Voting Results on T10 Letter Ballot 97-028r0 on Forwarding SMC to first public review


Key:
$\begin{array}{ll}\mathrm{P} & \text { Voter indicated he/she is principal member } \\ \mathrm{A} & \text { Voter indicated he/she is alternate member }\end{array}$

| 0 | Voter indicated he/she is observer member |
| :---: | :---: |
| ? | Voter indicated he/she is not member or does not know status |
| YesC | Yes with comments vote |
| Abs | Abstain vote |
| DNV | Organization did not vote |
| IV | Individual vote (not organizational vote) |
| Cmnts | Comments were included with ballot |
| NoCmnts | No comments were included with a vote that requires comments |
| DUP | Duplicate ballot (last ballot received from org. is counted) |
| PSWD | The password was not correct (vote not counted) |
| ORG? | Organization is not voting member of T10 (vote not counted) |
| Ballot totals: |  |
| 51 Yes |  |
| 0 No |  |
| 0 Abstain |  |
| 3 Orga | anization(s) did not vote |
| 54 Tota | al voting organizations |
| 4 Ball | lot(s) included comments |

This 2/3rds majority ballot passed.

Comments attached to YesC ballot from Constance Kephart of Exabyte Corp.:

1. [E] (p. 8, 1st paragraph of Introduction)
'MChngr' in the last sentence should be in small caps.
2. [E] (p. 8, 3rd paragraph of Introduction)

Change "With any technical document there may arise questions of in interpretation..." to "With any technical document there may arise questions of interpretation...".
3. [E](p. 18, 3.1.32)

Change "Autosense Data" to "autosense data".
4. [E](p. 18, 3.1.37)

The definition for 'system' is a little vague: what constitutes an SCSI domain? Should this also be defined here?
5. [E] (P. 18, 3.1.40)

ACA is used in the definition of 'task set', but not defined in this document. Should 'auto contingent allegiance' be added to 3.1 (Definitions), and 'ACA' be added to 3.2 (Acronyms)?
6. [E] (P. 19, 3.2)

Change the font for "SSC SCSI-3 Stream Commands standard" to match the rest of the list.
7. [E] (p. 19)

As part of clause 3 (see SSC 3.3), SSC lists keywords and their meanings (keywords being 'expected', 'invalid', 'may', 'shall', 'should', 'obsolete', 'mandatory', 'optional', 'reserved', and 'vendor-specific'); should this same subclause be added to SMC?
8. [E] (P. 19, 3.3)

Add text describing use of small caps for field names.
9. [E] (p. 20, 2nd paragraph of clause 4)

Change "import export" to "import/export" in the second sentence ("The element types are...").
10. [E] (p. 20, 4th paragraph of clause 4, 2 instances)
(p. 21, 3rd paragraph after fig. 2, 1 instance)
(p. 23, 1st paragraph on the page [3rd paragraph of 5.3], 1 instance)
(p. 23, 3rd paragraph on the page [5th paragraph of 5.3], 1 instance)
(p. 23, last paragraph on the page [3rd paragraph of 5.4], 1
instance)
(p. 25, 1st paragraph of 5.9, 3 instances)
(p. 26, 1st paragraph of $5.10,1$ instance)
(p. 31, 1st paragraph of 6.3, 1 instance)
(p. 50, 3rd paragraph on the page [the note], 2 instances)

Eliminate extraneous capitaliazation: change "Initiator" (or "Initiators") to "initiator" (or "initiators")
11. [E] (p. 21, 2nd paragraph after fig. 2)

Change "asubset" to "a subset" in the first sentence.
12. [E] (P. 22, 5.1)

Change the title "Independent Medium Changer" to "Independent medium changer".
13. [E] (p. 22, 2nd paragraph of 5.1)

Change "Independent changer" to "independent changer" in the last sentence.
14. [E] (P. 22, 5.2)

Change the title "Attached Medium Changer." to "Attached medium changer"
15. [E] (P. 22, 2nd paragraph of 5.3)

Change "Each element is an instance of one of four element types." to "Each element is an instance of one of four element types:".
16. [E] (p. 23, 3rd paragraph on the page [5th paragraph of 5.3])

