

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

Doc. No.: T13/08-133r0

Date: August 25, 2008

Reply to: Bill Martin

To: T13 Membership
From: Bill Martin
Subject: T13 Plenary Meeting (San Jose, CA) -- August 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. Call for Patents
8. Old Business
9. New Business
10. Liaison Reports
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, August 19th, 2008. Dan Colegrove thanked Samsung 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 displayed the INCITS patent policy and indicated that it would be available electronically on the T13 web site.

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

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

INCITS Secretariat, Information Technology Industry Council (ITI)

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

Email: incits@itic.org Telephone: 202-737-8888 FAX: 202-638-4922

“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

Bill Martin 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 21 organizations.

The number of eligible voting members required for establishing a quorum was 7. 15 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
Joe Scanlon	AMD		Bill Martin	Emulex

Table 1: Attendance List

Attendee	Company		Attendee	Company
Dan Colegrove	Hitachi GST		Steve Livaccari	IBM
Robert Strong	Intel		John Geldman	Lexar Media
Dan Meyer	LSI		George Penokie	LSI
Frank Shu	Microsoft		Fred Knight	NetApp
Tim Emami	NetApp		Dale Jurich	Phoenix Tech.
Joseph Chen	Samsung		David Landsman	SanDisk
Jim Hatfield	Seagate		Patrick Hery	Toshiba
Takao Shinoi	Toshiba		Curtis Stevens	Western Digital
Kevin Marks	Dell			

4. Approval of the minutes from the previous T13 plenary meeting (e08123r1)

Dan Colegrove moved, Bill Martin seconded, that the minutes be approved as written. The motion passed with unanimous consent.

5. Document Distribution

No documents were distributed.

6. Review of Previous Action Items

1. Dan Colegrove to contact that SATA-IO board about material release from SATA 2.6 to ATA8-ACS2. [Completed. the request was approved]
2. Dan Colegrove to forward ATA8-ACS to INCITS for further processing. [Completed - in public review]

7. Call for Patents

The Chair displayed the patent policy earlier. 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.

There was no response to the call for patents.

8. Old Business

8.1 INCITS Change in RD1 [Colegrove]

Dan Colegrove reported that Bob Snively, John Lohmeyer, Claudio DeSanti, and Dan met with the INCITS board member chairing the ad hoc committee investigating modifications to the RD1. The group will be allowed to review future modifications to the RD1 that would possibly allow for an open committee policy.

8.2 ATA/ATAPI-7: 1532D

8.2.1 ISO Status

In Mark's absence there was no update. Dan Colegrove will find out the ISO status before the next meeting.

8.3 HBA-2 Standard Project: 2014-D

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

8.4 DDT Technical Report

Dan Colegrove reported that this completed management review and was approved.

8.5 ATA/ATAPI-8 Projects**8.5.1 AT Attachment-8 - Serial Transport (ATA8-ACS)***8.5.1.1 Discussion of draft Seagate public review comments [Hatfield]*

There were several editorial changes that Curtis will submit to the ANSI editor. Non-editorial changes will be submitted by Jim as public review comments.

8.5.1.2 INCITS Status[Stevens]

This is in public review closing September 1, 2008. Curtis reviewed the 7 editorial comments from the ANSI editor. There were no issues with the editorial changes. Curtis will post this as a document on the T13 site.

Curtis Stevens brought in 08132r0 which is editorial changes requested by the Technical Committee. Curtis Stephens WD moved and Jim Hatfield seconded to forward to INCITS 08132r0 as the committee's list of non-substantive issues found in ATA8-ACSR6 Project T13/1699-D. The motion passed 8 in favor, 0 against, 0 abstaining, and 14 not voting.

8.5.2 AT Attachment-8 - Parallel Transport (ATA8-PT)*8.5.2.1 ATA-APT open issues (e07177r0) [Overby]**8.5.2.2 Review of Draft*

In the absence of Mark Overby, no discussion occurred

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

Curtis Stevens has not worked on this due to work on ATA8-ACS. Curtis will provide a new draft for the next meeting.

