

To: Membership of X3T13

From: Lawrence J. Lamers, Secretary X3T13
Gene Milligan, Chair X3T13

Subject: Minutes of X3T13 Plenary #3
August 2, 1996 : San Jose, CA

Agenda

Results of Meeting

1. Opening Remarks

Gene Milligan, the X3T13 Chairman, called the meeting to order at 9:00 a.m., Friday August 2, 1996. He thanked Marc Noblitt of Seagate Technology for hosting the meeting.

The Chair read letters, D96014r0 and D96015r0 appointing Pete McLean Vice-Chairman and Larry Lamers Secretary of X3T13 with terms expiring 7/1/99. Their terms are the same as the Chairman's.

Gene outlined the procedures for conducting meetings, voting rules, and membership forms.

As is customary, the people attending introduced themselves and a copy of the attendance list was circulated. Copies of the draft agenda and general information on X3T13 were made available to those attending.

2. Approval of Agenda

Three ad hoc meetings had occurred since the prior plenary. As a result of those plenary meetings the Chair reviewed a list of suggested changes to the preliminary agenda. Tom Hanan requested a new business item on power management time values. The modified agenda was approved as reflected in these minutes.

3. Attendance and Membership

The membership requirements were reviewed. X3 rules permit one vote per principal member organization. An individual from a new organization must attend two out of three consecutive plenary meetings. He/she may apply for voting membership at the second, or later, plenary meeting attended via a letter to the Chair of X3T13. Working group meetings do not count toward attendance requirements.

Organizations must also pay the X3 Service Fee (\$300) to maintain membership. If a voting member organization (Principal Member) fails to attend two out of three successive plenary meetings, the Chair is required to warn the voting member organization that they are in jeopardy of being terminated (changed from Principal Member to Observer). The Chair is also required to warn a Principal Member of their jeopardy if they fail to fill out and return two successive Letter Ballots.

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

Philips Semiconductor is in jeopardy for failing to return letter ballots. If they fail to return the next letter ballot they will lose their membership.

The X3T13 membership is still 27 organizations. Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current X3T13 membership list.

4. Document Distribution

Members who have any problems with their mailing subscription should deal directly with Katrina Gray (kgray@itic.nw.dc.us) at (202) 626-5741.

The 1996 annual Mailing Subscription Fee for paper mailings is \$300 for North American addresses and \$ 500 for other addresses. The CD mailing is also \$300 for North American addresses and \$400 other addresses for the first CD and \$240 per year for additional CDs.

Pete McLean requested that all documents for the next mailing be in his hands by 10:30 a.m. on Friday, August 9, 1996. Documents received too late will go into a subsequent mailing.

The current document register is enclosure (3).

5. Review of Old Action Items

- 50) Gene Milligan to take appropriate action to withdraw project 1120. Completed.
- 51) Pete McLean to prepare rev 7 of ATA-3. Completed.
- 52) Gene Milligan to send rev 7 of ATA-3 to X3 for further processing. Completed.
- 53) Gene Milligan to send project proposal for the Technical Report for Enhanced BIOS Disk Drive to X3 for further processing. Completed.

6. ATA Working Group Report

The results of the ad hoc meetings held in May, June and July are documented in the minutes for each of those meetings. Gene Milligan suggested that he report the outcome of the pertinent items in a distributed manner by giving a brief report under each of the plenary agenda items. This was agreed to.

7. ATA-2 - Project 0948D

The Chair reported that ATA-2 had completed its X3 letter ballot. The vote was 21:0:1:1. ATA-2 now goes to the ANSI Board of Standards Review (BSR) for review of the procedures followed in its development and publication as an ANS.

8. ATAPI - Project 1120D

The Chair reported that OMC has reviewed the request to withdraw Project 1120-D. They have recommended the project be withdrawn. An X3 letter ballot to approve the withdrawal will be conducted beginning with the X3 8/9/96 mailing.

9. ATA-3 - Project 2008D

Pete McLean reported that the pre-edit has been received. The items are editorial and non-substantive. He especially drew X3T13's attention to one item related to the note marked with an asterisk in sub-clause 10.2.

