

**NCITS Technical Committee  
1996 Annual Report  
For Technical Committee T13**

**I. Executive Summary**

T13 had their inaugural meeting in January 1996. The scope of T13 is addressed at the peripheral interface which has been closely aligned with the default PC bus interface and referred to as the AT attachment. Several of the T13 projects were transferred from ongoing activity in X3T10 within this scope. T13's projects represent, by far, the highest volume peripheral interfaces on a unit basis. Because of this the activity of T13 is "surrounded" by consortia with vital interests in this area.

Since this family of very high volume interfaces (multimillions) is specified to be an "internal to the cabinet" and due to lack of "five member body contribution" to such interfaces, T13 elected during their inaugural meeting to not participate in the international standards process.

At the moment T13 is responsible for two published standards, one draft standard in public review, two draft standards in development, and one technical report in development.

T13 began 1996 with 27 principal members. At the close of the year there were 29 principal members.

Tracking of projects forwarded to NCITS is too time consuming and would benefit from the availability of a current, on-line database available at least to NCITS and NCITS subgroup officers.

## II. Projects

### \* Project See T10 records M

- a) Project Title - AT Attachment
- b) Target date for Initial public review: See T10 records.
- c) Project Description - See T10 records.
- d) Publications During Past Year - None.
- e) Statement of Progress and current status - Published standard X3.221:1994 in maintenance phase.

### \* Project 791 M

- a) Project Title - AT Attachment Extensions (ATA-2)
- b) Target date for Initial public review: See T10 records.
- c) Project Description - See T10 records.
- d) Publications During Past Year - None.
- e) Statement of Progress and current status - Published standard X3.279:1996 in maintenance phase.

### \* Project 1120 W

- a) Project Title - ATA Packet Interface (ATAPI)
- b) Target date for Initial public review: See T10 records but no longer applicable.
- c) Project Description - to develop the physical protocol layer to transport MMC commands over the ATA interface.
- d) Publications During Past Year - Not applicable.
- e) Statement of Progress and current status - The long range plan was to replace this standard with the follow-on ATA/ATAPI standard but due to difficulty in obtaining sufficient editorial resources this project fell behind the follow-on project. Consequently T13 elected to withdraw this project.

**\* Project 1153 D**

a) Project Title -AT Attachment with Packet Interface Extension (ATA/ATAPI-4)

b) Target date for Initial public review:

Original target date: 6/97

Previous target date: 6/97

Current target date: 9/97

c) Project Description - to develop an enhanced version of ATA which includes new enhancements that are important to the industry and to add the protocols appropriate to add the packet interface extension which allows MMC commands to be ported.

d) Publications During Past Year - Frequent ATA/ATAPI-4 drafts and numerous periodical articles.

e) Statement of Progress and current status - Completion has been slightly hindered by ATAPI participants to support the formal standards process as well as the consortia process but significant revisions have progressed on a monthly basis.

**\* Project 2008 D**

a) Project Title - AT Attachment Extensions (ATA-3)

b) Target date for Initial public review: See T10 records.

c) Project Description - See T10 records.

d) Publications During Past Year - X3.298:199X

e) Statement of Progress and current status - Draft standard X3.298:199x in public review closing 5/27.

**\* Project 1226 DT**

a) Project Title - Enhanced BIOS Disk Drive Technical Report

b) Target date for Initial public review:

Original target date: 8/97

Previous target date: 8/97

Current target date: 8/97

c) Project Description - To document the definitions for BIOS implementations which will facilitate the utilization of modern ATA disk drives.

d) Publications During Past Year - Initial drafts of the 1226 Technical Report.

e) Statement of Progress and current status - The technical content of the 1226 Technical Report is complete but the technical editor has been distracted by the demands of the consortia activity.

**\* Project TBD D**

a) Project Title- 1394 to AT Attachment - Tailgate

b) Target date for Initial public review:

Original target date: 8/97

Previous target date: 8/97

Current target date: 8/97

c) Project Description - To define the interconnect management, command, status, reset, and security protocols for attaching ATA/ATAPI devices to the IEEE 1394 bus using the SBP-2 transport protocol.

d) Publications During Past Year - Initial drafts awaiting NCITS approval of the project.

e) Statement of Progress and current status - Initial drafts awaiting NCITS approval of the project.

**III. Activities**

**a) 1996 T13 Meetings:**

January - Milpitas, California T13 Plenary 23-25 January 1996  
February - Milpitas, California T13 ad hoc 21-23 February 1996  
March - Boulder, Colorado T13 ad hoc 27-29 March, 1996  
April - Milpitas, California T13 ad hoc 24-25 April, 1996  
April - Milpitas, California T13 Plenary 26 April, 1996  
May - San Jose, California T13 ad hoc 22-24 May, 1996  
June - Irvine, California T13 ad hoc 19-21 June, 1996  
July - San Jose, California T13 ad hoc 31 July - 1 August, 1996  
August - San Jose, California T13 Plenary 2 August, 1996  
September - Irvine, California T13 ad hoc 25-27 September, 1996  
October - Wakakai, Hawaii T13 ad hoc 23-24 October, 1996  
October - Wakakai, Hawaii T13 Plenary 25 October, 1996  
November - Irvine, California T13 ad hoc 13-15 November, 1996

**b) 1997 T13 Planned Meetings:**

January - San Jose, California T13 ad hoc 22-23 January, 1997  
January - San Jose, California T13 Plenary 24 January, 1997  
February - Fort Collins, Colorado T13 ad hoc 18-21 February, 1997  
March - San Jose, California T13 ad hoc 18-21 March, 1997  
April - Irvine, California T13 ad hoc 23-24 April, 1997  
April - Irvine, California T13 Plenary 25 April, 1997  
May - Estes Park, Colorado T13 ad hoc 21-23 May, 1997  
June - Irvine, California T13 ad hoc 18-20 June, 1997

