

Accredited Standards Committee\*  
**X3, Information Processing Systems**

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**Date:** 9/15/94  
**Project:**  
**Ref. Doc.:**  
**Reply to:** S. Finch

**To:** Membership of X3T10

**From:** Lamers/Finch

**Subject:** Minutes of X3T10 ATA Working Group #10 September 15, 1994

**Agenda**

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

## Results of Meeting

### 1. Opening Remarks

Steve Finch convened the meeting at 9:00 am. Steve thanked Bill Galloway of Compaq for hosting the meeting.

As is customary, the people attending introduced themselves. A copy of the attendance list was circulated for attendance and corrections.

It was stated that the meeting had been authorized by X3T10 and would be conducted under the X3 rules. Ad hoc meetings take no final actions, but prepare recommendations for approval by the X3T10 task group. The voting rules for the meeting are those of the parent committee, X3T10. These rules are: one vote per company; and any participating company member may vote.

The minutes of this meeting will be posted to the SCSI BBS and the ATA Reflector and will be included in the next committee mailing.

### 2. Attendance and Membership, Introductions

Attendance at working group meetings does not count toward minimum attendance requirements for X3T10 membership. Working group meetings are open to any person or company to attend and to express their opinion on the subjects being discussed.

The following people attended the meeting.

|                    |                           |                                 |
|--------------------|---------------------------|---------------------------------|
| Rick Heidick       | 3M                        |                                 |
| Lawrence J. Lamers | Adaptec                   | ljlamers@adaptec.com            |
| Richard Kalish     | Adaptec                   | rkalish@rahul.net               |
| Michael Wingard    | Amphenol Interconnect     |                                 |
| Dave Thayer        | Areal Technology          |                                 |
| Joseph Chen        | Cirrus Logic              | chen@cirrus.com                 |
| Nicos Syrimis      | Cirrus Logic              |                                 |
| Edward Haske       | CMD Technology            |                                 |
| Doug Hagerman      | DEC                       |                                 |
| Dal Allan          | ENDL                      | 250-752@mcimail.com             |
| Robert Liu         | Fujitsu                   |                                 |
| Mark Woithe        | Future Domain             |                                 |
| Pat Edsall         | Hewlett Packard           |                                 |
| Nancy Cheng        | Hitachi Computer Products | n.chen@hitachi.com              |
| Dan Colegrove      | IBM                       | colegrove@vnet.ibm.com          |
| George Penokie     | IBM                       |                                 |
| Gary Brandvold     | Iomega                    |                                 |
| Pete McLean        | Maxtor                    | pete_mclean@maxtor.com          |
| Ron Roberts        | Maxtor                    | rkr Roberts@aol.com             |
| Joe Dambach        | Molex                     |                                 |
| Robbie Shergill    | National Semiconductor    |                                 |
| Mike Hetzel        | Oak Technology            | mikeh@corp.oaktech.com          |
| Mike Carpenter     | Qlogic                    | m_carpenter@qlc.com             |
| Jim McGrath        | Quantum Corp              | JMCGRATH@QNTM.COM               |
| Gene Milligan      | Seagate Technology        | Gene_Milligan@notes.seagate.com |
| John Masiewicz     | Seagate Technology        | masiewicz@notes.seagate.com     |
| Stephen Finch      | Silicon Systems           | 5723283@mcimail.com             |
| Scott Smyers       | Sony                      |                                 |
| Patrick Mercer     | SyQuest Technology        |                                 |
| Yas Hashimoto      | Toshiba America Info Sys  |                                 |
| Gary M. Watson     | Trimm Industries          | trimm@netcom.com                |

Peter Dougherty  
Paul Aloisi  
Tom Hanan  
Duncan Penman

UNISYS  
Unitrode Integrated Circuit  
Western Digital  
Zadian Technologies

Aloisi@uicc.com  
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### 3. **Approval of Agenda**

The agenda was approved as proposed.

### 4. **Document Distribution**

Copies of ATA-2 Proposed Working Draft revision 2g were distributed.  
Copies of the ATAPI multi-threading proposal (r0.2) were distributed (see 94-194).  
Copies of Comments on WD Command Queuing Proposal were distributed (see 94-195).

### 5. **Old Business**

#### 5.1 **ATA-2 Technical Review [] (Finch)**

Deferred to next working group. Steve Finch noted that the last two-day meeting completed a review of 34 of the 105 pages.

### 6. **New Business**

#### 6.1 **Processing ATA through ECMA**

With little discussion the group dismissed this topic. ATA will not be submitted to ECMA.

#### 6.2 **Multi Threading (94-194r0)**

Tom Hanan made a presentation on a multi threaded interface enhancement. Tom made several corrections to the document during the presentation.

#### 6.3 **Letter Ballot Comment Resolution [94-193r0] (Finch)**

Apple comment response - We share your goal of maintaining ATAPI as a "low-cost" relatively simple interface. However, there has been a need expressed to investigate enhancements to provide overlapped command capability. We invite your participation in the investigation to help us achieve our mutual goal.

Oak comment response - We do not fully understand the conclusion you have reached from 2.2.d. Since we do not understand or do not reach the same conclusion, and are concerned that deletion of 2.2.d might impact the affirmative votes, X3T10 had decided not to delete 2.2.d.

Dan Colegrove made the following statement:

I continue to view adding ATAPI function to Hard Disk Drives as an unecessary escalation in drive function and features considering the desire to maintain ATA as a low cost interface. I concede that it is not practical to use the X3 proposal process to enforce a prohibition of ATAPI function in Hard Disks Drives.

Sun comment response - The ATAPI project proosal does not claim to an SCSI-3 standard and, therefore, it is not required to be compliant with SAM. It should be noted that as much commonality as practical will be maintained between ATAPI and SCSI command structures. However, there are inherent differences between ATA and SCSI busses which have to be considered.

Tom Hanan noted that the QIC ATAPI sepcification includes overlapped commands based on today's ATAPI using the DSC bit. This was done to minimize buffers on the tape drives.

**7. Meeting Schedule**

September 27-28, 1994 in Milpitas, CA  
November 10, 1994 in Palm Springs, CA

A meeting is planned for October 20-21, 1994 if needed to finish ATA-2.  
The meeting on November 10, 1994 will be targeted at an ATA-3 discussion to set the guidelines for multi threading.

**8. Adjournment**

The meeting adjourned at 12:00 PM.