Voting Results on T10 Letter Ballot 06-184r0 on Forwarding MMC-5 to First Public Review
Ballot closed: 2006/05/04 12:00 noon MDT

<table>
<thead>
<tr>
<th>Organization</th>
<th>Name</th>
<th>S</th>
<th>Vote</th>
<th>Add'l Info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptec, Inc.</td>
<td>Lawrence J. Lamers</td>
<td>A</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>AMCC</td>
<td>Paul von Stamwitz</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Amphenol Interconnect</td>
<td>Michael Wingard</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Broadcom Corp.</td>
<td>Ron Roberts</td>
<td>A</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Brocade</td>
<td>Robert Snively</td>
<td>P</td>
<td>Abs Cmnts</td>
<td></td>
</tr>
<tr>
<td>Dallas Semiconductor</td>
<td>James A. Lott, Jr.</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Dell, Inc.</td>
<td>Kevin Marks</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>EMC Corp.</td>
<td>David Black</td>
<td>A</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Emulex</td>
<td>Robert H. Nixon</td>
<td>P</td>
<td>Abs Cmnts</td>
<td></td>
</tr>
<tr>
<td>ENDL</td>
<td>Ralph O. Weber</td>
<td>P</td>
<td>No Cmnts</td>
<td></td>
</tr>
<tr>
<td>FCI</td>
<td>Douglas Wagner</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Foxconn Electronics</td>
<td>Elwood Parsons</td>
<td>P</td>
<td>Abs Cmnts</td>
<td></td>
</tr>
<tr>
<td>Fujitsu</td>
<td>Mike Fitzpatrick</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>General Dynamics</td>
<td>Nathan Hastad</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Hewlett Packard Co.</td>
<td>Rob Elliott</td>
<td>P</td>
<td>No Cmnts</td>
<td></td>
</tr>
<tr>
<td>Hitachi Cable Manchester</td>
<td>Zane Daggett</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Hitachi Global Storage Tech.</td>
<td>Dan Colegrove</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>IBM Corp.</td>
<td>George O. Penokie</td>
<td>P</td>
<td>No Cmnts</td>
<td></td>
</tr>
<tr>
<td>Intel Corp.</td>
<td>Robert Sheffield</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Iomega Corp.</td>
<td>Robert Payne</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Lexar Media, Inc.</td>
<td>John Geldman</td>
<td>P</td>
<td>Abs Cmnts</td>
<td></td>
</tr>
<tr>
<td>LSI Logic Corp.</td>
<td>John Lohmeyer</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>M-Systems</td>
<td>Avraham Shimor</td>
<td>P</td>
<td>Yes Cmnts</td>
<td></td>
</tr>
<tr>
<td>Marvell Semiconductor, Inc.</td>
<td>David Geddes</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Maxtor Corp.</td>
<td>Mark Evans</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>McDATA</td>
<td>David Peterson</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Microsoft Corp.</td>
<td>Emily Hill</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Molex Inc.</td>
<td>Jay Neer</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Nvidia Corp.</td>
<td>Mark Overby</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Oracle</td>
<td>James Williams</td>
<td>P</td>
<td>Abs Cmnts</td>
<td></td>
</tr>
<tr>
<td>Panasonic Technologies, Inc</td>
<td>Terence J. Nelson</td>
<td>P</td>
<td>No Cmnts</td>
<td></td>
</tr>
<tr>
<td>Philips Electronics</td>
<td>William P. McFerrin</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Pivot3, Inc.</td>
<td>Bill Galloway</td>
<td>P</td>
<td>Abs Cmnts</td>
<td></td>
</tr>
<tr>
<td>PMC-Sierra</td>
<td>Tim Symons</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>QLogic Corp.</td>
<td>Skip Jones</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Quantum Corp.</td>
<td>Paul Entzel</td>
<td>P</td>
<td>Abs Cmnts</td>
<td></td>
</tr>
<tr>
<td>Seagate Technology</td>
<td>Gerald Houlders</td>
<td>P</td>
<td>Abs Cmnts</td>
<td></td>
</tr>
<tr>
<td>Sierra Logic, Inc.</td>
<td>William Martin</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Sun Microsystems, Inc.</td>
<td>Vit Novak</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Symantec</td>
<td>Roger Cummings</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Texas Instruments</td>
<td>Paul D. Aloisi</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>TycoElectronics</td>
<td>Ashlie Fan</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Vitesse Semiconductor</td>
<td>Gregory Tabor</td>
<td>P</td>
<td>Abs Cmnts</td>
<td></td>
</tr>
<tr>
<td>Western Digital</td>
<td>Curtis Stevens</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Xiotech Corp.</td>
<td>Jeff Williams</td>
<td>P</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Xyratex</td>
<td>Rich Ramos</td>
<td>P</td>
<td>Abs Cmnts</td>
<td></td>
</tr>
</tbody>
</table>

Ballot totals: (32:4:10:0=46)
32 Yes
4 No
10 Abstain
0 Organization(s) did not vote
46 Total voting organizations
15 Ballot(s) included comments

This 2/3rds majority ballot passed.
32 Yes are more than half the membership eligible to vote minus abstentions [greater than 18] AND
32 Yes are at least 24 (2/3rds of those voting, excluding abstentions [36]) AND
32 Yes are equal to or exceed a quorum [15]

Key:
P Vot er is principal member
A Vot er is alternate member
Abs Abstain vote
DNV Organization did not vote
Cmnts Comments were included with ballot
NoCmnts No comments were included with a vote that requires comments

*******************************************************************************************************

Comments attached to Abs ballot from Robert Snively of Brocade:

Brocade has no material interest in this standard at present.

