

Accredited Standards Committee*
X3, Information Technology

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Project:

Ref. Doc.:

Reply to: Lawrence J. Lamers

To: Membership of X3T13

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

Subject: Minutes of X3T13 Plenary #5
January 24, 1997 : San Jose, CA

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Results of Meeting

1. Opening Remarks

Gene Milligan, the X3T13 Chairman, called the meeting to order at 1:00 p.m., Friday January 24, 1997. He thanked Marc Noblitt of Seagate for hosting the meeting.

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

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.

Gene Milligan noted that he had received a notice from the secretariat that the name of X3 was being changed to National Committee for Information Technology Standards (NCITS), pronounced 'insights'. With this change the 'X3' is dropped and the committee will be known as T13.

2. Approval of Agenda

The list of recommendations from the working groups was expanded and the agenda approved, without objection, as reflected in these minutes. Two items were added, 13.1 Tailgate, 11.3 Overlap and Queuing for register based devices.

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.

Philips has lost their membership.

OR Technology joined with Lance Flake the principal, and Christopher Mayne as first alternate and Greg Shonle as an additional alternate.

With the addition of OR Technology, the X3T13 membership was at 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 CD mailing is \$300 for North American addresses and \$ 400 for other addresses for the first CD and \$240 per year for additional CDs. The paper mailings are \$900 for North American addresses and \$ 1400 for other addresses. The subscription fee includes a \$50 set-aside for an editorial fund.

Pete McLean requested that all documents for the next mailing be in his hands by 10:30 a.m. on Friday, January 31, 1997. Documents received too late will go into a subsequent mailing.

The current document register is enclosure (3).

5. Approval of prior plenary minutes

This item was omitted due to an oversight.

6. Review of Old Action Items

54) Gene Milligan to send letter to Oak Technology regarding patent. Completed.

55) Gene Milligan to send letter to Quantum regarding ULTRA DMA patent. Carried over.

7. ATA Working Group Report

The results of the ad hoc meetings since the last plenary 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. The recommendations will be dealt with at the appropriate agenda item.

8. ATA-2 - Project 0948D

The Secretary reported that the X3.279-1996 ATA-2 has been published by ANSI. The single copy price is \$85.

9. ATAPI - Project 1120D

The Chair reported that status on the withdrawal of the project has been requested from X3 but not yet received.

10. ATA-3 - Project 2008D

The X3 letter ballot closed on December 13, 1996. The ballot passed without comment. But the Chair requested that the standard not be forwarded to BSR due to the editing error on DREQ to DMARQ transition. Pete McLean reported that he had not yet prepared the draft with this correction. See the October plenary minutes D96155r0.

The chair requested that the technical editor prepare the draft and provide a list of changes. The Chair will request that the revised draft be re-balloted by X3 simultaneously with the public review.

11. ATA/ATAPI-4 - Project 1153D

11.1 Working Group Recommendations

Working Group recommendations-

- agree that DASP signal may be unsynchronized with command execution
- agree that there will be no distinction in ATA & ATAPI regarding device 0/1 protocol
- accept MSN 1.03 as basis for a proposal
- agree that LUNs are the basis for packet commands
- agree to recommend Ultra DMA be incorporated into ATA/ATAPI-4
- agree to recommend Security Feature set be incorporated into ATA/ATAPI-4
- agree to accept revised schedule with the letter ballot for ATA/ATAPI-4 in May '97

The above recommendations were approved unanimously.

11.2 Acceptance of working draft

The Chair reported that the working group should have recommended, but did not discuss, that ATA/ATAPI-4 rev 8 be accepted as the working draft for project 1153-D. This acceptance allows the chair in response to inquiries from outside the committee to state that revision 8 is the current working draft for the project.

Rick Kalish moved and Marc Noblitt seconded that ATA/ATAPI-4 rev 8 be accepted as the working draft. The motion carried 13:1:2. Kojima-san voted no since he wished to review revision 8 further in Japan.

11.3 Schedule

The current schedule calls for the draft to be balloted in May '97.

11.4 Overlap/Queuing for Register Based Devices

Dan Colegrove noted that the committee position has oscillated over the years based on the current attendance. Furthermore, issues seem to arise that are not resolved and he fears that these may cause problems down the road.

