

Accredited Standards Committee*
X3, Information Processing Systems

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Project:
Ref. Doc.:
Reply to: G. Milligan

To: Membership of X3T10

From: Lamers/Milligan

Subject: Minutes of X3T10 ATA Working Group - November 10, 1994

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1. Opening Remarks

Gene Milligan convened the meeting at 9:00 am. He thanked Jeff Stai of Western Digital for hosting the meeting. He also requested that Larry Lamers take the minutes and thanked him for accepting the request.

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. For the ad hoc, other than straw votes, the voting rules are: one vote per participating company.

The minutes of this meeting will be posted to the X3T10 BBS and the ATA Reflector and will be included in the next X3T10 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.

NAME	ORGANIZATION	EMAIL
Mr. Norm Harris	Adaptec, Inc.	nharris@eng.adaptec.com
Mr. Lawrence J. Lamers	Adaptec, Inc.	ljlammers@aol.com
Mr. Edward Fong	Amdahl Corp.	esf10@amail.amdahl.com
Mr. Bob Whiteman	AMP, Inc.	whiteman@cup.portal.com
Mr. Dave Thayer	Areal Technology	
Mr. John Lohmeyer	AT&T/ NCR Microelectronics	john.lohmeyer@ftcollinsco.ncr.com
Mr. Joe Chen	Cirrus Logic Inc.	chen@cirrus.com
Mr. Edward Haske	CMD Technology	
Mr. Charles Monia	Digital Equipment Corp.	monia@starch.enet.dec.com
Mr. I. Dal Allan	ENDL	2501752@mcimail.com
Mr. Pat Edsall	Hewlett Packard Co.	edsall@hpdmd48.boi.hp.com
Ms. Nancy Cheng	Hitachi Computer Products	n_cheng@hitachi.com
Mr. S. Nadershahi	Hitachi Micro Systems, Inc.	nnadersh@hitachi.com
Mr. Thomas J. Kulesza	Honda Connectors	
Mr. George Penokie	IBM Corp.	gop@rchvmp3.vnet.ibm.com
Mr. Dan Colegrove	IBM Corp.	colegrove@vnet.ibm.com
Mr. Dean Wallace	Linfinity Micro	
Mr. Pete McLean	Maxtor Corp.	pete_mclean@maxtor.com
Mr. LeRoy Leach	Maxtor Corp.	leroy_leach@maxtor.com
Mr. Robbie Shergill	National Semiconductor	rss@berlioz.nsc.com
Mr. Peter Brown	Oak Technology, Inc.	brown@oaktech.com
Mr. Michael Carpenter	QLogic Corp.	sk_jones@qlc.com
Mr. Gene Milligan	Seagate Technology	Gene_Milligan@notes.seagate.com
Mr. Ron Roberts	Sierra-Pac Technology	rkroberts@aol.com
Mr. Scott Smyers	Sony Corp. of America	scotts@lsi.sel.sony.com
Mr. Robert N. Snively	Sun Microsystems Computer Co	bob.snively@eng.sun.com
Mr. Bill Boyd	Texas Instruments	
Mr. Peter Dougherty	UNISYS Corporation	peter.dougherty@unisys.mv-oc.com
Mr. Paul D. Aloisi	Unitrode Integrated Circuits	Aloisi@uicc.com
Mr. Tom Hanan	Western Digital Corporation	hanan_t@a1.wdc.com

Mr. Devon Worrell	Western Digital Corporation	worrell@dt.wdc.com
Mr. Duncan Penman	Zadian Technologies	penman@netcom.com

3. Document Distribution

94-087r1 Security Mode Command
94-154r1 Check Power Mode
94-238r0 ATA-3 Command Overlap and Command Queuing Proposal
94-239r0 Presentation on WD EIDE '95
94-240r0 Comparison of proposals for overlapped command execution on ATA bus

4. Approval of Agenda

The agenda was approved as presented.

