

**Doc. No.:** T13/D97130R0  
**Date:** 5/12/97  
**Project:**  
**Ref. Doc.:**  
**Reply to:** Lawrence J. Lamers

To: Membership of T13  
From: Lawrence J. Lamers, Secretary T13  
Gene Milligan, Chair T13  
Subject: Minutes of T13 Plenary #6  
April 25, 1997 : Irvine, CA

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### **Results of Meeting**

#### **1. Opening Remarks**

Gene Milligan, the T13 Chairman, called the meeting to order at 9:00 p.m., Friday April 25, 1997. He thanked Tom Hanan of Western Digital for hosting the meeting.

Gene outlined the procedures for conducting meetings, voting rules, and membership application. He noted that the 1997 membership fee is \$300 and the CD-ROM mailing fee is \$300 (with extra copies at discount). Because of the costs to have paper copies generated, a paper mailing is \$900. These fees are for the US and Canada addresses. Other addresses are \$400 for the CD-ROM and \$1100 for paper.

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 T13 were made available to those attending.

#### **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.

#### **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 T13. 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.

The following organizations are in jeopardy for failing to return letter ballots: None.

The following organizations were in jeopardy for failing to attend meetings:

AMP

IIX

SyQuest  
Toshiba.  
Yamaha

All organizations were in attendance except for:  
IIX  
Yamaha.

The following organizations are eligible for voting membership at this meeting: None:

With these changes the T13 membership is down from 29 to 27 organizations. Enclosure (1) is the list of the people present at the meeting and enclosure (2) is the current T13 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.

Pete McLean requested that all documents for the next mailing be in his hands by 10:30 a.m. on Friday, May 9, 1997. Documents received too late will go into a subsequent mailing.

The current document register is enclosure (3).

#### **5. Approval of prior plenary minutes**

Documents D96155r0, and D97109r0 were approved.

#### **6. Review of Old Action Items**

- 55) Gene Milligan to send letter to Quantum regarding patent. Completed..
- 56) Pete McLean to prepare ATA-3 rev 7b. Completed.
- 57) Tom Hanan to modify the T13 web site to reflect the name change. Carried over.
- 58) Tom Hanan to provide the url in numbers to avoid DNS server congestion. Completed.

#### **7. Working Group Reports**

The results of the ATA/ATAPI-4 ad hoc meetings since the last plenary are documented in the minutes for each of those meetings. The chair gave a brief summary of the ad hoc meetings held since the last plenary.

The recommendations of the ad hocs since the last plenary were accepted without objection.

Pete McLean reported on the Tailgate working group. There have been 3 meetings since the last plenary. The last three technical issues have been resolved. The group recommended that the IEEE world wide ID document be accepted. The plan is to start an editorial review. The current revision is rev 3.

An editorial review of Tailgate is planned for 6/17/97. Future working group meetings if needed will occur in the T13 week.

#### **8. ATAPI - Project 1120D**

The Chair reported that the withdrawal has been approved.

**9. ATA-3 - Project 2008D**

The chair reported that the public review closes May 27, 1997. In the absence of comments the draft will be forwarded for further processing.

**10. ATA/ATAPI-4 - Project 1153D**

**10.1 Working Group Recommendations**

The working group recommendations were approved unanimously. See Item 7.

**10.2 Approval of working draft**

ATA/ATAPI-4 rev 11 was accepted as the working draft without objection.

**10.3 Schedule**

The revised schedule calls for the draft to be balloted following the July '97 plenary.

Final edit - July

Letter Ballot - August

Resolve comments - October.

**11. Enhanced BIOS Disk Drive Technical Report Project D1228**

**11.1 Approval of working draft**

Curtis Stevens was not able to attend nor was a revision provided.

**11.2 Schedule**

Indeterminate.

**12. Old Business**

**12.1 T13 Reflector, ftp, and Web Site Setup [Hanan]**

Committee information can be accessed via the ftp site [x3t13.dt.wdc.com/x3t13](ftp://x3t13.dt.wdc.com/x3t13)

The web site access via [www.x3t13.org](http://www.x3t13.org) is not activated yet.

