### **Accredited Standards Committee**

## X3, Information Processing Systems

Doc. No. X3T10/95-195r0
 Date: April 3, 1995
 Project: X3T10-1048D
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 Reply to: R. Roberts

To: Membership of X3T10

From: R.K. Roberts

Subject: Minutes of X3T10 MMC Working Group - March 29 & 30, 1995

#### Agenda

- 1.0 Openning Remarks
- 2.0 Introductions
- 3.0 Document Distribution
- 4.0 Call for Patents
- 5.0 Approval of Agenda
- 6.0 Meeting Agenda
  - 6.1 KODAK presentation on CD-R methods (action item from 3/8) 1hr
  - 6.2 Philips presentation (action item from 3/8) 1hr
  - 6.3 Architecture and command flow decisions 4hrs
  - 6.4 Methods of incorporating items into Document 2 hr
- 7.0 New Business
- 8.0 Review of Action Items
- 9.0 Future Meeting Schedule
- 10.0 Adjournment

## 1. Openning Remarks

Ron Roberts convened the meeting at 9:30AM. He thanked Kevin Ross sitting in for Bill McFerrin, sitting in for Sunil Nethisinghe of Philips Semiconduct for hosting the meeting and Liz Franklin for over-seeing and providing direction for us.

It was stated that the meeting had been authorized by X3T10 and would be conducted under the X3 rules. Ad hoc meetings take no final actions, but prepare recommendations for approval by the X3T10 task group. The voting rules for the meeting are those of the parent committee, X3T10. For the ad hoc, other than straw votes, the voing rules are: one vote per participating company.

Operating under the procedures of The American National Standards Institute.

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The minutes of this meeting will be posted to the SCSI Reflector, the MMC Reflector, the ATAPI Reflector, and will be included in the next X3T10 committee mailing.

As is customary, the people attending introduced themselves. A copy of the attendance list was circulated for attendance and corrections.

## 2. Attendance and Membership, Introductions

Attendance at working group meetings does not count toward minimum attendance requirements for X3T10 membership. Working group meetings are open to any person or company to attend and to express their opinion on the subjects being discussed.

See attendance list at end of this document.

- 6.1 Robert Reisch was not present to complete his action item from 3/8 but he sent an able replacement in Rick Bohn who presented an architectural flow as requested.
- 6.2 Ian Endering of Philips presented their architectural flow as requested in the 3/8 meeting. After he completed his presentation the group combined the Philips, Yamaha, RICOH, SONY, Eastman Kodak flows and developed the following Architecture flowsd and definitions.

### 6.3 Architecture and command flow decisions

As would be expected the majority of both days was spent on this agenda item.

#### **DEFINITIONS**

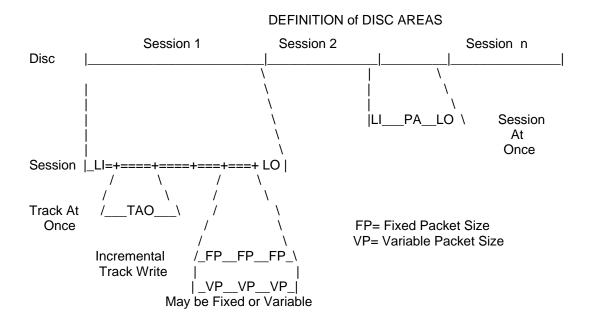
Definitions that were clarified during the meetings, and will be incorporated within the MMC document, are listed here:

SESSION - A contiguous area of a Disc that contains a Lead In (LIN), a Program Area (PA), and a Lead Out (LOUT). A session may or may not be appendable.

APPENDABLE DISC - A disc in which the last session has a pointer to the next possible session.

WRITABLE DISC - A disc that is blank or is appendable or contains an incomplete session.

INCOMPLETE SESSION - A session with partially recorded Program Area (PA) but without LIN and LOUT written



### PMA and TDB Content:

PMA Start point Stop point

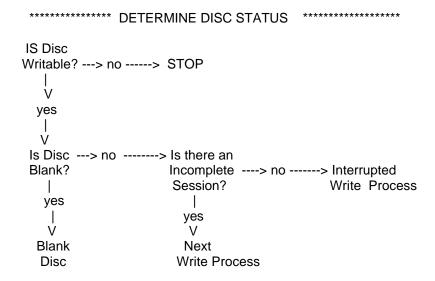
TAO or Packet

Copy, Permit or Inhibit

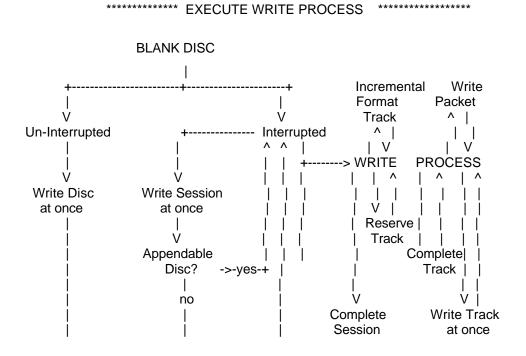
TDB Fixed or Variable Length

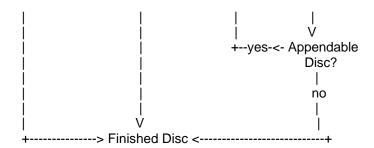
Fix Packet Size

A architectural flow for determining the status of a disc was defined during the meeting is listed below:



An architectural flow of the write process for a CD-R was defined during the meetings and is listed below. It was determined that this flow will be used as the master flow for determining the command structure to implement this flow.