Change "RESERVED ELEMENT (6)" to "RESERVE ELEMENT (6)".
17. [E] (p. 23, 3rd paragraph on the page [5th paragraph of 5.3])

Change the last sentence from "In an attached medium changer, elements reservations..." to "In an attached medium changer, element reservations...".
18. [E] (p. 23, 5th paragraph on the page [7th paragraph of 5.3])

Is this paragraph supposed to be a note? If so, identify it as a note; otherwise, change the font size to match the rest of the text.
19. [E] (p. 23, 6th paragraph on the page [8th paragraph of 5.3])

Change the 1st sentence from "Each element type shall be assigned to contiguous number range." to "Each element type shall be assigned a contiguous number range."
20. [E] (p. 24, 2nd paragraph of 5.5)

Change "A storage element may be source or destination..." to "A storage element may be a source or destination...".
21. [E] (P. 24, 3rd paragraph of 5.6)

Change "An Import/export" to "An import/export".
[E] (p. 26, 2nd paragraph after table 1)
This note, and all subsequent notes should be numbered.
23. [E] (p. 28, table 2)

To be consistent, change "SPC = see SCSI Primary Commands Standard." to "SPC = see SCSI-3 Primary Commands standard."
24. [E] (p. 28, 1st paragraph after table 3)

Add a reference to table 3.
25. [T] (p. 29, 3rd paragraph of 6.1)
(p. 31, 4th paragraph of 6.2)
(p. 32, 2nd paragraph of 6.3)
(p. 34, 3rd paragraph of 6.4)
(p. 35, 5th paragraph of 6.5)
(p. 49, 3rd paragraph of 6.8)
(p. 57, 2nd paragraph of 6.11)

Several commands state "A reservation conflict shall occur if a[n] XX command is received from an initiator other than the one holding a logical unit reservation." (or something similar). What about the case when a command specifying an element is received from an initiator other than the one holding an element reservation?
26. [E] (p. 30, 3rd paragraph on the page [7th paragraph of 6.1])

This paragraph is really 2 paragraphs: add a blank line before the last sentence ["An INV1 bit..."].
27. [E] (p. 33, 1st paragraph on the page [5th paragraph of 6.3])

This paragraph is really 2 paragraphs: add a blank line before the sentence that starts "The MEDIUM TRANSPORT ADDRESS field specifies the medium trasnport element...".
28. [E] (p. 33, 4th paragraph on the page [8th paragraph of 6.3])

The EXCHANGE MEDIUM command uses the 'volume' and 'volume rotation'; MOVE MEDIUM uses 'medium' and 'medium rotation'. To be consistent, I suggest selecting one name (either 'volume' or 'medium'). Let the definition identify any synonyms.
29. [E] (p. 34, 1st paragraph after table 7)

Change "zerorequests" to "zero requests".
30. [E] (p. 35, 1st paragraph after table 8)

Eliminate more extraneous capitalization:
change "Independent Medium changer" to "independent medium changer";
change "An Attached Medium Changer" to "An attached medium changer"; change "Attached Changers connected..." to "Attached changers connected...".
31. [E] (p. 36, table 9)

Change "Storageelement" to "Storage element", and change "transferelement" to "transfer element".
32. [E] (p. 36, 3rd paragraph after table 9)

Eliminate more extraneous capitalization:
change "A Device ID..." to "A device ID..." (2 instances); change "Device Identifiers" to "device identifiers" (2 instances).
33. [E] (p. 37, 1st paragraph)

Change "...an eight-byte header, (see table 10)..."
to "...an eight-byte header (see table 10),..."
34. [T] (p. 37, 1st paragraph of 6.5.1)
(p. 37, 4th paragraph after table 10 [the note])
(p. 38, 1st paragraph of 6.5.2)
(p. 49, 4th paragraph of 6.8)
(p. 49, 5th paragraph of 6.8)

The note states "The READ ELEMENT STATUS command can be issued with an ALLOCATION LENGTH of eight bytes in order to determine the ALLOCATION LENGTH required to transfer all the element status data specified by the command." This contradicts the 1st paragraph of 6.5.1 which states "Element status data consists of an eight-byte header, (see table 10) followed by one or more element status pages."