The reflector is [x3t13@dt.wdc.com](mailto:x3t13@dt.wdc.com). Subscriptions to the reflector should be sent to [majordomo@dt.wdc.com](mailto:majordomo@dt.wdc.com), with "subscribe x3t13" in the body.

The performance has been improved due to new hardware. The reflector malfunctioned but has been corrected.

The name change will be dealt with following the next OMC. Until then the reflector and ftp remain X3T13.

**12.2 Items from the Open Issues List [] ()**

4) Synchronization of Status and Alternate Status Registers with Busy.

5) Should the 'or' in Figure 13 be eliminated.

6) Should the requirement to release when the Bus Device Release Interrupt is enabled be removed in Figure 17?.

### **12.3 Project Proposal for Tailgate Ballot Resolution [] ()**

The Chair reported that there was one no vote. A proposed resolution was presented.

“Thank you for the review of the project proposal. Your negative ballot suggested that T13 was not the correct venue for the project. T13 believes they do have the appropriate participants. In addition a press release will be issued inviting additional participation. The final assignment of the project will be made by OMC. Please advise us within 15 days if your negative ballot remains unresolved.”

Ron Roberts moved and Ben Chang seconded that the response be approved. The motion carried 21:0:1:5.

## **13. New Business**

### **13.1 [New SD3] (D97130r0)**

The chair noted that a revised SD3, Project Proposal Guides has been proposed by NCITS. The chair read the response sent to NCITS from John Lohmeyer, and his personal response.

Dan Colegrove moved and Tony Goodfellow seconded that the following manifesto be approved as the T13 position regarding the proposed SD3. The motion carried: 21:0:0:6.

The SD-3 Goals should be:

- Develop standards judged by the industry to be needed. For T13 ‘needed’ generally relates to promoting interoperability
- Make standards including drafts readily available to prospective implementors and users.
- Towards these goals T13 recommends that ANSI and NCITS adjust participation fees and other sources of revenue to make standards freely available
- Adjust project authorization to be predicated upon industry request and lack of discriminatory or excessive license requirements as opposed to industry financial analysis.

Organizations with membership on X3 were requested to inform their representatives of the issue.

The X3 mailings will be copied to the T13 ftp site to provide some additional heads up on activities that may affect us.

## **14. Liaison Reports**

### **14.1 T10**

T10 Report - April 4, 1997

T10 met in San Diego, CA Thursday March 13, 1997 with 56 people present. Membership is now at 52 voting organizations.

T10 forwarded the following documents to NCITS:

- SSA-PH2 to first public review
- SSA-TL2 to first public review
- SSA-S3P to first public review
- Recommendation to withdraw ANSI X3.268-1997 (SBP)
- SPC Rev 11a to NCITS letter ballot
- Project Proposal for a SCSI Socket/Secure Socket Layer standard

Since the last report, the following actions have occurred at NCITS and ANSI:

BSR approved SCC (X3.276-1997)  
 BSR approved SIP (X3.292-1997)  
 NCITS has approved the SCSI Transport via SBP-2 (STS) project  
 NCITS has withdrawn the Boot Considerations for Devices Greater than 8 GB project

A T10 letter ballot on forwarding the SCSI-3 Stream Commands (SSC) draft standard to NCITS for first public review closes April 29th.

The next plenary meeting of T10 will be May 8, 1997, in Natick, MA at the Crowne Plaza Hotel (508-653-8800), hosted by Digital Equipment Corp. 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(s)	Location/contact
SPI-2 Working Group	4/18/97	San Jose, CA / Norm Harris
SBP-2 Working Group	4/10-11/97	San Jose, CA / Curtis Stevens

**14.2 IEEE 1394**

Pete McLean reported that work on a Disk Profile defining a subset of SBP-2, MMC-2, and 1394 for storage devices is occurring as part of DiskBoys. He stated that he has no information on other 1394 activities.

**14.3 SFF**

No report.

**15. 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 T13 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.

The chair noted that he had received a letter from the legal counsel for Oak Technology regarding patents and patent applications. See D97131r0.

**16. Open Issues List Summary**

The following item was added to the list at the ad hoc meeting: None.

**17. Review of Action Items**

- 59) Gene Milligan to send the response to the no vote on the Tailgate project proposal to NCITS.
- 60) Gene Milligan to send the Tailgate project proposal to NCITS.
- 61) Gene Milligan to transmit the T13 manifesto to NCITS.