Curtis Stevens moved and Rick Kalish seconded that X3T13 approves the pre-edit changes as non-substantive with the inclusion of the asterisk item in the sub-clause and directs the technical editor to make those changes in the final version. The motion carried 23:0:0.

The ad-hoc recommended that a clause to deal with 8-bit register transfers (D96116) be added to restore the inadvertently deleted text that dealt with this. Pete plans to submit a public review comment to this effect.

Pete McLean moved and Marc Noblitt seconded to accept a public review comment adding the 8-bit register transfer timing requirements per D96116r0 with the observation that X3T13 views it as a non-substantive editorial correction restoring the continuing ATA requirement and authorizing the Chair to request a press release noting the restoration of this omitted requirement.

The Chair noted that the motion, on the basis of a non-substantive change required a two-thirds meeting vote but had it been a substantive change would have required a two-thirds roll call vote. To avoid any negative impact of second guessing, the Chair conducted a roll call vote.

Richard	Kalish	Adaptec, Inc.	P	Y
Ron	Roberts	Apple Computer	A	Y
Ben	Chang	Cirrus Logic Inc.	A	Y
Hale	Landis	Consultant	P	Y
Paul	Raikunen	Digital	P	Y
I. Dal	Allan	ENDL	P	Y
Robert	Liu	Fujitsu Computer Products	P	Y
Tony	Goodfellow	GSI	P	Y
J. R.	Sims	Hewlett Packard Co.	P	Absent
Anthony	Yang	Hitachi America Ltd	P	Y
Dan	Colegrove	IBM Corp.	P	Y
Duncan	Penman	IIX Consulting	P	Y
Pete	McLean	Maxtor Corp.	P	Y
Darrin	Bulik	Micro House Int.	P	Absent
Robert	Griffith	Oak Technology	A	Y
Bill	McFerrin	Philips KMG	P	Absent
Curtis	Stevens	Phoenix Technologies	P	Y
Greg	Elkins	QLogic Corp.	P	Y
Mark	Evans	Quantum Corp.	P	Y
Kenichi	Kojima	Sanyo Electric Co Ltd	P	Y
Marc	Noblitt	Seagate Technology	P	Y
Yogi	Schaffner	Silicon Systems	P	Y
Patrick	Mercer	SyQuest Technology Corp	A	Y
Tokuyuk	Totani	Toshiba America Info.	P	Absent
Tom	Hanan	Western Digital Corp.	P	Y
Masa	Morizumi	Yamaha	P	Absent
Raymond	Liang	CMD	A	Y

The motion carried 22:0:0:5.

10. ATA/ATAPI-4 - Project 1153D

The Chair reported that the working group recommended that ATA/ATAPI-4 rev 5 be approved as the accepted working draft for project 1153-D. This acceptance allows the chair in response to inquiries from outside the committee to state that there is a working draft for the project.

Rick Kalish moved and Marc Noblitt seconded that ATA/ATAPI-4 rev 5 be accepted as the working draft. The motion carried 23:0:0:4.

11. Old Business

11.1 Enhanced BIOS Disk Drive Technical Report [Stevens] (D96139r0)

Curtis Stevens plans to have an update available in time for the mailing.

11.2 Adding feature status to IDENTIFY DEVICE [McLean] (D96103r1)

At the ad hoc Pete McLean reviewed his proposal for a new IDENTIFY DEVICE, IDENTIFY DEVICE DMA, and IDENTIFY PACKET DEVICE responses. The ad hoc agreed to further review the proposal and address it at the August ad hoc meeting.

11.3 Strong Command Overlap and Command Queuing [McLean] (D96104r6)

By a vote of 16:4 the ad hoc recommended that shared interrupts be removed from D96104 and proposals be solicited for replacements.

The recommendation was approved unanimously by the plenary.

11.4 Cache Flush [Roberts] (D96106r3)

By a vote of 10:3 the ad hoc recommended that the additional sub-commands be removed and recommended the revised proposal for incorporation into ATA/ATAPI-4. The enable/disable control of write caching will remain with the SET FEATURES command.

The recommendation was approved unanimously by the plenary.

