

Accredited Standards Committee*
National Committee for Information Technology Standards (NCITS)

Doc. No.: T10/99-269r0

Date: September 20, 1999

Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber / John Lohmeyer
Subject: Minutes of T10 Plenary Meeting #33 -- September 16, 1999
Huntington Beach, CA

Agenda

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 - 10.2.4 Project Proposal for SCSI VI Protocol (SVP) (99-246r1) [Gardner]
 - 10.2.5 SPI-3 integrity check fall back procedure (99-242r2) [Lohmeyer]
 - 10.2.6 Forcing Bus Free from QAS (99-274r0) [Moore]
 - 10.2.7 SAM-2 Tasks and Work (99-232r1) [Weber]

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- 10.2.8 Task Management Handling Changes for SPI-3 (99-227r3) [Penokie]
- 10.2.9 Logical Unit Self Test (99-179r5) [Evans]
- 10.2.10 EXTENDED COPY Support for Persistent Reservations (99-230r1) [Weber]
- 10.2.11 EXTENDED COPY and Abort Task Management Functions (99-231r1) [Weber]
- 10.2.12 Allow WRITE BUFFER when drive is not ready (99-277r0) [Houlder]
- 10.2.13 SCSI Medium Changer Commands -2 (SMC-2) Project Proposal (99-218r1) [Oetting]
- 10.2.14 MCM Additions to Fibre Channel Control Page in FCP-2 (99-206r1) [Penokie]
- 10.3 Project Proposal for SCSI on Scheduled Transfer (SST) (99-239) [Ronald]
- 11. ISO
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 - 11.2 ISO Business [Milligan]
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- 12. Liaison Reports
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- 13. Review of Action Items
- 14. Meeting Schedule
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Results of Meeting

1. Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:00 a.m., Thursday September 16, 1999. He thanked Skip Jones of QLogic for hosting the meeting.

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:

- 10.2.2 Project Proposal for SCSI Signal Modeling TR (99-243r1) [Ham/Wallace]
- 10.2.3 Project Proposal for SCSI on Scheduled Transfer (SST) (99-239r1) [Woelz/Allan]
- 10.2.4 Project Proposal for SCSI VI Protocol (SVP) (99-246r1) [Gardner]
- 10.2.5 SPI-3 integrity check fall back procedure (99-242r2) [Lohmeyer]
- 10.2.6 Forcing Bus Free from QAS (99-274r0) [Moore]
- 10.2.7 SAM-2 Tasks and Work (99-232r1) [Weber]

- 10.2.8 Task Management Handling Changes for SPI-3 (99-227r3) [Penokie]
- 10.2.9 Logical Unit Self Test (99-179r5) [Evans]
- 10.2.10 EXTENDED COPY Support for Persistent Reservations (99-230r1) [Weber]
- 10.2.11 EXTENDED COPY and Abort Task Management Functions (99-231r1) [Weber]
- 10.2.12 Allow WRITE BUFFER when drive is not ready (99-277r0) [Houlder]
- 10.2.13 SCSI Medium Changer Commands -2 (SMC-2) Project Proposal (99-218r1) [Oetting]

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

- 10.2.14 MCM Additions to Fibre Channel Control Page in FCP-2 (99-206r1) [Penokie]

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 apply for membership and begin voting at anytime following adjournment of the first meeting. Typically, the individual applies for membership and start casting votes at the second plenary meeting. Working group and other ad hoc meetings do not count toward attendance requirements.

The option that allows a person attending their first meeting may become a voting member immediately following that meeting, provided their NCITS fees have been paid, permits a new member to vote on letter ballots issued between his/her first and second meetings.

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

John briefly discussed the mailing fees. Complete pricing information is contained in the 1999 membership form (available at ftp://ftp.t10.org/pub/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 13 people from 7 organizations informing them that their membership was in jeopardy due to non-attendance (see 99-009r0) and that their membership would be terminated if they did not attend this meeting. The following organizations were in attendance jeopardy:

Advansys
Ancot Corp.
Exabyte Corp.
Harting, Inc. of N. America
Lasercard Systems Corp.
Methode Electronics, Inc.
Woven Electronics

All of the organizations were present except:

Exabyte Corp.
Harting, Inc. of N. America
Lasercard Systems Corp.
Methode Electronics, Inc.
Woven Electronics

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).

The following organizations requested new (or reinstated) membership:

Dell Computer

The T10 membership during the meeting was 45 organizations down from 49 organizations 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.

3.1 Voting procedures

John stated that NCITS had recently agreed in principal to make several changes to the NCITS rules. While the exact wording still needs to be created, the two-week rule is being clarified to say the two-week period is measured to the start of the relevant meeting. Also, documents revised at a meeting are not subject to the two-week rule provided the document being modified met the two-week rule. John stated that he will follow the intent of this new rule, allowing documents that were available two-weeks prior to the meeting to be processed even if the document is revised during a working group meeting earlier in the week.

Also the rule about not allowing abstentions on technical issues is being revised to permit abstentions provided a reason is stated. Such abstentions are not considered in calculating whether the motion met the 50% or 2/3rds voting requirements. John stated that he will be allowing abstentions as per the draft rule.

4. Approval of Minutes - July '99 Meeting - Colorado Springs, CO (T10/99-202r1)

The minutes were approved as written.

5. Document Distribution

Members who have any problems with their mailing subscription should deal directly with Judy Gales (jgales@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 September 23, 1999. 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 email (at lohmeyer@t10.org), or they can be transferred by ftp protocol to ftp.t10.org and placed in the /incoming directory. In the latter case, please also send email to John informing him of the file name and location of the file.

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

To be added to the T10 Reflector, send an email to majordomo@t10.org with the line 'subscribe t10' in the message body. The NCITS Secretariat maintains a World Wide Web page at <http://www.ncits.org/>. LSI Logic maintains a World Wide Web page on behalf of T10 on a server provided by the SCSI Trade Association at:

<http://www.t10.org/>

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.

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.

A call for patents was made. There were no responses.

7. Review of Old Action Items

- 312) Ralph Weber will review editorially the second sentence of item c in clause 5.3.2.5.3. *Complete*
- 313) John Lohmeyer will arrange a meeting to discuss changes and updates in the T10 procedures. *Complete*
- 319) Gene Milligan will submit a NWIP and a CD contribution for RBC to ISO/IEC for consideration. *Carryover*
- 321) Ron Roberts will prepare RBC revision 10a incorporating the ANSI pre-edit for forwarding to second public review. *Complete*
- 322) John Lohmeyer will forward RBC revision 10a to second public review. *Complete*
- 323) John Lohmeyer will send a letter to Ralph Weber formally responding to his RBC public review comments. *Complete*
- 324) John Lohmeyer will notify NCITS that T10 recommends the withdrawal X3.276:1997 SCSI-3 Controller Commands. *Complete*
- 325) John Lohmeyer will notify NCITS that T10 recommends the withdrawal of X3.253:1995 SCSI-3 Parallel Interface & its Amendment. *Complete*
- 326) John Lohmeyer will notify NCITS that T10 recommends the withdrawal of X3.292:1997 SCSI-3 Interlocked Protocol. *Complete*
- 327) John Lohmeyer will notify NCITS that T10 recommends the withdrawal of X3.277:1996 Fast-20. *Complete*
- 328) John Lohmeyer and Larry Lamers will provide the SPI-3 editor with the electronic information used to include the dedication in SPI. *Carryover*
- 329) George Penokie will include the SPI dedication in SPI-3. *Complete*
- 330) John Lohmeyer will forward MMC-2 revision 11 to NCITS for processing toward first public review. *Complete*
- 331) John Lohmeyer will forward 99-214r1 to NCITS for processing as a project proposal for a technical report on Domain Validation. *Complete*
- 332) Gene Milligan will handle the international approval of DIS 14776-342 (SCC-2) as presented. *Complete*
- 333) Gene Milligan will process the international withdrawal of the SIP project. *Complete*
- 334) Gene Milligan will initiate fast track processing of NCITS:325:1998 (SBP-2). *Carryover*
- 335) Gene Milligan will create an NWI and CD contribution for MMC-2 revision 11. *Carryover*
- 336) Ron Roberts (or John Lohmeyer) will give RBC revision 10a to the IR in source and PDF format. *Carryover*
- 337) Ron Roberts (or John Lohmeyer) will give MMC-2 revision 11 to the IR in source and PDF format. *Carryover*
- 338) Larry Lamers will request minutes for the June CAM-3 review meeting from Bill Dallas. *Carryover*
- 339) Ralph Weber will add an SPC-2 version descriptor for MMC-2 revision 11. *Complete*
- 340) Ralph Weber will add an SPC-2 version descriptor for RBC revision 10a. *Complete*

8. Project Status Reports

8.1 Project Status Summary and NCITS 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.

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

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

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

Erich Oetting informed the committee that it is expected that the SSC letter ballots will be resolved by the November meeting.

