

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

Doc. No.: T13/08-112r0

Date: February 29, 2008

Reply to: Mark Overby

To: T13 Membership
From: Mark Overby
Subject: T13 Plenary Meeting (Foothill Ranch, CA) -- February 19-21, 2008

Agenda

1. Opening Remarks
2. Approval of Agenda
3. Attendance and Membership
4. Approval of the Previous Minutes
5. Document Distribution
6. Review of Previous Action Items
7. Old Business
8. New Business
9. Liaison Reports
10. Call for Patents
11. Review of Action Items
12. Approved Proposals
13. Meeting Schedule
14. Adjournment

Results of Meeting

1. Opening Remarks

Dan Colegrove, the T13 Chair, called the meeting to order at 0900 Tuesday, February 19th, 2008. Dan Colegrove thanked Curtis Stevens and Western Digital for hosting.

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.

*Operating under the procedures of The American National Standards Institute.

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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

Mark Overby moved, Dan Colegrove seconded, that the agenda be approved as revised. The motion passed by unanimous consent.

3. Attendance and Membership

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 are 1200.00 USD. Alternates are included in the membership fee.

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 Barbara Bennett, ITI Standards Operations, at bbennett@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.

The T13 voting membership during the meeting was 22 organizations.

The number of eligible voting members required for establishing a quorum was 8. 13 Member organizations were present at the start of the meeting, thus a quorum was present.

The following individuals attended:

Table 1: Attendance List

Attendee	Company		Attendee	Company
Bill Martin	Emulex		Mark Overby	NVIDIA

Table 1: Attendance List

Attendee	Company		Attendee	Company
Jim Hatfield	Seagate		Joseph Chen	Samsung
Larry Barras	Apple		Curtis Stevens	Western Digital
Joshua Johnson	LSI		Aaron Wilson	ST Microelectronics
Dan Colegrove	Hitachi GST		Steve Livaccari	IBM
Wayne Bellamy	HP		Duncan Penman	Western Digital
Patrick Hery	Toshiba		Dong Yang Lee	Samsung
Marty Stevens	Dell		Sumit Puri	Fujitsu
Frank Shu	Microsoft		Ken Foust	Kionix
John Geldman	Lexar Media		Robert Strong	Intel

4. Approval of the minutes from the previous T13 plenary meeting (e08102r0)

Dan Colegrove moved, Mark Overby seconded, that the minutes be approved. The motion passed with unanimous consent. Curtis Stevens moved, Bill Martin seconding, that if INCITS has not approved the minutes within a week of submission to INCITS that the chair will publish the draft minutes. The motion passed with 12 ayes, 0 nays, and 1 abstention.

5. Document Distribution

No documents were distributed.

6. Review of Previous Action Items

1. Dan Colegrove to check the status of the DDT technical report. [TR-43 is in management review and going to public review]
2. Dan Colegrove to check with Apple of patent letter for declared patents. [Apple has sent letter. Dan will post to T13]

7. Old Business

7.1 ATA/ATAPI-7: 1532D

7.1.1 ISO Status

Mark Overby reported that he and Curtis Stevens reviewed changes that were requested by the ISO editor and that they were editorial or formatting in nature and did not impact the technical material.

7.2 HBA-2 Standard Project: 2014-D

Mark Overby reported that there was nothing new at this time.

7.3 DDT Technical Report

Dan Colegrove stated that the amendment is going through management review and public review with INCITS.

7.4 ATA/ATAPI-8 Projects

7.4.1 AT Attachment 8 - Command Set (ATA8-ACS)

7.4.1.1 Letter Ballot Comment Resolution (e08110)

Curtis Stevens led a review of letter ballot comments on ATA8-ACS. Comment resolutions were captured in e08110 and Curtis agreed to post a revision with the comment resolution to date. Curtis Stevens moved, Mark Overby seconding, that a teleconference be authorized for letter ballot comment resolution. The motion passed with unanimous consent. Curtis Stevens moved, Bill Martin seconded, that a face to face meeting be authorized to discuss letter ballot comments. The motion passed with unanimous consent. The face to face was scheduled for 26 March - 27 March from 1000 until 1900 on 26 March and 0900 to 1700 on 27 March in Lake Forest, CA. The teleconference was scheduled for 20 March from 1300 to 1500 Pacific Time Zone.