11.5 Reset Proposal [Evans] (D96142r3)

At the ad hoc Mark Evans reviewed the latest revision of the reset proposal. The review resulted in additional changes which are outlined in the ad hoc minutes and in notes taken by Mark. Mark plans to have a revised proposal at the next ad hoc.

11.6 Items from the Open Issues List [] ()

11.6.1 Is IORdy open collector or tri-state?

The ad hoc recommended on the basis of precedence in prior ATA standards that IORdy be consistently documented as tri-state by changing the text to match the table.

The recommendation was approved unanimously by the plenary.

11.6.2 Should power management be mandatory?

The ad hoc recommended that power management, according to the type of feature set supported, be made mandatory.

The recommendation was approved unanimously by the plenary.

11.7 X3T13 Reflector, ftp, and Web Site Setup [Hanan]

The web site, <http://www.X3T13.com>, is not operational yet. The reflector, x3t13@dt.wdc.com, is operational. Subscriptions to the reflector should be sent to majordomo@dt.wdc.com, with "subscribe x3t13" in the body.

11.8 Device Segmentation [Colegrove] (D96137r0)

The June '96 working group recommended device segmentation be incorporated into ATA-4.

The recommendation was approved unanimously by the plenary.

12. New Business

12.1 SFF Option Pins [] ()

The ad hoc discussed option pin assignments and agreed to pursue this item further at the August ad hoc meeting.

12.2 Anti Redundancy [McLean] (D96114r0)

The ad hoc received an overview of the proposal from Pete and agreed to review it in more detail at the next working group.

12.3 Security Erase [Colegrove] ()

At the ad hoc Dan Colegrove reviewed the direction of an upcoming proposal and will update his proposal and post it to the reflector. Dan requested that interested parties contact him to assist in developing the proposal.

12.4 Annex E [] ()

At the ad hoc Hale Landis pointed out some problems in Annex E having what should be normative requirements. Pete McLean will add verbiage on the invalid cases to the body of the document.

12.5 DVD Copy Protection [] ()

The X3 OMC has decided to have an ad-hoc meeting to determine what if anything the X3 committees ought to do regarding DVD copy protection. They plan to have a recommendation by 9/96.

Devon Worrell and J.R. Sims volunteered in Email responses to participate in this effort.

12.6 1997 Mailing [] ()

Pete McLean moved and Curtis Stevens seconded that X3T13 inform X3 (ITIC) that it is X3T13's intention to no longer provide a paper copy of the mailing beginning with the first mailing of 1997. The electronic version of the mailing will be provided. The motion carried 20:0.

Two principal members objected to X3 making any changes to the subscription service which would result in a subscriber not being able to purchase paper copies of the mailings. Dal Allan requested that the X3 Secretariat take a survey of X3T13 subscribers as to their reaction if paper copies would not be offered as a subscription option.

Curtis Stevens moved and Tony Goodfellow seconded that the Vice-Chair investigate the possibility of converting the mailings to PDF format. The motion was approved unanimously.

Due to software compatibility issues Larry Lamers moved and Tom Hanan seconded that file types be changed from the '.doz' extension to '.zip' for compressed files. The motion was approved unanimously.

12.7 Power Management Times[] ()

Tom Hanan reported that if very short times are selected the number of start/stop cycles can adversely affect the life expectancy of the device. He would like to change the minimum time for desktop products to 5-10 minutes and provide a reporting method to indicate what the minimum is. This will be added to the next ad hoc agenda.

13. Liaison Reports

13.1 X3T10

John Lohmeyer provided the following electronic report:

X3T10 Report -- July 30, 1996
 John Lohmeyer, Chair X3T10

X3T10 met in Colorado Springs, CO Thursday July 18, 1996 with 51 people present. Membership is now at 52 voting organizations.

ANSI has published the SCSI-3 Parallel Interface (SPI) {X3.253-1995} and the SCSI Common Access Method (CAM) {X3.232-1996}.

The first generation SSA draft standards all passed first public review. X3T10 voted to accept the ANSI edits as non-substantive. These documents are ready for X3 letter ballot.

The X3 Secretariat is holding Serial Bus Protocol (SBP), which has passed its second public review without comment, until the references are revised to conform to the new ANSI policy.