Chair's note: Since this topic has been incorporated in the ATA/ATAPI-4 draft and there is no specific activity any longer separate from the draft review, the Chair will omit this item on the next agenda.

12. Enhanced BIOS Disk Drive Technical Report Project D1228

12.1 Approval of working draft

Curtis Stevens was ill and not able to attend. Hale Landis noted that the fixed disk parameter table signature byte has a question of whether it should be A0h or A9h.

12.2 Schedule

This item was deferred due to Curtis Stevens not being able to attend.

13. Old Business

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

Committee information can be accessed via the web site, <http://www.X3T13.com>; the ftp site x3t13.dt.wdc.com/x3t13; and the reflector, x3t13@dt.wdc.com. Subscriptions to the reflector should be sent to majordomo@dt.wdc.com, with "subscribe x3t13" in the body.

Tom Hanan agreed to update the web site to reflect the name change to NCITS. The IP address for the ftp site is 129.253.40.1 (Chair's note: A port number was given in the meeting but including the port number will result in the address not being accepted.)

13.2 Items from the Open Issues List [] ()

1) Enhanced FDPT signature of A0h.

This item was deferred due to Curtis Stevens not being able to attend.

14. New Business

14.1 Tailgate [McLean] (D97105r0)

The ad hoc recommended that T13 approve the Tailgate project proposal.

Pete McLean moved and Mark Evans seconded a motion that the project proposal for Tailgate be forwarded to NCITS for further processing. A request was made for this to be a letter ballot. The chair agreed to conduct a letter ballot.

The chair suggested that the study group work continue pending the outcome of the letter ballot and if approved action by OMC. It was noted that initial proposals for project drafts be clearly identified as a proposal such that people receiving copies of proposals not be misled as to its status. Tom Hanan agreed to address this issue.

Hale Landis stated that most of the material in the Tailgate document (D97107r0) was not germane to T13; that without the proper attendees the work may be futile; and that T13 has never defined a host adapter.

The Chair noted that he viewed the scope of T13 to be broader than Hale's view. Pete McLean pointed out that not defining a host adapter for ATA had more to do with the status implementations than with scope. He noted that in the case of the 1394 activity the disk drive connection was in the early stages and we should definitely benefit from establishing a standard in the early stages rather than trying to clean up varying implementations. He also pointed out that Tailgate is a bridge controller with a 1394 physical SBP-2 transport on one side and ATA/ATAPI-4 on the other side and not a host adapter.

The Chair noted that assuming a project will be approved, he had accepted the offer of Jonathan Hanmann to serve as technical editor for Tailgate. He has assumed this role in the development of the proposal from the Diskboys.

15. Liaison Reports

15.1 X3T10

X3T10 stabilized the asynchronous portion of SBP-2 while the isochronous portion is being worked.

15.2 1394

Pete McLean reported that 1394a and 1394 b are under development. 1394b is intended to extend the bandwidth to 800 Mbits using existing protocol. A 1394.2 effort using a different protocol for inter-processor cluster communication is also under way.

15.3 SFF

There was no report.

15.4 Disk Boys

The effort continues to write a profile for commands sets to use on 1394 for hard disks, CD ROM, DVD, etc. It will be based on MMC-2 work.

16. Call for Patents

This is a regular agenda item to identify any potential patent issues related to complying with standards and draft standards within the scope of X3T13.

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 terms in accordance with the ANSI Patent Policy. No additional patents were identified by the attendees in response to this call.

Regarding European patent application 95201658.2, the chair has contacted the legal consul for Oak Technology and will follow-up next week. (Chair's note: The contact has been completed and relevant material supplied to Oak.)

Pete McLean stated that regarding Tailgate only the patents required for implementing 1394 are known to be required. The known 1394 patents have been provided in apparent conformance with the IEEE and ANSI patent policies.

17. Open Issues List Summary

No items were added to the list at this meeting and the only carryover item is:

1) Enhanced FDPT signature of A0h.

18. Review of Action Items

56) Pete McLean to prepare ATA-3 rev 7b.

57) Tom Hanan to modify the T13 web site to reflect the name change.

