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Reply to: Pete McLean

To: Membership of T13
From: Curtis Stevens, Secretary of T13, and Pete McLean, Chairman of T13
Subject: Minutes of 39th T13 Plenary Meeting at Irvine, CA.
February 18 through 20, 2003

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Results of the Meeting

1 Opening remarks

Pete McLean, the T13 Chair, called the meeting to order at 9:00 A.M. on Tuesday, February 18, 2003. Pete thanked Curtis Stevens and Pacific Digital for hosting the meeting.

As is customary, the people in attendance introduced themselves, and a copy of the attendance list was circulated. Copies of the agenda were made available to those in attendance.

The Chair briefly reviewed the meeting rules: T13 is a Technical Committee of INCITS and operates under INCITS rules. Anyone with interest in the work of the committee is free to attend and take part in discussions. However, motions and votes are limited to member organizations, one vote per member organization.

The Chair also noted that T13 operates under the INCITS antitrust guidelines. There should never be discussion of the following topics at any INCITS or an INCITS subgroup meeting:

- Any company's prices or pricing policies;
- Specific R&D, sales and marketing plans;
- Any company's confidential product, product development or production strategies;
- Whether certain suppliers or customers will be served;
- Prices paid to input sources; or
- Complaints about individual firms or other actions that might tend to hinder a competitor in any market.

Policies and Procedures and antitrust guidelines for INCITS are available at the web site at www.incits.org. T13 operates under these policies and procedures augmented by the T13 procedures at the T13 web site at www.t13.org.

2 Approval of agenda

Jim Hatfield moved and Curtis Stevens seconded that the agenda be approved as reflected in these minutes. The motion was approved unanimously.

3 Membership and attendance

The Chair reviewed the rules for membership and attendance:

3.1 Membership

An individual from an organization new to T13 must attend at least one T13 plenary meeting before requesting voting membership. After that meeting, the representative may request

membership from the T13 chair stating expertise and material interest in the scope of the committee and pay the required fees to INCITS. The time when membership becomes effective has just changed. Membership now becomes effective at the start of the next meeting the organization attends assuming the organization attends one of the next two meetings.

3.2 Fees

Current INCITS memberships fees for Principal or additional Alternates are 800.00 USD. The First Alternate is free with a Principal membership.

Mailings of committee documents are available to any interested party after each plenary meeting. The cost for mailings for one year is 300.00 USD for mailing in the USA and 400.00 USD for mailing to a location outside of the USA.

Persons with questions or requests regarding membership fees and/or subscriptions for mailings should contact Parthenia Purnell, ITI Standards Operations, at ppurnell@itic.org.

3.3 Attendance

In addition to payment of fees, there are also minimum attendance and participation requirements to maintain voting membership status on T13. A representative from a member organization must attend two of every three plenary meetings and vote on at least every other letter ballot. If a member organization fails to have a representative in attendance at two of the last three T13 plenary meetings or vote on every other letter ballot, they are warned that failing to attend the next T13 meeting or to vote on the next letter ballot will result in their voting membership being terminated.

Attendance at a working group meeting does not affect voting membership status in T13.

Two voting members were in jeopardy due to lack of attendance: Microsoft and LAD Storage Consulting. Microsoft was present. LAD Storage Consulting was not present and lost its voting membership.

The T13 voting membership during the meeting was 20 organizations.

The number of eligible voting members required for establishing a quorum was seven. Fourteen member organizations were present at the start of the meeting, thus a quorum was present.

The following individuals attended:

Phil Gardner	Absolute Software	Craig Stuber	Petalynx
Ron Roberts	Adaptec	Mukesh Kataria	Phoenix
Sumit Puri	Fujitsu	Arie Krantz	QLogic
Steven Fairchild	HP	Jim Hatfield	Seagate
Dan Colegrove	Hitachi Global Storage Tech	Bryan Cowger	Sierra Logic
Robert Strong	Intel	Shoji Fuchigami	Sony
Pete McLean	Maxtor	Hiroshi Suzuki	Toshiba
Nathan Obr	Microsoft	Kenneth Hirata	Vixel
Bob Davis	Network Appliance	Darrin Bulik	Western Digital
Curtis Stevens	Pacific Digital	John Masiewicz	Western Digital
Ryosuke Shimizu	Panasonic	Jim Wilshire	Western Digital

4 Approval of the minutes from the previous T13 plenary meeting (e02149r0)

Curtis Stevens moved and Jim Hatfield seconded that the minutes of the previous meeting, e02149r0, be approved as posted. The motion was approved unanimously.