X3T10 forwarded the SCSI-3 Interlocked Protocol (SIP) Revision 10 to second public review after correcting the normative references per an IBM comment and repairing the sleep mode problems related to the TARGET RESET task management function.

X3T10 forwarded SCSI-3 Primary Commands (SPC) Revision 10 to first public review.

We spent another two hours debating the scope of SPI-2 with no actual changes from the May meeting (all of the physical layer including SPI, Fast-20, and other applicable items). There is still a significant group that disagrees with this direction and would prefer to reduce the scope to just LVD and the new connector options (SCA-2 and VHDCI). There was also some debate over whether the SIP layer should also be included in SPI-2 -- this issue is not resolved.

An electronic letter ballot on forwarding the Multimedia Commands (MMC) to first public review closes September 3rd.

An electronic letter ballot on forwarding the SCSI Enclosure Services (SES) to first public review closes September 3rd.

Late in the meeting, a roll call vote to forward CAM to ISO fast track failed 23:1:0:27=51 mostly because 17 organizations left the meeting early. The X3T10 Chair is considering submitting a new attendance procedure for consideration.

The next plenary meeting of X3T10 will be September 12, 1996, at the Holiday Inn Crowne Plaza (508-653-8800) in Natick, MA (near Boston), hosted by Digital Equipment. The meeting will begin at 1:00 p.m.

Several ad hoc meetings are also scheduled earlier that week. Interim

Ad Hoc meetings were also scheduled as follows:

Event	Date	Location/contact
SPI-2 Working Group	Tue-Wed 8/13-14/96	Milpitas, CA / Molina
SPI-2 Working Group	Thur 10/10/96	St. Petersburg Beach, FL / Brill
SPI-2 Working Group	Thur 12/5/96	Bloomington, MN / Truestedt
SBP-2 Working Group	Tue 8/13/96	Redmond, WA / Johansson

13.2 SFF

At the August meeting there is a plan to have an SFF meeting on the Tuesday prior to the October X3T13

14. Call for Patents

This is a regular agenda item to identify any potential patent issues with developing standards.

A document is available from ANSI, "Procedures for the Development and Coordination of American National Standards", at no charge. Annex I contains the ANSI patent policy.

The Chair requested that any participant aware of patents or patent disclosures that may be required to comply with any publications resulting from X3T13 projects provide an early disclosure of such patent and offer to license such patents under reasonable and non-discriminatory conditions in accordance with the ANSI Patent Policy. No additional patents were identified by the attendees in response to this call.

15. Open Issues List Summary

The following items were added to the list at the ad hoc meeting:

- 1) Have silicon providers see if the 400 ns delay before reading the status register is needed.
- 2) Mark's D96142r3 item 86 still needs to be researched because of portable cache flushing situations.
- 3) Consider recommendation that Software Reset not be used in future systems - use Device Reset
- 4) Does Device Reset cause the device to come out of sleep mode.

16. Review of Action Items

- 51) Everyone check the protocol vis-à-vis the interrupts for READ/WRITE Sectors and DMA.
- 52) Everyone to check on usage of DSC bit and determine which values result for each command.
- 53) Regarding rote 9 in Mark Evan's proposal D96142r3 folks should check if the 5 microsecond requirement is needed for coming out of sleep mode.

17. Meeting Schedule

The next plenary meeting of X3T13 will be October 25, 1996 at the Sheraton Princess Kaiulani Hotel, in Honolulu, HI, hosted by Quantum. For reservations call 808-922-5811.

The subsequent plenary meeting of X3T13 will be January 24, 1997 at the Seagate Facility, in San Jose, CA hosted by Seagate.

Plenary meetings are also planned for:

April 25, 1997

July 25, 1997

October 24, 1997

January 23, 1998

The starting time is 9:00am.

17.1 Authorization of Working Group Meetings

The plenary authorized the following ad hoc meetings:

X3T13 Working Group on August 21-23, 1996 at the Seagate Facility in San Jose, CA hosted by Seagate.

X3T13 Working Group on September 25-27, 1996 at the Windsor Hotel in Irvine, CA hosted by Phoenix Technologies.