## 18. Meeting Schedule

The next plenary meeting of T13 will be July 25, 1997 at the Seagate Facility, in San Jose, CA hosted by Seagate.

The subsequent plenary meeting of T13 will be October 24, 1997 at the Aston Wailea Hotel in Wailea, Maui, HI, hosted by Quantum.

Several of the attendees indicated that it had been very helpful to have the meeting in a location more convenient for travel from Japan. They requested that a meeting be held in Hawaii again next year.

These plenary meetings occur on Friday with a starting time of 9:00am.

### 18.1 Authorization of Working Group Meetings

The plenary authorized the following ad hoc meetings:

Date	Location	Host	Contact
May 21-23, 1997	Estes Park, CO	Seagate	Marc Noblitt
June 18-20, 1997	Irvine, CA	Western Digital	Tom Hanan
July 23-24, 1997	San Jose, CA	Seagate	Marc Noblitt

Pete McLean requested the following ad-hocs for Tailgate:

Date	Location	Host	Contact
May 5-6, 1997	Natick, MA	DEC	Charles Monia
June 17, 1997	Irvine, CA	Western Digital	Tom Hanan
July 21-22, 1997	San Jose, CA	Seagate	Marc Noblitt

The scheduled working group meetings were approved unanimously.

### 18.2 Long term meeting schedule

Date	Location	Host	Contact
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*	Wailea, Maui, HI	Quantum	Mark Evans
December 3-5, 1997	Irvine, CA	Western Digital	Tom Hanan
January 21-23, 1998+			Marc Noblitt
February 17-20, 1998*	Ft. Collins	Symbios Logic	Dave Evans
March 25-27, 1998+			Marc Noblitt
April 14-17, 1998 *	Irvine, CA	Western Digital	Tom Hanan
May 20-22, 1998+			Marc Noblitt
June 16-19, 1998*	Boulder, CO	Maxtor	Pete McLean
July 22-24, 1998 +			Marc Noblitt
August 18-21, 1998*	Boston/Boulder	Maxtor/DEC	McLean/Raikunen
September 23-25, 1998+			Marc Noblitt
October 20-23, 1998*	Wailea, Maui, HI	Quantum	Mark Evans

December 1-4, 1998*	Irvine, CA	Western Digital	Tom Hanan
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\* indicates that Friday will be used for the plenary meeting.  
+ indicates this meeting is tentative and may be canceled.

**19. Adjournment**

The meeting was adjourned upon completion of all agenda items.

## Meeting Attendees -- Enclosure (1)

Charles	Brill	AMP, Inc.	P
Lawrence	Lamers	Adaptec, Inc.	A1
Bill	Mable	Amphenol Interconnect	G
Ron	Roberts	Apple Computer	A
Irv	Tjomsland	Award	O
Ben	Chang	Cirrus Logic Inc.	P
Hale	Landis	Consultant	P
Paul	Raikunen	Digital	P
Don	Vohar	Fujitsu Computer Products	A
Tony	Goodfellow	GSI	P
Anthony	Yang	Hitachi America Ltd.	P
Dan	Colegrove	IBM Corp.	P
Terry	Miller	Iomega Corp.	G
Pete	McLean	Maxtor Corp.	P
Son	Ho	Neomagic Corp.	G
Christopher	Mayne	O.R. Technology	A
Mike	Christensen	Phoenix Technologies	A
Greg	Elkins	QLogic Corp.	P
Mark	Evans	Quantum Corp.	P
John	Mangan	SanDisk	G
Yasuyuki	Suemori	Sanyo Electric Co., Ltd.	A
Gene	Milligan	Seagate Technology	P
Marc	Noblitt	Seagate Technology	A
Yogi	Schaffner	Silicon Systems, Inc.	P
Jeff	Cousins	SyQuest Technology	G
John	Mallory	Symbios Logic	G
Tokuyuki	Totani	Toshiba America Info.	P
Tom	Hanan	Western Digital Corp.	P