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

Bob Snively reported that the next FCP-2 meeting will be on Monday of the T11 meeting week. He described 99-247 that contains changes planned for inclusion in FCP-2 revision 3, which will be ready for presentation at the meeting in October. Bob noted that the target date for FCP-2 letter ballot is following the November committee meeting.

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

Ralph Weber reported that SAM-2 revision 11 had been prepared following the July meeting and contained all committee approved changes to that date. SAM-2 revision 12 will be prepared following this meeting in time for the committee mailing. Since the committee plan is to forward SAM-2 for public review in May 2000, Ralph proposed that major SAM-2 enhancements be limited to completion of the SCSI Multi-port Unit definition and that other major SAM-2 plans be deferred to SAM-3, for which Ralph will bring a new project proposal to the November meetings.

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

Ron Roberts reported that MMC-2 is in public review and the review ends on 24 October. Ron noted that some public review comments are expected to be submitted from the working group.

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

Ralph Weber reported that SPC-2 revision 11 had been prepared following the July meeting and contained all committee approved changes to that date. SPC-2 revision 12 will be prepared following this meeting in time for the committee mailing. Since the committee plan is to forward SPC-2 for public review in May 2000, Ralph proposed that major SPC-2 enhancements be limited to completion of the EXTENDED COPY command definition and the SCSI Multi-port Unit definition and that other major SPC-2 plans be deferred to SPC-3, for which Ralph will bring a new project proposal to the November meetings. Ralph noted that the major work deferred out of SPC-2 by this proposal would be the read/write attributes commands and the access controls commands.

8.8 Reduced Block Commands (RBC) {Project 1240-D} [McLean]

John Lohmeyer reported that RBC is in second public review closing 7 November.

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

George Penokie reported that SPI-3 revision 9 was made available a couple of weeks ago. He explained that revision 10 will be made available following this meeting and will contain all changes approved at this meeting. He stated that a letter ballot to approve forwarding to first public review will be conducted on SPI-3 revision 10.

Ralph Weber took an action item to create a version descriptor entry for SPI-3 revision 10 in SPC-2.

8.10 MultiMedia Command Set - 3 (MMC-3) {Project 1363-D} [Roberts]

Ron Roberts reported that MMC-3 has received input from Mt. Fuji-4 on DVD and streaming commands. He stated that the goal is to create a first revision in time for the November meetings. At the November meeting, Mr. McFaran from Philips will take over leadership of the MMC-3 project.

Ralph Weber took an action item to add MMC-3 (project 1363-D) to the version descriptors list in SPC-2.

8.11 Reduced MultiMedia Command Set (RMC) {Project 1364-D} [Roberts]

Ron Roberts reported that RMC takes the 55 commands in MMC and drops them down to 20. He stated that the goal is to create a first revision in time for the November meetings. At the November meeting, Mr. McFaran from Philips will take over leadership of the RMC project.

Ralph Weber took an action item to add RMC (project 1364-D) to the version descriptors list in SPC-2.

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

George Penokie reported that the first SPI-4 presentations were made at the SCSI Physical Working Group (minutes in 99-267). He stated that no SPI-4 working draft documents are expected for three to five months, while the proposals are reviewed and refined, unless the needs of the cable working group require a working draft sooner.

Ralph Weber took an action item to add SPI-4 (project 1365-D) to the version descriptors list in SPC-2.

8.13 SCSI Domain Validation Technical Report (SDV) {Project ____ -DT} [Lamers]

Larry Lamers reported that Tariq Abou-Juyab has volunteered to edit the document. He asked the chair to consider accepting the editor candidate. John Lohmeyer reported that the NCITS web site does not show a project number for SDV yet, but he expects one to be assigned soon.

9. Old Business

9.1 SCSI Socket/SSL Services Command Set (99-251) [Parker]

John Lohmeyer reported that Keith Parker made a presentation to the SCSI Working Group (minutes in 99-268).

9.2 Cable Testing Requirements (99-111r6 & 98-219r5) [Daggett/Ham]

John Lohmeyer reported that the working group unanimously recommended that 99-111r6 and 98-219r5 be incorporated in SPI-3. Based on the working group recommendation, Bill Ham moved that 99-111r6 (Recommendations for content in SPI-3 Relating to Cable Performance) and 98-219r5 (Cable Media Performance Testing) be incorporated in SPI-3. Jay Neer seconded the motion. Jie Fan invoked the two-week rule and action on the motion was terminated since these documents had not been available two weeks.

Bill Ham moved that 99-111r4 (Recommendations for content in SPI-3 Relating to Cable Performance) and 98-219r4 (Cable Media Performance Testing) be incorporated in SPI-3. Ed Gardner seconded the motion. Jie Fan stated that 99-111r4 is not complete and will not match 98-219r4. Bill Ham stated everything since 99-111r4 and 98-219r4 is substantially editorial. Paul Aloisi supported Bill's position. Ed Gardner asked about the history of the revisions and suggested an interpretation of the two-week rule to allow the most recent documents to be voted on. The Chair declined to use Ed's interpretation as he felt it would set a bizarre precedent.

Bob Snively questioned the process by which the new revisions were generated. Bill Ham explained that the cable working group received comments from Madison and reviewed the comments. He noted that the group rejected most of the comments. Jie explained that she never received a specific response to the comments. Bill noted that Jie was not present at the working group meeting where the comments were discussed.

Dal Allan questioned the use of procedural methods to block activities of the working groups. Bob Snively stated that he would have to vote against the motion because the documents named in the motion are not the documents recommended by the working group.

The motion to incorporate 99-111r4 and 98-219r4 passed 20:7:3:15=45.

9.3 Resolution of SSC letter ballot comments (99-011r2) [Peterson]

Erich Oetting reported that action on the SSC letter ballot should be deferred to the November meeting.

10. New Business

10.1 Report on T10 Procedures Study Group Meeting [Lohmeyer]

John Lohmeyer reported that a procedures study group meeting was held on Monday of this week.

The group spent most of the time available reviewing 99-271r0 (Proposed revision to T10 Electronic Procedures), which John had prepared to supercede 95-146r2, the currently approved T10 Electronic Procedures. John said that 99-271r1 will be on the agenda for the November meetings.

Another T10 Procedures Study Group meeting is requested for Monday morning, November 1, 1999 in Monterey, CA.

10.2 Actions on Working Group Recommendations

10.2.1 SPI-3 Table Restructuring (99-188r1) [Smith]

Gene Milligan moved that 99-188r1 be approved for inclusion in SPI-3. Larry Lamers seconded the motion. The motion passed 17:1:9:18=45. Paul Aloisi stated that his negative vote was based on the opinion that the restructuring of the information was unnecessary.

10.2.2 Project Proposal for SCSI Signal Modeling TR (99-243r1) [Ham/Wallace]

Larry Lamers requested when the proposal was posted on the web site. Bill Ham explained that the document failed to meet the two week rule. John Lohmeyer asked that consideration be deferred to the November meeting, since the document does not yet exist.

10.2.3 Project Proposal for SCSI on Scheduled Transfer (SST) (99-239r1) [Woelz/Allan]

Neil Wanamaker moved that 99-239r1 be forwarded to NCITS for processing as a new project request for the SCSI on Scheduled Transfer (SST) standard. Dal Allan seconded the motion. The motion passed 32:0:0:13=45.

John Lohmeyer took an action item to forward 99-239r1 to NCITS for processing as a new project request for the SCSI on Scheduled Transfer (SST) standard.

10.2.4 Project Proposal for SCSI VI Protocol (SVP) (99-246r1) [Gardner]

Ed Gardner stated that the project proposal would be subject to the two week rule. Larry Lamer invoked the two week rule. Action on the proposal was deferred to the November meeting.

10.2.5 SPI-3 integrity check fall back procedure (99-242r2) [Lohmeyer]

George Penokie reported that the working group recommended approval of the proposal on a vote of 12:1:1. John Lohmeyer described the proposal. Larry Lamers requested that a definition of expander be added to the SPI-3 glossary and George Penokie agreed to add the glossary definition.

John Lohmeyer moved 99-242r2 (SPI-3 integrity check fall back procedure) be approved for inclusion in SPI-3. Gene Milligan seconded the motion. The motion passed 28:0:1:16=45.

10.2.6 Forcing Bus Free from QAS (99-274r0) [Moore]

Rob Elliott described the contents of the proposal, which provides a method for a QAS initiator to force a transition to bus free phase. Rob Elliott moved that 99-274r0 (Forcing a Bus Free from QAS) be approved for inclusion in SPI-3. Larry Lamers seconded the motion. The motion passed 26:0:2:17=45.

10.2.7 SAM-2 Tasks and Work (99-232r1) [Weber]

Ralph Weber moved that 99-232r1 (SAM-2 Tasks and Work) be approved for inclusion in SAM-2. Gene Milligan seconded the motion. The motion passed 28:2:0:15=45.