5. Review of Action Items

- 1) Gene Milligan to investigate the appropriateness of command queuing in the ATA-3 project proposal.
Continued.
- 2) Larry Lamers to get document numbers for later inclusion in next minutes.
Completed.
- 3) All participants are requested to post existing proposals for ATA-3 on the ATA reflector.
Continued.
- 4) All participants to submit ATA-3 proposals for consideration in preliminary concept form by 11/10 and final form by January 12, 1995.
Continued.

6. Old Business

6.1 Recommended response to ATAPI project proposal letter ballot comments

Bob Snively stated that Sun Microsystems has a vested interest in having ATAPI be SAM compliant to preserve the existing software investment in drivers for storage peripherals. In particular the command descriptor blocks and SCSI status needs to be the same. Tags used in command queueing should not be exposed to the host.

Currently ATAPI does not deliver SCSI command descriptor blocks. Dal Allan stated that there is an installed drive base for this version of ATAPI.

Dal Allan moved to and Tom Hanan seconded that the statement on not complying with SAM be removed from the ATAPI project proposal.

Jim McGrath stated that Microsoft and Novell should participate in the standards development process as members if they expect sympathy for their implementations. The standards process is not about ratifying private companies interfaces. The concerns of all participating companies have to be considered.

Call the question. Ojection noted, the question called 13:3.

The motion passed 14:1

Bob Snively stated that this motion is sufficient to convert his vote to yes.

Larry Lamers moved and Jim McGrath that a requirement for delivering SCSI command descriptor blocks and returning equivalent SCSI status be included in the ATAPI project proposal.

Call the question 9:1.

Motion fails 3:11:0.

This does not preclude delivering of ATAPI command blocks.

6.2 Plan for SFF to X3T10 Transition

Resolve all outstanding issues on 8020 and 8029 and then submit. A rev 2.0 8020 will be developed before it is submitted. A study group on this topic should be set up for January.

6.3 Recommendations for SFF

None.

7. ATA-3 Items

7.1 Secure Mode

Revision 1 has been redrafted to make insertion in the ATA-3 document. The proposal is complex due to inclusion of several alternatives. If it is felt that not all are needed comments to this effect are invited. Duncan Penman asked if the proposal is compliant with Federal Procurement Specifications. Pete stated that he did not know if the proposal did or did not.

7.2 ATA-3 Command overlap and command queuing proposals

Jim McGrath presented revision 6 of his proposal for command queuing in ATA-3. He noted that arbitration between devices is not covered. There are significant changes in the bus control; the new approach is to use a request/grant mechanism.

7.3 Greater than 16.6 MB/s DMA transfer rates

7.4 Reset pulse width

7.5 Check power mode additional capability

7.6 PFA Reporting

7.7 Error Detection

7.8 Reduced Command Set

7.9 3.3 Volt Signal Level Definition

7.10 Additional DMA Commands

8. New Business

None.

9. Call for Patents

Gene Milligan requested that anyone aware of any patents required for the proposals be disclosed early in accordance with the ANSI patent policy.

The Secure Mode proposal involves patents pointed out by Pete McLean and he stated that a letter has been submitted by Maxtor. He also mentioned an IBM patent and Dan Colgrove noted that document 94-125 contains the letter regarding the ANSI patent policy..

10. Liaison Reports

10.1 ATA-2

Review of the document is continuing. A two day working group meeting is set for December 1-2, 1994 in Irvine, CA. The target is to attempt a forwarding at the January X3T10 plenary.

10.2 ATAPI

Tom Hanan reported that an ATAPI meeting is planned for 11/29/94 to deal with command queuing and SFF-8020 issues. Tom plans to not submit ATAPI to X3T10 until the project proposal is approved.

11. Action Items

- 3) All participants are requested to post existing proposals for ATA-3 on the ATA reflector.
- 4) All participants to submit ATA-3 proposals for consideration in preliminary concept form by 11/10 and final form by January 12, 1995.

12. Meeting Schedule

November 30 - December 2, 1994 at Irvine, CA. Host: Western Digital.
January 12, 1995 at South Lake Tahoe, CA. Host Silicon Systems.

13. Adjournment

The meeting adjourned at 12:00 PM on November 10, 1994.