

Minutes
SCSI Media Changer (SMC) Working Group
T10/05-431r0
7 November 2005
1:30 PM – 7:00 PM CST

1. Introductions

Group

Michael Banther called the meeting to order at 1:30 PM CST. He thanked Dell for hosting the meeting.

2. Approval of the Agenda

Michael Banther

Michael Banther discussed the order of the discussion items. It was noted that the agenda item numbering is incorrect.

Kevin Butt made a motion to accept the agenda. Rod Wideman seconded the motion. The group passed the motion unanimously.

3. Attendance and Membership

Michael Banther

Michael Banther reviewed the T10 attendance rules with the group and directed prospective new members to John Lohmeyer. The attendance report appears below.

SMC-3 Working Group Attendance:

Name	S	Organization
Mr. Rod Wideman	V	ADIC
Mr. Noud Snelder	V	BDT
Mr. Curtis Ballard	V	Hewlett Packard
Mr. Michael Banther	V	Hewlett Packard Co.
Mr. Kevin Butt	A	IBM Corp.
Mr. Robert Payne	P	Iomega Corp.
Mr. Paul Entzel	P	Quantum Corp.
Dr. Paul Suhler	A	Quantum Corp.
Mr. Erich Oetting	A#	Sun Microsystems, Inc.
Mr. Greg Wheelless	A	Symantec

4. INCITS Patent Policy

Michael Banther

Michael Banther directed the group to a reading of the [T10 Short Summary](#) of the INCITS Patent Policy.

5. Approval of Previous Meeting Minutes

Michael Banther

Michael Banther requested corrections for the minutes of the 12 September 2005 meeting (05-353r0).

Paul Suhler made a motion to accept the meeting minutes as modified. Rod Wideman seconded the motion. The group passed the motion unanimously.

6. Review of Action Items

Greg Wheelless

- a. [Greg Wheelless] Model information on how PAMR interaction with I/E elements. Closed
- b. [Michael Banther] Enhanced TapeAlert capability – synchronization with SSC-3. Carry-Over
- c. [Michael Banther] Reporting of virtual libraries / partitioning to host. Carry-Over
- d. [Rod Wideman] Visibility of media type in storage element. Medium Domain (e.g. technology) & Medium type (e.g. WORM, Clean, Data, F/W Upgrade). Carry-Over.
- e. [Greg Wheelless] Change the 3rd paragraph of 5.3.1 to clarify addresses and volumes. Carry-over
- f. [Rod Wideman] Revise and post 05-243r0 as 05-243r1. Closed
- g. [Greg Wheelless] Revise and post 05-271r2 as 05-271r3. Carry over
- h. [All library vendors] Produce a list of vendor unique SCSI sense values used by their products. Closed.
- i. [Rod Wideman] Write a proposal for items 3.2.6 and 3.2.7 in 05-315r0. Carry over
- j. [Michael Banther] Present 05-315r0 at SMC-3 working group meeting in order to identify difficulty, priority and owner. Closed
- k. [Noud Snelder] Revise 05-078r4 based on discussion. Closed
- l. [Noud Snelder] Incorporate 05-078r4 as revised into SMC-3. Closed
- m. [Noud Snelder] Revise 05-070r2. Closed
- n. [Noud Snelder] Incorporate 05-070r2 as revised into SMC-3. Closed.
- o. [Curtis Ballard] Revise 05-153r1 per discussion. Carry over.
- p. [Curtis Ballard] Revise 05-259r0 per discussion. Carry over.
- q. [Michael Banther] Create a proposal for SMC-3 that addresses the ISO comments against SMC and SMC-2. Closed (comments were already replied to by Erich Oetting).

7. Discussion Items

Group

- 7.1 Working List for ISV feedback (SMC/SSC/ADC/SPC) (05-315r0). [Kevin Butt]

The group agreed to wait for Kevin Butt to revise 05-315 to reflect the current state of discussion, following the September teleconference and meeting.

7.2 SMC-3 Read Element Multi-identifiers (05-153r1). [Curtis Ballard]

Michael Banther recommended that the proposal be reviewed for the group, given its complexity, before further discussion. Curtis Ballard presented a summary of the proposal. The details of media type and location description were discussed. Curtis Ballard will revise.