10.2.8 Task Management Handling Changes for SPI-3 (99-227r3) [Penokie]

George Penokie moved that 99-227r3 (Task Management Handling Changes for SPI-3) be approved for inclusion in SPI-3. Jeff Williams seconded the motion. The motion passed 31:0:0:14=45.

10.2.9 Logical Unit Self Test (99-179r5) [Evans]

Mark Evans moved that 99-179r5 (Logical Unit Self Test) be approved for inclusion in SPC-2. George Penokie seconded the motion. The motion passed 31:0:0:14=45.

10.2.10 EXTENDED COPY Support for Persistent Reservations (99-230r1) [Weber]

Ralph Weber moved that 99-230r1 (EXTENDED COPY Support for Persistent Reservations) be approved for inclusion in SPC-2. Larry Lamers seconded the motion. The motion passed 30:0:0:15=45.

10.2.11 EXTENDED COPY and Abort Task Management Functions (99-231r1) [Weber]

Ralph Weber moved that 99-231r1 (EXTENDED COPY and Abort Task Management Functions) be approved for inclusion in SPC-2. Erich Oetting seconded the motion. The motion passed 31:0:0:14=45.

10.2.12 Allow WRITE BUFFER when drive is not ready (99-277r0) [Houlder]

Gene Milligan moved that 99-277r0 (Allow WRITE BUFFER when drive is not ready) be approved for inclusion in SPC-2. Paul Aloisi seconded the motion. The motion passed 27:1:0:17=45. Bob Snively stated that his negative vote was based on concerns over initiators will overwrite microcode without holding a cooperating reservation.

10.2.13 SCSI Medium Changer Commands -2 (SMC-2) Project Proposal (99-218r1) [Oetting]

Ed Gardner noted that the submittal date should be changed to today. Gene Milligan noted that the ISO references should include SMC. Erich Oetting moved that 99-218r2 be forwarded to NCITS for processing as a new project request for the SCSI Medium Changer Commands -2 (SMC-2) standard. Paul Aloisi seconded the motion. The motion passed 30:0:0:15=45.

Erich Oetting took an action item to provide a revised document to John Lohmeyer. John Lohmeyer took an action item to forward 99-218r2 to NCITS for processing as a new project request for the SCSI Medium Changer Commands -2 (SMC-2) standard.

10.2.14 MCM Additions to Fibre Channel Control Page in FCP-2 (99-206r2) [Penokie]

George Penokie moved that 99-206r2 (MCM Additions to Fibre Channel Control Page in FCP-2) be approved for inclusion in FCP-2. Ralph Weber seconded the motion. The motion 12:6:12:15=45.

10.3 Project Proposal for SCSI on Scheduled Transfer (SST) (99-239) [Ronald]

This item was handled under agenda item 10.2.3 above.

11. ISO**11.1 ISO Report [Milligan]**

Gene Milligan reported that the technical editors have fallen an additional two months behind in completing the resolution of comments.

11.2 ISO Business [Milligan]**11.2.1 Vote to cancel Fast Track on SBC and MMC [Milligan]**

Larry Lamers moved that T10 request that the JTC1 TAG withdraw the ISO fast tracking of SBC. Erich Oetting seconded the motion. The motion passed 27:1:0:17=45.

Larry Lamers moved that T10 request that the JTC1 TAG cancel the ISO fast tracking of MMC. Bob Snively seconded the motion. The motion passed 22:2:2:19=45.

11.2.2 Correction to SCC-2--removing extra bytes in two service actions [Penokie]

George Penokie reported that, in SCC-2 table 52, the bytes 6 through 9 labelled reserved should be removed since they are duplicates of the length bytes elsewhere in the table. Similarly, the bytes 6 through 9 labelled reserved in table 47 should be removed.

George Penokie moved that the IR be instructed to submit a U.S. recommended vote approving the SCC-2 DIS with a comment stating that the bytes labelled reserved in tables 47 and 52 should be removed because of the duplicate length bytes elsewhere in the tables. Ralph Weber seconded the motion. The motion passed 26:0:0:19=45.

George Penokie noted that his intent is to substitute the ISO version of SCC-2 for the ANSI version of SCC-2 after the ISO version is approved. This would correct the U.S. version of SCC-2.

12. Liaison Reports

12.1 T11 Liaison Report [Wanamaker]

The T11 liaison report was provided to the committee electronically as 99-280r0. Neil Wanamaker presented the report to the committee.

12.2 T13 Liaison Report [Milligan]

Gene Milligan made an oral report to the committee and provided the following electronic report for the minutes.

The T13 August, 1999 meeting was hosted by Pete McLean of Maxtor at the Hotel Boulderado.

The ATA/ATAPI-5 Project 1321D draft was reviewed. Ultra ATA Implementation Guide (D98109r1) was reviewed and will be revised to reflect the suggested changes. ATA/ATAPI-5 will be changed to correct the state of REL after a data transfer in Read DMA and Write DMA and change state diagram pointers for Read and Write DMA.

The self-test description (DST) was changed so that Self-Test may end when the test finds a test element that does not pass the test criteria.

The ATA/ATAPI-5 Draft letter ballot is planned to follow the 10/99 meeting.

The BIOS draft standard EDD v3.0 Project 1386-D revision 1 document was reviewed. Curtis Stevens will turn a revision showing the agreed changes with change bars.

Address Offset Feature Technical Report Project 1407-DT draft revision 0 was distributed for review.

The Method for Booting Reserved Area Boot Code Project 1367-D draft was reviewed. Curtis Stevens will turn a revision with the suggested changes.

The Really Big LBA (D98142r2) proposal was reviewed. Queuing with mixed 28 bit addresses and 64 bit addresses will be prohibited. Various scenarios of register writes and mode switches were discussed.

The AV proposals from Seagate and Western digital (D99123r1 and D99128r0) were discussed.

An expansion of the SMART Error Log (D99121R0) for Log Address 02h in ATA/ATAPI-6 was approved.

Multiword DMA timing diagrams will be reviewed at the October meeting.

Dan Colegrove of IBM has agreed to contribute to an ATA/ATAPI Implementer's Guide.

The 8 bit data ordering will be added back in to ATA/ATAPI-5. An 8 Bit related Set Features will be changed from retired to obsolete in ATA/ATAPI-5. Both of these changes are needed for CFA and other hand held applications. D99126r0 documents reserved codes for future CFA commands, Set Features functions and Identify drive data.

There is a conflict between the way Byte Count is presently specified for ATAPI devices with the way a major operating system uses ATAPI tape devices. This change to the Identify Packet command adds a mode indicator so hosts can determine which way the device is configured. The configuration is controlled by a SCSI command (presently vendor unique) transported by the Packet command.

The group agreed to continue to discuss partition tables at the meetings and on the reflector. Robert Raymond agreed to produce a paper for discussion.

IDEMA is developing a standard on power efficiency in response to Japanese power consumption restrictions on disk drives. A rating based upon Joules per IOPS is being evaluated. The next meeting will be at the IDEMA office in the San Clara on November 5 at 9:30am. For more information contact Kristen Montan <kmontan@idema.org>.

A video issues working group was scheduled for October 1, 1999 in Las Vegas, Nevada. The next plenary meeting of T13 is 19-22 October hosted by Quantum at the Wailea Outrigger Hotel in Wailea, Maui, Hawaii.

12.3 SFF Industry Group [Allan]

Dal Allan provided the following electronic report for the minutes:

The round robin HSS (High Speed Serial) Testing for copper cables at Clariion uncovered a need to make minor changes to the specification.

The issues on HSSDC (High Speed Serial Data Connector) were resolved and the IEC draft and SFF-8420 are now close companions.

The 80-pin Fibre Channel SCA-2 tape connector will be restricted to 5 1/4" form factors only to avoid the risk of damage to existing disk products in the 3 1/2" form factor.

Jerry Kachlic presented a prototype of a 100-pin SCA and the question was raised on the requirement to retain the Advanced Ground Contacts in the guides. A worst case tolerance shows that first contact by the guides is not ensured and an investigation will check on whether the connector worst case plus the guidance requirements does ensure the guides make first contact.

A mismatch between the nominal specs on launch power between FC-PH-3 and the GBIC SFF-8053 will be addressed by Bill Ham and Bob Snively.

12.4 IEEE 1394 [Johansson]

Larry Lamers reported that 1394a has closed its ballot and passed with revisions. Gene Milligan reported that the revisions have been made.

12.5 IEEE P1285 Status

No report.

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

The STA liaison report was provided to the committee electronically as 99-281r0. Paul Aloisi presented the report to the committee.

The committee discussed the STA plans to develop ease of use documents for servers and the desktop.

In response to a question, Paul stated that the STA patent policy will be presented to the STA Board of Directors later in the day.

13. Review of Action Items

- 319) Gene Milligan will submit a NWIP and a CD contribution for RBC to ISO/IEC for consideration.
- 328) John Lohmeyer and Larry Lamers will provide the SPI-3 editor with the electronic information used to include the dedication in SPI.
- 334) Gene Milligan will initiate fast track processing of NCITS:325:1998 (SBP-2).