X3T13 Working Group on October 23-24, 1996 at the Sheraton Hotel in Honolulu, HI hosted by Quantum.

X3T13 Working Group on November 13-15, 1996 at the WD facility in Irvine, CA hosted by Western Digital.

X3T13 Working Group on January 22-23, 1997 in San Jose, CA hosted by Seagate.

Based upon current work load additional ad hoc meetings are expected to be required as follows:

X3T13 Working Group on February 19-21, 1997 in Colorado hosted by Silicon Systems or Symbios.
X3T13 Working Group on March 19-21, 1997 in San Jose, CA hosted by Seagate.
X3T13 Working Group on April 23-24, 1997 in Irvine, CA hosted by Western Digital.
X3T13 Working Group on May 21-23, 1997 in Boulder, CO hosted by Seagate.
X3T13 Working Group on June 18-20, 1997 in Irvine, CA hosted by Western Digital
X3T13 Working Group on July 23-24, 1997 hosted by Seagate
X3T13 Working Group on August 20-22, 1997 hosted by Seagate.
X3T13 Working Group on September 24-26, 1997 in Irvine, CA hosted by Phoenix Technologies.
X3T13 Working Group on October 22-23, 1997 in Honolulu, HI hosted by Quantum.
X3T13 Working Group on December 10-12, 1997 in Irvine, CA hosted by Western Digital.

The scheduled working group meetings were approved unanimously.

18. Adjournment

The meeting was adjourned upon completion of all agenda items.

Meeting Attendees -- Enclosure (1)

P = Principal Member	A = Alternate Member	O = Observing Member	G = Guest
Charles	Brill	AMP, Inc.	O
Richard	Kalish	Adaptec, Inc.	P
Lawrence	Lamers	Adaptec, Inc.	A1
Ron	Roberts	Apple Computer	A
Raymond	Liang	CMD Technology	A
Ben	Chang	Cirrus Logic	G
Ken	Seto	Cirrus Logic	G
Hale	Landis	Consultant	P
Paul	Raikunen	Digital	P
I. Dal	Allan	ENDL	P
Kazuo	Nakashima	Fujitsu	G
Robert	Liu	Fujitsu Computer Products	P
Tony	Goodfellow	GSI	P
Anthony	Yang	Hitachi America Ltd	P
Earle	Jennings	Hyundai	G
Dan	Colegrove	IBM Corp.	P
Duncan	Penman	IIX Consulting	P
Ron	Stephens	Iomega Corp.	
Pete	McLean	Maxtor Corp.	P
Robert	Griffith	Oak Technology	A
Curtis	Stevens	Phoenix Technologies	P
Greg	Elkins	QLogic Corp.	P
Mark	Evans	Quantum Corp.	P
Andrew	Shu	Samsung, SISA	G
Kenichi	Kojima	Sanyo Electric Co Ltd	P
Gene	Milligan	Seagate Technology	P
Marc	Noblitt	Seagate Technology	A
Yogi	Schaffner	Silicon Systems	P
Patrick	Mercer	SyQuest Technology Corp	A
David	Evans	Symbios Logic	G
Mike	Winchell	Symbios Logic	G
Tom	Hanan	Western Digital Corp.	P

X3T13 Attendance Database - Enclosure (2)