5 Document distribution

The following documents were distributed either via hard copy, soft copy, or both:

Agenda and document directory
 Project proposal for an AV technical report (e02148r1)
 Letter from the Serial ATA consortium (e03104r0)
 Serial ATA 1.0a specification (e03105r0)
 Serial ATA errata 41 (e03106r0)
 Presentation on PARTIES-2 (e03106r0)
 PARTIES-2 project proposal (e03107r0)
 IDEMA Japan AV Lite comparisons (e03108r0)
 WRITE WRONG proposal (e02126r1)
 ATA/ATAPI-7 revision 2 volumes 1, 2, and 3

6 Review of previous action items

1. Pete McLean to inform the Serial ATA committee that T13 has agreed to incorporate the SATA specification into ATA/ATAPI-7 – Completed.
2. Dan Colegrove will check the status of the CD mailings with INCITS – Completed.
3. Dan Colegrove will revise e02148r0 based on feedback from the current meeting – Completed.
4. Curtis Stevens to turn a new revision of EDD-3 – Carry Over.
5. Dan Colegrove to turn a new revision of Larger Physical Sector Size – Carry Over.

6. Dan Colegrove to contact IDEMA and ask them to provide a summary of meeting activities for next T13 meeting – Completed.
7. Curtis Stevens to turn a new rev of 1510d as r1 – Completed.
8. The chair to forward 1510dr1 to INCITS – Completed.
9. Jim Hatfield to provide a list of documents that define DSC and SERV – Overcome by events.
10. Curtis Stevens to submit a project proposal for an extended cable length technical report – Carry Over.
11. Curtis Stevens to come forward with a proposal for WRITE WRONG (e02126r0) – Completed.
12. Dan Colegrove to post a link to the INCITS project proposal template – Completed.
13. Mukesh Kataria to create a project proposal for a follow-on to PARTIES-2 – Completed.

7 Old business

7.1 1394 to AT Attachment – Tailgate maintenance (ANSI NCITS 316-1998)

The chair announced that the 1394 to AT Attachment – Tailgate standard must be reaffirmed, revised, or withdrawn this year. INCITS has notified the chair that T13 must have its recommendation to INCITS by 1 April.

Curtis Stevens moved and Ron Roberts seconded that T13 recommend to INCITS that NCITS 316-1998 be withdrawn as a standard. Concern was expressed that there was currently very little support for this specification and that it could mislead people into thinking that there was support. There was also discussion about posting the withdrawal notice to T10 and 1394 TA reflectors. This decision could be reversed at the next meeting, but no later. A roll call vote was taken. Motion passed: 14-0-0-6

Company	Voter	Yes	No	Abstain	Not Present
Absolute Software	Phil Gardner	X			
Adaptec	Ron Roberts	X			
Apple					X
Fujitsu					X
Hitachi					X
IBM					X
Intel	Robert Strong	X			
LSI Logic					X
Maxtor	Pete McLean	X			
Microsoft	Nathan Obr	X			
Network Appliance	Bob Davis	X			
Pacific Digital	Curtis Stevens	X			
Phoenix	Mukesh Kataria	X			
QLogic	Arie Krantz	X			
Seagate	Jim Hatfield	X			
Sierra Logic	Bryan Cowger	X			
ST Microelectronics					X
Toshiba	Hiroshi Suzuki	X			
Vixel	Kenneth Hirata	X			
Western Digital	John Masiewicz	X			

7.2 ATA/ATAPI-4 maintenance (ANSI NCITS 317-1998)

The chair announced that the ATA/ATAPI-4 standard must be reaffirmed, revised, or withdrawn this year. INCITS has notified the chair that T13 must have its recommendation to INCITS by 1 April.

Bob Davis noted that if we renew this standard we could change its status to a stabilized standard. A stabilized standard is automatically renewed if there is no action from the parent committee. The possibility of revising the standard and possibly including only the obsoleted fields was also discussed. There was concern expressed that this would only propagate the issue that obsolescence was trying to address.