- 335) Gene Milligan will create an NWIP and CD contribution for MMC-2 revision 11a.
- 336) Ron Roberts (or John Lohmeyer) will give RBC revision 10a to the IR in source and PDF format.
- 337) Ron Roberts (or John Lohmeyer) will give MMC-2 revision 11a to the IR in source and PDF format.
- 338) Larry Lamers will request minutes for the June CAM-3 review meeting from Bill Dallas.
- 341) Ralph Weber took will create a version descriptor entry for SPI-3 revision 10 in SPC-2.
- 342) Ralph Weber will add MMC-3 (project 1363-D) to the version descriptors list in SPC-2.
- 343) Ralph Weber will add RMC (project 1364-D) to the version descriptors list in SPC-2.
- 344) Ralph Weber will add SPI-4 (project 1365-D) to the version descriptors list in SPC-2.
- 345) John Lohmeyer will forward 99-239r1 to NCITS for processing as a new project request for a SCSI on Scheduled Transfer (SST) standard.
- 346) Erich Oetting will provide 99-218r2, a revised new project request for the SCSI Medium Changer Commands -2 (SMC-2), to John Lohmeyer.
- 347) John Lohmeyer will forward 99-218r2 to NCITS for processing as a new project request for a SCSI Medium Changer Commands -2 (SMC-2) standard.

14. Meeting Schedule

The next plenary meeting of T10 will be November 4, 1999 in Monterey, CA at the Embassy Suites on Monterey Bay (831-393-1115), hosted by Adaptec. The meeting will begin at 9:00 a.m. on Thursday.

The meeting list for the next plenary week is:

November '99 Meeting Map
(9/20/99 Version)

Monday 11/1	9	10	11	12	1	2	3	4	5	6	7	8	9	
	+-----+													
	T10 Proc. SG SCSI Physical WG										(50)			
	+-----+													
	T11 Meetings										(40)			
	+-----+													
	Mt. Fuji - 4 WG										(20)			
	+-----+													
Tuesday 11/2	9	10	11	12	1	2	3	4	5	6	7	8	9	
	+-----+													
	SCSI Physical WG										(50)			
	+-----+													
	MMC WG										(20)			
	+-----+													
	T11 Joint T10/T11.3										OBD_T		(40)	
	+-----+													
Wednesday 11/3	9	10	11	12	1	2	3	4	5	6	7	8	9	
	+-----+													
	SCSI WG										(50)			
	+-----+													
	MMC WG										SFF WG SFF		(40)	
	+-----+													
Thursday 11/4	9	10	11	12	1	2	3	4	5	6	7	8		
	+-----+													
	T10 Plenary / STA Tech (*)												(60/40)	
	+-----+													
	STA Marcom												(15)	
	+-----+													

(*) - STA Technical meeting (includes SCSI Harbor) begins 30 minutes after the T10 plenary meeting but not before 1:30 pm

Friday 11/5	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.

Other T10-authorized meetings:

Meeting	Date	Location / Contact
Cable Perf. SG	9/28/99 Wed.	Chicago, IL / Martin Ogbuokiri
Interconnect	9/29/99 Thur.	Chicago, IL / Martin Ogbuokiri
Modeling SG		
T10/T11.3	10/06/99 Wed.	Fort Lauderdale, FL / T11
Joint WG		
SPI-4 WG	10/13/99 1:00p Wed	Colorado Springs, CO / John Lohmeyer
	10/14/99 Thur.	Colorado Springs, CO / John Lohmeyer
Cable Perf. SG	10/26/99 Tue.	Huntington Beach, CA / Dean Wallace
Interconnect	10/27/99 Wed.	Huntington Beach, CA / Dean Wallace
Modeling SG		
Cable Perf. SG	11/30/99 Tue.	Rochester, MN / Fasig
Interconnect	12/01/99 Wed.	Rochester, MN / Fasig
Modeling SG		
SPI-4 WG	12/2-3/99 Wed-Thur.	Rochester, MN / Fasig

Meeting Map Abbreviation Key:

Amnd: Amendment

Cable Perf.: Cable Performance Testing

CAM: Common Access Method

CAM-3: Next generation CAM for SCSI-3

EPI: SCSI Enhanced Parallel Interface (Technical Report)

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.)

OBD_T: Object-Based Device Tutorial

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

T10 Proc.: T10 Procedures

WG: Working Group (same as Ad Hoc Group)

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

Activity	Contact	Telephone/Email
CAM-3	Bill Dallas	(603) 881-2508 dallas@zk3.dec.com
EPI	Bill Ham	(508) 841-2629 bill.ham@digital.com
FCP, FCP-2, SES	Robert Snively	(415) 336-5332 Bob.Snively@eng.sun.com
GPP	Gary Stephens	(602) 321-1725 grsfsi@aol.com
SBC	Gene Milligan	(405) 324-3070 gene_milligan@notes.seagate.com
MMC, MMC-2, MMC-3, RMC	Ron Roberts	(916) 677-5714 rkroberts@aol.com
SBP-2 or RBC	Pete McLean	(303) 678-2149 pete_mclean@maxtor.com
SBP-2	Peter Johansson	(510) 527-3926 pjohansson@aol.com
SCC-2, SPI-2, SPI-3, SPI-4	George Penokie	(507) 253-5208 gop@us.ibm.com
SMC	Erich Oetting	(303) 673-2178 Erich_Oetting@Stortek.com
SPC, SPC-2, SAM-2	Ralph Weber	(972) 503-3205 x228 roweber@acm.org
SSA-PH1, -PH2, -TL1, -TL2	Larry Lamers	(408) 957-7817 ljlammers@ix.netcom.com
SSA-S2P & -S3P	John Scheible	(512) 823-8208 Scheible@vnet.ibm.com
SSC	Dave Peterson	(612) 391-1008 dap@network.com
Other Activities	John Lohmeyer	(719) 533-7560 lohmeier@t10.org

The long-term T10 meeting week schedule is:

Date	Location	Host/Comments
Sep 13-17, 1999	Huntington Beach, CA	QLogic
Nov 1-5, 1999	Monterey, CA	Adaptec / dates changed
Jan 10-14, 2000	Brisbane, Australia	ENDL Pacific Technologies
Mar 6-10, 2000	Dallas, TX	TI/Unitrode
May 15-19, 2000	Nashua, NH	Hitachi Cable / dates changed
Jul 10-14, 2000	Colorado Springs, CO	LSI Logic
Sep 11-15, 2000	Huntington Beach, CA	QLogic
Oct 30-Nov 3, 2000	Monterey, CA	Adaptec / dates changed
Jan 15-19, 2001	(open)	
Mar 5-9, 2001	Dallas, TX	TI {tentative}
May 7-11, 2001	Manchester, NH	Hitachi Cable
Jul 16-20, 2001	Colorado Springs, CO	LSI Logic
Sep 10-14, 2001	Huntington Beach, CA	QLogic
Nov 5-9, 2001	Monterey, CA	Adaptec

Larry Lamers moved that the January 2001 meeting be moved from the week of 15-19 to the week of 22-26. Gene Milligan seconded the motion. The motion failed 4:13:6.

14.1 Authorization of Working Group Meetings

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

Erich Oetting moved that T10 authorize the T10-related meetings and events in the list above. Paul Aloisi seconded the motion. The motion passed 18:1:1:25=45. Gene stated that his no vote was based on the schedule conflict between the SPI-4 and NCITS meetings.

Bill Ham asked that authorized ad hoc meetings be given document numbers for minutes upon authorization. John asked that discussion of the topic be deferred to the next procedures study group meeting.

Dal Allan asked the committee to confirm that only two meeting tracks will be needed in January 2000. The following plan for two meeting tracks was discussed by the group.

Tentative January '00 Meeting Map
(9/16/99 Version)

Monday 1/10	9	10	11	12	1	2	3	4	5	6	7	8	9				
	+-----+-----+-----+-----+-----+																
	T10 Proc. SG SCSI Physical WG										(50)						
	+-----+-----+-----+-----+-----+																
	Mt. Fuji - 4 WG										(20)						
	+-----+-----+-----+-----+-----+																
Tuesday 1/11	9	10	11	12	1	2	3	4	5	6	7	8	9				
	+-----+-----+-----+-----+-----+																
	SCSI Physical WG										(50)						
	+-----+-----+-----+-----+-----+																
	MMC WG										(20)						
	+-----+-----+-----+-----+-----+																
Wednesday 1/12	9	10	11	12	1	2	3	4	5	6	7	8	9				
	+-----+-----+-----+-----+-----+																
	SCSI WG										(50)						
	+-----+-----+-----+-----+-----+																
	MMC WG										(40)	SFF WG SFF					
	+-----+-----+-----+-----+-----+																
Thursday 1/13	9	10	11	12	1	2	3	4	5	6	7	8					
					+-----+-----+-----+-----+-----+												
					T10 Plenary										(50)		
					+-----+-----+-----+-----+-----+												
					Joint T10/T11.3												
					+-----+-----+-----+-----+-----+												

(*) - STA Technical meeting (includes SCSI Harbor) begins 30 minutes after the T10 plenary meeting but not before 2:30 pm

Friday 1/14 8 9 10 11 12 1 2 3 4 5

No Meetings are planned for Friday.