7.4.2 AT Attachment-8 - Parallel Transport (ATA8-APT)

7.4.2.1 ATA8-ACS Mapping and Register Descriptions (e07145) [Overby]

Mark Overby reviewed revision 1 of the ATA8-APT mapping document with changes from the previous meeting. Curtis Stevens noted that the 48-bit mapping does not allow a host to issue only a single 8 bit write to the registers that are 16-bits. Mark stated that ATA-7 was ambiguous on this point about what the behavior of the drive should be regarding the upper 8 bits. There was substantial discussion about if the requirement in the mapping document was too restrictive. Mark stated that this was the safest path that guarantees compatibility with all drives. Curtis requested more time to review internally. Mark agreed with this and ask Dan Colegrove to issue a letter ballot to approve e07145r2 for inclusion into ATA8-APT.

7.4.2.2 SLEEP and INTRQ clarifications (e07199) [Overby]

Mark Overby reviewed the clarifications to maintain the current behavior of the SLEEP command as was recommended by the working group. No additional suggestions were made. Jim Hatfield moved, Mark Overby seconded, that e07199r0 be incorporated into ATA8-APT. The motion passed with 10 ayes, 0 nays, and 2 abstentions.

7.4.2.3 ATA8-APT Open Issues (e07177)

Mark Overby reviewed the open issues list and noted that all issues should be addressed. Curtis Stevens reviewed the ATA8-ACS open issues list to make sure that items addressed there were on the ATA8-APT open issues list. Mark agreed to add a couple of items to verify that they were addressed in the ATA8-APT draft. Mark agreed to post the new revision of e07177 following the meeting.

7.4.2.4 Review of Draft

Draft review was deferred in order to continue with ATA8-ACS letter ballot comment review.

7.4.3 AT Attachment-8 - Serial Transport (ATA8-AST)

7.4.3.1 Review of Draft

Curtis Stevens stated that he had no new information to present and was working towards an October letter ballot.

7.4.4 AT Attachment-8 - Architecture Model (ATA8-AAM)

7.4.4.1 Letter Ballot Comment Resolution

There were no new comments received on ATA8-AAM for inclusion.

7.5 ACS-2 Project 2015-D [Stevens]

7.5.1 INCITS Status

Dan Colegrove reported that there was no new status.

7.5.2 SCT Zone ERP (e07169r1) [Colegrove]

Dan Colegrove stated that he has not yet turned a new revision of the proposal based on the feedback from the last meeting. He is still investigating the items that were reported at the last meeting.

7.5.3 Device Statistics

7.5.3.1 *Teleconference Report (e08109) [Hatfield]*

Jim Hatfield presented the results of the teleconference held to discuss device statistics. A substantial discussion ensued about the timers and when the timers reset. Several people opined that the timers should reset for update criteria after each recording, others opined that the timer should reset as like a wall clock and be an absolute time regardless of when the statistics was last updated. Dan Colegrove stated since the timer was a maximum time for update criteria, that if you make the maximum from the last update then those devices that do it as a wall clock would be compliant. Jim recorded a note to make the spec clear.

Jim Hatfield asked for a straw poll if people thought that if page 0 should be a directory page of statistics. 3 were opposed, 7 were in favor.

Jim Hatfield presented a list of options for how a directory could be implemented in the current schema for the log address that is device statistics. After further extensive discussion there was no consensus on the necessity or usefulness of the log page. It was decided to defer further discussion to letter ballot comment resolution or one of the device statistics meeting.

Joseph Chen moved, Wayne Bellamy seconded, that two teleconferences be authorized for further statistic discussion. Teleconferences were selected for 17 March and 31 March from 1300 - 1500 Pacific Time Zone.

7.5.3.2 *Additional device statistics - Errors (e06181) [Chen]*

Due to time, Joseph Chen asked that this item be deferred to the next meeting.

7.5.3.3 *Additional device statistics - Temperature (e06183) [Chen]*

Due to time, Joseph Chen asked that this item be deferred to the next meeting.

7.5.3.4 *Additional device statistics - Transport Statistics [Chen] (e07168)*

Due to time, Joseph Chen asked that this item be deferred to the next meeting.

7.5.4 Data Path Protection (e07162) [Stevens]

Curtis Stevens reported that he had no changes to his proposal. Brian Day showed a presentation (e08111) from LSI about concerns about the data path protection proposal. Brian stated that he felt that a lack of type-2 protection and a lack of per-command control reduces the usefulness of the feature. This led to a discussion of general data path protection and how it is used and what the requirements from usage is. Jim Hatfield also presented a list of concerns about the data path protection. He noted that there are concerns about interactions between security related commands (e.g., SECURITY ERASE UNIT), read/write long, and streaming commands.