Bob Davis moved and Ron Roberts seconded that T13 recommend to INCITS that ATA/ATAPI-4 be reaffirmed. There was no discussion. Motion passed: 14-0-0-6

Company	Voter	Yes	No	Abstain	Not Present
Absolute Software	Phil Gardner	X			
Adaptec	Ron Roberts	X			
Apple					X
Fujitsu					X
Hitachi					X
IBM					X
Intel	Robert Strong	X			
LSI Logic					X
Maxtor	Pete McLean	X			
Microsoft	Nathan Obr	X			
Network Appliance	Bob Davis	X			
Pacific Digital	Curtis Stevens	X			
Phoenix	Mukesh Kataria	X			
QLogic	Arie Krantz	X			
Seagate	Jim Hatfield	X			
Sierra Logic	Bryan Cowger	X			
ST Microelectronics					X
Toshiba	Hiroshi Suzuki	X			
Vixel	Kenneth Hirata	X			
Western Digital	John Masiewicz	X			

7.3 ATA/ATAPI Host Adapter Standard project 1510D (ANSI INCITS 370-200x) Status

The chair announced that Curtis Stevens turned ATA/ATAPI Host Adapter d1510r1 and that the chair forwarded the draft standard to INCITS for first public review. It has been assigned BSR number ANSI INCITS 370-200x and is in public review closing 17 March 2003.

7.4 ATA/ATAPI-7 project 1532D

7.4.1 New Editor

There are currently 3 volunteers: John Masiewicz, Jim Hatfield, and Ron Roberts. John mentioned that it would be fun. Ron mentioned that he had edited other ANSI standards and his boss told him to. Jim Hatfield said he wanted to make a greater contribution to the group.

Curtis suggested that the decision be made at the next meeting since we will have a better idea of who the chair will be. Bob Davis confirmed that this would be proper INCITS procedure. Pete McLean said that if this was our decision he would make the changes discussed at this meeting and any working groups that meet between now and then he would make the changes and make the documents available to the new editor.

We discussed the possibility of a WG meeting the first week of March. The group agreed the first week of March would be best. John Masiewicz agreed to host in Irvine.

Pete McLean appointed Curtis Stevens as a neutral party to turn the rev of ATA/ATAPI-7 at the next meeting.

7.4.2 Long logical sector size proposal (e02132r2) [Colegrove]

The item was postponed till next meeting since a new revision of the proposal was not available.

7.4.3 WRITE WRONG (e02126r0) [Stevens]

Curtis Stevens presented the Write Wrong proposal for a new command. The purpose of this command is to mark sectors as bad so that on subsequent reads an error is generated. This allows host software vendors to test their error handling. Ron Roberts presented a request from Adaptec for supporting RAID rebuild. If a sector is bad on the source volume, Adaptec would like to mark the sector as bad on the destination drive as well.

There was discussion on the implications of this proposal. Drive manufacturers are concerned that this capability could be misused to cause warranty returns on disk drives.

Clarification was requested on the error behavior during the various READ commands after a WRITE WRONG has been issued. These include documentation that the UNCORRECTABLE ERROR bit is set what the read error is encountered, whether or not the error logs are updated, and the behavior of SMART in relation to these errors.

There was also a request for a SET FEATURES command to enable this capability. After some discussion, a few people thought that DCO may be better.

Discussion will continue at the next meeting

7.4.4 Use of DSC with PACKET command (e02131r1) [Hatfield]

The proposer asked that this agenda item be removed from future agenda

7.4.5 Volume 3 review

Pete McLean presented an overview of SATA as he has currently integrated it into ATA/ATAPI-7 volume 3. The draft was reviewed at a high level discussing how it may be reorganized for better clarity. It was agreed that no changes would be made after this meeting but that a working group meeting would be scheduled before the next plenary to further work on this draft.

7.4.6 Volume 1 and 2 change bar review

It was agreed to postpone review of volumes 1 and 2 until more work is completed on volume 3.

7.4.7 ATA/ATAPI-7 schedule review

The schedule was discussed but it was agreed to wait to modify the schedule until the April plenary.

Schedule Item	Original	Prior	Current
Project proposal	Aug-01	Aug-01	Aug-01
Initial draft	Dec-01	Dec-01	Dec-01
Proposal cut-off	Jun-02	Jun-02	Jun-02
Stabilized draft	Dec-02	Dec-02	Dec-02
Letter ballot	Apr-03	Apr-03	Apr-03
Forward to INCITS	Jun-03	Jun-03	Jun-03

7.5 EDD-3 project 1572D [Stevens]

This item was postponed until the next plenary when a new draft is available.

