T10/06-269r0: Minutes of
SCSI Media Changer (SMC) Working Group
Conference call of June 5, 2006
15:00 – 17:00 GMT

1. Introductions   Group

Michael Banther called the meeting to order at 3:00 PM GMT. Greg Wheeless agreed to serve as the secretary for the conference call.

2. Approval of the Agenda   Michael Banther

Michael Banther presented the agenda (06-268r0). Michael Banther 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. Kevin Marks                      P  Dell, Inc.
Mr. Curtis Ballard                   V  Hewlett Packard
Mr. Michael Banther                  V  Hewlett Packard Co.
Mr. Kevin Butt                       A  IBM Corp.
Mr. Paul Entzel                      P  Quantum Corp.
Dr. Paul Suhler                      A  Quantum Corp.
Mr. Greg Wheeless                    A  Symantec
9 People Present
Status Key:  P   - Principal
             A,A# - Alternate
             AV  - Advisory Member
             L   - Liaison
             V   - Visitor
```

4. Old Business   Group

4.1 Working List for ISV feedback (SMC/SSC/ADC/SPC) (05-315r2).   Kevin Butt

This discussion item was deferred to the next meeting.

4.2 SMC-3 Read Element Multi-identifiers (05-153r2).   Curtis Ballard

Curtis Ballard noted that he would like to withdraw this proposal.

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

Michael noted that he had discussed the issue with Rob Elliot and will bring a revision to the next meeting.

4.4   SMC-3 Vendor Specific Sense Code Survey (06-109r1)   Rod Wideman

Rod noted that he asked for input on the T10 reflector and received responses from 3 companies. He organized this into a table of sense codes for the media transport element, robotics other than the media transport element, drives, mailslots, barcodes and related element status issues, media changer as a system other than the robotics, and misc.

Rod noted that he would harvest any sense codes that seemed general enough for inclusion in a future proposal for additional standard sense codes. The approach of adding a model clause to describe common situations in which these sense codes might be returned, both to suggest to library vendors what sense codes are appropriate to return in a given situation and to inform the application client about what sense codes to expect.

Michael Banther suggested that we need a better model clause description of library components, and that would be a good place to note common error conditions and associated sense codes for each component.

Rod asked whether he should attempt to move some new sense codes into SPC, as they seem broader than SMC. The group consensus was that this was appropriate, however the need for describing how each code is used is important for new sense code submissions, and this would be difficult for the non-SMC-specific codes.

Greg Wheeless will take the existing data and solicit additional responses from library vendors who did not respond to Rob's request on the T-10 reflector. Rod will bring a proposal to standardize new sense codes for SMC (06-110 has been reserved for this purpose).

4.5   SMC-3: Diagnostic and statistics log pages for SMC (06-182r0)   Kevin Marks

Kevin Marks presented his proposal, noting that additional work was needed in the area of source/destination element addresses, as the element addresses appropriate for error logging might not be the element address from any given command, instead being a note of the closest element addresses to the position of the media transport element during the command in error.

The group discussed this idea. Kevin clarified that he was requesting that for commands that end in failure should translate the XYZ position of the start and end of the picker motion to the nearest element address.

Michael Banther asked that clarifying text regarding the meaning of "place" and "pick" with regard to the medium transport element to be added to the proposal.

Kevin will bring a revision of this proposal to the next meeting.

4.6   SMC-3 Report Element Information (06-163r0)   Curtis Ballard

Curtis presented his proposal. The usefulness of adding filtering by element type on the request was discussed, and the group consensus was that this was useful. Curtis noted the difficulty of presenting a clean method of requesting only specific information, and the priority of requesting "all dynamic information" versus "all static information".

The group discussed options for dealing with the static portion of the element information, as that information is only "quasi-static" and might change when the library configuration changes. The group discussed methods of informing the application client that the quasi-static has changed.

The general consensus was that the quasi-static data needs to be handled by a separate command, and might be handled by mode page data (which does not seem ideal because of the volume of data), vital product data pages, or as a new command. The group discussed the method of alerting the application client that this data has changed. It was noted that returning more than 16 bytes of sense data was still impractical due to driver stack limitations.

The group discussed how to proceed with several related commands—static and dynamic element and media data—and came to the conclusion that 4 similar commands each with its own service action would be appropriate.

Curtis to split this command into 2 service actions and bring one of them as a proposal to the next meeting.

5. New Business   Group

No new business was presented.

6. Review of New Action Items   Greg Wheeless

Greg Wheeless reviewed the following items with the meeting:

06-043 [Michael Banther] Revise and post 05-074r1 per June discussion item 4.3.

06-044 [Greg Wheeless] Solicit additional vendor-specific sense codes from library vendors per June discussion item 4.4.

06-045 [Rod Wideman] Bring a proposal for new sense codes for SMC (06-110r0) per June discussion item 4.4.

06-046 [Kevin Marks] Revise and post 06-182r0 per June discussion item 4.5.

06-047 [Curtis Ballard] bring a proposal for a specific type of Report Element Information per June discussion item 4.6.

7. Next Meeting Requirements   Michael Banther

Subject to approval by the T10 Plenary, the group will hold a meeting on Monday, July 10, 2006 during the T10 plenary week in Colorado Springs, CO beginning immediately after ADI completes, and concluding at 7:00 PM.

8. Adjournment   Group

Michael Banther adjourned the group at 5:01 PM GMT.