7.3 SMC-3 Read Element Media Descriptor Proposal (05-259r0). [Michael Banther]

Michael Banther noted that this document will be revised and tabled, as it has been superseded by discussion item 7.2.

7.4 Visibility of media type in storage element. [Rod Wideman]

Rod Wideman suggested a proposal to separate description of an element's "capabilities and physicality" from an element's "real-time" ("dynamic, "event driven") status from description of the media currently in an element, perhaps into multiple commands. The group suggested that only one new command might be necessary, with multiple service actions.

Michael Banther suggested preserving the existing READ ELEMENT STATUS command to supply one category of information. Greg Wheelless suggested it would be easier for the application client to support obsolescing the current command and making a new command. Curtis Ballard suggested that extending the current command would be easier for some library suppliers. The group agreed there was advantage in separating data that changes often from data that doesn't, and to separate data common across many pieces of media from per-medium information, to allow more data to be reported while retaining terseness.

There was consensus that simplicity is a key benefit from any new proposal.

A new command with multiple request types (or multiple commands) could allow piecewise movement to a new command. The framework would allow separate contributors to work independently to bring in proposals for separate pieces. Rod Wideman will bring a proposal for a new command/framework.

7.5 SPC-3 SPC-4 SES-2 SMC-3 Command requirements (05-074r1). [Michael Banther]

Michael Banther presented a suggestion to align terminology, format, references, and command table information in SMC-3 with the rest of the standard. Rob Elliot will revise the suggestion based on the discussion in the group.

7.6 SMC-3, SPC-4, SBC-3, and SSC-3: Remove Attached Media Changer model (05-317r2). [Paul Entzel]

The group reviewed the document and made revisions.

Kevin Butt made a motion to recommend the proposal as modified to the CAP working group. Paul Entzel seconded the motion. The group passed the motion unanimously.

8. **Unscheduled Business**

Group

- 8.1 SMC-3 REQUEST DATA TRANSFER ELEMENT INQUIRY command (05-243r1). [Rod Wideman]
Rod explained the additions to the proposal from the previous revision. It was noted by the group that there was ambiguity about the control byte in the proposed command, and that some details of the error cases still need to be refined. Rod Wideman will revise the proposal based on the group discussion.
- 8.2 SPC-4 SBC-3 SMC-3 Allow more commands through Write Exclusive reservations (05-368r0). [Rob Elliott]
Not discussed due to lack of time.
- 8.3 SMC-3 Undocumented Element Type Code field in READ ATTRIBUTE command (05-413r0). [Noud Snelder]
Not discussed due to lack of time.
- 8.4 SMC-3 Clarification SEND VOLUME TAG command (05-414r0). [Noud Snelder]
Not discussed due to lack of time.
- 8.5 Discussion for proposed change to PAMR command behaviour. [Greg Wheelless]
Not discussed due to lack of time.

9. **Next Meeting Requirements**

Michael Banther

Subject to approval by the T10 Plenary, the group will hold a meeting 9 January 2006 during T10 plenary week in Scottsdale, AZ beginning immediately after ADI completes concluding at 7:00 PM.

10. **Review New Action Items**

Greg Wheelless

- a. Greg Wheelless will revise and post the minutes from the 12 September 2005 meeting.
- b. Rod Wideman will collect Sense codes from all Library vendors to assist in standardizing these sense codes.
- c. Kevin Butt will post 05-315r1 (results of Sept 1 teleconference), and then merge the comments from the September working group into that document and post as r2.
- d. Curtis Ballard to revise and post 05-153r1 per discussion item 7.2.
- e. Rod Wideman to bring a proposal for a new command/framework per discussion item 7.4.
- f. Rob Elliott to revise and post 05-074r1 per discussion item 7.5.
- g. Paul Entzel to revise and post 05-317r2 per discussion item 7.6.
- h. Rod Wideman to revise and post 05-243r1 per discussion item 8.1.

11. Adjournment

Group

Kevin Butt made a motion for adjournment. Paul Suhler seconded the motion. The group passed the motion unanimously. Michael Banther adjourned the group at 7:00 PM PDT.