7.6 PARTIES-2 [Kataria]

Mukesh Kataria presented what he would like to do as e03106r0 for PARTIES-2. Phoenix recommends the following:

1. If the 48-bit command set is supported, the host should use 48-bit SETMAX
2. If the 48-bit SETMAX command fails, then host software should use the 28-bit SETMAX

The ATA/ATAPI-6,7 are not clear on what constitutes elimination of the HPA. There are several scenarios that can lead to unclear results.

Although the project proposal has not met the 2-week rule and could not be voted on at this meeting, the group reviewed what was presented in e03107r0.doc. Changes were recommended and Mukesh agreed to post a new revision in time for it to be voted on at the April plenary.

7.7 Identifying bad sectors [Roberts]

This item was postponed until the next meeting since no document was available.

7.8 ATA/ATAPI AV Streaming Command Set Usage Guideline (e02148r1) [Colegrove]

Reviewed project proposal.

Curtis Stevens moved and Sumit Puri seconded that T13 accept this project proposal as modified (e02148r2) and that the chair forward it to INCITS for processing. Motion Passed 15-0-0-5

7.9 T13 Reflector, FTP, Web Site Setup, and Mailings

Discussed the name of the group, T13 IO Interface – AT Attachment

Bob Davis moved and Curtis Stevens seconded that the name of our group be changed to “ATA Storage Interface”. Motion passed unanimously

Bob Davis talked about a service that INCITS is considering for technical committees. This new service would be to provide a Projector, wireless hub, Screen, power strips, etc. Are there issues about receiving capitol equipment, tracking it through receiving and then shipping it to the next guy. It would be possible to ship to and from the hotel and possibly bypass the corporate aspect.

Discussed the concept of using a wireless network for document distribution. The main issue is security. Wireless exposes each machine. Is that an acceptable risk.

Curtis Stevens asked for a straw poll on if people would use a wireless LAN. 14 would participate, 3 would not.

Pete McLean asked for a straw poll to determine if ITIC provided equipment should be used by T13. 7 People felt that we should not participate, 9 people felt we should. One concern on the no vote side is the responsibility for the equipment.

Dan Colegrove asked for a straw poll on the number of people already enabled with 802.11b. 15 people indicated yes, 1 person indicated no.

We had a discussion on our telephone conference policy. The results were inconclusive.

8 New Business

8.1 IDEMA Japan presentation () [Fuchigami]

Tom Coughlin (IDEMA US) listened to the presentation via conference phone.

IDEMA Japan presented their case for removing AV-Lite from ATA/ATAPI-7. Their claim is that the current Streaming Feature Set provides all the functionality of AV-Lite, making AV-Lite both redundant and confusing. They also claim that there are error cases that are not well defined with AC-Lite. These claims were supported by a feature comparison between AV-Lite and the Streaming Feature Set (e03108r0). Mr. Fuchigami presented marketing data that shows PVR technology has advanced to the point that AV-Lite will not support the required capabilities.

Discussion followed the presentation. Darrin Bulik expressed that in his latest trip to Japan that there was confusion amongst the people he talked with regarding what drive vendors would actually supply and what the roadmap would be. Mr. Suzuki of Toshiba, and Sumit Puri from Fujitsu agreed with Darrin.

Tom Coughlin reported that IDEMA US is also planning to discuss the issue at their March meeting.

The group agreed that this should be kept on the agenda under ATA/ATAPI-7 so members can continue to research their positions.

8.2 Updating Device Configuration Overlay () [Colegrove]

New capabilities added in ATA/ATAPI-7 include A/V, 48-bit, UDMA-133, Selective Self Test, Forced Unit Access and World Wide Names. Do we need to update DCO to include some of these new capabilities.

Changes would be incorporated into ATA/ATAPI-7 and would require a two thirds vote.

9 Liaison Reports

9.1 T10

The latest T10 liaison report from John Lohmeyer has been posted on the T13 web site as e03102r0.

9.2 SFF

The SFF committee is working on SFF-8221, a form factor for 2.5" server SAS drives. We will probably need to document the SATA version of the connectors in our standard.

There is a WG attempting to define a single voltage supply for disk drives.

Next meeting is March 18th in Dallas. www.sffcommittee.com.

