/98-190R0 Date: 1998/06/19 Author: J. Lohmeyer Mailing: 1998_3
Minutes of SPI-3 Working Group - June 19, 1998

T10/98-191R0 Date: 1998/07/15 Author: Keith Parker Mailing: 1998_3
SCSI Socket Services (SSS) Review 98-07-15

T10/98-192R0 Date: 1998/06/18 Author: Richard Uber & Mailing: 1998_3
Duncan Penman
Experimental Results on Fast-80 SCSI Signals

T10/98-193R0 Date: 1998/06/18 Author: Richard Uber & Mailing: 1998_3
Duncan Penman
Fast-80 Simulated Host Waveforms

T10/98-194R0 Date: 1998/06/18 Author: Richard Uber & Mailing:
Duncan Penman
Fast-80 Target Source Waveforms

T10/98-194R1 Date: 1998/06/18 Author: Richard Uber & Mailing: 1998_3
Duncan Penman
Fast-80 Target Source Waveforms

T10/98-195R0 Date: 1998/06/18 Author: Richard Uber & Mailing: 1998_3
Duncan Penman
ISI Testing at 25 Meters

T10/98-196R0 Date: 1998/06/19 Author: Vince Bastiani Mailing: 1998_3
Fast-80 Test Data

T10/98-197R0 Date: 1998/07/01 Author: Zane Daggett Mailing: 1998_3
SPI-3 Concerns

T10/98-198R0 Date: 1998/07/10 Author: Duncan Penman Mailing: 1998_3
Fast-80 Case Study - One Bit Across a 6-device Backplane

T10/98-199R0 Date: 1998/07/10 Author: Duncan Penman Mailing: 1998_3
Fast-80 Case Study - Data Pattern Dependent Effects

T10/98-200R0 Date: 1998/07/16 Author: Lohmeyer / Weber Mailing: 1998_3
Minutes of SPI-3 Working Group - 7/14/98

T10/98-201R0 Date: 1998/07/20 Author: Lohmeyer / Weber Mailing: 1998_3
Minutes of SCSI Working Group - 7/15/98

T10/98-202R0 Date: 1998/07/02 Author: Lohmeyer / Weber Mailing: 1998_3
Minutes of T10 Plenary Meeting #27 - 7/16/98

T10/98-202R1 Date: 1998/09/06 Author: Lohmeyer / Weber Mailing: 1998_4
Minutes of T10 Plenary Meeting #27 - 7/16/98

T10/98-203R0 Date: 1998/07/07 Author: George Penokie Mailing: 1998_3
Persistent Reservations

T10/98-203R1 Date: 1998/07/21 Author: George Penokie Mailing: 1998_3
Persistent Reservations

T10/98-203R2 Date: 1998/07/22 Author: George Penokie Mailing: 1998_3
Persistent Reservations

T10/98-203R3 Date: 1998/07/24 Author: George Penokie Mailing: 1998_4
Persistent Reservations

T10/98-203R4 Date: 1998/09/11 Author: George Penokie Mailing: 1998_4
Persistent Reservations

T10/98-203R5 Date: 1998/09/22 Author: George Penokie Mailing: 1998_4
Persistent Reservations

T10/98-204R0 Date: 1998/07/15 Author: George Penokie Mailing: 1998_3
Editorial changes in SPI-2 from Rev 20a to Rev 20b

T10/98-205R0 Date: 1998/07/14 Author: Jeff Williams Mailing: 1998_3
Addition of Disable Off-Line Read Scan to Information Exception Page

T10/98-205R1 Date: 1998/07/16 Author: Jeff Williams Mailing: 1998_3
Addition of Disable Background Scan to Information Exception Page

T10/98-205R2 Date: 1998/09/09 Author: Jeff Williams Mailing: 1998_4
Addition of Disable Background Scan to Information Exception Page

T10/98-206R0 Date: 1998/07/14 Author: Bob Snively Mailing: 1998_3
Proposal for FCP Initiator Identification during Persistent Reservations

T10/98-206R1 Date: 1998/07/23 Author: Bob Snively Mailing: 1998_3

Proposal for FCP Initiator Identification during Persistent Reservations

T10/98-207R0 Date: 1998/07/14 Author: Pete McLean Mailing: 1998_3
Minutes of RBC Working Group - July 14, 1998

T10/98-208R0 Date: 1998/06/26 Author: David B. Anderson Mailing: 1998_3
Object Oriented Devices: Description of Requirements

T10/98-209R0 Date: 1998/07/16 Author: Bob Snively Mailing: 1998_4
List of changes from FCP Rev 10 to FCP Rev 12

T10/98-210R0 Date: 1998/07/27 Author: Fred M. Mailing: 1998_3
Vasconcelos
Seagate letter granting T10 permission to distribute 98-208

T10/98-211R0 Date: 1998/09/02 Author: Duncan Penman Mailing: 1998_4
Setup and Hold Timing Measurements

T10/98-212R0 Date: 1998/09/22 Author: Lohmeyer & Weber Mailing: 1998_4
Minutes of SPI-3 Working Group -- September 15, 1998

T10/98-213R0 Date: 1998/09/22 Author: Lohmeyer & Weber Mailing: 1998_4
Minutes of SCSI Working Group -- September 16, 1998

T10/98-214R0 Date: 1998/09/06 Author: Lohmeyer & Weber Mailing: 1998_4
Minutes of T10 Plenary Meeting #28 - 9/17/98

T10/98-215R0 Date: 1998/09/09 Author: John Lohmeyer Mailing: 1998_4
INQUIRY Data field to report transceiver type

T10/98-216R0 Date: 1998/09/11 Author: Keith Parker Mailing: 1998_4
SCSI Socket Services (SSS) Review 98-09-16

T10/98-217R0 Date: 1998/09/11 Author: Jim McGrath Mailing: 1998_4
Outstanding Issues in T10/98-177

T10/98-218R0 Date: 1998/09/11 Author: Jim McGrath Mailing: 1998_4
Ultra3: 16 vs 8 bit buses and LVD vs Single Ended Signaling

T10/98-219R0 Date: 1998/09/15 Author: Zane Daggett, Mailing: 1998_4
Bill Ham
SCSI cable media performance specifications for Ultra3 and beyond

T10/98-220R0 Date: 1998/09/15 Author: Louis Grantham Mailing: 1998_4
Changing single-ended terminator max current from 22.4 to 24 mA

T10/98-221R0 Date: 1998/09/16 Author: Pete McLean Mailing: 1998_4
Minutes of RBC LB Comments Resolution Meeting - 9/15/98

T10/98-222R0 Date: 1998/09/16 Author: Pete McLean Mailing: 1998_4
Proposed RBC Letter Ballot Comments Resolution

T10/98-223R0 Date: 1998/09/16 Author: Bill Ham Mailing: 1998_4
New device type code for bridging expanders

T10/98-223R1 Date: 1998/09/16 Author: Bill Ham Mailing: 1998_4
New device type code for bridging expanders

T10/98-224R0 Date: 1998/09/16 Author: Kenneth W. Mailing: 1998_4

Preslan

How the Global File System uses Dlock

T10/98-225R0 Date: 1998/09/12 Author: O'Keefe, Preslan, Mailing: 1998_4
Sabol, & Soltis

Proposed SCSI Device Locks

T10/98-226R0 Date: 1998/09/17 Author: Paul Aloisi Mailing: 1998_4
SPI-3 single-ended termination

T10/98-227R0 Date: 1998/09/15 Author: Bill Ham Mailing: 1998_4
Resolution of letter ballot comments relating to EPI