ORGANIZATIONAL ATTENDANCE AT LAST THREE MEETINGS			----	+	
INDIVIDUAL ATTENDANCE			----	+	
				v	v
Kent	Manabe	AKEI (Panasonic)	G	1	1
Charles	Brill	AMP, Inc.	O	1	1
Richard	Kalish	Adaptec, Inc.	P	3	3
Tony	Kwan	Adaptec, Inc.	G	1	3
Lawrence	Lamers	Adaptec, Inc.	A1	3	3
Ron	Roberts	Apple Computer	A	3	3
Raymond	Liang	CMD Technology	A	2	3
Victor	Siu	CMD Technology	P	1	3
Lang	Dennis	Circuit Assembly Corp.	O	1	1
Ben	Chang	Cirrus Logic	G	1	3
Ken	Seto	Cirrus Logic	G	1	3
Joe	Chen	Cirrus Logic Inc.	P	2	3
Les	Cline	Cirrus Logic Inc.	A	1	3
Hale	Landis	Consultant	P	3	3
Paul	Raikunen	Digital	P	3	3
I. Dal	Allan	ENDL	P	3	3
Kazuo	Nakashima	Fujitsu	G	1	2
Robert	Liu	Fujitsu Computer Products	P	2	2
Tony	Goodfellow	GSI	P	2	3
Richard	Harcourt	GSI	A1	1	3
J. R.	Sims	Hewlett Packard Co.	P	2	2
Anthony	Yang	Hitachi America Ltd	P	3	3
Earle	Jennings	Hyundai	G	1	1
Dan	Colegrove	IBM Corp.	P	3	3
Duncan	Penman	IIX Consulting	P	3	3
Ron	Stephens	Iomega Corp.	G	1	1
LeRoy	Leach	Maxtor Corp.	A	1	1
Pete	McLean	Maxtor Corp.	P	3	3
Darrin	Bulik	Micro House Int.	P	2	2
Robert	Griffith	Oak Technology	A	2	3
Dennis	Van Dalsen	Oak Technology	P	1	3
Robin	Freeze	Oak Technology, Inc	A1	1	3
Jauher	Zaidi	Palmchip Corp.	G	1	1
Bill	McFerrin	Philips KMG	P	1	1
Mike	Christensen	Phoenix Technologies	G	1	3
Curtis	Stevens	Phoenix Technologies	P	3	3
Greg	Elkins	QLogic Corp.	P	2	2
Mark	Evans	Quantum Corp.	P	3	3
Farbod	Falakfars	Quantum Corp.	O	1	3
James	McGrath	Quantum Corp.	A1	1	3
Steven	Peng	Samsung Semiconductor	O	1	2
Andrew	Shu	Samsung, SISA	G	1	2
Kenichi	Kojima	Sanyo Electric Co Ltd	P	2	3
Yoshihito	Higashitsutsumi	Sanyo Semiconductor	G	1	3
John	Masiewicz	Seagate Technology	A	1	3
Gene	Milligan	Seagate Technology	P	3	3
Marc	Noblitt	Seagate Technology	A	2	3
Ron	Werbow	Seagate Technology	O	1	3
Yogi	Schaffner	Silicon Systems	P	2	2
Stephen	Finch	Silicon Systems, Inc.	A	1	2
Patrick	Mercer	SyQuest Technology Corp	A	3	3
David	Evans	Symbios Logic	G	1	1
Mike	Winchell	Symbios Logic	G	1	1
Tokuyuk	Totani	Toshiba America Info.	P	2	2
Carl	Bonke	Western Digital Corp.	A2	1	3
Tom	Hanan	Western Digital Corp.	P	3	3
Devon	Worrell	Western Digital Corp.	A1	1	3
Masa	Morizumi	Yamaha	P	1	1

X3T13 Document Database - Enclosure (3)