The REQUEST VOLUME ELEMENT ADDRESS command allows for a header "plus zero or more element type specific pages in the same format as defined by the READ ELEMENT STATUS command".

I believe the READ ELEMENT STATUS command should also specify "zero or more element status pages" to allow for an accurate determination of ALLOCATION LENGTH.
35. [E](p. 38, 2nd paragraph of 6.5.2)

Add a reference to table 9 to the description of ELEMENT TYPE CODE.
36. [E] (p. 40, 8th paragraph on the page [11th paragraph of 6.5.3])
(p. 42, 2nd paragraph on the page [4th paragraph of 6.5.4])
(p. 43, 6th paragraph on the page [7th paragraph of 6.5.5])
(p. 45, 7th paragraph on the page [9th paragraph of 6.5.6])

Change "an Identifier" in the 1st sentence and "Identifier" in the 2nd sentence to "a device identifier" and "device identifier", respectively.
37. [E] (p. 41, table 13)

PVOLTAG (PRIMARY VOLUME TAG INFORMATION field) and AVOLTAG (ALTERNATE VOLUME TAG INFORMATION field) should be in small caps.
38. [E](p. 42, 2nd paragraph on the page [4th paragraph of 6.5.4])
"Identifier Length" in the last sentence should be small caps.
39. [E] (p. 46, title of 6.5.7)
(p. 46, title of table 16)

Change "Identification Descriptor" to "Identification descriptor".
40. [E] (p. 46, 2nd paragraph of 6.5.7)

Change "Device identification page" to "device identification page".
41. [E] (p. 46, 2nd paragraph of 6.5.7, 2 instances)
(p. 46, 3rd paragraph of 6.5.7, 1 instance)

Change "Identifiers" to "Device identifiers", and "Identifier" to "device identifier".
42. [E] (p. 46, 3rd paragraph of 6.5.7)

Change "Data Transport Element" to "data transport element".
43. [E] (p. 46, 4th paragraph of 6.5.7)

Change "Import/Export Element" to "import/export element".
44. [E] (p. 46, 5th paragraph of 6.5.7)

Change "Storage or Medium Transport Element" to "storage or medium transport element,".
45. [E] (p. 47, 3rd paragraph of 6.6 [the note])
(p. 52, 3rd paragraph of 6.9 [the note])
(p. 55, 4th paragraph of 6.10 [the note])

Change "...can not distinguish Element from Extent..." to "...can not distinguish element from extent...".
46. [E] (P. 47, 4th paragraph of 6.6)

In the 2nd sentence, change "from the initiation that made it." to "from the initiator that made it."
47. [E] (p. 47, 1st paragraph of 6.6.1)

Change the last sentence from "The reservation ID field..." to "The RESERVATION IDENTIFICATION field..." (small caps).
48. [E] (p. 47, 1st paragraph of 6.6.2)

Add a space before the 3rd sentence: "...shall remain in effect. If the ELEMENT...".
49. [T] (p. 48, title and 1st paragraph of 6.6.3)

The title identifies third-party release as mandatory; the last sentence of the lst paragraph implies third-party release is optional ("Third-party release shall be implemented if third-party reserve is implemented."). Third-party reserve is identified as mandatory, and the associated text contains no contradictory statements to the mandatory designation.
50. [E] (p. 48, title of 6.6.3)

Change "Third party release" to "Third-party release".
51. [E] (p. 47, 1st paragraph of 6.6.2)
(p. 48, 1st paragraph of 6.6.3)

There is a reference to 6.8 .2 which doesn't exist; the reference should be to 6.9.2.
52. [E] (p. 49, 1st paragraph on the page [2nd paragraph of 6.7])

Change "...and the ID value sent in the CDB." to "...and the device ID value sent in the CDB." (or use the actual field name THIRD PARTY DEVICE ID).