## T13 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	3	2
Richard	Kalish	Adaptec, Inc.	P	5	3
Tony	Kwan	Adaptec, Inc.	G	1	3
Lawrence	Lamers	Adaptec, Inc.	A1	6	3
Bill	Mable	Amphenol Interconnect	G	1	1
Ron	Roberts	Apple Computer	A	5	3
Irv	Tjomsland	Award	O	1	1
Raymond	Liang	CMD Technology	A	3	2
Victor	Siu	CMD Technology	P	1	2
Lang	Dennis	Circuit Assembly Corp.	O	1	0
Ben	Chang	Cirrus Logic Inc.	P	4	3
Hale	Landis	Consultant	P	6	3
Paul	Raikunen	Digital	P	6	3
I. Dal	Allan	ENDL	P	4	1
Kazuo	Nakashima	Fujitsu	G	2	3
Robert	Liu	Fujitsu Computer Products	P	2	3
Don	Vohar	Fujitsu Computer Products	A	1	3
Tony	Goodfellow	GSI	P	4	3
Richard	Harcourt	GSI	A1	1	3
J. R.	Sims	Hewlett Packard Co.	P	4	2
Anthony	Yang	Hitachi America Ltd.	P	5	3
Norihiko	Oshita	Hitachi Ltd.	G	1	3
Earle	Jennings	Hyundai	G	1	0
Dan	Colegrove	IBM Corp.	P	6	3
Duncan	Penman	IIX Consulting	O	3	0
Pat	La Varre	Iomega	A	2	3
Paul	Jackson	Iomega Corp.	G	1	3
Terry	Miller	Iomega Corp.	G	1	3
Ron	Stephens	Iomega Corp.	P	3	3
Trent	Thomas	Iomega Corp.	G	1	3
George	Blattner	Jmation	G	1	0
LeRoy	Leach	Maxtor Corp.	A	1	3
Pete	McLean	Maxtor Corp.	P	6	3
Gregg	Goldman	Meltzer & Lippe	G	1	0
Darrin	Bulik	Micro House Int.	P	3	1
Jay	Neer	Molex	G	1	0
Evgeny	Berzon	NEC Electronics	G	1	0
Son	Ho	Neomagic Corp.	G	2	2
Shinichi	Kobayashi	Nissho Electronics Corp.	G	1	0
Lance	Flake	O.R. Technology	P	1	3
Christopher	Mayne	O.R. Technology	A	2	3
Joe	Chen	Oak Technology	A2	2	1
Robert	Griffith	Oak Technology	A	2	1
Robin	Freeze	Oak Technology, Inc	G	2	1
Jauher	Zaidi	Palmchip Corp.	G	1	0
Mike	Christensen	Phoenix Technologies	A	2	3
Curtis	Stevens	Phoenix Technologies	P	4	3
Greg	Elkins	QLogic Corp.	P	5	3
Mark	Evans	Quantum Corp.	P	6	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
John	Mangan	SanDisk	G	1	1
Kenichi	Kojima	Sanyo Electric Co Ltd	P	4	3
Yasuyuki	Suemori	Sanyo Electric Co., Ltd.	A	2	3
Yoshihito	Higashitsutsumi	Sanyo Semiconductor	G	1	3
John	Masiewicz	Seagate Technology	A	1	3
Gene	Milligan	Seagate Technology	P	6	3

Marc	Noblitt	Seagate Technology	A	5	3
Ron	Werbow	Seagate Technology	O	1	3
Stephen	Finch	Silicon Systems, Inc.	A	1	3
Yogi	Schaffner	Silicon Systems, Inc.	P	4	3
Jeff	Cousins	SyQuest Technology	G	1	2
Patrick	Mercer	SyQuest Technology Corp	A	3	2
David	Evans	Symbios Logic	A	2	3
John	Mallory	Symbios Logic	G	1	3
Mike	Winchell	Symbios Logic	G	2	3
Tokuyuki	Totani	Toshiba America Info.	P	4	2
Carl	Bonke	Western Digital Corp.	A2	1	3
Tom	Hanan	Western Digital Corp.	P	6	3
Devon	Worrell	Western Digital Corp.	A1	2	3
Masa	Morizumi	Yamaha	O	1	0
Jerry	Saltzman	Zen Research	G	1	0

T13 Document Database - Enclosure (3)

Doc#	Description	subdir	Pgs	Date	Mailing	Submitter
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