*******************************************************************************************************

Comments attached to Abs ballot from Robert H. Nixon of Emulex:

My organization is not materially affected by the subject matter of this standard.

*******************************************************************************************************

Comments attached to No ballot from Ralph O. Weber of ENDL:

The usage of the PREVENT ALLOW MEDIUM REMOVAL command must be coordinated with the existing definition in SPC-4.

*******************************************************************************************************

Comments attached to Abs ballot from Elwood Parsons of Foxconn Electronics:

Lack of expertise.
Comments attached to No ballot from Rob Elliott of Hewlett Packard Co.:

HPQ comment number 1
Page=49 Subtype=Highlight Author=relliott
Comment=
Table of Tables

Put "Figure C.1 - Mass storage interface block diagram........................................................................654" into the table of figures, not the table of tables

---

HPQ comment number 2
Page=57 Subtype=Highlight Author=relliott
Comment=
2.2

Change "SCSI-3 Primary Commands" to "SCSI Primary Commands - 2" to match the SPC-2 acronym

(if this line remains; since SPC-3 is published, that should probably move from Other References to here and replace this line altogether)

---

HPQ comment number 3
Page=57 Subtype=Highlight Author=relliott
Comment=
2.2

Change "ANSI NCITS.336:2000 SPI-3 SCSI Parallel Interface - 3" to "ANSI INCITS 367-2003 SPI-5 SCSI Parallel Interface - 5"

---

HPQ comment number 4
Page=57 Subtype=Text Author=relliott
Comment=
2.2

Change format of all the ANSI NCITS/INCITS references to

ANSI INCITS xyz-200n

which is how they're catalogued on the ANSI store web site.

---

HPQ comment number 5
Page=58 Subtype=Highlight Author=relliott
Comment=
2.3
"INCITS T10/1417D SBC-2 SCSI Block Command Set - 2" is published as ANSI INCITS 405-2005. Move to 2.2 and replace the SBC reference.

---

HPQ comment number 6
Page=58 Subtype=Highlight Author=relliott
Comment= 2.3
"INCITS T10/1416D SPC-3 SCSI Primary Command Set - 3" is published as ANSI INCITS 408-2005. Move to 2.2 and replace the SPC-2 line.

---

HPQ comment number 7
Page=58 Subtype=Highlight Author=relliott
Comment= 2.3

ATA8 is not split into 3 "volumes." It's three separate projects each with their own numbers ATA8-AAM, ATA8-ACS, and ATA8-APT. Serial ATA International Organization has asserted control of the Serial ATA interface so ATA8-AST is irrelevant.

---

HPQ comment number 8
Page=58 Subtype=Highlight Author=relliott
Comment= 2.3
"INCITS T10/1467D SBP-3 SCSI Serial Bus Protocol - 3" is published as ANSI INCITS 375-2004. Move to 2.2 and replace the SBP-2 line.

---

HPQ comment number 9
Page=76 Subtype=Text Author=relliott
Comment= 3.5

Add:
CE Consumer Electronics
PC Personal Computer

(used by AACS definition)

---

HPQ comment number 10
Page=86 Subtype=Text Author=relliott
Comment= 4.1.3.3
The text "Figure 7" seems to be in its own paragraph (once on page 32, once on page 33).

---
HPQ comment number 11
Page=93 Subtype=Highlight Author=relliott
Comment= 4.1.9.2
Change "Time-out & Protect Mode Page (1Dh)" to "the Timeout and Protect mode page (see 7.9)"

---
HPQ comment number 12
Page=94 Subtype=Highlight Author=relliott
Comment= 6.44.4
Change "Time-out & Protect Mode Page (1Dh)" to "the Timeout and Protect mode page (see 7.9)"

---
HPQ comment number 13
Page=97 Subtype=Highlight Author=relliott
Comment= 4.1.9.6
Change "Time-out and Protect Mode Page (1Dh) to "Timeout and Protect mode page (see 7.9)"

---
HPQ comment number 14
Page=125 Subtype=Highlight Author=relliott
Comment= 4.3.2.2
Figure 27
Change "ID Field for DVD-ROM" to "DVD-ROM ID field Sector Information details"

---
HPQ comment number 15
Page=128 Subtype=Highlight Author=relliott
Comment= 4.3.3.3
figure 29
Change "ID Field for DVD-RAM" to "DVD-RAM ID field Sector Information details"

