

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

Doc. No.: T13/07-190r0
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Date: October 30, 2007

Reply to: Mark Overby

To: T13 Membership  
From: Mark Overby  
Subject: T13 Plenary Meeting (Fort Myers, FL) -- October 23-25, 2007

## 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. Meeting Schedule
13. Adjournment

## Results of Meeting

### 1. Opening Remarks

Dan Colegrove, the T13 Chair, called the meeting to order at 0900 Tuesday, October 23rd, 2007. Dan Colegrove thanked Wally Bretzer and CPR Tools 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](http://www.incits.org). T13 operates under these policies and procedures augmented by the T13 procedures at the T13 web site at [www.t13.org](http://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 for Principal or additional Alternates are currently 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.

Dan Colegrove noted that the fee structure is changing for next year to \$1200 USD and details of the new fare structure was posted to the T13 website.

Persons with questions or requests regarding membership fees and/or subscriptions for mailings should contact Barbara Bennett, ITI Standards Operations, at [bbennett@itic.org](mailto: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
Bill Martin	Emulex		Mark Overby	NVIDIA
Jim Hatfield	Seagate		Joseph Chen	Samsung
Larry Barras	Apple		Curtis Stevens	Western Digital
Wally Bretzer	CPR Tools		Yoni Shternhell	SanDisk
Dan Colegrove	Hitachi GST		Steve Livaccari	IBM
Wayne Bellamy	HP		Duncan Penman	Western Digital
Patrick Hery	Toshiba		John MacInnis	Phoenix
Marty Stevens	Dell		Brian Day	LSI
Frank Shu	Microsoft		Hale Landis	Broadcom
John Geldman	Lexar Media		Duncan Penman	Western Digital
Joe Scanlon	AMD			

#### 4. Approval of the minutes from the previous T13 plenary meeting (e07164r0)

Dan Colegrove moved, Mark Overby seconded, that the minutes be approved. The motion passed with unanimous consent.

#### 5. Document Distribution

Dan Colegrove noted that we had not been sending in mailings to INCITS following the plenary meetings. Once per year INCITS requires that we send them the documents from that year in order to comply with the document retention policy. Curtis Stevens moved, Jim Hatfield seconded, that T13 discontinue monthly mailings and move to a once a year submission to INCITS. The motion passed with 14 ayes, 0 nays, and 1 abstention.

#### 6. Review of Previous Action Items

1. Dan Colegrove to check with INCITS to see if ANSI patent policy letters have been received by INCITS for material incorporated into ATA8-ACS by companies who declared patents during previous call for patents. [Completed. Patent letters have been received from HP and Microsoft. Apple and Intel have not been received]

#### 7. Old Business

##### 7.1 ATA/ATAPI-7: 1532D

##### 7.1.1 ISO Status

Mark Overby stated that the ISO editor had fixed some errors regarding hanging clauses and they have been reviewed and progress is continuing.

##### 7.1.2 ATA/ATAPI-7 Amendment [Overby]

##### 7.1.2.1 INCITS Status

Dan Colegrove stated that the amendment has been formally published.

## 7.2 HBA Amendment 1

Dan Colegrove stated that the amendment has been formally published.

## 7.3 HBA-2 Standard Project: 2014-D

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

## 7.4 DDT Technical Report

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

## 7.5 ATA/ATAPI-8 Projects

### 7.5.1 AT Attachment 8 - Command Set (ATA8-ACS)

#### 7.5.1.1 *Command Mapping (07173r1)*

Curtis Stevens reviewed the latest draft of the proposal to update the command mapping ATA8-ACS. Several minor editorial suggestions were made and Curtis agreed to incorporate those changes. Curtis Stevens moved, Bill Martin seconded, that e07173r3 as revised be incorporated into ATA8-ACS and ATA8-AST. The motion passed with unanimous consent.

#### 7.5.1.2 *Letter Ballot Comment Resolution (e07158) [Stevens]*

Curtis Stevens led a review of the remaining letter ballot comments that needed resolution. Changes and resolutions are reflected in the letter ballot comment resolution document and Curtis agreed to post the current revision after the meeting.