7.5.5 Freefall Feature Set Enhancements (e06162) [Chen]

Joseph Chen asked that this be deferred to the next meeting.

7.5.6 Security Command Update (e07104) [Chen]

Joseph Chen asked that this be deferred to the next meeting.

7.5.7 Extended Security (e07189) [Chen]

Joseph Chen asked that this be deferred to the next meeting.

7.5.8 Sanitize Command (e07197) [Geldman]

John Geldman asked that this be deferred to the next meeting.

7.5.9 Data Set Management (e07154) [Shu]

Frank Shu stated that this could be removed from the agenda.

7.5.10 Set Features Set Policy (e07121) [Hatfield]

Jim Hatfield asked that this be deferred to the next meeting.

7.5.11 SSD Identify (e07153) [Shu]

Frank Shu asked that this be deferred to the next meeting.

7.5.12 Change Host Vendor Specific to Scratch Pad (e07159r0) [Stevens]

Curtis Stevens asked that this be deferred to the next meeting.

7.5.13 IDENTIFY DEVICE Change for CFAST (e08108) [Geldman]

John Geldman presented a proposal to add a method of using IDENTIFY DEVICE to identify new CF devices using CFAST. His proposal adds a new bit to IDENTIFY DEVICE to identify CFAST devices. In addition, he noted the places in the specification that needed updating because of the differences between CFA and CFAST. The committee gave significant wording and technical change feedback to John during review of the document to clarify various terms and definitions for this class of device. John agreed to take the feedback and turn a new revision. Later in the meeting John reviewed revision 1 of his document that was created based on earlier feedback in the meeting. John Geldman moved, Jim Hatfield seconded, e08108r1 as revised be incorporated into ACS-2. The motion passed with 9 ayes, 0 nays, and 2 abstentions.

7.5.14 ACS-2 Open Issues (e07172) [Stevens]

Curtis Stevens reviewed the open issues list for ACS-2 and would continue to post revisions as new issues arise.

7.5.15 Project Schedule

7.5.15.1 *Cut Off Date*

Dan Colegrove and Curtis Stevens stated that they wanted to cut off new proposals to ACS-2 soon, but did not have a date in mind.

7.5.15.2 *Draft Review Process*

Curtis Stevens discussed the review process for ACS-2 and noted that it was imperative that proposals be in a format that can be incorporated into ACS-2 otherwise it will dramatically impact the schedule and could cause technical errors in the document.

7.6 EDD Erratum

7.6.1 INCITS Status

Dan Colegrove stated that he would verify that it has been published and cleared executive board review.

7.7 T13 reflector, FTP, and web site setup

7.7.1 Useful Docs Register

7.7.1.1 *DCO and IDENTIFY Data Structure (e07120) [Chen]*

The discussion of Joseph Chen's document was deferred to the next meeting. Dan Colegrove noted that there was a need to create the necessary locations in the website to store these documents when complete. Curtis Stevens agreed to track this as a pending request for the website.

8. New Business

8.1 New INCITS rule for RD1 [Colegrove]

Dan Colegrove displayed a new rule from INCITS that restricts access to documents and meetings to members or "friends of committee". Mark Overby noted that obtaining membership is quite unclear at this point as you can't

attend a meeting until you're a member, but joining as a member requires that you attend a meeting before joining. Dan Colegrove stated that he would work with the other chairs to obtain clarification of this policy.

8.2 IDENTIFY DEVICE word 21 [Stevens]

Curtis Stevens noted that word 21 is retired and was originally defined in ATA-1 as the number of 512-byte buffers supported by the drive for caching. Curtis noted that drives are still using this to describe the cache size of the drive. However, with the size of the word allows for only a maximum of a 32 MB cache size to be reported. Curtis recommended that it be changed to obsolete. Curtis requested a straw poll on making word 21 obsolete. 8 were in favor, 2 were opposed. Curtis felt that this agenda item has been addressed and could be removed from the agenda.

8.3 Amendment to EDD3 (e08107) [Strong]

Rob Strong presented a proposal to create an amendment to EDD-3. He stated that the purpose was to create a method to pass through an arbitrary ATA command using the Int 13 interface. Curtis Stevens noted that function 4F (50 in the erratum to EDD) in EDD could possibly be used. Curtis noted that all that would have to be added would be a packet sending service definition for an ATA device in addition. During discussion it was decided that it would be more appropriate to do this as a new project. Curtis Stevens moved, John Goldman seconded, to create a study group for EDD-4 and to authorize a teleconference for the study group. The motion passed with unanimous consent.