July - San Jose, California T13 ad hoc 23-24 July, 1997  
 July - San Jose, California T13 Plenary 25 July, 1997  
 August - Longmont, Colorado T13 ad hoc 20-22 August, 1997  
 September - Irvine, California T13 ad hoc 24-26 September, 1997  
 October - Maui, Hawaii T13 ad hoc 22-23 October, 1997  
 October - Maui, Hawaii T13 Plenary 24 October, 1997  
 December - Irvine, California T13 ad hoc 3-5 December, 1997

**c) Officers**

Chairman                      Gene E. Milligan  
    Seagate Technology Inc.  
    P.O. Box 12313  
    Oklahoma City, OK 73157

Vice Chairman              Peter T. McLean  
    Maxtor Corporation  
    2190 Miller Drive  
    Longmont, CO 80501-6744

Secretary                      Lawrence Lamers  
    Adaptec Inc.  
    691 South Milpitas Blvd  
    Milpitas, CA 95035

International Representative Not applicable.

**d) Principal Membership:**

Charles	Brill	AMP, Inc.
Richard	Kalish	Adaptec, Inc.
Dave	Holzer	Apple Computer
Victor	Siu	CMD Technology
Ben	Chang	Cirrus Logic Inc.
Hale	Landis	Consultant
Paul	Raikunen	Digital
I. Dal	Allan	ENDL
Robert	Liu	Fujitsu Computer Products
Tony	Goodfellow	GSI
J. R.	Sims	Hewlett Packard Co.
Anthony	Yang	Hitachi America Ltd.
Dan	Colegrove	IBM Corp.
Duncan	Penman	IIX Consulting
Ron	Stephens	Iomega Corp.
Pete	McLean	Maxtor Corp.
Darrin	Bulik	Micro House Int.
Lance	Flake	O.R. Technology
Dan	Salmonsens	Oak Technology
Curtis	Stevens	Phoenix Technologies
Greg	Elkins	QLogic Corp.
Mark	Evans	Quantum Corp.
Kenichi	Kojima	Sanyo Electric Co Ltd
Gene	Milligan	Seagate Technology
Yogi	Schaffner	Silicon Systems, Inc.
Alan	Longo	SyQuest Technology Corp
Tokuyuki	Totani	Toshiba America Info.
Tom	Hanan	Western Digital Corp.

**e) Liaison Activities:** IEEE 1394 and T10.

**f) Administrative Matters of Note:** The mailing program by the NCITS Secretariat and the provision of dpANS and ANS by Global Engineering Documents continues to work very well. However the maintenance of a mail list and a separate committee roster remains error prone due to the separate transactions required. The committee membership has been cautioned that it is their own personal responsibility for updating separately their entries in the two lists. New subscribers continue to be added to the committee list within the NCITS Secretariat thinking they have been granted membership by the NCITS Secretariat. (This is a minor problem compared to the benefits of the mailing program.)

Tracking of projects forwarded to NCITS is too time consuming and would benefit from the availability of a current, on-line database available at least to NCITS and NCITS subgroup officers.

**g) Procedural Matters of Note:** Recent changes in NCITS procedures appear to be beneficial for the operation of T13. Additional steps to adopt formal procedures to allow ballots via Internet would be a further help.

The complexity of the technical standards projects crosses many disciplines. The NCITS procedure disallowing abstentions on technical issues provides excessive bias towards Yes votes since someone wishing to abstain due to lack of technical expertise on the issue can not abstain but can cast a Yes vote without explanation. Without the expertise on these issues they are reluctant to cast a No vote since a No vote must be accompanied by an explanation. This prejudices due process. The procedure change which allows abstentions on votes that do not require the two-thirds rule was a small step that does not appear to have any tangible benefit.

**h) Recommendations:** Add an Internet/Email letter ballot procedure including potential jeopardy for not responding to accelerated letter ballots or alternatively allow ballots not returned to have no impact upon the ballot outcome and address the SD-2 inconsistency noted in (g). Allow, at least, T10, T11, T12, and T13 to agree upon and implement a procedure which allows abstentions due to a lack of expertise on the question at issue while maintaining appropriate responsibility for membership.

Add and maintain a current, on-line project status database available at least to NCITS and NCITS subgroup officers.

#### **IV. Anticipated Projects:**

With the highest volume peripheral interfaces within the scope of T13 followon projects are anticipated to be a regular event.

#### **V. Future Trends in ATA Standardization:**

1998 should be a pivotal year in determining the tradeoffs between parallel oriented interfaces versus serial oriented interfaces. This may also be a pivotal year in determining the tradeoff between semiprivate consortia definitions of interface specifications versus open standards developments.

## Attachment 1

## SD-4 Report Input

NCITS Project			ISO/IEC JTC1				
#	Type	Title	BSR #	Est. Complete	Proj. #	SC25 WG4 Doc. #	Tech. Equiv.
See T10M AT Attachment			X3.221:1994				
791	M	ATA-2	X3.279:1996				
2008	D	ATA-3	X3.298:199X	12/97			
1120	W	ATAPI	Not Aplicable	N/A			
1153	D	ATA/ATAPI-4	TBD	9/98			
1226	DT	Enhanced BIOS	TBD	9/98			
TBD		Tailgate	TBD	9/98			

**Attachment 2**

**T13 Internal Procedures**

T13 uses the procedures defined by the NCITS SD-2. Several detailed procedures which T13 believes to be compliant with the SD-2 were submitted in mid 1996 for review by NCITS but the status of these submittals is unknown.