During discussion of the HPA state diagram. Dan Colegrove, Steve Livicarri seconding, that the definition of Word 85, bit 10 be reverted to the definition from ATA/ATAPI-7. The motion passed with 7 ayes, 1 nay, and 7 abstention.

Curtis Stevens moved, Jim Hatfield seconded, that the definition of backward compatible from the letter ballot comment resolution document be incorporated into ATA8-ACS. Mark Overby and Bill Martin both noted that the definition does not change compliance or implementation of the standard. The motion failed with 4 ayes, 6 nays, and 4 abstentions.

Jim Hatfield moved, Dan Colegrove seconded, that a teleconference be authorized for 1p - 4p PT on November 1st for discussion of ATA8-ACS. The motion passed with unanimous consent. Curtis Stevens moved, Jim Hatfield seconded, that a face to face ad hoc meeting be authorized for November 13th - 15th in San Jose / Santa Clara, CA. The motion passed with 11 ayes, 0 nays, and 3 abstentions.

### 7.5.2 AT Attachment-8 - Parallel Transport (ATA8-APT)

#### 7.5.2.1 *Review of Draft*

Draft review was deferred to the next meeting.

### 7.5.3 AT Attachment-8 - Serial Transport (ATA8-AST)

#### 7.5.3.1 *Review of Draft*

Draft review was deferred to the next meeting.

### 7.5.4 AT Attachment-8 - Architecture Model (ATA8-AAM)

#### 7.5.4.1 *Letter Ballot Comment Resolution*

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

### 7.5.5 ATA8 Schedule Review

No schedule review was held.

## 7.6 ACS-2 Project 2015-D [Stevens]

### 7.6.1 INCITS Status

Dan Colegrove reported that there was no new status to report.

### 7.6.2 SCT Zone ERP (e07169r1) [Colegrove]

Dan Colegrove presented a proposal to allow setting default time limits by LBA ranges. Various feedback was given to Dan and he agreed to bring a revision of the proposal to the next meeting. Dan also asked that if anyone had additional feedback to provide it to him.

### 7.6.3 Additional device statistics - Usage (e06180) [Chen]

Joseph Chen asked that this be carried forward to the next meeting.

### 7.6.4 Additional device statistics - Errors (e06181) [Chen]

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

### 7.6.5 Additional device statistics - Free Fall (e06182) [Chen]

Joseph Chen reviewed the latest revision of his free fall proposal. Joseph Chen moved, Jim Hatfield seconded, that e06182r3 be incorporated into ATA8-ACS2. The motion passed with 7 ayes, 0 nays, and 5 abstentions.

### 7.6.6 Additional device statistics - Temperature (e06183) [Chen]

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

### 7.6.7 Additional device statistics - Solid State Media / NV Cache (e06184r6) [Chen]

Joseph Chen reviewed the latest revision of his proposal for solid state media statistics. A discussion ensued over the reporting of raw numbers for number of bad blocks and allocations. Mark Overby and Yoni Shternhell both stated that the raw number without context is a useless number. Further argument continued over if this statistic has value or use.

A straw poll was held for each statistic. For statistic #2 from the proposal - 7 were in favor, 6 were opposed. For statistic #3 - 7 were in favor, 6 were opposed. For statistic #4 - 10 were in favor, 1 was opposed. Curtis Stevens moved, Mark Overby seconded, that statistics 1, 4, 5, 6, and 7 from e06184r6 as revised be incorporated into ATA8-ACS2. The motion passed with 10 ayes, 2 nays, and 2 abstentions. Jim Hatfield and Yoni stated that they voted no because of statistics 6 and 7. Joseph Chen moved, Steve Livacarri seconded, that statistics 2 and 3 from e06184r6 as revised be incorporated into ATA8-ACS2. The motion passed with 6 ayes, 5 nays, and 4 abstentions. Jim Hatfield stated that he voted no because he only wanted percentage remaining to be standardized. Mark stated he voted no because he felt that the number of erase cycles was useless without knowing the underlying technology of the SSD.

Joseph Chen moved, Mark Overby seconded, that a teleconference be authorized for November 26th, 1300 - 1600 PT for the discussion of further device statistics. The motion passed with unanimous consent.