SFF is asking if SATA drive manufacturers are using the 3.3v supply.

9.3 IDEMA

1) IDEMA Disk drive CE technical group formed. Co-chairs Maurice Schlumberger from Maxtor and Tom Coughlin from Coughlin Associates.

2) AV benchmarking activity begun. Committee members from major disk drive companies identified. Meetings with AV CE disk drive users/customers planned.

3) Presentation by iVDR representative made regarding working with IDEMA on reviewing iVDR media and interface standards. iVDR would like to work with IDEMA regarding publicizing and creating a broader forum for discussion of these standards.

Thomas M. Coughlin
(408) 202-5098 (cell)
(408) 978-8184 (office)

9.4 Serial ATA II

Nothing to report.

10 Call for Patents

The Chair explained the patent policy. 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 INCITS web site at ftp://www.incits.org/help/ansi_sdo.html. Section 1.2.11 contains the ANSI patent policy. Amy Marasco manages patent issues for ANSI and can be contacted at amarasco@ansi.org or 212-642-4954.

The Chair then called for patents and/or patent applications that may be necessary to comply with the requirements in T13 standards, draft standards, technical reports, or draft technical reports.

There was no response to the call for patents.

11 Action Items

1. The Chair will forward recommendation to INCITS that NCITS 316-1998 be withdrawn.
2. The Chair will forward recommendation to INCITS that NCITS 317-1998 be reaffirmed.
3. Mukesh Kataria to come forward with a document for inclusion into ATA/ATAPI-7 that better defines how the HPA is manipulated.
4. The Chair will forward project proposal e02148r2 to INCITS for processing.
5. The Chair will inform INCITS and provide liaison reports that indicate the name of T13 is changing to ATA Storage Interface.
6. Steve Fairchild will bring in a list of features that need to be added to DCO for ATA/ATAPI-7.
7. Pete McLean will notify Knut Grimsrud of the WG that was approved for 4-5 March.
8. Pete McLean to create a text version of the table of contents (e03110r0) for volume 3.
9. Curtis Stevens to post a notice to the reflector on information for the 4-5 March WG.
14. Curtis Stevens to turn a new revision of EDD-3.
15. Dan Colegrove to turn a new revision of Larger Physical Sector Size.
16. Curtis Stevens to submit a project proposal for an extended cable length technical report.
17. Mukesh Kataria to create a new revision of the project proposal for PARTIES-2.

12 Meeting Schedule

12.1 Authorization of ad hoc working groups

Curtis Stevens moved and Sumit Puri seconded that we authorize an ad hoc meeting 4-5 March 9AM to 5PM on both days in Irvine, CA hosted by Pacific Digital to perform a detailed review of ATA/ATAPI-7 with SATA included. Motion passed 13-0-0-7.

12.2 Long term meeting schedule

The meeting dates, locations, hosts, and contacts were reviewed through CY2004 (included below).

CY 2003 Dates	Location	Host	Contact
April 22-24, 2003	Longmont, CO	Seagate	Jim Hatfield
June 24-26, 2003	San Jose, CA	Phoenix	Mukesh Kataria
August 19-21, 2003	Longmont, CO	Maxtor	TBD
October 21-23, 2003	TBD	Fujitsu	Sumit Puri
December 16-18, 2003	Las Vegas	Hitachi Global	Dan Colegrove
CY 2004 Dates	Location	Host	Contact
February 24-26, 2004	San Diego, CA	Pacific Digital	Curtis Stevens
April 20-22, 2004	Longmont, CO	Seagate	Jim Hatfield
June 22-24, 2004	Irvine, CA	Phoenix	Mukesh Kataria
August 24-26, 2004	Longmont, CO	Maxtor	TBD
October 19-21, 2004	Las Vegas	Fujitsu	Sumit Puri
December 14-16, 2004	TBD	Hitachi Global	Dan Colegrove
NOTE – Meetings are scheduled for three days.			

As noted above the dates of the next plenary meeting of T13 are April 22 through 24, 2003. The meeting will be held in Longmont, CO hosted by Jim Hatfield of Seagate Technology. A host meeting notice will be sent out on the reflector and will be added to the web site.

13 Adjournment

Curtis Stevens moved and John Masiewicz seconded that the meeting be adjourned on February 20, 2003 at 12:04pm

[Enclosure 1 – Membership]

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