Meetings marked with == are T10-authorized meetings.

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

15. Adjournment

The meeting was adjourned at 1:15 p.m. on Thursday September 16, 1999.

Enclosure(1) -- Meeting Attendees

Name	S	Organization	Electronic Mail Address
Mr. Lawrence J. Lamers	P	Adaptec, Inc.	ljlamers@ieee.org
Mr. Robert Frey	P	Advansys	bobf@advansys.com
Mr. Charles Brill	P	AMP, Inc.	cebrill@ix.netcom.com
Mr. Bill Mable	P	Amphenol Interconnect	bmable@spectra.net
Mr. Bart Raudebaugh	P	Ancot Corp.	bart@ancot.com
Mr. Gregg Neely	P	Andataco	greggn@andataco.com
Mr. Douglas Wagner	P	Berg Electronics	wagnerdl@bergelect.com
Mr. Dennis Lang	A	Circuit Assembly Corp.	dennisl@circuitassembly.com
Mr. Edward Haske	P	CMD Technology	haske@cmd.com
Mr. Robert C. Elliott	P	Compaq Computer Corp.	Robert.Elliott@compaq.com
Dr. William Ham	A	Compaq Computer Corp.	bill.ham@digital.com
Mr. David Rotman	V	Compaq Computer Corp.	david.rotman@compaq.com
Mr. Neil Wanamaker	P	Crossroads Systems, Inc.	ntw@crossroads.com
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Ms. Jie Fan	P	Madison Cable Corp.	jfan@madisoncable.com
Mr. Pete McLean	P	Maxtor Corp.	pete_mclean@maxtor.com
Mr. Jay Neer	A	Molex Inc.	jneer@molex.com
Mr. Edward A. Gardner	P	Ophidian Designs	eag@ophidian.com
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Mr. Mark Evans	P	Quantum Corp.	mark.evans@quantum.com
Mr. Gene Milligan	P	Seagate Technology	Gene_Milligan@notes.seagate.com
Mr. Ron Roberts	V	Sierra-Pac Technology	rkroberts@aol.com
Mr. Jeffrey Schroeder	O	ST Microelectronics	jeffrey.schroeder@st.com
Mr. Erich Oetting	P	Storage Technology Corp.	erich_oetting@stortek.com
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Mr. Robert Morris	P	Texas Instruments	bob.morris@ti.com
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Mr. Masahiro Ito	V	Yamagata Fujitsu Ltd.	mike@yfl.cs.fujitsu.co.jp

51 People Present

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

Enclosure(2) -- T10 Attendance Database

Generated on 1999/09/20 at 13:46:44

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Enclosure(3) -- T10 Document Database

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T10/99-001R0	Date: 1999/03/18	Author: John Lohmeyer	Mailing: 1999_1
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T10/99-002R0	Date: 1999/03/18	Author: John Lohmeyer	Mailing: 1999_1
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T10/99-003R0	Date: 1999/03/18	Author: John Lohmeyer	Mailing: 1999_1
Jeopardy letter for May '99 meeting			
T10/99-004R0	Date: 1999/05/14	Author: John Lohmeyer	Mailing: 1999_2
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T10/99-005R0	Date: 1999/05/11	Author: John Lohmeyer	Mailing: 1999_2
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T10/99-008R0	Date: 1999/07/26	Author: John Lohmeyer	Mailing: 1999_3
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Letter Ballot on forwarding SSC to first public review			
T10/99-011R0	Date: 1999/07/06	Author: John Lohmeyer	Mailing: 1999_3
Results of letter ballot 99-010 on forwarding SSC			
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T10/99-101R0	Date: 1998/12/04	Author: Ron Roberts	Mailing: 1999_1
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T10/99-102R0	Date: 1998/12/08	Author: Larry Lamers	Mailing: 1999_1
Unexpected Bus Free Timeout Function			
T10/99-102R1	Date: 1999/01/25	Author: Larry Lamers	Mailing: 1999_1
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T10/99-102R2	Date: 1999/01/27	Author: Larry Lamers	Mailing: 1999_1
Synchronous Transfer Timeout Function			
T10/99-102R3	Date: 1999/01/28	Author: Larry Lamers	Mailing: 1999_1
STT Timeout Function			

T10/99-102R4 Date: 1999/02/05 Author: Larry Lamers Mailing: 1999_1
STT Timeout Function

T10/99-102R5 Date: 1999/03/10 Author: Larry Lamers Mailing: 1999_1
STT Timeout Function

T10/99-103R0 Date: 1998/12/17 Author: John Lohmeyer Mailing: 1999_1
Minutes of SPI-3 Working Group - January 26-27, 1999

T10/99-104R0 Date: 1999/01/10 Author: George Penokie Mailing: 1999_1
Message Information Unit Definition

T10/99-104R1 Date: 1999/03/09 Author: George Penokie Mailing: 1999_1
Message Information Unit Definition

T10/99-105R0 Date: 1999/01/06 Author: Stewart Wyatt Mailing: 1999_1
Minutes of Fibre Channel Tape Profile Meeting - 12/16/98

T10/99-106R0 Date: 1999/01/06 Author: Penman, Mottahedin, Nazir, & Moore Mailing: 1999_1
Case Study: Fast-80 Setup and Hold Timings

T10/99-107R0 Date: 1998/12/10 Author: ISO/IEC JTC 1/SC 25 Mailing: 1999_1
Optical Memory Card Device Commands (SCSI OMC)

T10/99-108R0 Date: 1999/01/07 Author: John Lohmeyer Mailing: 1999_1
Clarification of interaction of SDTR/WDTR messages with PPR message

T10/99-108R1 Date: 1999/01/27 Author: John Lohmeyer Mailing: 1999_1
Clarification of interaction of SDTR/WDTR messages with PPR message

T10/99-108R2 Date: 1999/02/09 Author: John Lohmeyer Mailing: 1999_1
Clarification of interaction of SDTR/WDTR messages with PPR message

T10/99-108R3 Date: 1999/03/09 Author: John Lohmeyer Mailing: 1999_1
Clarification of interaction of SDTR/WDTR messages with PPR message

T10/99-109R0 Date: 1999/01/07 Author: John Lohmeyer Mailing: 1999_1
Clarification of MODIFY DATA POINTER message

T10/99-110R0 Date: 1999/01/07 Author: Gene Milligan Mailing: 1999_1
SCSI Version Proposal Flavor Two for SPC-2

T10/99-110R1 Date: 1999/03/04 Author: Gene Milligan Mailing: 1999_1
SCSI Version Proposal Flavor Two for SPC-2

T10/99-110R2 Date: Author: Gene Milligan Mailing: 1999_1
SCSI Version Proposal Flavor Two for SPC-2

T10/99-111R0 Date: 1999/01/26 Author: Zane Daggett Mailing: 1999_1
Recommended changes to SPI-3 Tables

T10/99-111R1 Date: 1999/05/11 Author: Zane Daggett Mailing: 1999_3
Recommended for content in SPI-3 relating to cable performance

T10/99-111R3 Date: 1999/06/15 Author: Zane Daggett Mailing: 1999_3

Recommendations for content in SPI-3 relating to cable performance

T10/99-111R4 Date: 1999/07/28 Author: Bill Ham Mailing: 1999_4
Recommendations for content in SPI-3 relating to cable performance

T10/99-111R5 Date: 1999/08/31 Author: Bill Ham Mailing: 1999_4
Recommendations for content in SPI-3 relating to cable performance

T10/99-111R6 Date: 1999/09/13 Author: Bill Ham Mailing: 1999_4
Recommendations for content in SPI-3 relating to cable performance

T10/99-112R0 Date: 1999/01/22 Author: Bill Galloway Mailing: 1999_1
Synchronous ATN timing

T10/99-112R1 Date: 1999/03/07 Author: Bill Galloway Mailing: 1999_1
Synchronous ATN timing

T10/99-112R2 Date: 1999/03/13 Author: Bill Galloway Mailing: 1999_1
Synchronous ATN timing

T10/99-113R0 Date: 1999/01/22 Author: Bill Galloway Mailing: 1999_1
DiffSense Timing

T10/99-113R1 Date: 1999/03/07 Author: Bill Galloway Mailing: 1999_1
DiffSense Timing

T10/99-113R2 Date: 1999/03/13 Author: Bill Galloway Mailing: 1999_1
DiffSense Timing

T10/99-114R0 Date: 1999/01/22 Author: Bill Galloway Mailing: 1999_1
LVD Receiver offset voltage