8.5.4 AT Attachment-8 - Architecture Model (ATA8-AAM)*8.5.4.1 INCITS Review*

Dan Colegrove stated that ATA8-AAM had passed public review with no comments.

8.5.5 AT Attachment-8 - Schedule review

APT will be carried over to the October meeting. ACPT will have a new draft for the October meeting.

8.6 ACS-2 Project 2015-D [Stevens]**8.6.1 ACS-2 Open Issues List (e07172) [Stevens]**

Curtis Stevens reviewed the current open issues list for ATA8-ACS2. Curtis agreed to make suggested revisions and post revision 4 to the website.

8.6.2 SCT Zone ERP (e07169) [Colegrove]

Dan Colegrove stated that revision two is still the most current and he was still looking for any feedback. He stated that he was not ready for a vote yet and asked that this be carried over to the next meeting. Dan also felt that it was technically complete and no further technical changes were needed.

8.6.3 Device Statistics*8.6.3.1 Ad Hoc Teleconference Report (e08124)[Chen]*

Joseph reported that there were four conference calls since the last meeting. The first covered the overview and time over temperature. The second conference call only had three participants and reviewed the errors in

time over temperature, the third also discussed the time over temperature, the fourth call discussed the overview, time over temperature, temperature statistics, and freefall.

8.6.3.2 Device Statistics Overview (e08106) [Hatfield]

Jim presented revision 5 of this proposal with the results of the August teleconference incorporated. The question was brought back up of whether for normalized values should be returned as a different statistic rather than through the use of a bit. After much discussion the consensus of the group was to continue with a flag and put either value in the one statistic.

During the meeting, Jim prepared revision 6 with changes discussed in the morning. Jim Hatfield moved and Joseph Chen seconded to accept e08106r7 (e08106r6 as modified at this meeting) for inclusion in ACS-2. Curtis Stevens felt that there were significant changes and he would like to have time for his company to review the document before voting on it. Jim withdrew the motion. Steve Livaccari then moved and Joseph Chen seconded to accept e08106r7 (e08106r6 as modified at this meeting) for inclusion in ACS-2. The motion failed 3 in favor, 4 opposed, and 2 abstaining.

8.6.3.3 Additional device statistics - Freefall (e06182) [Chen]

Joseph reviewed revision 7 which was posted on August 5th. The group had a few editorial changes. Curtis Stevens moved and Steve Livaccari seconded to accept e06182r8 (e06182r7 as modified at this meeting) for inclusion in ACS-2. The motion passed 7 in favor, 0 opposed, and 2 abstaining.

8.6.3.4 Additional device statistics - Solid State (e06184) [Chen]

This was not covered due to time constraints.

8.6.3.5 Additional device statistics - Errors (e06181) [Chen]

This was not covered due to time constraints.

8.6.3.6 Additional device statistics - Time in Over Temperature (e08127) [Chen]

Joseph presented revision 2 of this proposal. Joseph Chen moved and Steve Livaccari seconded to accept e08127r3 (e08127r2 as modified at this meeting) for inclusion in ACS-2. The motion passed 6 in favor, 1 opposed, and 1 abstaining.

8.6.3.7 Additional device statistics - Temperature (e06183) [Chen]

Joseph Chen presented revisions to the device statistics proposal to track temperatures at the device. There were a number of editorial changes that the group recommended to the document. Steve Livaccari moved and Jim Hatfield seconded to accept e06183r11 (e06183r10 as modified at this meeting) for inclusion in ACS-2. The motion passed 7 in favor, 0 opposed, and 2 abstaining.

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

Joseph presented revision 7 of this proposal. He went over the changes from the previous revision of the proposal.