The last sentence should use the field name "THIRD PARTY DEVICE ID" instead of "Third party device ID".
53. [E] (p. 50, 3rd paragraph on the page [the note])

The note states "it may be necessary to assign the logical unit" and then "un assigning the logical unit"; this would be more clear if the words "reserve" and "releasing" were used.
54. [E] (p. 50, 5th paragraph on the page [9th paragraph of 6.8])

Change "Table 9.." to "table 9. "
55. [E] (p. 51, 1st paragraph on the page [10th paragraph of 6.8])

Change "(see Table 27)" to "(see table 27)", and add space between this paragraph and the next.
56. [T] (p. 51, 2nd paragraph on the page [11th paragraph of 6.8])

The 1st sentence states "The NUMBER OF ELEMENTS TO REPORT field specifies the maximum number of elements and volume tags to be reported for this command."; since reporting of volume tags is optional, "and volume tags" should be removed.
57. [E] (p. 51, title of table 21)
(p. 68, title of table 35)

Remove 'format' from the title to be consistent with the overwhelming majority of the rest of the tables in this document (or you could add 'format' to the titles of all tables that show the format of a CDB, descriptor, header...!).
58. [E] (p. 51, 3rd paragraph on the page [12th paragraph of 6.8])

Add a reference to table 27 to the SEND ACTION CODE field description.
59. [E] (P. 52, 1st paragraph of 6.9)

Change "...used to reserve units..." to "...used to reserve a logical unit...".
60. [E] (P. 52, 2nd paragraph of 6.9)

Change "...defined in the SPC." to "...defined in SPC." to be consistent with other references.
61. [T] (p. 52, 3rd paragraph of 6.9.1)

Add 'READ ELEMENT STATUS with a CURDATA bit of 1' to the list of commands that would not be rejected with RESERVATION CONFLICT status.
62. [E] (p. 52, 1st paragraph of 6.9.2)

Remove the unnecessary comma in the 2nd sentence: "This allows an application client in a multiple tasking environment to have multiple reservations outstanding."
63. [T] (p. 53, 2nd paragraph on the page [1st bullet; 3rd paragraph of 6.9.2])

I couldn't find any text that defines an overlap, let alone an invalid overlap.
64. [E] (p. 53, 2nd paragraph on the page [2nd bullet; 3rd paragraph of 6.9.2])

Remove the extra 'or': "...initiator, by a hard reset...".
65. [E] (p. 53, 2nd paragraph on the page [4th bullet; 3rd paragraph of 6.9.2])

Change "If the element bit is one,..." to "If the ELEMENT bit is one,..." (small caps).
66. [E] (p. 54, title of 6.9.3)

Change "Third party reservation" to "Third-party reservation".
67. [E] (p. 54, 2nd paragraph of 6.9.3)

Change "...a hard reset condition,..." to "...by a hard reset condition,...".
68. [E] (p. 54, 1st paragraph of 6.9.4)

Change "...if the element bit is one,..." to "...if the ELEMENT bit is one,..." (small caps).
69. [T] (p. 55, 2nd and 3rd paragraphs of 6.10)

This text should also appear in RESERVE (6) [note that the last sentence of the 3rd paragraph already does appear in RESERVE (6)].
70. [E] (p. 55, 5th paragraph of 6.10)

Similar comments as item 52: remove the extraneous capitalization and use "third party device ID" or use the field name (2 instances); identify the ID value sent in the CDB as the 'device ID'.
71. [E] (p. 57, 1st paragraph of 6.11)

Change "send action code field" to "SEND ACTION CODE field" (small caps).
72. [E] (p. 57, 4th paragraph of 6.11)

Change "(see Table 9).." to "(see table 9). "
73. [E] (p. 58, 1st paragraph on the page [5th paragraph of 6.11])

Change "When the SEND ACTION CODE is assert, replace, and undefine the ELEMENT ADDRESS..." to "When the SEND ACTION CODE is assert, replace,
or undefine, the ELEMENT ADDRESS...".
74. [E] (P. 58, table 27)

Change the font for code 4 h to match the rest of the table.
75. [E] (P. 63, 2nd paragraph of 7.3)