T10/99-115R0 Date: 1999/01/22 Author: Keld Simonsen Mailing: 1999_1
Tips & Techniques for JTC 1 web-based distribution

T10/99-116R0 Date: 1999/01/22 Author: Jie Fan Mailing: 1999_1
Cable Testing Requirements

T10/99-116R1 Date: 1999/01/26 Author: Jie Fan Mailing: 1999_1
Cable Testing Requirements

T10/99-117R0 Date: 1999/01/22 Author: ISO Mailing: 1999_1
ISO's long-range strategies 1999-2001

T10/99-118R0 Date: 1999/01/25 Author: Jim McGrath Mailing: 1999_1
Common CRC for DT and Packetized SCSI

T10/99-119R0 Date: 1999/02/26 Author: Jim McGrath Mailing: 1999_1
Protection for the Asynchronous Information phases (Command, Message, Status)

T10/99-119R1 Date: 1999/03/05 Author: Jim McGrath Mailing: 1999_1
Protection for the Asynchronous Information phases (Command, Message, Status)

T10/99-119R2 Date: 1999/04/06 Author: Mark Evans and Bruce Leshay Mailing: 1999_2
Protection for the Asynchronous Information phases (Command, Message, Status)

T10/99-119R3 Date: 1999/04/21 Author: Mark Evans and Bruce Leshay Mailing: 1999_2

Protection for the Asynchronous Information phases (Command, Message, Status)

T10/99-119R4 Date: 1999/04/23 Author: Mark Evans and Bruce Leshay Mailing: 1999_2

Protection for the Asynchronous Information phases (Command, Message, Status)

T10/99-119R5 Date: 1999/05/28 Author: Mark Evans and Bruce Leshay Mailing: 1999_3

Protection for the Asynchronous Information phases (Command, Message, Status)

T10/99-119R6 Date: 1999/06/21 Author: Mark Evans and Bruce Leshay Mailing: 1999_3

Protection for the Asynchronous Information phases (Command, Message, Status)

T10/99-120R0 Date: 1999/01/22 Author: Gene Milligan Mailing: 1999_1
SCSI ATN Timing Sort of Proposal for SPI-3

T10/99-121R0 Date: 1999/02/10 Author: Rob Sims Mailing: 1999_1
Mt. Fuji Commands for Multimedia Devices

T10/99-122R0 Date: 1999/01/25 Author: Frank Gasparik Mailing: 1999_1
SPI-3 LVD Setup/Hold Time Issues

T10/99-123R0 Date: 1999/01/26 Author: Vince Bastiani Mailing: 1999_1
Setup and Hold Time Measurements

T10/99-124R0 Date: 1999/01/24 Author: Bruce Leshay Mailing: 1999_1
Packetized CRC Proposal

T10/99-125R0 Date: 1999/01/27 Author: Ron Roberts Mailing: 1999_1
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T10/99-126R0 Date: Author: Mailing: Missing
not used

T10/99-127R0 Date: 1999/01/27 Author: Paul Aloisi Mailing: 1999_1
Proposed changes to SPI-3 LVD AC timing diagrams

T10/99-127R1 Date: 1999/01/28 Author: Paul Aloisi Mailing: 1999_1
Proposed changes to SPI-3 LVD AC timing diagrams

T10/99-127R2 Date: 1999/03/09 Author: Paul Aloisi Mailing: 1999_1
LVD Timing Diagram Correction

T10/99-127R3 Date: 1999/03/09 Author: Paul Aloisi Mailing: 1999_1
LVD Timing Diagram Correction

T10/99-127R4 Date: 1999/03/09 Author: Paul Aloisi Mailing: 1999_1
LVD Timing Diagram Correction

T10/99-127R5 Date: 1999/05/05 Author: Paul Aloisi Mailing: 1999_2
LVD Timing Diagram Correction

T10/99-127R6 Date: 1999/05/27 Author: Paul Aloisi Mailing: 1999_3
LVD Timing Diagram Correction

T10/99-127R7 Date: 1999/07/12 Author: Paul Aloisi Mailing: 1999_3
LVD Timing Diagram Correction

T10/99-127R8 Date: 1999/07/13 Author: Paul Aloisi Mailing: 1999_3
LVD Timing Diagram Correction

T10/99-128R0 Date: 1999/02/02 Author: Hayden Smith Mailing: 1999_1
Comments on Draft 14776-381 (SCSI OMC)

T10/99-128R1 Date: 1999/03/16 Author: Hayden Smith Mailing: 1999_1
Comments on Draft 14776-381 (SCSI OMC)

T10/99-129R0 Date: 1999/02/02 Author: Ralph Weber & George Penokie Mailing: 1999_1
Minutes of SPC-2 Working Group - 1/28/99

T10/99-130R0 Date: 1999/02/10 Author: George Penokie Mailing: 1999_1
Changes to INQUIRY

T10/99-130R1 Date: 1999/03/10 Author: George Penokie Mailing: 1999_1
Changes to INQUIRY

T10/99-131R0 Date: 1999/02/05 Author: Tariq Abou-Jeyab Mailing: 1999_1
/ Vince Bastiani
Setup and hold time measurements for Ultra 160/m

T10/99-132R0 Date: 1999/03/07 Author: Bill Galloway Mailing: 1999_1
Removing zero length data transfers with CRC

T10/99-133R0 Date: 1999/03/07 Author: Bill Galloway Mailing: 1999_1
Timing for SCSI RST line

T10/99-134R0 Date: 1999/03/07 Author: Bill Galloway Mailing: 1999_1
PPR Protocol options negotiation

T10/99-134R1 Date: 1999/03/13 Author: Bill Galloway Mailing: 1999_1
PPR Protocol options negotiation

T10/99-135R0 Date: 1999/03/16 Author: Weber & Lohmeyer Mailing: 1999_1
Minutes of SPI-3 Working Group - March 9, 1999

T10/99-135R1 Date: 1999/03/23 Author: Weber & Lohmeyer Mailing: 1999_1
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T10/99-136R0 Date: 1999/03/17 Author: Weber & Lohmeyer Mailing: 1999_1
Minutes of SCSI-3 Working Group - March 10, 1999

T10/99-137R0 Date: 1999/03/17 Author: Weber & Lohmeyer Mailing: 1999_1
Minutes of T10 Plenary Meeting #30 - March 11, 1999

T10/99-137R1 Date: 1999/03/23 Author: Weber & Lohmeyer Mailing: 1999_1
Minutes of T10 Plenary Meeting #30 - March 11, 1999

T10/99-138R0 Date: 1999/02/09 Author: Larry Lamers Mailing: 1999_1
Patent Letter for SPI-3 from Adaptec

T10/99-139R0 Date: 1999/03/04 Author: Gene Milligan, George Penokie, & Larry Lamers Mailing: 1999_1
Packet Protocol Extensions

T10/99-139R1 Date: 1999/03/10 Author: Gene Milligan, Mailing: 1999_1

George Penokie,
& Larry Lamers

Packet Protocol Extensions

T10/99-139R2 Date: 1999/03/10 Author: Gene Milligan, Mailing: 1999_1
George Penokie,
& Larry Lamers

Packet Protocol Extensions

T10/99-139R3 Date: 1999/03/15 Author: Gene Milligan, Mailing: 1999_1
George Penokie,
& Larry Lamers

Packet Protocol Extensions

T10/99-139R4 Date: 1999/04/08 Author: Gene Milligan, Mailing: 1999_2
George Penokie,
& Larry Lamers

Packet Protocol Extensions

T10/99-140R0 Date: 1999/02/28 Author: Larry Lamers Mailing: 1999_1
Project Proposal for SCSI Parallel Interface - 4 (SPI-4)

T10/99-140R1 Date: 1999/03/24 Author: Larry Lamers Mailing: 1999_1
Project Proposal for SCSI Parallel Interface - 4 (SPI-4)

T10/99-140R2 Date: 1999/05/06 Author: Larry Lamers Mailing: 1999_2
Project Proposal for SCSI Parallel Interface - 4 (SPI-4)

T10/99-140R3 Date: 1999/05/06 Author: Larry Lamers Mailing: 1999_2
Project Proposal for SCSI Parallel Interface - 4 (SPI-4)

T10/99-141R0 Date: 1999/02/26 Author: Larry Lamers Mailing: Missing
A Common CRC Method for Packetized and Legacy Devices

T10/99-142R0 Date: 1999/09/08 Author: Larry Lamers Mailing: 1999_4
Flow Control

T10/99-143R0 Date: 1999/03/02 Author: Steve Wilson Mailing: 1999_1
Extended Copy Command

T10/99-143R1 Date: 1999/04/02 Author: Steve Wilson Mailing: 1999_2
Extended Copy Command

T10/99-144R0 Date: 1999/03/01 Author: Bob Snively Mailing: 1999_1
Suggested changes to REPORT LUNS command for SPC-2

T10/99-144R1 Date: 1999/03/15 Author: Bob Snively Mailing: 1999_1
Suggested changes to REPORT LUNS command for SPC-2

