Accredited Standards Committee*
X3, Information Processing Systems

To: Membership of X3T9.2

From: Lawrence J. Lamers, Secretary X3T9.2
            John B. Lohmeyer, Chair X3T9.2

Subject: Minutes of ATA September '92 Working Group Meetings

Agenda

1. Opening Remarks
2. Attendance and Membership
3. ATA Extensions
    3.1   PR Comments on BSR X3.221-199x, ATA (AT Attachment)
    3.2   ATA Download Microcode Command (92-168) [McGrath]
    3.3   Two new commands for ATA (92-151) [Raezani]
    3.4   Format Track Definitions in for ATA (92-185r0) [Leach]
    3.5   Selection Mechanism for Demand Type DMA (92-149r1) [Geldman]
4. Working Group Schedule
5. Adjournment

Results of Meeting

1.   Opening Remarks

Dal Allan, the Vice Chair, called the meeting to order at 2:00 p.m., Monday September 21, 1992 for the session devoted to ATA issues.   He thanked Kumar Mallavali of Canstar 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 X3T9.2 and would be conducted under the X3 rules. Ad hoc meetings take no final actions, but prepare recommendations for approval by the X3T9.2 task group. The voting rules for the meeting are those of the parent committee, X3T9.2. 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 SCSI Reflector within 14 calendar days and will be included in the next committee mailing.

2.   Attendance and Membership

Attendance at working group meetings does not count toward minimum attendance requirements for X3T9.2 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	Status	Organization	Phone Number
Mr. Norm Harris	P	Adaptec, Inc.	(408) 945-8600
Mr. Joe Chen	P	Cirrus Logic Inc.	(510) 226-2101
Mr. William Dallas	A	Digital Equipment Corp.	(603) 881-2508
Mr. Douglas Wagner	S	DuPont	(805) 498-0325
Mr. Skip Jones	P	Emulex Corp.	(714) 668-5058
Mr. I. Dal Allan	P	ENDL	(408) 867-6630
Mr. Jeffrey L. Williams	P	Hewlett Packard Co.	(208) 323-5030
Mr. George Penokie	P	IBM Corp.	(507) 253-5208
Mr. Tom Taetsch	O	Intellistor, Inc.	(303) 682-6651
Mr. Lawrence J. Lamers	P	Maxtor Corp.	(408) 432-3889
Mr. Reginald J. Murray	S	Ministor Peripherals Corp.	(408) 943-0165
Mr. John Lohmeyer	P	NCR Corp.	(719) 596-5795
Mr. James McGrath	P	Quantum Corp.	(408) 894-4504
Mr. Gene Milligan	A	Seagate Technology	(405) 324-3070
Mr. Hale Landis	A	Seagate Technology	(408) 439-2443
Mr. Brian Schott	S	Seagate Technology, Inc.	(408) 439-2625
Mr. Stephen G. Finch	O	Silicon Systems	(714) 573-6855
Mr. Daniel E. Moczarny	O	Silicon Systems, Inc.	(714) 573-6750
Mr. Harvey Waltersdorf	P	Thomas & Betts	(803) 676-2905
Mr. Shishir Shah	A	Western Digital	(714) 932-7235
Mr. Tom Hanan	A	Western Digital	(714) 932-7472

21 People Present
Status Key: P   - Principal Member
           A   - Alternate Member
           L   - Liaison Member
           O   - Observer
           S,V - Visitor

3.   ATA Extensions

3.1   PR Comments on BSR X3.221-199x, ATA (AT Attachment)

John Lohmeyer had prepared draft responses to the comments received during the public review period for ATA. Since the content of the responses were previously accepted, there was no further work to be done on this item.

3.2   ATA Download Microcode Command (92-168) [McGrath]

This command proposal was presented by Jim McGrath. After some modification and long discussion the working group agreed to recommend inclusion in revision 3.2. Note that if this recommendation is accepted by the plenary it will mandate a second public review.

3.3   Two new commands for ATA (92-151) [Raezani]

Mr. Raezani was not present.

3.4   Format Track Definitions in for ATA (92-185r0) [Leach]

Larry Lamers presented a proposal to modify the operation of the FORMAT TRACK command when LBA mode is selected.

Hal Landis commented that the operation of FORMAT TRACK should remain the same whether or not LBA mode is set.   The only difference is that the 256 sectors start at the logical address specified in the registers. Furthermore the ATA definition allows for un-reassigning.

Joe Chen noted that operating systems will treat ATA LBA mode the same as SCSI. This means that a "format sector as bad" needs to preserve the same number of logical blocks. The consensus was that this is not needed since a 40h does a reassignment and preserves the address space.

3.5   Selection Mechanism for Demand Type DMA (92-149r1) [Geldman]

The 92-149r1 document refers to the wrong words in table 9-3. The document should refer to words 62 and 63. The SET FEATURES options to select the DMA transfer mode was not incorporated in ATA rev 3.1 as had previously been agreed to. The SET FEATURES command was revised to a select transfer mode and type. The sector count register will use bits (7-3) to select the mode and bits (2-0) to select the type. This modification will be included in revision 3.2.

4.   Working Group Schedule

See the General Working Group minutes (92-194) for details.

5.   Adjournment

The meeting was adjourned at 6:30 p.m. on Monday September 21, 1992.