Change "...are defined in the SPC standard." to "are defined in SPC.".
76. [E] (P. 63, 3rd paragraph of 7.3)

Change "The MEDIUM-TYPE code field..." to "The MEDIUM TYPE code field...".
77. [E] (P. 63, 4th paragraph of 7.3)

Change "The DEVICE SPECIFIC PARAMETER..." to "The DEVICE-SPECIFIC PARAMETER...".
78. [E] (p. 64, 1st paragraph of 7.3.1)

Remove the space before the '.' of the 1 st sentence.
79. [E] (p. 64, table 32)

There are 8 instances where I/E is made up of both upper-case and small caps (bytes 6 and 14).

Also, change "->" to "<>" in the field names of bytes 12 through 15.
80. [E] (p. 64, 2nd paragrapn of 7.3.1)
(p. 66, 2nd paragraph of 7.3.2)
(p. 68, 1st paragraph on the page [2nd paragraph of 7.3.3])

Change "non-volatile" to "nonvolatile".
81. [E] (p. 65, 1st paragraph on the page [3rd paragraph of 7.3.1])

Change "In the field names on this page..." to "In the field names in table 32...".
82. [E](p. 65, 2nd paragraph on the page [4th paragraph of 7.3.1])

Change "A StorXX bit value of one indicated" to "A STORXX bit value of one indicates" where "STOR" is small caps and "XX" is uppercase; change "StorST" to "STORST" (small caps).
83. [E](p. 65, 2nd paragraph on the page [4th paragraph of 7.3.1])

Change "...by the definition of that type. See 5.4." to "...by the definition of that type (see 5.5)" (5.5 is storage elements, not 5.4).
84. [E](p. 65, 4th paragraph on the page [6th paragraph of 7.3.1])

Change "destination 1 " to "FIRST DESTINATION ADDRESS" (small caps), and "destination $2 "$ to "SECOND DESTINATION ADDRESS" (small caps).
85. [E](p. 67, 1st paragraph on the page [3rd paragraph of 7.3.2])

Change "...codePARAMETER..." in the last sentence to "...code PARAMETER...".
86. [T](p. 67, 2nd paragraph on the page [4th paragraph of 7.3.2])

Add a note stating the number of storage elements may be zero if there is an import/export element capable of independent storage (this is a result of 97-222r2).
87. [E](p. 68, 2nd paragraph on the page [3rd paragraph of 7.3.3])

Change "Table 35" to "table 35".

Comments attached to YesC ballot from George Penokie of IBM Corp.:
(E) =Editorial (T)=Technical (G)=General editorial comment that applies to entire standard.

1-(G) - The notes should be numbered.
2-(E) - The second paragraph up from the start of section 5.4 (5th paragraph on page 23) looks like a note but is marked as such.

3-(E) - The word 'Theoretically' should be removed from the note at the bottom of page 24 (second paragraph after section 5.7).

4-(E) Table 2 should be made to fit on one page.
5-(E) page 34 - section 6.4 - second sentence - last paragraph - There is no space between the words 'zerorequests'.

6-(E) page 36 - table 9 - codes $2 h$ and 4h - There is no space between 'storageelement' and 'transferelement'

7-(E) pages 39, 41, 42, 44 - tables $12,13,14,15$ - pvoltag and avoltag should be small caps in all the tables. The byte count should be relabled to something like; starting at byte 48:

48 (12)
83 (47)
( $(n-y)-1)-x$ IDENTIFICATION DESCRIPTOR ( $x$ )
( $n-y$ ) -1
$\mathrm{n}-\mathrm{y}$ VENDOR-SPECIFIC ( y )
n
That should make the table lengths more representative of what you are trying to do and eliminate the confusing 'IL' reference.

8-(E) pages $40,42,43,45$ - The sentence 'IL is the IDENTIFIER LENGTH as defined in 6.5.7. should be removed if comment number 7 is adopted.

9-(E) pages 47, 52 - tables 17, 22 - The THIRD PARTY DEVICE ID field is now obsolete in SPC. It should be made obsolete here also for the same reasons as we made it obsolete in SPC; it's too small.

