SCSI Stream Commands - 3: Working Group Minutes – Draft (T10/05-183r0)
Date: May 3, 2005
Time: 1:00-6:30 pm
Location: Oklahoma City, OK

Agenda

1. Opening remarks and introductions [Peterson]

2. Approval of agenda (05-160r0) [Peterson]

3. Approval of meeting minutes (05-111r0) [Peterson]

4. Review of old action items [Butt]

4.1 Dave Peterson: Bring in a White Paper on the value added with Explicit Command Set.

4.2 Roger Cummings: Bring in document to support differentiation of media supported and drive supported density code.

4.3 Dave Peterson: Review initiator vs I_T nexus throughout document.

4.4 Michael Banther: Bring in proposal to improve handling of cleaning and firmware upgrade cartridges.

4.5 Michael Banther: Bring in proposal for State-based TapeAlert.

4.6 Michael Banther: Bring in proposal for Requested Recovery log page from ADC.

4.7 Michael Banther: Bring in proposal for Device Statistics log page from ADC

4.8 Dave Peterson: add a M/O column to Table 51

4.9 Kevin Butt: post 05-002r3 as modified

4.10 Dave Peterson: incorporate 05-002r4 into SSC-3

4.11 Dave Peterson: incorporate into SSC-3: Obsolete GAP SIZE field (05-066r0)

4.12 Dave Peterson: incorporate into SSC-3: Obsolete RSMK and setmarks (05-067r0)

4.13 Dave Peterson: rev and post 05-068r0

4.14 Dave Peterson: generate a model using UML to help clarify 05-049r0

4.15 Paul Entzel: produce a proposal to have short erase lay down an EOD at the current postition

4.16 Michael Banther: proposal against the "Cleaning Required" parameter of Sequential Access Device log page to make it consistent with TapeAlert and ADC eventually

4.17 Paul Suhler: 05-049r0 to be reved and posted

5. Old business

5.1 SSC-3: Mode page support (05-068r0) [Peterson]

5.2 SSC-3: Model subclause for physical device (05-049r0) [Suhler]

6. New Business

6.1 SSC-3: Position After Self-Test (05-140r0) [Banther]

6.2 SSC-3: Log page support (05-159r0) [Peterson]

6.3 SSC-3: TapeAlert Enhancements (05-154r0) [Banther]

7. Next meeting requirements

8. Review of new action items

9. Adjournment

Attendance

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SSC-3 Working Group Attendance Report - May 2005


            Name                    S          Organization
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Mr. Noud Snelder                     V  BDT
Mr. Robert Snively                   P  Brocade Comm. Systems, Inc.
Mr. David Peterson                   P  CNT
Mr. Kevin Marks                      P  Dell, Inc.
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  Veritas Software


9 People Present


Status Key:  P   -  Principal
             A,A# -  Alternate
             AV  -  Advisory Member
             L   -  Liaison
             V   -  Visitor
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Results of Meeting

1. Opening remarks and introductions [Peterson]

Thanked Fujitsu for hosting

2. Approval of agenda (05-160r0) [Peterson]

Paul Suhler moved to approve agenda and Michael Banther seconded. Passed unanimously.

3. Approval of meeting minutes (05-111r0) [Peterson]

Dave Peterson moved to approve and Kevin Butt seconded. Passed unanimously.

4. Review of old action items [Butt]

4.1 Dave Peterson: Bring in a White Paper on the value added with Explicit Command Set.

Carryover

4.2 Roger Cummings: Bring in document to support differentiation of media supported and drive supported density code.

04-144r0 Differentiation of Media Supported and Drive supported entity code - Overtaken by events - 05-171r0.