---
HPQ comment number 16
Page=128 Subtype=Highlight Author=relliott
Comment= 4.3.3.3
Change "For DVD-RAM, the definition of the sector information part of the ID field differs from other DVD media types. The sector ID field is viewed as a 32-bit field as shown in Figure 29." to "For DVD-RAM, the definition of the sector information part of the ID field is shown in Figure 29."
because the figure doesn’t show a full 32-bit field. The suggested change matches other wording.
Include a introductory reference to figure 30

Change "ID Field for DVD-R/-RW" to "DVD-R/-RW ID field Sector Information details"

Change "For DVD-R/-RW, the definition of the sector information part of the ID field differs from other DVD media types. The sector ID field is viewed as a 32-bit field as shown in Figure 31." to "For DVD-R/-RW, the definition of the sector information part of the ID field is shown in Figure 31"

Include an introductory reference to figure 33

Change "ID Field Details" to "ID Field Sector Information details"

Change "The sector ID field is viewed as a 32-bit field as shown in Figure 24. For DVD-R DL, the definition of the sector information part of the ID field (Figure 35) differs from other DVD
media types." to "For DVD-R DL, the definition of the sector information part of the ID field is shown in Figure 35"

---
HPQ comment number 23
Page=143 Subtype=Text Author=relliott
Comment=
4.3.5.4.2

Include an introductory reference to figure 37

---
HPQ comment number 24
Page=144 Subtype=Text Author=relliott
Comment=
4.3.5.5.1

Include an introductory reference to figure 40

---
HPQ comment number 25
Page=146 Subtype=Text Author=relliott
Comment=
4.3.5.5.4

Include an introductory reference to figure 41

---
HPQ comment number 26
Page=147 Subtype=Text Author=relliott
Comment=
4.3.5.6

Include an introductory reference to figure 42

---
HPQ comment number 27
Page=147 Subtype=Text Author=relliott
Comment=
4.3.5.7

Include an introductory reference to figure 43

---
HPQ comment number 28
Page=149 Subtype=Highlight Author=relliott
Comment=
4.3.6.1.2
Figure 44

Change "ID Field Details" to "ID Field Sector Information details"

---
HPQ comment number 29
Page=149 Subtype=Highlight Author=relliott
Comment=
4.3.6.1.2
Change "The sector ID field is viewed as a 32-bit field as shown in Figure 24. For DVD+R, the definition of the sector information part of the ID field (Figure 44) differs from other DVD media types." to "For DVD+R, the definition of the sector information part of the ID field is shown in Figure 44"

---
HPQ comment number 30
Page=151 Subtype=Highlight Author=relliott
Comment=
KB needs to be defined in section 3 if it is going to be used in the standard. (K is defined in conventions, but then B meaning byte or bit could be questioned)

Since it means 1024, it should be changed to KiB (see SPC-4 for a definition of that odd acronym).

---
HPQ comment number 31
Page=156 Subtype=Highlight Author=relliott
Comment=
4.3.7.2
Figure 47

Change "ID Field Details" to "ID Field Sector Information details"

---
HPQ comment number 32
Page=156 Subtype=Highlight Author=relliott
Comment=
4.3.7.2
Change "The sector ID field is viewed as a 32-bit field as shown in Figure 24. For DVD+R DL, the definition of the sector information part of the ID field (Figure 47) differs from other DVD media types." to "For DVD+R DL, the definition of the sector information part of the ID field is shown in Figure 47"

---
HPQ comment number 33
Page=163 Subtype=Highlight Author=relliott
Comment=
4.3.8.2
figure 55
Change "ID Field" to "ID field Sector Information details"

---
HPQ comment number 34
Page=163 Subtype=Highlight Author=relliott
Comment=
4.3.8.2
Change "The sector ID field is viewed as a 32-bit field as shown in Figure 24. For DVD+RW, the definition of the sector information part of the ID field (Figure 55) differs from other DVD media types." to "For DVD+RW, the
definition of the sector information part of the ID field is shown in Figure 55

---

HPQ comment number 35
Page=166 Subtype=Highlight Author=relliott
Comment= 4.3.9.2.1
figure 56

Change "ID Field Details" to "DVD-RAM ID field Sector Information details"

---

HPQ comment number 36
Page=166 Subtype=Highlight Author=relliott
Comment= 4.3.9.2.1
Change "The sector ID field is viewed as a 32-bit field as shown in Figure 24. For DVD+RW DL, the definition of the sector information part of the ID field (Figure 56) differs from other DVD media types." to "For DVD-RAM, the definition of the sector information part of the ID field is shown in Figure 56"

---

HPQ comment number 37
Page=173 Subtype=Highlight Author=relliott
Comment= 4.3.10.1
Change idenfification to identification

---

HPQ comment number 38
Page=174 Subtype=Highlight Author=relliott
Comment= 4.4
"Description s/b "Model" to match the DVD chapter, or not present at all to match the BD chapter"

---

HPQ comment number 39
Page=174 Subtype=Text Author=relliott
Comment= 4.4.2.1
The line starting with "area" should be in the same paragraph as the previous line

---

HPQ comment number 40
Page=175 Subtype=Highlight Author=relliott
Comment= 4.4.3.1.1
figure 68