T10/99-145R0 Date: 1999/03/01 Author: Stewart Wyatt Mailing: 1999_1
Minutes of Joint T11/T10 FC-TAPE Meeting - 2/10-11/99

T10/99-146R0 Date: 1999/03/02 Author: Bob Snively Mailing: 1999_1
Correction in interaction of persistent and legacy reservations

T10/99-146R1 Date: 1999/03/15 Author: Bob Snively Mailing: 1999_1
Correction in interaction of persistent and legacy reservations

T10/99-147R0 Date: 1999/03/05 Author: Bob Snively Mailing: 1999_1

Make CT and TTD obsolete

T10/99-148R0 Date: 1999/03/18 Author: Ian 'Sid' Mailing: 1999_1
Crighton

Memory in Cartridge proposal

T10/99-148R1 Date: 1999/05/19 Author: Ian 'Sid' Mailing: 1999_3
Crighton

Proposal for Storage and Access of Data on Media Auxiliary Memory

T10/99-148R2 Date: 1999/09/08 Author: Ian 'Sid' Mailing: 1999_4
Crighton

Proposal for Storage and Access of Data on Media Auxiliary Memory

T10/99-149R0 Date: 1999/03/08 Author: Bill Ham Mailing: 1999_1
Revised SPI-3 Timing Diagram

T10/99-150R0 Date: 1999/03/08 Author: Richard Mailing: 1999_1
Tomaszewski, Tom
Grieff, & Rob
Elliott

Justification for asynchronous information phase protection

T10/99-151R0 Date: 1999/03/04 Author: Gene Milligan, Mailing: 1999_1
George Penokie,
and Larry Lamers

Packet Protocol Extensions Illustrations (see 99-139r3)

T10/99-152R0 Date: 1999/03/09 Author: Ron Roberts Mailing: 1999_1
Minutes of MMC-2 Working Group - 3/9-10/99

T10/99-153R0 Date: 1999/05/06 Author: Ron Roberts Mailing: 1999_2
Project Proposal for MMC-3

T10/99-153R1 Date: 1999/05/06 Author: Ron Roberts Mailing: 1999_2
Project Proposal for MMC-3

T10/99-153R2 Date: 1999/05/06 Author: Ron Roberts Mailing: 1999_2
Project Proposal for MMC-3

T10/99-154R0 Date: 1999/05/06 Author: Ron Roberts Mailing: 1999_2
Project Proposal for RMC

T10/99-154R1 Date: 1999/05/06 Author: Ron Roberts Mailing: 1999_2
Project Proposal for RMC

T10/99-154R2 Date: 1999/05/06 Author: Ron Roberts Mailing: 1999_2
Project Proposal for RMC

T10/99-155R0 Date: 1999/03/09 Author: Gene Milligan Mailing: 1999_1
Timing Diagram

T10/99-156R0 Date: 1999/03/09 Author: Bill Ham and Mailing: 1999_1
Zane Daggett

Report from the SCSI Cable Testing Ad hoc -- March 2, 1999

T10/99-157R0 Date: 1999/03/10 Author: Bruce Leshay Mailing: 1999_1
Proposed edit to SPI-3 on P_CRCA transitions during DT transfers

T10/99-157R1 Date: 1999/03/17 Author: Bruce Leshay Mailing: 1999_2
Proposed edit to SPI-3 on P_CRCA transitions during DT transfers

T10/99-158R0 Date: 1999/03/10 Author: Bob Snively Mailing: 1999_1
Very long CDBs in FCP-2 and SPI-3

T10/99-158R1 Date: 1999/03/15 Author: Bob Snively Mailing: 1999_1
Very long CDBs in FCP-2 and SPI-3

T10/99-158R2 Date: 1999/03/17 Author: Bob Snively Mailing: 1999_1
Very long CDBs in FCP-2 and SPI-3

T10/99-158R3 Date: 1999/03/17 Author: Bob Snively Mailing: 1999_2
Very long CDBs in FCP-2 and SPI-3

T10/99-158R4 Date: 1999/04/28 Author: Bob Snively Mailing: 1999_2
Very long CDBs in FCP-2 and SPI-3

T10/99-159R0 Date: 1999/03/09 Author: Dale LaFollette Mailing: 1999_1
Joint T10/T11 FC-TAPE / SSC / FCP-2 Liaison Report

T10/99-160R0 Date: 1999/04/01 Author: Rob Elliott & Mailing: 1999_2
Gerry Houlder
Arbitration Fairness Control (in SPC-2/SPI-3/FCP-2)

T10/99-160R1 Date: 1999/04/21 Author: Rob Elliott & Mailing: 1999_2
Gerry Houlder
Arbitration Fairness Control (in SPC-2/SPI-3/FCP-2)

T10/99-160R2 Date: 1999/05/05 Author: Rob Elliott & Mailing: 1999_2
Gerry Houlder
Arbitration Fairness Control (in SPC-2/SPI-3/FCP-2)

T10/99-160R3 Date: 1999/06/27 Author: Rob Elliott Mailing: 1999_3
Normal Arbitration Fairness Control in SPI-3

T10/99-161R0 Date: 1999/03/11 Author: Larry Lamers Mailing: 1999_1
Meeting Notice - SPI-3 Working Group 4/7-8/99

T10/99-162R0 Date: 1999/03/15 Author: Stewart Wyatt Mailing: 1999_1
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T10/99-163R0 Date: 1999/05/01 Author: Ralph Weber Mailing: 1999_2
Comments on Extended Copy

T10/99-163R1 Date: 1999/05/13 Author: Ralph Weber Mailing: 1999_2
EXTENDED COPY command for SPC-2

T10/99-163R2 Date: 1999/07/22 Author: Ralph Weber Mailing: 1999_32
EXTENDED COPY command for SPC-2

T10/99-164R0 Date: 1999/03/11 Author: Gene Milligan Mailing: 1999_1
ISO Report for March 1999

T10/99-165R0 Date: 1999/03/22 Author: Lamers and Mailing: 1999_1
Lohmeyer
CONTINUE TASK Message

T10/99-166R0 Date: 1999/03/24 Author: Larry Lamers Mailing: 1999_1

Enabling Upper Byte Hamming

T10/99-166R1 Date: 1999/03/26 Author: Larry Lamers Mailing: 1999_2
Enabling Upper Byte Hamming

T10/99-166R2 Date: 1999/03/31 Author: Larry Lamers Mailing: 1999_2
Enabling Upper Byte Hamming

T10/99-166R3 Date: 1999/04/07 Author: Larry Lamers Mailing: 1999_2
Enabling Upper Byte Hamming

T10/99-167R0 Date: 1999/04/08 Author: John Lohmeyer Mailing: 1999_2
Minutes of SPI-3 Working Group - April 7-8, 1999

T10/99-167R1 Date: 1999/04/13 Author: John Lohmeyer Mailing: 1999_2
Minutes of SPI-3 Working Group - April 7-8, 1999

T10/99-168R0 Date: 1999/03/15 Author: Bob Snively Mailing: 1999_2
FCP-2 changes from revision 0 to revision 1

T10/99-168R1 Date: 1999/03/31 Author: Bob Snively Mailing: 1999_2
FCP-2 changes from revision 0 to revision 1

T10/99-168R2 Date: 1999/04/27 Author: Bob Snively Mailing: 1999_2
FCP-2 changes from revision 0 to revision 1

T10/99-169R0 Date: 1999/03/31 Author: Larry Lamers & Vince Bastiani Mailing: 1999_2
Groundwork for Expander Communication

T10/99-169R1 Date: 1999/04/08 Author: Larry Lamers & Vince Bastiani Mailing: 1999_2
Groundwork for Expander Communication

T10/99-170R0 Date: 1999/04/04 Author: Bill Galloway Mailing: 1999_2
Packetized cleanup and improvements

T10/99-170R1 Date: 1999/04/09 Author: Bill Galloway Mailing: 1999_2
Packetized cleanup and improvements

T10/99-171R0 Date: 1999/04/07 Author: Bill Ham Mailing: Missing
Implied Assumptions in SPI-3 Timing Budget

T10/99-172R0 Date: 1999/04/07 Author: Bill Ham & Zane Daggett Mailing: 1999_2
Report on April 6th Cable Performance meeting

T10/99-173R0 Date: 1999/04/08 Author: Bill Galloway Mailing: 1999_2
Restrict QAS to Packetized

T10/99-174R0 Date: 1999/04/12 Author: George Penokie Mailing: 1999_2
Annex A Modification

T10/99-175R0 Date: 1999/05/07 Author: Weber & Lohmeyer Mailing: 1999_2
Minutes of SPI-3 Working Group - May 2-3, 1999

T10/99-175R1 Date: 1999/05/20 Author: Weber & Lohmeyer Mailing: 1999_2
Minutes of SPI-3 Working Group - May 2-3, 1999

T10/99-176R0 Date: 1999/05/10 Author: Weber & Lohmeyer Mailing: 1999_2
Minutes of SCSI-3 Working Group - May 5, 1999