Joseph requested a straw poll as to:

1. Do we want to add SATA to the title of this statistics page: 3 in favor, 4 opposed
2. Do we want to have a PATA transport statistics page: 0 in favor, 5 opposed

Joseph requested a straw poll for what measurement was desirable for the Number ASR Events (Short Term)

- 1) Time Since last ASR Event: 0 in favor
- 2) Number of ASR Events (Short Term): 0 in favor

Another straw poll was requested by Bill Martin of those who wanted the host to calculate this from the absolute number of ASR events: 8 in favor 3 opposed

Joseph will bring in a revision for the next meeting.

8.6.3.9 Additional device statistics - Usage [Chen] (e06180)

Joseph presented revision 9 of this proposal. It was requested that this proposal be broken into two different statistic pages, one for rotating media and one for general statistics. Steve Livaccari moved and Joseph Chen seconded to accept e06180r10 (e06180r9 as modified at this meeting) for inclusion in ACS-2. The motion passed 5 in favor, 1 opposed, and 3 abstaining.

Curtis voted no because he felt that there were significant changes since the posted version and he had not had time to have this reviewed internally, which may lead to removing some of these in the future.

8.6.4 Data Path Protection (e07162) [Stevens]

Curtis received only one comment from the latest proposal that he presented at the last meeting. Curtis will modify the proposal to only include the error reporting statistics based on input from this meeting. Curtis will bring this proposal in at the next meeting.

8.6.5 Freefall Feature Set Enhancements (e06162) [Chen]

This proposal is the enhanced mode for testing simulation. Joseph Chen asked that this be deferred to the next meeting.

8.6.6 Security Command Update (e07104) [Chen]

This proposal is to clarify some of the security commands. Joseph Chen asked that this be deferred to the next meeting.

8.6.7 Extended Security (e07189) [Chen]

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

8.6.8 Sanitize Command (e07197) [Geldman]

John Geldman asked to carry this over to the next meeting.

8.6.9 Set Features Set Policy (e07121) [Hatfield]

Jim presented revision 7 of this proposal. Jim went through the definitions of the profiles and the interaction of those profiles in the model clause. There were issues about whether this interacted with other features like the acoustic management feature. The question was also raised as to whether this only related to background maintenance operation, and if so, could this be simplified to be an on/off command for background maintenance operations other than mandatory maintenance operations?

The group gave Jim the direction to provide mechanisms: for the host to determine how much background time is necessary and how urgent, for the host to control the device ability to perform background operation, for the device to indicate that it is performing background operations when disallowed, and for the device to reject the host control of background operation. There were alternative mechanisms to provide this functionality. Jim will take the direction given by the group, re-work the proposal, and bring it back at the next meeting.

8.6.10 SSD Identify (e07153) [Shu]

Frank Shu asked that this be deferred to the next meeting waiting on input from JEDEC.

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

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

8.6.12 New DMA Commands (e08129) [Hatfield]

Jim Hatfield presented his proposal on DAMA commands that could replace the PIO commands. This proposal includes 7 new DMA commands for the PIO commands that do not already have DMA counterparts. There were questions about extending the READ/WRITE Buffer which has deficiencies, but Jim was not interested in putting these enhancements into this proposal. Jim asked for the group's agreement that this was the right direction for this proposal. There was no dissent. Jim will bring this back for the next meeting.

8.6.13 Reporting Non-Volatile Write Cache (e08116) [Livacarri]

Steve Livacarri asked that this be deferred to the next meeting.

8.6.14 Extended Power Conditions (e08120) [Hatfield]

Jim presented the changes that he made to the previous version of this proposal. Some of this proposal is dependent on the power management proposals being presented in T10 and should not be accepted until the T10 proposal is accepted to ensure that this follows the T10 proposal. Jim will make modifications and bring this proposal back next meeting.

8.6.15 Long Physical Sector Alignment (e08121) [Stevens]

Curtis presented an overview of this proposal. Curtis will produce a new revision based on comments at this meeting. He will bring it back at the next meeting, and hopes to vote for inclusion at that time.