The following information was identified as being required to perform the specified architectural flow of the write process operation. The Disc/Host designation identifies where the information originates from.

## **UN-INTERRUPTABLE**

1.	What is the capacity?		Disc
2.	User data?	Content?	Host
		Size?	Host
		Mode?	Host
3.	What is subcod	de information?	Host
4.	What is synchronization information (in TOC)		Host
5.	What is Layout of Disc?		Host
6.	What is UPC &	ISRC?	Host
7.	What is Index I	Number?	Host

# INTERRUPTABLE - SESSION AT ONCE

1.	What is the capacity?		Disc
2.	User data?	Content?	Host
		Size?	Host
		Mode?	Host
3.	What is subcode information?		Host
4.	What is synchronization information (in TOC)		Host
5.	What is UPC & ISRC?		Host
6.	What is Index Number?		Host
7.	Will Disc be appendable?		Host
8.	What is First writable address?		Disc
9.	What is the layout of the Session?		Host

## INTERRUPTABLE - FORMAT TRACK

What is status of track? Disc
 Blank area or Empty Reserve?

What is capacity of area?	Disc
What is packet type? Fix? Variable?	Host
What is packet size?	Host
What is Data mode?	Host
What is track number?	Host
What is disc type?	Host/Disc
	What is packet type? Fix? Variable? What is packet size? What is Data mode? What is track number?

# INTERRUPTABLE - WRITE PACKET

1.	What is status of track?		Disc
	Blank	area or Empty Reserve?	
2.	What is capa	What is capacity of area?	
3.	What is packe	What is packet size?	
4.	What is track number?		Host
5.	What is First writable address?		Disc
6.	What is maximum packet size?		Disc
7.	User data?	Content?	Host
		Form?	Host
		Mode?	Disc

## INTERRUPTABLE - TRACK AT ONCE

1.	What is status of track?		Disc
	Blank	area or Empty Reserve?	
2.	What is capacity of area?		Disc
3.	What is track number?		Host
4.	What is First writable address?		Disc
5.	User data?	Content?	Host
		Form?	Host
		Mode?	Host

## INTERRUPTABLE - RESERVE TRACK

1.	What is status of track?	Disc
2.	What is capacity of area?	Disc
3.	What is track number?	Host
4.	What is track length?	Host
5.	Will it be a Track At Once or Packet Write?	Disc
6.	What is Packet Type? Fix? Variable?	Disc

7. What is packet size? Disc

## INTERRUPTABLE - COMPLETE SESSION

What is status of track? Disc
 What is track number? Host

### INTERRUPTABLE - COMPLETE SESSION

1.	What is status of Disc?	Disc
2.	What is capacity of area?	Disc
3.	What is disc type?	Host/Disc
4.	What is status of all tracks in Session	Disc
5.	Leave Disc Appendable?	Host

6.5 Methods of incorporating CD-R items into MMC Document

It was proposed and agreed to incorporate a CD-R Section of the MMC document. The section will be numbered 5.0 with the following sub-clauses

Clause 5.0 CD-RECORDABLE (CD-R)

- 5.1 Special Definitions
- 5.2 Architectural Model
- 5.3 Command Definitions (Unique Cmds)
- 7.0 Bill Bixby of LMS presented the PLAY AUDIO information from Bill McFerrin of LMS. The group decided to delete the Commands PLAY CD-ROM XA (Bdh) and PLAY CD-ROM XA ADPCM DATA (Bch) from the command set. The action item is for editor to remove these commands.
- 8.0 Review of Action Items:
  - 1. Peter Brown to report back on Play Audio command decisions from ATAPI SFF meetings.
  - Ron Roberts to incorporate architectural flows in the MMC document for next meetings in Harrisburg PA
  - 3. All working group review commands to identify those that need to be modified.
- 9.0 Future Meeting Schedule

It was decided that there will be no meetings in April and that we should try to review the commands and additions to the MMC document via the MMC reflector.

Next face to face will be held during X3T10 week in Harrisburg PA. This meeting will be a 5 hour time slot on Tuesday May 9, 1995 from 1PM to 6PM.

10.0 Adjournment ---- meeting adjourned at 3:30 PM on 3/30/95

List of Attendees Please check the spelling of your name and E-mail addresses and send any corrections to editor.

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