8.4 JEDEC Presentation about Liaison Opportunities

D.Y. Lee presented a proposal about activities in JEDEC involving flash memory and SSD's. It was noted that JC64 is working on items for flash including host controller interfaces and SSD's. There was discussion about what the purpose of the working groups are. It was requested that if the SSD group needs new commands that they work on proposals and bring those to T13 (or to the other relevant standards organizations for the transport that the SSD uses).

8.5 Items from the Reflector

No items that needed committee attention were reported.

9. Liaison Reports

9.1 T10 [Colegrove]

9.1.1 SCSI to ATA Translation (SAT) Working Group Report

Mark Overby noted that SAT will meet the week of the April T13 plenary on Friday.

9.1.2 General T10 Report

Dan Colegrove stated that he would post the T10 liaison report.

9.2 T11 [Colegrove]

Dan Colegrove stated that he felt that there was no longer a need to carry a T11 liaison as the FC-SATA work has been completed.

9.3 IEEE

9.3.1 IEEE1667

No report was given.

9.3.2 IEEE1619

Mark Overby noted that it is possible that 1619 might need a new security protocol identifier, but that path was not completely clear at this point.

9.3.3 INCITS Liaison Opportunities

Dan Colegrove stated that no new information was available on this.

9.4 Trusted Computing Group [Hatfield]

Jim Hatfield stated that he felt no activities impacted T13 standards as this time.

9.5 SFF [Colegrove]

Dan Colegrove stated that there was no activities that impact T13 standards at this time.

9.6 IDEMA [Colegrove]

Dan Colegrove stated that 4k meetings were ongoing and that there was effort to explain that 4k sectors help with data error rates. IDEMA is also working on new definitions and formulas for the reporting of drive size with 4k sectors.

9.7 CFA [Geldman]

John Geldman stated that all liaison items were handled in other agenda items.

9.8 Serial ATA IO [Hatfield]

Jim Hatfield stated that once ATA8-ACS is complete, Jim would be starting a proposal to align the SATA documents with ATA8-ACS. Jim also noted that there would be material that would be needed from current SATA documents into ACS-2. Jim stated that he would start asking about this.

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 www.incits.org/help/ansi_sdo.html. Section 1.2.11 of that document contains the ANSI patent policy.

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.

Dan Colegrove stated that the call for patents will be moved to the beginning of the agenda for future meetings.

There was no response to the call for patents.

11. Review of Action Items

1. Dan Colegrove to check the status of the DDT technical report.
2. Dan Colegrove to check the status of the EDD erratum.
3. Dan Colegrove to post Apple and HP patent letters.
4. Dan Colegrove to post the new RD-1 rule.
5. Dan Colegrove to issue letter ballot to approve e071

12. Approved Proposals

ACS-2:
e08108r2

13. Meeting Schedules

13.1 Authorization of Ad-Hoc Working Groups

Four teleconferences and one face to face was authorized during discussion of agenda items (see the agenda item details for the authorization motions and voting results). Ad hoc meetings were scheduled for:

1. 17 March (Teleconference) 1300 - 1500 Pacific Time for device statistics
2. 20 March (Teleconference) 1300 - 1500 Pacific Time for ATA8-ACS letter ballot comment resolution
3. 26-27 March (Face to Face) 1000 26 March - 1900 26 March, 0900 - 1700 27 March in Lake Forest, CA for ATA8-ACS letter ballot comment resolution

4. 31 March (Teleconference) 1300 - 1500 Pacific Time for device statistics
5. 7 April (Teleconference) 1300 - 1500 Pacific Time for the EDD-4 Study Group

13.2 Long-Term Meeting Schedule

Table 2: 2008 Dates

Date	Location	Host	Contact
April 22-25, 2008	Las Vegas, NV	Hitachi GST	Dan Colegrove
June 24-27, 2008	Longmont, CO	ST Microelectronics	Aaron Wilson
August 18-22, 2008	San Jose, CA	Samsung	Joseph Chen
October 21-24, 2008	San Jose, CA or Las Vegas, NV	Fujitsu	Sumit Puri
December 16-19, 2008	TBD	NVIDIA	Mark Overby

14. Adjournment

Mark Overby moved, Dan Colegrove seconding, that the meeting be adjourned at 1730, 21 February 2008. The motion passed with unanimous consent.