58) Tom Hanan to provide the url in numbers to avoid DNS server congestion. Completed. (IPaddress = 129.253.40.1)

19. Meeting Schedule

The next plenary meeting of X3T13 will be April 25, 1997 at the Western Digital Facility in Irvine, CA, hosted by Western Digital.

The subsequent plenary meeting of X3T13 will be July 25, 1997 at the Seagate Facility, in San Jose, CA hosted by Seagate.

The plenary meetings occur on the Friday starting time is 9:00 am but participants should watch the reflector for time changes that may be agreed to for optimizing productivity.

19.1 Authorization of Working Group Meetings

The plenary authorized the following ad hoc meetings:

Date	Location	Host	Contact
February 18-21, 1997	Ft. Collins, CO	Symbios Logic	David Evans
March 18-21, 1997 *	San Jose, CA	Seagate	Marc Noblitt

April 23-25, 1997	Irvine, CA	Western Digital	Tom Hanan
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Pete McLean requested the following ad-hocs for Tailgate (in conjunction with X3T10 SBP-2 ad hocs) which the plenary also authorized:

Date	Location	Host	Contact
2/12-13/97	Redmond, WA	Microsoft	John Fuller
3/10-11/97	San Diego, CA	QLogic	Skip Jones
4/10-11/97	San Jose, CA	Phoenix	Curtis Stevens

The scheduled working group meetings were approved unanimously.

19.2 Long term meeting schedule

Date	Location	Host	Contact
January 22-24, 1997 *	San Jose, CA	Seagate	Marc Noblitt
February 18-21, 1997	Ft. Collins, CO	Symbios Logic	Mike Winchell
March 18-21, 1997	San Jose, CA	Seagate	Marc Noblitt
April 23-25, 1997 *	Irvine, CA	Western Digital	Tom Hanan
May 21-23, 1997	Estes Park, CO	Seagate	Marc Noblitt
June 18-20, 1997	Irvine, CA	Western Digital	Tom Hanan
July 23-25, 1997 *	San Jose, CA	Seagate	Marc Noblitt
August 20-22, 1997	Longmont, CA	SSI/TI	Yogi Schaffner
September 24-26, 1997	Irvine, CA	Phoenix Technologies	Curtis Stevens
October 22-24, 1997*	TBD, HI	Quantum	Mark Evans
December 3-5, 1997**	Irvine, CA	Western Digital	Tom Hanan
January 21-23, 1998*	San Jose, CA	Seagate	Marc Noblitt
February 18-20, 1998	Colorado	Symbios Logic (?)	Mike Winchell
March 25-27, 1998		Maxtor (?)	Pete McLean
April 15-17, 1998 *	Irvine, CA	Western Digital	Tom Hanan
May 20-22, 1998			
June 17-19, 1998	Irvine, CA	Western Digital	Tom Hanan
July 22-24, 1997 *			

* indicates that Friday will be used for the plenary meeting.

** **This is a change due to X3T11 changing their dates.**

20. Adjournment

The meeting was adjourned upon completion of all agenda items.

Meeting Attendees -- Enclosure (1)