T10/99-177R0 Date: 1999/05/12 Author: Weber & Lohmeyer Mailing: 1999_2
Minutes of T10 Plenary Meeting #31 - May 6, 1999

T10/99-177R1 Date: 1999/05/20 Author: Weber & Lohmeyer Mailing: 1999_2
Minutes of T10 Plenary Meeting #31 - May 6, 1999

T10/99-178R0 Date: 1999/04/20 Author: Stewart Wyatt Mailing: 1999_2
Minutes of Joint T11/T10 FC-Tape Working Group - April 14-15, 1999

T10/99-179R0 Date: 1999/04/26 Author: Mark Evans Mailing: 1999_2
Hard Drive Self Tests

T10/99-179R1 Date: 1999/05/14 Author: Mark Evans Mailing: 1999_2
Hard Drive Self Tests

T10/99-179R2 Date: 1999/07/08 Author: Mark Evans Mailing: 1999_3
Logical Unit Self Tests

T10/99-179R3 Date: 1999/07/23 Author: Mark Evans Mailing: 1999_4
Logical Unit Self Tests

T10/99-179R4 Date: 1999/07/29 Author: Mark Evans Mailing: 1999_4
Logical Unit Self Tests

T10/99-179R5 Date: 1999/09/15 Author: Mark Evans Mailing: 1999_4
Logical Unit Self Tests

T10/99-180R0 Date: 1999/04/22 Author: Gerry Houlder Mailing: 1999_2
Application Client Log Page proposal

T10/99-180R1 Date: 1999/07/15 Author: Gerry Houlder Mailing: 1999_3
Application Client Log Page proposal

T10/99-181R0 Date: 1999/04/23 Author: Rob Elliott and Mailing: 1999_2
Carl Zeitler
SSC Compression Algorithm default values

T10/99-182R0 Date: 1999/04/27 Author: Tom Coughlan Mailing: 1999_2
Still more on Persistent Reservations

T10/99-182R1 Date: 1999/05/05 Author: Tom Coughlan Mailing: 1999_2
Still more on Persistent Reservations

T10/99-183R0 Date: 1999/04/27 Author: Gene Milligan Mailing: 1999_2
Slow DT Timing Revision Proposal for SPI-3

T10/99-183R1 Date: 1999/05/02 Author: Gene Milligan Mailing: 1999_2
Slow DT Timing Revision Proposal for SPI-3

T10/99-184R0 Date: 1999/04/29 Author: George Penokie Mailing: 1999_2
Miscellaneous SPI-3 Technical Changes

T10/99-184R1 Date: 1999/04/29 Author: George Penokie Mailing: 1999_2
Miscellaneous SPI-3 Technical Changes

T10/99-185R0 Date: 1999/05/01 Author: Rob Elliott & Mailing: 1999_2

		Keith Childs	
Change CRC timing values			
T10/99-185R1	Date: 1999/05/10	Author: Rob Elliott & Keith Childs	Mailing: 1999_2
Change CRC timing values			
T10/99-185R2	Date: 1999/06/25	Author: Rob Elliott & Keith Childs	Mailing: 1999_3
Change CRC timing values			
T10/99-186R0	Date: 1999/05/03	Author: Gene Milligan	Mailing: 1999_2
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T10/99-187R0	Date: 1999/05/10	Author: John Lohmeyer	Mailing: 1999_2
Proposal to change MSE High-Z Current Specification in SPI-3			
T10/99-187R1	Date: 1999/06/18	Author: John Lohmeyer	Mailing: 1999_3
Proposal to change MSE high-impedance current specification in SPI-3			
T10/99-187R2	Date: 1999/07/12	Author: John Lohmeyer	Mailing: 1999_3
Proposal to change MSE high-impedance current specification in SPI-3			
T10/99-188R0	Date: 1999/05/04	Author: Dan Smith	Mailing: 1999_3
SPI-3, rev 7, Section 7 Table and Figure Clarification			
T10/99-188R1	Date: 1999/07/13	Author: Dan Smith	Mailing: 1999_3
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T10/99-189R0	Date: 1999/05/05	Author: Gerry Houlder	Mailing: 1999_2
SBC-2: Clarification of ECC Correction Span Field (>255 bits)			
T10/99-190R0	Date:	Author:	Mailing: Missing
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T10/99-191R0	Date: 1999/05/12	Author: Richard Moore	Mailing: 1999_2
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T10/99-191R1	Date: 1999/07/13	Author: Richard Moore	Mailing: 1999_3
Release Glitch Management for QAS			
T10/99-192R0	Date: 1999/05/11	Author: Barry Blount	Mailing: 1999_2
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T10/99-193R0	Date: 1999/05/11	Author: Stewart Wyatt	Mailing: 1999_2
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T10/99-194R0	Date: 1999/05/21	Author: Larry Lamers	Mailing: 1999_3
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T10/99-195R0	Date:	Author:	Mailing: Missing
(not used)			
T10/99-196R0	Date: 1999/06/01	Author: Paul Aloisi	Mailing: 1999_3
SPI-3 Assumptions for receiver and driver levels			
T10/99-197R0	Date: 1999/05/28	Author: Rob Elliott	Mailing: 1999_3
REPORT LUNS and small allocation lengths			

T10/99-198R0 Date: 1999/06/06 Author: Ralph Weber /
Deborah Donovan Mailing: 1999_3
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T10/99-199R0 Date: 1999/06/22 Author: Tom Coughlan and
John Meneghini Mailing: 1999_3
Persistent Reservation: Register and Ignore Existing Key

T10/99-200R0 Date: 1999/07/20 Author: Weber & Lohmeyer Mailing: 1999_3
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T10/99-204R0 Date: 1999/06/18 Author: Dean Wallace Mailing: Missing
Simulation Document

T10/99-205R0 Date: 1999/06/21 Author: Dean Wallace Mailing: 1999_3
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T10/99-206R0 Date: 1999/06/24 Author: George Penokie Mailing: 1999_3
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T10/99-207R0 Date: 1999/07/04 Author: Ralph Weber Mailing: 1999_3
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T10/99-208R0 Date: 1999/06/09 Author: Rob Elliott Mailing: 1999_3
MRIE behavior with TEST bit asserted

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T10/99-210R0 Date: 1999/07/06 Author: Jeff Williams Mailing: 1999_3
ASC/ASCQ for CRC errors during DT transfer

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T10/99-211R0 Date: 1999/07/04 Author: Bob Snively Mailing: 1999_3
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T10/99-212R0 Date: 1999/07/07 Author: George Penokie Mailing: 1999_3
Packetized error handling changes for SPI-3

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T10/99-214R0 Date: 1999/07/15 Author: Larry Lamers Mailing: 1999_3
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T10/99-214R1 Date: 1999/07/15 Author: Larry Lamers Mailing: 1999_3
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T10/99-215R0 Date: 1999/07/14 Author: Paul Aloisi Mailing: 1999_3
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T10/99-215R1 Date: 1999/09/13 Author: Paul Aloisi Mailing: 1999_4
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T10/99-218R0 Date: 1999/09/16 Author: Erich Oetting Mailing: 1999_4
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T10/99-223R0 Date: 1999/07/13 Author: Steve Jerman Mailing: 1999_3
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T10/99-223R1 Date: 1999/08/04 Author: Sid Crighton Mailing: 1999_4
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T10/99-223R2 Date: 1999/09/15 Author: Steve Jerman Mailing: 1999_4
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T10/99-226R0 Date: 1999/08/04 Author: Jim Coomes Mailing: 1999_4
Mode Page 19h DSA bit Clarification in FCP-2

T10/99-227R0 Date: 1999/08/04 Author: George Penokie Mailing: 1999_4
Task management handling changes for SPI-3

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Proposed response to SSC letter ballot comments

T10/99-228R1 Date: 1999/09/13 Author: Dave Peterson Mailing: 1999_4
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Extended Copy Support for Persistent Reservations

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T10/99-234R0 Date: 1999/08/18 Author: Ralph Weber Mailing: 1999_4
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T10/99-235R0 Date: 1999/08/06 Author: Ralph Weber Mailing: Missing
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T10/99-239R0 Date: 1999/08/19 Author: Roger Ronald Mailing: 1999_4
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T10/99-242R0 Date: 1999/09/01 Author: John Lohmeyer Mailing: 1999_4
Proposed addition to SPI-3 integrity check fall back procedure

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Larry Lamers
Proposal for Increasing the Addressability of Parallel SCSI

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SSS Applied to SCSI Storage Devices & Systems

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T10/99-258R0 Date: 1999/09/07 Author: George Penokie Mailing: 1999_4
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Proposed revision to T10 Electronic Procedures

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T10/99-274R0 Date: 1999/09/13 Author: Richard Moore Mailing: 1999_4
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T10/99-275R0 Date: 1999/09/13 Author: Donald Woelz Mailing: 1999_4
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