Change "ID Field Details" to "ID field Sector Information details"
---
HPQ comment number 41
Page=175 Subtype=Text Author=relliott
Comment=
4.4.3.1.1
Add period at end of each sentence.
---
HPQ comment number 42
Page=176 Subtype=Highlight Author=relliott
Comment=
4.4.3.1.2
Unbold "(see Figure 25)."
---
HPQ comment number 43
Page=178 Subtype=Text Author=relliott
Comment=
4.4.4.2
The text "Figure 71" seems to be in its own paragraph
---
HPQ comment number 44
Page=178 Subtype=Highlight Author=relliott
Comment=
4.4.4.2
figure 71
Change "ID Field for HD DVD-ROM" to "HD DVD-ROM ID field Sector Information details"
---
HPQ comment number 45
Page=178 Subtype=Highlight Author=relliott
Comment=
4.4.4.2
Change "For HD DVD-ROM, the definition of the sector information part of the ID field is shown in Figure 71." to "For HD DVD-ROM, the definition of the sector information part of the ID field is shown in Figure 71"
---
HPQ comment number 46
Page=180 Subtype=Text Author=relliott
Comment=
4.4.5.2
The text "Figure 72" seems to be in its own paragraph.
---
HPQ comment number 47
Page=180 Subtype=Highlight Author=relliott
Comment=
4.4.5.2
figure 71

Change "ID Field for HD DVD-R" to "HD DVD-R ID field Sector Information details"

---

HPQ comment number 48
Page=180 Subtype=Highlight Author=relliott
Comment=
4.4.5.2
Change "For HD DVD-R, the definition of the sector information part of the ID field is shown in Figure 72." to "For DVD-R, the definition of the sector information part of the ID field is shown in Figure 72"

---

HPQ comment number 49
Page=183 Subtype=Highlight Author=relliott
Comment=
4.4.6.2
ID Field for HD DVD-RAM
figure 71

Change "ID Field for HD DVD-RAM" to "HD DVD-RAM ID field Sector Information details"

---

HPQ comment number 50
Page=184 Subtype=Text Author=relliott
Comment=
4.4.6.4
Add period after "Figure 75"

---

HPQ comment number 51
Page=186 Subtype=Text Author=relliott
Comment=
4.5.2.2
Remove line break before "Figure 66)"

---

HPQ comment number 52
Page=192 Subtype=Text Author=relliott
Comment=
4.5.3.3.1
Include introductory reference to figure 82

---

HPQ comment number 53
Page=192 Subtype=Text Author=relliott
Comment=
4.5.3.3.1
Include introductory reference to figure 83
Include introductory reference to figure 84

Include introductory reference to figure 85

Remove new line between In and Figure 99.

Change (Figure 78) to (Figure 104)

Change "See Figure 102." to "See Figure 105."

Change "See Figure 103." to "See Figure 106."

Add introductory reference to figure 107.
add introductory reference to figure 110

---

HPQ comment number 62
Page=232 Subtype=Text Author=relliott
Comment=
4.7.7.1
add introductory reference to figure 111

---

HPQ comment number 63
Page=240 Subtype=Highlight Author=relliott
Comment=
4.9.2.1
Change "mode page 01h" to "the Read/Write Error Recovery mode page (see 7.3)"

---

HPQ comment number 64
Page=241 Subtype=Highlight Author=relliott
Comment=
4.9.5
MB needs to be defined in section 3 if it is going to be used in the standard. (M is defined in conventions, but then B meaning byte or bit could be questioned)

It should be changed to MiB (see SPC-4 for a definition of that odd acronym).

---

HPQ comment number 65
Page=241 Subtype=Highlight Author=relliott
Comment=
4.9.5
figure 116
Change Mb to MB (or to MiB, based on other comments)

---

HPQ comment number 66
Page=242 Subtype=Highlight Author=relliott
Comment=
4.9.5
Figure 117
change Mb to MB (or MiB based on other comments)

---

HPQ comment number 67
Page=242 Subtype=Highlight Author=relliott
Comment=
4.9.5
figure 118
Change Mb to MB (or MiB based on other comments)

---
HPQ comment number 68
Page=243 Subtype=Highlight Author=relliott
Comment=
4.9.5
figure 119
Change Mb to MB (or MiB based on other comments)

---
HPQ comment number 69
Page=243 Subtype=Highlight Author=relliott
Comment=
4.9.5
figure 120
Change Mb to MB (or MiB based on other comments)

---
HPQ comment number 70
Page=247 Subtype=Text Author=relliott
Comment=
4.10.5.2
Bottom of page 196 in step 6a and step 6b
Join paragraphs together correctly, and make NOTE: into a numbered NOTE following the Note style.

---
HPQ comment number 71
Page=247 Subtype=Highlight Author=relliott
Comment=
4.10.5.2
delete extra period in "sent.."