8.6.16 Data Set Management (e07154r6)[Shu]

Frank Shu presented revision 6 of this proposal. There was discussion about an issue brought in from David Black and T10 of the data that is returned when Trim is set to one being "indeterminate" implying that this could return data from another sector which exposes other user data that should not be returned. When a block is trimmed the data may still be at the physical block location that was deallocated and that physical block may be allocated to another block and may be read again if that block is not written before the read. This problem goes beyond the trim command. Any logical block that has not been written does not guarantee what will be returned from that logical block. This position will be taken back to the T10 CAP working group.

8.6.17 ACS-2 Acronyms (e08128r0) [Hatfield]

There was an action item to bring in a list of acronyms into ACS. There was discussion of the current symbols used for multiplication and division. Jim will enter the currently used symbols and bring in another proposal to change the symbols to use, so as to not delay the acceptance of the remainder of the Acronym list. There were additions and deletions that Jim will include in his next revision.

8.6.18 ATA String identifying the OEM (08130r0)[Stevens]

Curtis presented this proposal for 4 bytes for an OEM specific string in the Identify Device word. After discussion, Curtis agreed to bring this back next meeting.

8.6.19 Protocol Identifier for TrustedFlash (e08126r) [Landsman]

Dave Landsman presented a request that a security protocol identifier be assigned to the SD Card Association TrustedFlash. This would be used to enable the use of the TRUSTED RECEIVE and TRUSTED SEND for TrustedFlash. There was discussion about this being reserved for T10 once T10 allocates the protocol identifier. The question was raised whether the mapping has been presented to the SD Card Association yet. Dave stated that there would be a proposal presented to the SD Card Association within a month. There was also discussion about whether there was intention to use the ATA interface to communicate to an SD Card reader without using the SCSI protocol.

Curtis pointed out that while there is some level of symmetry between T10 and T13 protocols that there is some level of work necessary to actually make this protocol work on the ATA interface.

Dave will look at the use case of a an ATA connection to an SD Card. It was requested that this not be included until the discussion was complete in T10, at which time it would be included as "Reserved for T10."

8.6.20 Project Schedule

8.6.20.1 *Cut Off Date*

Curtis Stevens stated that it would not be possible to set a deadline until the first draft had been published. His goal was for one to two meeting cycles following the first draft.

8.7 EDD Erratum

8.7.1 INCITS Status

Dan Colegrove stated that INCITS has scheduled it for management review and he would continue to track status.

8.8 EDD-4 Study Group / Project Proposal

This was defer to the next meeting for voting on the project proposal.

8.9 ATA/ATAPI-6 Amendment [Stevens]

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

8.10 T13 reflector, FTP, and web site setup

There have been no reports of FTP down time.

9. New Business

9.1 New INCITS Patent Form

INCITS has updated the patent form. The form is available on the INCITS website. Dan will put a link to the INCITS patent form.

9.2 Reaffirm, Withdraw or Stabilize for 2009

9.2.1 Host Adapters Standard (ATA - Adapter)

This will be voted on at the next meeting.

9.2.2 Erratum to INCITS 361:2002, (ATA/ATAPI-6)

This will be voted on at the next meeting.

9.2.3 Time-limited Read/Write Mode

This will be voted on at the next meeting.

9.3 Items from the Reflector

9.3.1 None this time

10. Liaison Reports

10.1 T10 [Colegrove]

10.1.1 SCSI to ATA Translation (SAT) Working Group Report

SAT-2 is in letter ballot which will close on September 4 SAT will be meeting with T13 in October on Monday from 11:00 AM to 5:00 PM.

10.1.2 RD1 Change Reaction

We are coordinating our position with T10

10.2 T11 [Colegrove]

There are no activities that impact T13 other than the RD1 changes

10.2.1 RD1 Change Reaction

We are coordinating our position with T11

10.3 JEDEC

10.3.1 Liaison Report [Overby]

10.3.1.1 JEDEC JC64.8 Review of SSD Statistics

In the absence of Mark Overby, Dan Colegrove reported that this group is meeting this week in Chicago. They have picked up the work that T13 is doing on SSD statistics for review.