Richard	Kalish	Adaptec, Inc.	P
Lawrence	Lamers	Adaptec, Inc.	A1
Raymond	Liang	CMD Technology	A
Ben	Chang	Cirrus Logic Inc.	P
Hale	Landis	Consultant	P
Paul	Raikunen	Digital	P
Tony	Goodfellow	GSI	P
J. R.	Sims	Hewlett Packard Co.	P
Dan	Colegrove	IBM Corp.	P
Pat	La Varre	Iomega	A
Ron	Stephens	Iomega Corp.	P
George	Blattner	Jmation	G
Pete	McLean	Maxtor Corp.	P
Gregg	Goldman	Meltzer & Lippe	G
Darrin	Bulik	Micro House Int.	P
Evgeny	Berzon	NEC Electronics	G
Christopher	Mayne	O.R. Technology	A
Greg	Elkins	QLogic Corp.	P
Mark	Evans	Quantum Corp.	P
Kenichi	Kojima	Sanyo Electric Co Ltd	P
Yasuyuki	Suemori	Sanyo Co., Ltd.	A
Gene	Milligan	Seagate Technology	P
Marc	Noblitt	Seagate Technology	A
David	Evans	Symbios Logic	A
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	0
Charles	Brill	AMP, Inc.	P	2	1
Richard	Kalish	Adaptec, Inc.	P	5	3
Tony	Kwan	Adaptec, Inc.	G	1	3
Lawrence	Lamers	Adaptec, Inc.	A1	5	3
Ron	Roberts	Apple Computer	A	4	2
Raymond	Liang	CMD Technology	A	3	3
Victor	Siu	CMD Technology	P	1	3
Lang	Dennis	Circuit Assembly Corp.	O	1	0
Ben	Chang	Cirrus Logic Inc.	P	3	3
Hale	Landis	Consultant	P	5	3
Paul	Raikunen	Digital	P	5	3
I. Dal	Allan	ENDL	P	4	2
Kazuo	Nakashima	Fujitsu	G	2	2
Robert	Liu	Fujitsu Computer Products	P	2	2
Tony	Goodfellow	GSI	P	3	3
Richard	Harcourt	GSI	A1	1	3
J. R.	Sims	Hewlett Packard Co.	P	4	3
Anthony	Yang	Hitachi America Ltd.	P	4	2
Norihiko	Oshita	Hitachi Ltd.	G	1	3
Earle	Jennings	Hyundai	G	1	0
Dan	Colegrove	IBM Corp.	P	5	3
Duncan	Penman	IIX Consulting	P	3	1
Pat	La Varre	Iomega	A	2	3
Paul	Jackson	Iomega Corp.	G	1	3
Ron	Stephens	Iomega Corp.	P	3	3
Trent	Thomas	Iomega Corp.	G	1	2
George	Blattner	Jmation	G	1	1
LeRoy	Leach	Maxtor Corp.	A	1	3
Pete	McLean	Maxtor Corp.	P	5	3
Gregg	Goldman	Meltzer & Lippe	G	1	1
Darrin	Bulik	Micro House Int.	P	3	2
Jay	Neer	Molex	G	1	1
Evgeny	Berzon	NEC Electronics	G	1	1
Son	Ho	Neomagic Corp.	G	1	1
Shinichi	Kobayashi	Nissho Electronics Corp.	G	1	1
Lance	Flake	O.R. Technology	M	1	2
Christopher	Mayne	O.R. Technology	A	1	2
Robert	Griffith	Oak Technology	A	2	2
Robin	Freeze	Oak Technology, Inc	A1	2	2
Jauher	Zaidi	Palmchip Corp.	G	1	1
Mike	Christensen	Phoenix Technologies	A	1	3
Curtis	Stevens	Phoenix Technologies	P	4	3
Greg	Elkins	QLogic Corp.	P	4	3
Mark	Evans	Quantum Corp.	P	5	3
Farbod	Falakfars	Quantum Corp.	O	2	3
Eric	Kvamme	Quantum Corp.	G	1	3
James	McGrath	Quantum Corp.	A1	1	3
Steven	Peng	Samsung Semiconductor	O	1	0
Andrew	Shu	Samsung, SISA	G	1	0
Kenichi	Kojima	Sanyo Electric Co Ltd	P	4	3
Yasuyuki	Suemori	Sanyo Co., Ltd.	A	1	3
Yoshihito	Higashitsutsumi	Sanyo Semiconductor	G	1	3
John	Masiewicz	Seagate Technology	A	1	3
Gene	Milligan	Seagate Technology	P	5	3
Marc	Noblitt	Seagate Technology	A	4	3
Ron	Werbow	Seagate Technology	O	1	3
Stephen	Finch	Silicon Systems, Inc.	A	1	2
Yogi	Schaffner	Silicon Systems, Inc.	P	3	2
Patrick	Mercer	SyQuest Technology Corp	A	3	1
David	Evans	Symbios Logic	A	2	3

ORGANIZATIONAL ATTENDANCE AT LAST THREE MEETINGS				-----+	
INDIVIDUAL ATTENDANCE				-----+	
				v	v
Mike	Winchell	Symbios Logic	G	2	3
Tokuyuki	Totani	Toshiba America Info.	P	3	1
Carl	Bonke	Western Digital Corp.	A2	1	3
Tom	Hanan	Western Digital Corp.	P	5	3
Devon	Worrell	Western Digital Corp.	A1	2	3
Masa	Morizumi	Yamaha	P	1	0
Jerry	Saltzman	Zen Research	G	1	0