Doc#	Description	subdir	Pgs	Date	Mailing	Submitter
D0791R4c	ATA-1 revision 4c	/project	66	5/12/94	----	lamers
D0948-R3	ATA-2 revision 3	/project	121	1/17/95	DM9601	finch
D0948R4c	ATA-2 revision 4c	/project	111	3/18/96	DM9602	finch
D1153-R0	ATA/ATAPI-4 revision 0	/project	206	2/5/96	DM9601	mclean
D1153-R1	ATA/ATAPI-4 revision 1	/project	246	3/18/96	----	mclean
D1153-R2	ATA/ATAPI-4 revision 2	/project	265	4/5/96	----	mclean
D1153-R3	ATA/ATAPI-4 revision 3	/project	260	5/3/96	DM9602	mclean
D1153-R4	ATA/ATAPI-4 revision 4	/project	256	6/10/96	----	mclean
D1153-R5	ATA/ATAPI-4 revision5	/project	269	6/28/96	DM9603	mclean
D2008-R6	ATA-3 revision 6	/project	179	10/26/95	DM9601	mclean
D2008-R7	ATA-3 revision 7	/project	180	4/25/96	DM9602	mclean
D96001R0	Organization meeting notice & agenda	/meetings	2	12/16/95	DM9601	milligan
D96002R0	Meeting notice & agenda plenary #2 - April 96	/meetings	3	2/6/96	DM9601	milligan
D96003R0	Letter ballot - Development policy & procedures	/ballots	1	2/5/96	DM9601	milligan
D96004R0	Letter ballot - Document process	/ballots	1	2/5/96	DM9601	milligan
D96005R0	Letter ballot - Project document format guideline	/ballots	1	2/5/96	DM9601	milligan
D96006R0	Letter ballot - Electronic notification & distribution	/ballots	1	2/5/96	DM9601	milligan
D96007R0	Letter ballot - Funding for technical editors	/ballots	1	2/5/96	DM9601	milligan
D96008R0	Invitation to participate	/meetings	2	4/15/96	DM9602	milligan
D96009R1	ATAPI command set	/meetings	1	4/19/96	DM9602	milligan
D96101R0	Minutes - working group - 11/29-30/95	/meetings	7	1/4/96	DM9601	lamers
D96102R0	Use of pins A-D on 44-in connector (Maxtor)	/technical	1	11/27/95	DM9601	mclean
D96102R1	Use of pins A-D on 44-pin connector (Maxtor)	/technical	2	2/7/96	----	mclean
D96102R2	Use of pins A-D on 44-pin connector	/technical	1	2/26/96	DM9602	mclean
D96103R0	Feature status reporting	/technical	2	6/6/96	----	mclean
D96103R1	Feature status reporting	/technical	3	6/24/96	DM9603	mclean
D96104R0	ATA overlap proposal (X3T10/258R4)	/technical	23	11/27/95	----	mclean
D96104R1	ATA overlap proposal	/technical	23	12/4/95	DM9601	mclean
D96104R2	ATA overlap proposal	/technical	22	2/26/96	----	mclean
D96104R3	ATA overlap proposal	/technical	23	4/5/96	----	mclean
D96104R4	ATA overlap proposal	/technical	27	5/2/96	DM9602	mclean
D96104R5	ATA overlap proposal	/technical	23	5/28/96	----	mclean
D96104R6	ATA overlap proposal	/technical	23	6/24/96	DM9603	mclean
D96105R1	Alternatives to proxy interrupt	/technical	2	2/20/96	DM9602	evans
D96106R0	Cache flush proposal	/technical	3	2/21/96	DM9602	schnell
D96106R1	Cache flush propoal	/technical	2	6/19/96	DM9603	roberts
D96107R0	Device segmentation	/technical	3	1/26/96	DM9601	stevens
D96107R1	ATA device segmentation	/technical	5	2/20/96	----	stevens
D96107R2	ATA device segmentation	/technical	3	3/13/96	DM9602	stevens
D96108R0	Project procedure draft	/rules	13	12/16/95	DM9601	milligan
D96109R0	Attendance procedure	/rules	1	12/16/95	DM9601	milligan
D96110R0	X3T13 document process	/rules	5	1/18/96	----	mclean
D96110R1	X3T13 document process	/rules	5	1/29/96	DM9601	mclean
D96110R2	X3T13 document process	/rules	5	4/29/96	DM9602	mclean
D96111R0	X3T13 Project document format guideline	/rules	22	1/18/96	DM9601	mclean
D96112R0	Response to ATA3 letter ballot comments	/ballots	13	1/18/96	----	mclean
D96112R1	Response to ATA3 letter ballot comments	/ballots	13	2/6/96	DM9601	mclean
D96112R2	Response to ATA3 letter ballot comments	/ballots	13	2/26/96	DM9602	mclean
D96113R0	Use of pins A-D on 44-pin connector (IBM)	/technical	1	1/22/96	DM9601	colegrove
D96114R0	Removal of redundant information	/technical	5	7/23/96	DM9603	mclean
D96115R0	Voting requirements table from SD2	/rules	4	1/24/96	DM9601	hanan
D96116R0	Editor's ommision in ATA-3	/technical	3	7/24/96	DM9603	mclean
D96117R0	Use of pins A-D on 44-pin connector	/technical	1	1/23/96	DM9601	totani
D96118R0	open		""			
D96119R1	Electronic notification & distribution procedure	/rules	2	2/5/96	DM9601	milligan
D96119R2	Electronic notification & distribution procedure	/rules	2	5/16/96	DM9602	milligan
D96120R0	Minutes - plenary 1/23-25/96	/meetings	21	1/23/96	DM9601	lamers
D96121R0	Funding for technical editors	/rules	1	2/5/96	DM9601	milligan
D96122R0	Letter from Compaq on patents	/meetings	1	2/6/96	DM9602	milligan