### 7.6.8 Transport Statistics [Chen] (e07168)

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

### 7.6.9 Data Path Protection (e07162) [Stevens]

Curtis Stevens reviewed a presentation about the SCSI data path protection model and how that model can be adapted to ATA. After completing the presentation, Curtis reviewed the proposal for ATA8-ACS.

### 7.6.10 SCT Capabilities (action codes) (e06174r0) [Bellamy]

Wayne Bellamy asked that this be deferred to the next meeting.

### 7.6.11 Reporting Footprint (e06161r1) [Bellamy]

Wayne Bellamy moved, Dan Colegrove seconded, that e07162r1 as revised be incorporated into ATA8-ACS. The motion passed with 12 ayes, 0 nays, and 3 abstentions.

7.6.12 Freefall Feature Set Enhancements (e06120r0) [Chen]  
Joseph Chen asked that this be deferred to the next meeting.

7.6.13 Remove Input/Output Structures (e07134) [Bellamy]  
Wayne Bellamy asked that this be deferred to the next meeting.

7.6.14 Proactive Reporting and Correcting [Shu]  
Frank Shu asked that this be deferred to the next meeting.

7.6.15 Set Features Set Policy (e07121r5) [Hatfield]  
Jim Hatfield reviewed his proposal to have policy decisions shared between host and device.

7.6.16 Solid State Drive Proposals

7.6.16.1 *SSD Identify (e07153)* [Shu]

Frank Shu stated that he has a new proposal but has not completed the necessary internal review yet and asked that this be deferred to the next meeting.

7.6.16.2 *Dataset Management (e07154)* [Shu]

Frank Shu presented the latest changes to the dataset management commands. Joseph Chen moved, Wayne Bellamy seconded, that e07154r3 as revised be incorporated into ATA8-ACS2. Curtis Stevens moved, Bill Martin seconding, that the motion be postponed to the December plenary. During discussion of the motion to postpone to a definite time Curtis Stevens stated that he felt that more time was needed to review the proposal. The motion to postpone failed with 1 aye, 9 nays, and 3 abstentions. Discussion resumed on the main motion. Mark Overby stated that he was concerned that error conditions for the commands are not documented. Frank and Mark worked together and resolved some of the error conditions, but Mark stated that he was concerned that there were additional conditions that need investigation. Curtis stated that he felt that the proposal was not yet ready for incorporation. The main motion failed with 8 ayes, 8 nays, and 0 abstentions. Patrick Hery and Bill Martin stated that they voted no for the same reason that Curtis had brought up previously about the proposal not being ready for incorporation. Frank stated that he did not know how to proceed at this point to achieve consensus. It was suggested that people study this in depth and give Frank feedback in advance of the next meeting as the proposal is close to addressing peoples concerns.

7.6.17 Change Host Vendor Specific to Scratch Pad (e07159r0) [Stevens]  
Curtis Stevens asked that this be deferred to the next meeting.

## 7.7 EDD Erratum

7.7.1 INCITS Status

Dan Colegrove stated that the erratum was being prepared for INCITS executive board and public review.

## 7.8 T13 reflector, FTP, and web site setup

7.8.1 Web Site and Reflector Items

No items were reported.

## 7.9 INCITS Membership and Meeting Attendance Policy

Dan Colegrove noted that the membership fees for 2008 had been revised and encouraged people to view the documents posted to both the T10 and T13 sites describing the new membership and fee structure.

## 8. New Business

### 8.1 INCIT Annual Maintenance ATA/ATAPI-4

Dan Colegrove stated that the committee needs to make a recommendation. Curtis Stevens moved, Bill Martin seconded, that ATA/ATAPI-4 be withdrawn. Curtis stated that ATA-4 should be withdrawn as all material from ATA-4 is incorporated into ATA-5. Bill asked if there was anything that was obsoleted in ATA-5 for which ATA-4 was the last documentation. Jim Hatfield and others noted that there are documents that may reference ATA-4. Mark

Overby moved, Wayne Bellamy seconded, to postpone the motion to the December plenary meeting. Mark stated that he felt that more research was needed. Wayne stated that he felt more research was needed as well. The motion passed with 7 ayes, 4 nays, and 4 abstentions.