---
HPQ comment number 72
Page=261 Subtype=Highlight Author=relliott
Comment=
5.2.3
Table 85
Change erasable to Erasable in the Feature Name column

---
HPQ comment number 73
Page=262 Subtype=Highlight Author=relliott
Comment=
5.2.3
Table 85
Change "Drive serial number" to "Drive Serial Number" in the Feature Name column

---
HPQ comment number 74
Page=262 Subtype=Highlight Author=relliott
Comment=
5.2.3
Table 85

Change "Continued" to "continued"

---
HPQ comment number 75
Page=262 Subtype=Text Author=relliott
Comment=
5.2.3
Table 85

Last horizontal table border should be bold to match rest of table outer borders

---
HPQ comment number 76
Page=303 Subtype=Highlight Author=relliott
Comment=
5.3.25
Table 155

Change 05 to 05h

---
HPQ comment number 77
Page=323 Subtype=Highlight Author=relliott
Comment=
5.3.40
Table 186

Change "READ BUFFER with Mode 00011b set" to "READ BUFFER with Mode 00011b (Data)" to match

---
HPQ comment number 78
Page=323 Subtype=Text Author=relliott
Comment=
5.3.40
Table 186

READ BUFFER Mode 00010b (2h) (Data) is normally paired with WRITE BUFFER Mode 02h (Write Data). That's necessary for WRITE BUFFER to be used "as a diagnostic function for testing Drive memory in the target device and the integrity of the service delivery subsystem." (quoting 6.46)

Should WRITE BUFFER mode 02h be included here (and in 6.46)?
---
HPQ comment number 79
Page=329 Subtype=Highlight Author=relliott
Comment= 5.3.45
Table 194 header
change Drive to Media
---

HPQ comment number 80
Page=334 Subtype=Highlight Author=relliott
Comment= 5.3.49
Change "a AACS" to "an AACS"
---

HPQ comment number 81
Page=334 Subtype=Highlight Author=relliott
Comment= 5.3.49
Change "AACS version" to "AACS Version"
---

HPQ comment number 82
Page=354 Subtype=Highlight Author=relliott
Comment= 6.1
Table 232
Change "Continued" to "continued"
---

HPQ comment number 83
Page=355 Subtype=Highlight Author=relliott
Comment= 6.1
Table 233
Change "Continue" to "continued"
---

HPQ comment number 84
Page=356 Subtype=Highlight Author=relliott
Comment= 6.2.2.1
Table 235, 6.2.2.2, 6.2.3, 6.2.4, 6.2.5
Change IMMED to Immed to match formatting of other field names
---

HPQ comment number 85
Page=360 Subtype=Highlight Author=relliott
Comment= 6.3.2.3
Fix "through ."
---
HPQ comment number 86
Page=360 Subtype=Highlight Author=relliott
Comment=
6.3.2.1
Table 240, 6.3.2.2, 6.3.3.11, 6.3.4, 6.3.5
Change IMMED to Immed to match formatting of other field names
---
HPQ comment number 87
Page=375 Subtype=Highlight Author=relliott
Comment=
6.4.2.1
Table 243, 6.4.2.3, 6.4.3, 6.4.5, 6.4.6
Change IMMED to Immed to match formatting of other field names
---
HPQ comment number 88
Page=377 Subtype=Text Author=relliott
Comment=
6.5.2.1 FORMAT UNIT
SBC-2 added some fields to this CDB:
a FMTPINFO bit in byte 1 bit 7
a RTO_REQ bit in byte 1 bit 6
a LONGLIST bit in byte 1 bit 5
To maintain the informal compatibility between SBC and MMC, consider marking them Restricted
---
HPQ comment number 89
Page=379 Subtype=Highlight Author=relliott
Comment=
6.5.3.2
Table 249, 6.5.3.1, 6.5.4.3, 6.5.4.4.2, 6.5.4.4.3, 6.5.5, 6.5.6, 6.7.2.8 (figure 126)
Change IMMED to Immed to match formatting of other field names
---
HPQ comment number 90
Page=396 Subtype=Highlight Author=relliott
Comment=
6.6.1.1
Table 266
Change OPERATION CODE to Operation Code to match most other CDBs
---
HPQ comment number 91
Page=397 Subtype=Highlight Author=relliott
Comment=
6.6.2.1

Since "," means decimal point, change numbers like "65,536" to "65 536" (3 times in this paragraph)

---

HPQ comment number 92
Page=425 Subtype=Highlight Author=relliott
Comment= 6.10.2.1
Table 322

Change OPERATION CODE to Operation Code to match most other CDBs

---

HPQ comment number 93
Page=425 Subtype=Highlight Author=relliott
Comment= 6.10.2.1
Table 322

Change SLOT to Slot to match other fields

---

HPQ comment number 94
Page=425 Subtype=Highlight Author=relliott
Comment= 6.10.2.1
Table 322, 6.10.2.2, 6.10.4, 6.10.5

Change IMMED to Immed to match formatting of other field names

---

HPQ comment number 95
Page=427 Subtype=Highlight Author=relliott
Comment= 6.11.2
Table 326

Change "Operation code" to "Operation Code" to match most other CDBs

---

HPQ comment number 96
Page=432 Subtype=Highlight Author=relliott
Comment= 6.14 PREVENT ALLOW MEDIUM REMOVAL

"[SPC-3] describes a PREVENT ALLOW MEDIUM REMOVAL command; however, the [SPC-3] description does not apply to MM devices."