4.3 Dave Peterson: Review initiator vs I_T nexus throughout document.

Carryover

4.4 Michael Banther: Bring in proposal to improve handling of cleaning and firmware upgrade cartridges.

Carryover

4.5 Michael Banther: Bring in proposal for State-based TapeAlert.

Done 05-154r0

4.6 Michael Banther: Bring in proposal for Requested Recovery log page from ADC.

Carryover

4.7 Michael Banther: Bring in proposal for Device Statistics log page from ADC

Carryover

4.8 Dave Peterson: add a M/O column to Table 51

Done 05-159r0

4.9 Kevin Butt: post 05-002r3 as modified

Done

4.10 Dave Peterson: incorporate 05-002r4 into SSC-3

Done will be in next rev.

4.11 Dave Peterson: incorporate into SSC-3: Obsolete GAP SIZE field (05-066r0)

Done

4.12 Dave Peterson: incorporate into SSC-3: Obsolete RSMK and setmarks (05-067r0)

Done

4.13 Dave Peterson: rev and post 05-068r0

Done

4.14 Dave Peterson: generate a model using UML to help clarify 05-049r0

Done

4.15 Paul Entzel: produce a proposal to have short erase lay down an EOD at the current postition

Carryover

4.16 Michael Banther: proposal against the "Cleaning Required" parameter of Sequential Access Device log page to make it consistent with TapeAlert and ADC eventually

Carryover

4.17 Paul Suhler: 05-049r0 to be reved and posted

Done

5. Old business

5.1 SSC-3: Mode page support (05-068r0) [Peterson]

Make page 16h n/a. Dave Peterson made a motion to include 05-068r1 as modified into SSC-3. Paul Entzel seconded. Passed Unanimously.

AI: Dave Peterson to revise and post 05-068r1 and incorporate into SSC-3.

5.2 SSC-3: Model subclause for physical device (05-049r0) [Suhler]

Review email comments from Rod Wideman.

Discussion ensued. After discussion the decision was made to defer to end of WG if time still available.

6. New Business

6.1 SSC-3: Position After Self-Test (05-140r0) [Banther]

Direction was given to change to adding a statement to the effect of "position after an abort or completion of a self-test is not specified by the standard." AI: Michael Banther to revise and post 05-140r0

6.2 SSC-3: Log page support (05-159r0) [Peterson]

Dave Peterson made a motion to include as modified. Paul Suhler seconded. Passed unanimously.

AI: Dave Peterson to post 05-159r0 as modified and incorporate into SSC-3

6.3 SSC-3: TapeAlert Enhancements (05-154r0) [Banther]

Discussion of definitions of Critical, Warning, Informational. Kevin Marks suggested using SEC definitions as a template. Greg Wheeless, Critical means a failure has already occurred or is imminant. Continued operation is likely to cause failure. Warning - If this condition is not corrected a failure or data loss may occur. Continued operation may possibly cause a failure.

Reviewing the severity column was suggested to be performed after definitions for Critical, Warning, and Infomational are solid.

AI: Michael Banther to revise and post 05-154r0.

6.4 Email: standard method of reporting sense during a cleaning cycle

I have been searching SSC-x, SPC-x and whatever else I can think of to find a standards described behavior for Cleaning. The only behavior(s) that the standards describe are what TapeAlerts are returned when as well as listing some ASC/ASCQs but not describing how/when they are to be used.

I would like to have the behavior (as seen from a host) during cleaning to be standardized.

The ASC/ASCQs listed are:

    30h/03h CLEANING CARTRIDGE INSTALLED

    30h/07h CLEANING FAILURE

    00h/17h CLEANING REQUESTED

Other interesting ASC/ASCQs listed for are:

    04h/10h LOGICAL UNIT NOT READY, AUXILIARY MEMORY NOT ACCESSIBLE

    04h/00h LOGICAL UNIT NOT READY, CAUSE NOT REPORTABLE

    04h/02h LOGICAL UNIT NOT READY, INITIALIZING CMD. REQUIRED

    04h/03h LOGICAL UNIT NOT READY, MANUAL INTERVENTION REQUIRED

    04h/07h LOGICAL UNIT NOT READY, OPERATION IN PROGRESS

    3Fh/11h MEDIUM AUXILIARY MEMORY ACCESSIBLE

    3Fh/10h MEDIUM LOADABLE

    3Ah/00h MEDIUM NOT PRESENT

    3Ah/03h MEDIUM NOT PRESENT - LOADABLE

    3Ah/04h MEDIUM NOT PRESENT - MEDIUM AUXILIARY MEMORY ACCESSIBLE

    3Ah/01h MEDIUM NOT PRESENT - TRAY CLOSED

    3Ah/02h MEDIUM NOT PRESENT - TRAY OPEN

I have had suggestions ranging from:

1) Report 30h/03h CLEANING CARTRIDGE INSTALLED from the time the cleaning cartridge is detected to the time the cleaning cartridge is removed (i.e. no longer detectyed by the drive)

2) Report 30h/03h CLEANING CARTRIDGE INSTALLED from detection of cleaning cartridge to completion of clean, then report 3Ah/00h MEDIUM NOT PRESENT even if the tape is still in the drive.

3) etc. etc.

I have also had some ISV/OS people request that we behave the same as drives of a different technology in areas where that behavior does not make sense in my drives technology.

Can we add this as an item to the SSC-3 Agenda?

I would propose the following as a starting point:

1) On detection of cleaning cartridge, if can detect but medium not threaded, report 3Ah/04h MEDIUM NOT PRESENT - MEDIUM AUXILIARY MEMORY ACCESSIBLE

2) On medium threaded through the unthreading process, report 30h/03h CLEANING CARTRIDGE INSTALLED.

3) On medium unthreaded but cartridge still detected and MAM accessible, report 3Ah/04h MEDIUM NOT PRESENT - MEDIUM AUXILIARY MEMORY ACCESSIBLE

4) On cartridge ejected and no longer detected, report 3Ah/00h MEDIUM NOT PRESENT

Some technologies will not be able to report 1) or 3) because this state will not exist. Others may be configured such that 3) will not be a settling state but only a transitory state. And there may be others I am unaware of.

What are your initial thoughts? If I get enough feedback prior to the next WG meeting I will compile the feedback into an official proposal.

Greg Wheeless: When detect cartridge, cleaning cartridge inserted. Cleaning in progress while cleaning and maintain throughout until unmounted. When unmounted ascq that says cleaning is done. When ejected, cleaning is done and media ejected.

Complete:

(do we need to eject and then movemedium)

(do we need to movemedium)

(cartridge has returned to home slot)

Failed:

3 conditions.

Load but not autoclean:

cleaning cart installed.

A lot of discussion about how tape alerts could be used.

6.5 Differentiation of Media supported and drive supported density codes (04-144r0) [Wheeless]

If Read and Write Attribute are supported, then attributes 400h, 401h, 406h, 408h and 800h - 80Ah should be supported.

Method to read actual density code media written at, even if drive cannot read it. This is within the same form factor.

05-171r0 mark AI 2 as Overtaken By Events.

6.6 Development of SMC-3 standard (05-175r0) [Banther]

Dave agreed but wishes to see after modified.

7. Next meeting requirements

Same as this time 5 hours.

8. Review of new action items

8.1 Dave Peterson: Bring in a White Paper on the value added with Explicit Command Set.

8.2 Dave Peterson: Review initiator vs I_T nexus throughout document.

8.3 Michael Banther: Bring in proposal to improve handling of cleaning and firmware upgrade cartridges.

8.4 Michael Banther: Bring in proposal for Requested Recovery log page from ADC.

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8.6 Paul Entzel: produce a proposal to have short erase lay down an EOD at the current postition

8.7 Michael Banther: proposal against the "Cleaning Required" parameter of Sequential Access Device log page to make it consistent with TapeAlert and ADC eventually

8.8 Michael Banther to revise and post 05-140r0

8.9 Michael Banther to revise and post 05-154r0

8.10 Dave Peterson to post 05-159r0 as modified and incorporate into SSC-3

8.11 Dave Peterson to revise and post 05-068r1 and incorporate into SSC-3.

8.12 Bring proposal following direction related to clean behavior.

9. Adjournment

Dave Peterson made a motion to adjourn at 17:56 seconded by Michael Banther.