### **8.2 Clarification of the SECURITY ERASE command (07188) [Chen]**

Joseph Chen presented a proposal to allow a device to erase to all ones instead of all zeros to accommodate the nature of solid state devices and to require erase to meet the requirements of FIPS. There was significant discussion over what the intent was for including FIPS. Joseph agreed to work on the proposal and bring back to the next meeting.

### **8.3 Extended Security Proposal (07189) [Chen]**

Joseph Chen presented a proposal for extending the current security feature set. Joseph discussed the extended security mode and how it would provide a protected "boot area" as well as encrypting the user data elsewhere on the drive. Joseph then reviewed the proposal and the commands and features associated with this new feature. Jim Hatfield and Curtis Stevens both expressed concerns about how the new mode is entered and configured with the security commands. Dan Colegrove stated that he was concerned that disabling this feature requires that all data be erased when someone issues a SECURITY DISABLE PASSWORD command. There was significant discussion about what this new proposal is trying to accomplish and what the benefits of this proposal in comparison to other current technologies and proposals. Joseph took input from the group and agreed to revised the proposal to address some of the concerns.

### **8.4 NCQ Log Page REQUEST SENSE [Overby]**

Mark Overby noted that he is bringing a proposal to both T13 and SATA-IO to append the sense data to the end of the NCQ error log page using the same format as the REQUEST SENSE ATA command.

### **8.5 Items from the Reflector**

There were no items from the reflector that needed to be addressed.

## **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 December T13 plenary.

#### **9.1.2 General T10 Report**

Dan Colegrove stated that he had no new items to report on.

### **9.2 T11 [Colegrove]**

Bill Martin noted that FC-SATA had been pulled back into T11 because of some problems found.

### **9.3 IEEE**

Dan Colegrove stated that he would post the IEEE liaison opportunity list to the website.

### **9.4 Trusted Computing Group [Hatfield]**

Jim Hatfield stated that the SIIF working group is still working towards closing their specification by the end of the year.

### **9.5 SFF [Colegrove]**

Dan Colegrove stated that the 1.8" ZIF PATA connector discussion is ongoing within SFF.

### **9.6 IDEMA [Colegrove]**

Dan Colegrove stated that he had no new activity to report. Dan noted that he should check with IDEMA about the capacity formula for non-512 byte sector sizes.

**9.7 CFA [Geldman]**

John Geldman was not present during liaison reports so this item was deferred.

**9.8 Serial ATA IO [Hatfield]**

Jim Hatfield stated that write barrier was coming close to a vote and the working group was starting to look at aligning future specification to ATA8-ACS.

**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](http://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.

Wayne Bellamy stated that HP has provided a letter to the chair regarding patents held by HP for ATA8-ACS. Dan Colegrove stated that he would post the letter to the website.

**11. Review of Action Items**

1. Dan Colegrove to check the status of the DDT technical report.
2. Dan Colegrove to check with Apple and Intel for patent policy letters for ATA8-ACS.

**12. Approved Proposals**

ACS:

e07161r2 - Reporting Device Nominal Form Factor

ACS-2:

e06182r3 - Device Statistics for Freefall Events

e06184r7 - Device Statistics for SSD

**13. Meeting Schedules****13.1 Meeting Length**

The December meeting will remain at 3 days.

**13.2 Authorization of Ad-Hoc Working Groups**

One teleconference and one face to face was authorized during discussion of agenda items (see the agenda item details for the authorization motions, details, and voting results).

### 13.3 Long-Term Meeting Schedule

Table 2: 2007 Dates

Date	Location	Host	Contact
December 11-14, 2007	Redmond, WA	Microsoft	Frank Shu

Table 3: 2008 Dates

Date	Location	Host	Contact
February 19-22, 2008	Lake Forest, CA	Western Digital	Curtis Stevens
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	Austin, TX or Seattle, WA	NVIDIA	Mark Overby

### 14. Adjournment

Mark Overby moved, Dan Colegrove seconding, that the meeting be adjourned at 1700, 25 October 2007. The motion passed with unanimous consent.

### 15. Membership List

Name	S	Company	Email
Larry Barras	P	Apple Computer	barras@apple.com
Sergio Henriques	A	Apple Computer	Sergio.h@apple.com
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Wally Bretzer	A	CPR Tools	wally.bretzer@cprtools.net
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