Command set standards are not supposed to redefine commands that already have definitions in SPC.

In MMC-4 letter ballot, the MMC editor agreed to write a proposal for SPC-4 splitting the SPC-4 text into media changers supported/not supported
sections and basing the "not supported" section on MMC-4. This was promised by January 2005, but has still not been posted.

Meanwhile, the attached media changer concept was made obsolete in SPC-4, so all that remains in spc4r04 is the "not supported" material. So, the work should be easier.

SPC-4 could define the field in a manner that defers more to the command set standard. Then you could keep most of the details on MMC-4 without making anything in SPC-4 incorrect/incomplete:

SPC-4 2-bit Prevent field:
00b Medium removal shall be allowed unless otherwise specified by the command set standard (e.g., MMC-5 peripheral devices do not always allow medium removal if the persistent prevent state is enabled).
01b Medium removal shall be prohibited.
10b If MCHNGR is set to one, obsolete. If MCHNGR is set to zero, reserved unless otherwise defined in the command set standard.
11b If MCHNGR is set to one, obsolete. If MCHNGR is set to zero, reserved unless otherwise defined in the command set standard.

Then, in MMC-4, change your definition to a 2-bit field rather than two 1-bit fields (so the terminology matches) but keep the functional definitions the same.

---

HPQ comment number 97
Page=435 Subtype=Highlight Author=relliott
Comment=
6.15.2.1
Table 343

Change OPERATION CODE to Operation Code to match most other CDBs

---

HPQ comment number 98
Page=435 Subtype=Text Author=relliott
Comment=
6.15.2.1 READ (10)

SBC-2 added some fields to this CDB:
a RDPROTECT field in byte 1 bits 7:5
a FUA_NV bit in byte 1 bit 1
a GROUP NUMBER field in byte 6 bits 4:0

To maintain the informal compatibility between SBC and MMC, consider adding those fields or marking them Restricted

---

HPQ comment number 99
Page=438 Subtype=Highlight Author=relliott
Comment=
6.16.2.1
Table 346
Change OPERATION CODE to Operation Code to match most other CDBs

---
HPQ comment number 100
Page=438 Subtype=Text Author=relliott
Comment=
6.15.2.1 READ (12)

SBC-2 added some fields to this CDB:
a RDPROTECT field in byte 1 bits 7:5
a FUA_NV bit in byte 1 bit 1
a GROUP NUMBER field in byte 10 bits 4:0

To maintain the informal compatibility between SBC and MMC, consider adding those fields or marking them Restricted

---
HPQ comment number 101
Page=439 Subtype=Highlight Author=relliott
Comment=
6.16.4
Change "Time-out & Protect Mode Page (1Dh)" to "the Timeout and Protect mode page (see 7.9)"

---
HPQ comment number 102
Page=441 Subtype=Highlight Author=relliott
Comment=
6.17.1
Table 348

Change "Mandatory for mode = 00010b" to "Mode 00010b (Data) is Mandatory" to match wording in 6.46 for WRITE BUFFER

---
HPQ comment number 103
Page=442 Subtype=Text Author=relliott
Comment=
6.18.2.2 First three lines should be in the same paragraph; they appear to be separate paragraphs.

---
HPQ comment number 104
Page=442 Subtype=Highlight Author=relliott
Comment=
6.18.2.2
text and Table 351
Change BLOCK to Block to match formatting of other field names

---
HPQ comment number 105
Page=445 Subtype=Highlight Author=relliott
Comment=
6.19.2.1
Table 356
Change OPERATION CODE to Operation Code to match most other CDBs

---
HPQ comment number 106
Page=453 Subtype=Highlight Author=relliott
Comment=
6.20.3.1.1

Change "in the models clause." to "in 4.2.3.8.1."

---
HPQ comment number 107
Page=456 Subtype=Highlight Author=relliott
Comment=
6.21.2.1
Table 370

Join the byte 9 cell with the blank cell below it

---
HPQ comment number 108
Page=456 Subtype=Highlight Author=relliott
Comment=
6.21.2.1
Table 370

Change OPERATION CODE to Operation Code to match most other CDBs

---
HPQ comment number 109
Page=497 Subtype=Highlight Author=relliott
Comment=
6.23.3.2.19

Add space in "Code12h"

---
HPQ comment number 110
Page=498 Subtype=Highlight Author=relliott
Comment=
6.23.3.2.20

Add space in "Code15h"

---
HPQ comment number 111
Page=499 Subtype=Highlight Author=relliott
Comment=
6.23.3.2.21

Add space in "Code19h"

---
HPQ comment number 112
Add space in "Code1Ah"

---

Change "Block, with" to "Block with"

---

Merge Bit column cells 1 and 0 into one labeled "1:0" so the order of the two bits is clear. The right column referring to 01b could either mean 1:0 is 01b or 0:1 is 01b, which are different.