10.4 IEEE

10.4.1 IEEE1667 [Landsman]

IEEE 1667 version 1.1 is in final internal comments prior to review by general membership.

10.4.2 INCITS Liaison Opportunities

There was nothing to present at this meeting.

10.5 Trusted Computing Group [Hatfield]

Two of four documents have been approved and two are in their final stages before final approval. They are working at the same time as this meeting in the room next door.

10.6 SFF [Colegrove]

They are working on a 1.8 inch SAS connector. This is not intermateable with the standard full size SATA connector.

10.7 IDEMA [Colegrove]

10.7.1 4K

They are working on promotion of 4K physical sectors. They are meeting in San Jose on the day following this meeting.

10.7.2 SSD Reliability

This is a new study group. They are focusing on reliability.

10.8 CFA [Geldman]

In the absence John Geldman, there was no report.

10.9 Serial ATA IO [Hatfield]

The 6G phy standard was passed. This will form the largest portion of work to go into a SATA 3.0 specification. Jim Hatfield has a working document to align SATA 3.0 with ATA-8. There is also work going on for NCQ streaming command management.

SATA-IO approved our copyright release for material going into ACS-2.

11. Review of Action Items

1. Dan Colegrove to verify the ATA/ATAPI-7 ISO status with Mark Overby.
2. Dan Colegrove to put a link on the T13 website to the INCITS patent form.

12. Approved Proposals

e08132r0

e06182r8

e06183r11

e08127r3

e06180r10

13. Meeting Schedules

13.1 Authorization of Ad-Hoc Working Groups

Joseph Chen moved and Steve Livaccari seconded, that up to four teleconferences be authorized for the discussion of device statistics. The motion passed by unanimous consent.

13.2 Next Meeting

Table 2: 2008 Dates

Date	Location	Host	Contact
Oct 21-23, 2008	San Jose, CA	Fujitsu	Sumit Puri

Wednesday of the October meeting week will be devoted to Device Statistics.

2008 Dates	Subject/Plenary #	Location	Host	Contact
Oct 21-23, 2008 ²	73	San Jose	Fujitsu	Sumit Puri
Dec 16-18, 2008	74	Austin	nVidia	Mark Overby
2009 Dates		Location	Host	Contact
Feb 17-19, 2009	75	Lake Forest, CA	Western Digital	Curtis Stevens
Apr 14-16, 2009	76	Longmont, CO	Seagate	Jim Hatfield
Jun 16-18, 2009	77	Milpitas, CA	Phoenix	Dale Jurich
Aug 18-20, 2009	78	TBD	Intel	Steven Wells
Oct 20-22, 2009	79	San Jose	Samsung	Joseph Chen
Dec 15-17, 2009	80	TBD	nVidia	Mark Overby
2010 Dates		Location	Host	Contact
Feb 23-25, 2010	81	Lake Forest, CA	Western Digital	Curtis Stevens
Apr 27-29, 2010	82	Las Vegas, NV	Hitachi GST	Dan Colegrove
Jun 22-24, 2010	83			
Aug 24-26, 2010	84	TBD	Samsung	Joseph Chen
Oct 19-21, 2010	85			
Dec 14-16, 2010	86	TBD	nVidia	Mark Overby

*Tentative

§Meeting Information not yet posted

¹T10-Working Group Meeting Follows (See: www.t10.org)

²T10-Working Group Meeting Preceding (See: www.t10.org)

³TCG Meeting Follows

⁴T13 Working Group Meeting

NOTE – Plenary meetings are currently scheduled for 3.0 days; 9am-6pm 1st, 9am-6pm 2nd day, 9am-5pm 3rd day

14. Adjournment

Dan Colegrove moved and Curtis Stevens seconded, that the meeting be adjourned at 3:39 pm, 21 August 2008. The motion passed with unanimous consent.