

November 5, 1996

To: Membership of X3T10

From: R. Reisch/R. Roberts

Subject: Minutes of X3T10 MMC Working Group - November 5 and 6, 1996

Document Number: 96273R0

File Name: 96273R0.DOC

Agenda:

- 1.0 Opening Remarks
- 2.0 Introductions
- 3.0 Document Distribution
- 4.0 Call for Patents
- 5.0 Approval of Agenda
- 6.0 Meeting Agenda
 - 6.1 Review changes to Rev 8.0B (All) (half day)
- 7.0 New Business
 - 7.1 MMC-2 Proposals
 - 7.2 Review of Mt Fuji document for inclusion into MMC-2
- 8.0 Review of Action Items
- 9.0 Future Meeting Schedule
- 10.0 Adjournment

Minutes:

1.0 Opening Remarks

Ron Roberts called the meeting to order at 9:00 AM on Tuesday 11/05/96. He thanked Adaptec for hosting the meetings. Ron asked Mr. Rob Reisch of Kodak to act as recording secretary for the meetings.

2.0 Introductions

Introductions of attendees were made and a sign-up sheet was distributed. The following attendees were present for the two days of meetings:

Ron Roberts	Apple Computer	rkroberts@alo.com
Robert Reisch	Eastman Kodak	reisch@kodak.com
Rob Sims	Hewlett Packard	robsims@depeche.lvld.hp.com
Devon Worrell	Western Digital	worrell@dt.wdc.com
Masa Morizumi	Yamaha	mmorizumi@yamaha.com
Bill McFerrin	Philips	BMcFerrin@aol.com
Mike Yokoyama	Sony	yokoyama@dss.sel.sony.com
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John Hoy	Toshiba	john.hoy@taec.com
Kent Manabe	American Kotobuki	manabe@ix.netcom.com
Son Ho	Neomagic Corp.	sho@neomagic.com
Ken Wolfgang	Cirrus Logic	kenw@colorado.cirrus.com
Dan Colegrove	IBM	colegrove@vnet.ibm.com
Mark Evans	Quantum	mevans@qntm.com

3.0 Document Distribution

Ron Roberts distributed a PDF version of MMC Rev. 8.0B.

4.0 Call for Patents

The normal request for patent disclosures was made. No patents were identified.

5.0 Approval of Agenda

No modifications were made.

6.0 Meeting Agenda

6.1 A detailed review of Kodak's comments was conducted. After a lengthy discussion the following occurred:

- All editorial changes were accepted.
- Set CD Speed Command will be changed to a 12 byte command with a BBh as the op code.
- 4 vendor unique bytes were added to the Write parameters mode page.
- A definition for negative addressing was accepted.(See 6.1.1)

6.1.1 Rick Bohn's proposal was not accepted. However, Rob Sims accepted the responsibility to define a signed address value for the 10 and 12 byte write commands. After extensive review the next day the signed address translation was bounded appropriately and accepted. 9 for, 0 against, and no abstention. Rob handed out the formula and a spread sheet that cacluates the address.

6.2 - Review Rob Sims (H.P.'s) modifications for Complete Track Size. Modifications were accepted.

6.3- Bill McFerrin will write up appropriate changes to the MMC specification to support RID sub channel information that has been defined in Orange Book Part III version 1.0. Bill will present changes on 11/5/96. On 11/5 a motion was made by Mike Yokoyama and seconded by Bill McFerrin that the new definitions for RID be moved to MMC II because the specification was new and details were being worked out. The motion passed 8 for, 0 against and 1 abstention.

6.4 A detailed review of the change bars to MMC Rev 8B dated Oct.20. was conducted. Only editorial changes were noted and changes made.

7.0 New Business

7.1 MMC-2 Proposals

7.2 A review of SFF 8090 revision .9 was conducted items were highlighted that will be included into MMC II. The following list of commands have some integration issues (all other commands are assumed to be identical in both specifications):

Format #

Flush Cache * ATAPI immediate bit not allowed

Get Event Status Notification #

Mode Select #

Mode Sense#

Prevent / Allow Media Removal#

Read DVD structure*

Read Formatted Capacities*

Report Key*

Send Key*

Set Read Ahead*

Verify -# Use SBC with deviations explained.

Write DVD Structures*

Start/Stop Unit and Power management#

Mode Pages

Read/Write Error Recovery #*

Power Condition Page#

Feature Set Support and Version Page* and #

Fault / Failure Reporting Control Page#

Time-out and Protect#

Capabilities and Mechanical Status Page* and #

Mt Fuji has removed the CD Rom page. MMC II should make this page

obsolete

* Cut and Paste

Merge Proposal Needed

Bill McFerrin asked Ron Roberts to Cut and Paste the above noted items and all other commands not listed into MMC II. The editor should also move the following sections into MMC II with the following constraints:

- Section 4.1.5 Remove time-outs.
- Section 4.1.6 Reset should be moved to the conventions section of MMC II
- Section 6 Changer model has been changed to include sided media and delay load.
- Section 7 Power Management, May go in MMC II annex (see 11.0).
- Section 8 the packet and event status has yet to be resolved.
- Section 9 and 10 Commands moved to MMC with the above limits applied.

7.3 Ron Roberts made a motion and Rob Reisch seconded the motion to accept the following MMCII schedule:

Jan 7-8 X3T10 Dallas Tx.

Jan 28-30

Feb 11-13

March 11-12 X3T10

March 25-27

April 8-10

May 6-7 X3T10

*X3T10 letter ballot vote May 8, 1997.

X3 first public review July 17, 1997

* Contains DVD-ROM and if available DVD-R, DVD-Ram. If DVD-Ram is not available, MMC 3 to contain DVD Ram. X3T10 letter ballot on MMC-3 will be September 11, 1997.

The MMC II schedule motion passed , 7 for 1 against.

7.4 The working group unanimous decided to forward MMC rev 9 for public review without future processing by X3T10. Ron Roberts will report this at the Plenary 11/7.

8.0 Review of Action Items

Ron Roberts to begin building MMC II see 7.2.

9.0 Future Meeting Schedule

The next meeting will be January 7 and 8 in Dallas Tx. at Oman Dallas Hotel.

10.0 Adjournment

The meeting adjourned at 3:00 PM November 6.

11.0 At the Joint MMC and SCSI III working group meeting.

Power Management, is generic to all SACS devices.

Smart

Time-outs

Event Status notification

It was agreed that the MMC II annexes can contain the above items. The annexes can be used as proposals to the SCSI III working group for the next version of SBC or SPC.