---

Change OPERATION CODE to Operation Code to match most other CDBs

---

Change IMMED to Immed to match formatting of other field names

---

Add h to each of the code values like in the first row
6.32.3.15

Change "Figure 51 shows" to "Figure 127 shows"

---

HPQ comment number 119
Page=654 Subtype=Highlight Author=relliott
Comment=
6.39.2.2, 6.39.2.4, and table 621
Change IMMED to Immed to match formatting of other field names

---

HPQ comment number 120
Page=658 Subtype=Highlight Author=relliott
Comment=
6.40.2.2, 6.40.4, and table 628
Change IMMED to Immed to match formatting of other field names

---

HPQ comment number 121
Page=658 Subtype=Text Author=relliott
Comment=
6.40.2.1 SYNCHRONIZE CACHE

SBC-2 added some fields to this CDB:
a SYNC_NV bit in byte 1 bit 2
a GROUP NUMBER field in byte 6 bits 4:0

To maintain the informal compatibility between SBC and MMC, consider adding those fields or marking them Restricted

---

HPQ comment number 122
Page=661 Subtype=Text Author=relliott
Comment=
6.42.2.1 VERIFY (10)

SBC-2 added some fields to this CDB:
a VRPROTECT field in byte 1 bits 7:5
a GROUP NUMBER field in byte 6 bits 4:0

To maintain the informal compatibility between SBC and MMC, consider adding those fields or marking them Restricted

---

HPQ comment number 123
Page=661 Subtype=Text Author=relliott
Comment=
6.42

Given that READ (12) and WRITE (12) are supported, why is VERIFY (12) not also supported?

---
HPQ comment number 124
Page=662 Subtype=Highlight Author=relliott
Comment=
6.42.4
Change "Time-out & Protect Mode Page (1Dh)" to "the Timeout and Protect mode page (see 7.9)"

---

HPQ comment number 125
Page=663 Subtype=Text Author=relliott
Comment=
6.43.2.1 WRITE (10)

SBC-2 added some fields to this CDB:
a WRPROTECT field in byte 1 bits 7:5
a GROUP NUMBER field in byte 6 bits 4:0

To maintain the informal compatibility between SBC and MMC, consider adding those fields or marking them Restricted

---

HPQ comment number 126
Page=663 Subtype=Text Author=relliott
Comment=
6.43.2.1 WRITE (10)

SBC-2 added a FUA_NV bit in byte 1 bit 1

The TSR bit, which was not in MMC-4, conflicts with the FUA_NV bit. Can it be moved?

It breaks the informal compatibility between SBC and MMC.

---

HPQ comment number 127
Page=667 Subtype=Highlight Author=relliott
Comment=
6.43.4
Change "Cacheing Page" to "Caching mode page (see 7.6)"

---

HPQ comment number 128
Page=668 Subtype=Text Author=relliott
Comment=
6.44.2.1 WRITE (12)

SBC-2 added some fields to this CDB:
a WRPROTECT field in byte 1 bits 7:5
a GROUP NUMBER field in byte 10 bits 4:0

To maintain the informal compatibility between SBC and MMC, consider adding those fields or marking them Restricted

---

HPQ comment number 129
SBC-2 added a FUA_NV bit in byte 1 bit 1.

The TSR bit, which was not in MMC-4, conflicts with the FUA_NV bit. Can it be moved?

It breaks the informal compatibility between SBC and MMC.

---

HPQ comment number 130
Page=670 Subtype=Highlight Author=relliott
Comment= 6.44.4
Change "Cacheing Page" to "Caching mode page (see 7.6)"

---

HPQ comment number 131
Page=670 Subtype=Highlight Author=relliott
Comment= 6.44.4
Change "Time-out & Protect Mode Page (1Dh)" to "Timeout and Protect mode page (see 7.9)"

---

HPQ comment number 132
Page=671 Subtype=Text Author=relliott
Comment= 6.45.2.1 WRITE AND VERIFY (10)

SBC-2 added some fields to this CDB:
a WRPROTECT field in byte 1 bits 7:5
a GROUP NUMBER field in byte 6 bits 4:0

To maintain the informal compatibility between SBC and MMC, consider adding those fields or marking them Restricted

---

HPQ comment number 133
Page=671 Subtype=Text Author=relliott
Comment= 6.45.2.1 WRITE AND VERIFY (10)

SBC-1 and -2 define these bits:
DPO byte 1 bit 4
BYTCHK byte 1 bit 1
Obsolete byte 1 bit 0

Mark them as Restricted so MMC-6+ don't use them for other purposes.

---

HPQ comment number 134
Page=671 Subtype=Text Author=relliott
Comment=
6.45

Given that READ (12) and WRITE (12) are supported, why is WRITE AND VERIFY (12) not also supported?