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D96123R0	Get Features proposal	/technical	4	2/21/96	DM9602	schnell
D96124R0	Minutes of Feb 21-23 working group	/meetings	8	2/22/96	DM9602	lamers
D96125R0	Vendor specific/optional proposal	/technical	8	2/22/96	----	evans
D96125R1	Vendor specific/optional proposal	/technical	6	2/26/96	----	evans
D96125R2	Vendor specific/optional proposal	/technical	7	4/22/96	DM9602	evans
D96125R3	Vendor specific/optional proposal	/technical	9	5/21/96	----	evans
D96125R4	Vendor specific/optional proposal	/technical	7	6/17/96	----	evans
D96125R5	Vendor specific/optional proposal	/technical	7	6/26/96	DM9603	evans
D96126R0	Quantum connector proposal	/technical	1	1/17/96	DM9603	evans
D96127R0	The BIOS 2 Gigabyte failure	/technical	2	2/21/96	----	stevens
D96127R1	The BIOS 2 Gigabyte failure	/technical	2	3/13/96	DM9602	stevens
D96128R0	X3T13 membership list	/membership	4	1/23/96	----	mclean
D96128R1	X3T13 membership list	/membership	4	5/15/96	----	mclean
D96129R0	Editorial errors in ATA3	/technical	1	2/29/96	DM9602	mclean
D96130R0	Minutes of March 27-29 working group	/meetings	9	3/27/96	DM9602	lamers
D96131R0	SMART command set modifications	/technical	18	4/22/96	----	evans
D96131R1	SMART command set modifications	/technical	18	5/1/96	DM9602	evans
D96131R2	SMART command set modifications	/technical	18	6/14/96	DM9603	evans
D96132R0	Letter ballot results	/ballots	3	3/22/96	DM9602	milligan
D96133R0	Letter ballot comment resolution	/ballots	4	3/22/96	----	milligan
D96133R1	Letter ballot comment resolution	/ballots	4	4/25/96	DM9602	milligan
D96134R0	EDD project proposal	/project	3	3/22/96	----	milligan
D96134R1	EDD project proposal	/project	3	4/25/96	DM9602	milligan
D96135R0	Core command set proposal	/technical	1	6/20/96		stevens
D96136R0	Minutes of April 24-25 working group	/meetings	8	5/6/96	DM9602	lamers
D96137R0	ATA protected area proposal	/technical	4	4/25/96	DM9602	colegrove
D96138R0	Minutes of April 26 plenary	/meetings	17	5/16/96	DM9602	lamers
D96139R0	EDD	/technical	26	6/18/96		stevens
D96140R0	X3T10 liason report	/meetings	1	4/4/96	DM9602	lohmeyer
D96141R0	Minutes of May 22-24 working group	/meetings	8	5/23/96	DM9603	lamers
D96142R0	Reset proposal	/technical	2	5/21/96	----	evans
D96142R2	Reset proposal	/technical	7	6/10/96	----	evans
D96142R3	Reset proposal			7/29/96	DM9603	evans
D96143R0	DMA command modified description		""			landis
D96144R0	Feature set rewrite		""			landis
D96145R0	Minutes of June 19-21 working group	/meetings	8	6/21/96	DM9603	lamers
D96146R1	Minutes of July 31-Aug 1 working group		""	8/7/96	DM9603	lamers
D96147R1	Minutes of August 2 plenary		""	8/5/96	DM9603	lamers
DM9601R0	Mailing #1 1996	/mailings	132	2/6/96	----	milligan
DM9602R1	Mailing #2 1996	/mailings	153	5/16/96	----	milligan