10-(E) page 57 - 6.11 - Paragraph after table 26 - The first sentence ends in two periods.

[^0]Comments attached to YesC ballot from Gene Milligan of

Seagate Technology:

1) Rather than x 3 . the document number should be NCITS.
2) Figure 1 does not "indicates the applicability of a standard to the implementation of a given transport."
3) It seems to me that it would be safe to move SPC to the approved references.
4) I believe that "American Standard Code for Information Interchange (ASCII)
[X3.4-1977]" no longer exists. My recollection is that T10 instructed some editors to rather than replacing it with the replacement international standard to just delete any reference to an ASCII standard.
5) Many of the standards should have the $T 10$ project number replaced with their NCITS number or the X3 number depending upon their vintage.
6) Regarding 3.1.15 host, $I$ think "Although there are a few exceptions, a host
typically functions as an initiator." should be replaced with "A host includes application clients, one or more initiators, and may in some cases take on a target role."
7) Regarding 3.1.22 medium, SMC is not a specification but is a standard.
8) "3.1.25 one: Value of 1 , field containing 1b." looks odd. Should it be "Value of a one bit field containing 1 b ? Perhaps the best choice would be to
use the SPC definition "The logical true condition of a variable."
9) Regarding 3.1.32 sense data, some errors can be rather mundane so $I$ suggest
changing "Data describing an error or exceptional device condition" to "Data describing an error or device exception condition".
10) Change "3.1.38 target: A SCSI device containing logical units" to A SCSI device containing one or more logical units".
11) I think "3.1.46 zero: Value of $0 b$ or field containing $0 b$ in all bits." should be changed to the SPC definition "The logical false condition of a variable."
12) Regarding the Overview should "The SCSI-3 device classes that provide for removable volumes are block and sequential. (See the SBC and SSC standards.)"
include MMC?
13) Under Table 1 "In order for the SEND VOLUME TAG translate with template to
work the characters "*" and "?" (2Ah and 3Fh) shall not appear in VOLUME IDENTIFICATION field" should be "In order for the SEND VOLUME TAG translate with template to work, the characters "*" and "?" (2Ah and 3Fh) shall not appear in the VOLUME IDENTIFICATION field".
14) The notes should be numbered.
15) Regarding the note under Table 1 should the "ANSI volume label and file
structure standards" be included in the references?
16) Under Table 3 I think "Attached medium changers shall not support other medium changer commands (i.e. EXCHANGE MEDIUM)." should be "Attached medium changers shall not support other medium changer commands (e.g. EXCHANGE MEDIUM)."
17) In the note under Table 36 change "(Recall that in the model for this device type, (see 5), the individual transport element is addressed not the robotics subsystem. An element is defined to be a place where a unit of media
may be at any point in time.)" to "(The individual transport element is addressed [not the robotics subsystem]. An element is defined to be a place where a unit of media may be at any point in time. See Clause 5.)"

Comments attached to YesC ballot from Erich Oetting of Storage Technology Corp.:
1.(e) pg 8, para. 1; "MChngr" should be in small caps.
2.(e) pg 19, Clause 3.2; Add definition "RSVD reserved field or bit".
3.(e) pg 21, fig. 2; "Medum" should be "Medium".
4.(e) pg 21, para. 3; missing space in "asubset".
5. (e) pg 23, para. 3; PERSISTENT misspelled twice.
6. (e) pg 23, para. 4; independent misspelled.
7.(e) pg 34, last paragraph; missing space in "zerorequests".
8.(e) pg 36, table 9; missing spaces in "Storageelement" and "transferelement".
9.(e) pg 39, table 12, also 13, $14 \& 15$; Omitted is misspelled four times in each table.
10.(e) pg 44, table 15; "notbus" should be "not bus".
11.(e) pg 44, table 15; "idvalid" should be "id valid".
12.(e) pg 44, table 15; "luvalid" should be "lu valid".
13. (e) pg 57, table 26; Parameter misspelled.
14.(e) pg 59, para. 4; "parameter list length" should be in small caps.
15.(e) pg 67, first paragraph; missing space in "codePARAMETER".


[^0]:    