---
HPQ comment number 135
Page=673 Subtype=Highlight Author=relliott
Comment=
6.46.1
Table 645
Change "Mode 0011b is Mandatory" to "Mode 0011b (Download microcode with offsets and save) is Mandatory"

---
HPQ comment number 136
Page=676 Subtype=Highlight Author=relliott
Comment=
7.2.2
Change "Time-out & Protect mode page" to "Timeout and Protect mode page"

---
HPQ comment number 137
Page=676 Subtype=Highlight Author=relliott
Comment=
7.2.2
Change "Mode Page" to "mode page"

---
HPQ comment number 138
Page=696 Subtype=Highlight Author=relliott
Comment=
7.6
Change "08h" to "Page Code 08h" to match other headers

---
HPQ comment number 139
Page=697 Subtype=Highlight Author=relliott
Comment=
7.7
Change "mode page" to "Mode Page" in header to match other headers

Or change all the others' "Mode Page"s to "mode page"

---
HPQ comment number 140
Page=711 Subtype=StrikeOut Author=relliott
Comment=
C.3.5
Delete "(abbreviated as 0 in the figure above)"

---
Comments attached to No ballot from George O. Penokie of IBM Corp.:

Technical PDF pg 432, pg 378, 6.14.2 The CDB and its Parameters
The PREVENT ALLOW MEDIUM REMOVAL Command command is defined in the SPC-3 standard and should not be redefined in this standard. The only thing that should be here is a reference to the SPC-3 standard. Delete this section from this standard. This comment was made in MMC-4 and still has not been resolved.

The comment from the MMC group at the time was:
PAMR is defined completely different in MMC. It is not part of the command description duplication discussion.

The response to the MMC groups comment was:

It is not acceptable to redefine a command that is defined in SPC. That will on cause problems in interoperability between different device types. You have the following choices:
1- Request RAMR be removed from SPC
2- Use the RAMP as currently defined in SPC.
3- Define a new op code for MMC and defined it how you want

There are no other options.

As I recall it was stated that this would be resolved in MMC-5. But that has not happened. I will not change my no vote until this is issue is resolved.

******************************************************************************

Comments attached to Abs ballot from John Geldman of Lexar Media, Inc.:

MMC-5 does not materially affect our organization

******************************************************************************

Comments attached to Yes ballot from Avraham Shimor of M-Systems:

Alternatively, Plenary agenda, IEEE P1667 Liaison Report - NEW

******************************************************************************

Comments attached to Abs ballot from James Williams of Oracle:

Do not feel knowledgable enough to offer an informed vote.

Jim

******************************************************************************

Comments attached to No ballot from Terence J. Nelson of Panasonic Technologies, Inc:

1 Page 32, 4.1.3.2.2.2 (Properties of Logical Tracks) The sentence below the table (in 2f reads) "When the recording method is purely sequential, a single WRITE command is limited to a single Logical Track." Even if the media is in Layer Jump Recording mode, a single WRITE command is also
limited to a single Track. Is Layer Jump Recording mode categorized as the pure sequential mode?

2 Page 32, 4.1.3.2.2.2 (Properties of Logical Tracks) The sentence below the table (in 2f reads) "... and sense bytes SK/ASC/ASCQ shall be set to ILLEGAL REQUEST/END OF USER AREA ENCOUNTERED ON THIS TRACK." The ASC/ASCQ is not correct. It must be "... and sense bytes SK/ASC/ASCQ shall be set to ILLEGAL REQUEST/INVALID ADDRESS FOR WRITE." Please refer to 4.16.7.1, 4.16.10.1 and 4.16.10.3 of Mt.Fuji6 Rev1.0.

3 Page 480, 6.24.3.2.3 (READ FORMAT CAPACITIES) In Table 467 (2f reads) "... or Quick Grow/Quick Add formatted restricted overwrite media with at least one closed Session, ..." Typo. (Should read) "... or Quick Grow/Quick Add formatted restricted overwrite media with at least one closed Session, ..."

4 Page 545, 6.30.2.4 (RESERVE TRACK) In the paragraph before the last (2f reads) "If the currently mounted medium is CD and Reservation Size requested is smaller than 298, the command should be terminated with CHECK CONDITION status and SK/ASC/ASCQ values shall be set to ILLEGAL REQUEST/INVALID FIELD IN CDB." Also three lines below (2f reads) "When the currently mounted media is CD and Reservation Size is less than 298, the Drive shall perform no reservation and terminate the command with CHECK CONDITION status and set sense bytes SK/ASC/ASCQ to ILLEGAL REQUEST/INVALID FIELD IN CDB." These two sentences say almost the same thing. Only the difference is that the second sentence says the drive is prohibited to perform reservation. How about to eliminate the first one?

******************************************************************************

Comments attached to Abs ballot from Bill Galloway of Pivot3, Inc.:

Not materially affected by this proposal.

******************************************************************************

Comments attached to Abs ballot from Paul Entzel of Quantum Corp.:

My company is not materially affected by this standard.

******************************************************************************

Comments attached to Abs ballot from Gerald Houlder of Seagate Technology:
Seagate is not materially affected by MMC-5 standard.

Comments attached to Abs ballot from Gregory Tabor of Vitesse Semiconductor:

Vitesse has no opinion on this letter ballot.

Comments attached to Abs ballot from Rich Ramos of Xyratex:

Our company does not have a stance one way or another on MMC.

*************** End of Ballot Report ***************