X3T13 Document Database - Enclosure (3)

Doc#	Description	subdir	Pgs	Date	Mailing	Submittor
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 revision 5	/project	269	6/28/96	DM9603	mclean
D1153-R6	ATA/ATAPI-4 revision 6	/project	249	9/6/96	----	mclean
D1153-R7	ATA/ATAPI-4 revision 7	/project	259	10/3/96	DM9604	mclean
D1226R0	BIOS enhanced disk drive specification	/project	25	10/23/96	DM9604	stevens
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
D2008R7a	ATA-3 revision 7a	/project	180	9/18/96	DM9604	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
D96103R2	Feature status reporting	/technical	3	8/26/96	DM9604	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
D96104R7	ATA overlap proposal	/technical	23	8/19/96	----	mclean
D96104R8	ATA overlap proposal	/technical	28	8/26/96	----	mclean
D96104R9	ATA overlap proposal	/technical	16	10/29/96	DM9604	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
D96114R1	Removal of redundant information	/technical	5	8/26/96	----	mclean

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X3T13/D97109r0

D96114R2	Removal of redundant information	/technical	6	10/3/96	DM9604	mclean
D96115R0	Voting requirements table from SD2	/rules	4	1/24/96	DM9601	hanan
D96116R0	Editor's omission 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
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
D96126R1	Quantum connector proposal	/technical	1	9/19/96	DM9604	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	DM9603	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	DM9603	stevens
D96139R1	EDD	/technical	25	8/21/96	----	stevens
D96140R0	X3T10 liaison 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	/technical	9	7/29/96	DM9603	evans
D96142R4	Reset proposal	/technical	10	8/20/96	----	evans
D96142R5	Reset proposal	/technical	10	9/16/96	----	evans
D96142R6	Reset proposal	/technical	10	9/25/96	DM9604	evans
D96143R0	No document		""			
D96144R0	No document		""			
D96145R0	Minutes of June 19-21 working group	/meetings	8	6/21/96	DM9603	lamers
D96146R1	Minutes of July 31-Aug 1 working group	/meetings	9	8/7/96	DM9603	lamers
D96147R1	Minutes of August 2 plenary	/meetings	13	8/5/96	DM9603	lamers
D96148R0	Minutes of August 21-23 working group	/meetings	8	8/21/96	DM9604	lamers
D96149R0	10-pin unitized connector	/technical	1	8/22/96	DM9604	hanan
D96150R0	6-pin unitized connector		""	8/22/96		hanan
D96151R0	DASP signal usage	/technical	2	10/21/96	DM9604	totani
D96152R0	Minutes of September 25-27 working group	/meetings	7	9/27/96	DM9604	lamers
D96153R1	Ultra DMA/33	/technical	35	10/23/96	DM9604	evans
D96154R0	Minutes of October 23-24 working group	/meetings	7	10/24/96	DM9604	lamers
D96155R0	Minutes of October 25 plenary	/meetings	16	10/25/96	DM9604	lamers

D96156R0	Enhanced security erase unit proposal	/technical	3	10/15/96	DM9604	colegrove
D96157R0	Reset changes from 10/13 meeting	/technical	9	10/28/96	DM9604	mclean
D87101R0	Minutes of November 13-15 working group	/meetings	6	11/18/96	DM9701	lamers
D97102R0	Register access restrictions proposal		3	11/14/96		schaffner
D97103R0	Signal integrity procedure		14	10/31/96		hanan
D97104R0	Proposed changes for ATAPI on Ultra DMA		1	11/14/96		hanan
D97105R0	1394-ATA/ATAPI project proposal		3	1/22/97		mclean
D97106R0	SET MAX ADDRESS addition		1	12/3/96		mclean
D97107R0	1394 to AT Attachment - Tailgate proposal		71	1/7/97		hanmann
DM9601R0	Mailing #1 1996	/mailings	132	2/6/96	----	milligan
DM9602R1	Mailing #2 1996	/mailings	153	5/16/96	----	milligan
DM9603R0	Mailing #3 1996	/mailings	140	8/6/96	----	milligan
DM9604R0	Mailing #4 1996	/mailings	129	11/1/96	----	milligan