Date: Jan. 27, 2000

To: T10 Committee (SCSI)

From: George Penokie (IBM)

Subject: Comments on FCP-2 Letter Ballot

General

In my comments the notation 'Page xx' refers to all pages in the standard not roman numeral xx. All comments are editorial unless indicated with a '(T)' at the start of the comment.

1: IBM comment from George Penokie

(T) Page 13 - table 4 - There is another operation that needs to be added to this table. It involves the result of an XDWRITE command that is saved in the target until an XDREAD command is issued. The normal sequence goes like this:

    1)   An initiator does an XDWRITE command.
    2)   The target reserves resources for saving the XOR result so it can read out via an XDREAD command.
    3)   An initiator issues an XDREAD command to retrieve the result of the XOR. This does not have to be the same initiator that issued the original XDWRITE.
    4)   The target frees up the resource.

The problem is there is not definition in as to what the target is supposed to do with the reserved XOR data if the initiator that issued the XDWRITE command logs out before an XDREAD command occurs. Since the XDWRITE/XDREAD commands can come from any initiator we can't just throw away the data when an initiator logs out.

I propose a new row be added to table 4 to describe the clearing actions that are required to occur on the reserved XOR data. This row should require that the reserved XOR data only be cleared only if there is a target power cycle, reset LIP, log out only if all initiators are logged out, TPRLO, SCSI target reset, or a SCSI logical unit reset.

2: IBM comment from George Penokie

Page xx - Throughout this standard the use of the small caps notation is erratic. Small caps should always be used when the name of a field or bit is being used (e.g. the BSST bit when set to 1 or the GO FIND SOUP field indicates). Small caps is not used when describing the contents of a field (e.g., a go find soup value of 54 is not value). I have commented where on many of the instances where small caps should have been used or where they were used but should not have been used but a general seep of the standard should be made to correct those errors.

PDF Page 1

3: IBM comment from George Penokie

Page i - At the bottom of the page the 'Reference number' is overlapping the bar and is difficult to read.

PDF Page 2

4: IBM comment from George Penokie

Page ii -The address of the t10 vice chair should be changed from 2B7 to Z9V.

1

5: IBM comment from George Penokie

Page ii - All 'X3T10's need to be changed to 'T10'.

6: IBM comment from George Penokie

Page ii - The SCSI bulletin board information should be removed

7: IBM comment from George Penokie

Page xx - Any capitals on the words 'Initiator' and 'Target' should be made non-capitals (i.e., initiator, target). In general there are numerous cases where words are capitalized throughout this standard. Most, if not all, of those words should not be capitalized. I have pointed out many of these in the first part of the standard as examples but this is a general comment on the entire standard not just the places that I have indicated.

8: IBM comment from George Penokie

Page ii - What is 'Fibre Channel Physical and Signaling Interface'? Should this be the name of this standard? If not then what is it?

9: IBM comment from George Penokie

Page ii - Why is the statement 'The second revision includes additional mandatory and optional requirements.' here it adds nothing to the abstract and should be removed.

PDF Page 3

10: IBM comment from George Penokie

Page iii -The document revision history should be removed.

PDF Page 13

11: IBM comment from George Penokie

Page xx - Is the reference to FC-PH really a reference to FC-PH-2, FC-PH-3, DAM-1, DAM-2 or the new FC-PI and FC-FS. Through out this standard there are references to the various FC-PH standards. In many cases it is not clear as to which version of FC-PH is being referred to. I suggest all references be changed to reference FC-FS. I do not believe there are any references to the FC-PI part of FC-PH but if there are then FC-PI should be used as the reference.

12: IBM comment from George Penokie

Page xiii - The term 'Fibre Channel ' should not be capitalized.

13: IBM comment from George Penokie

Page xiii - There is no list of names for t10.

PDF Page 14

14: IBM comment from George Penokie

Page xiv - There is no list of names for NCITS.

15: IBM comment from George Penokie

Page xiv - X3 needs to be changed to NCITS.

16: IBM comment from George Penokie

Page xiv - The statement ' This document describes...' should be 'This standard describes...'..

17: IBM comment from George Penokie

Page xiv - The statement 'This document describes the protocol for using Fibre Channel FC-PH Exchanges and Information Units to implement the SCSI Fibre Channel Protocol (FCP) and optional extensions to that protocol.' Is completely unclear and needs to be rewritten.

18: IBM comment from George Penokie

The term 'Information Unit' should not be capitalized.

19: IBM comment from George Penokie

Page xiv - The statement 'into 11 major clauses' should be 'into 11 clauses'. All clauses are major anything else is a subclause.

20: IBM comment from George Penokie

Page xiv - Once you start using the acronym FCP you should continue to use it not Fibre Channel Protocol.

PDF Page 15

21: IBM comment from George Penokie

Page xv - Once you start using the acronym FCP you should continue to use it not Fibre Channel Protocol.

22: IBM comment from George Penokie

Page xv - What is a temporary annex? It must be removed or not removed because it cannot be changed after the standard is forwarded.

23: IBM comment from George Penokie

Page xv - There is a statement that 3 annexes have been removed and then it goes on to tell what those were and where they went. There are several problems with this.

1-You use FCP here to mean the FCP standard but in other places it means either the FCP or FCP-2. This needs to be resolved.

2-You reference specific clauses in a standard. This is almost always going to be incorrect. Only the standard should be referenced.

The best solution to this problem would be to totally removed any comments about the removed annexes.

24: IBM comment from George Penokie

Page xv - I would be best to change all references from SAM to SAM-2.

25: IBM comment from George Penokie

Page xv - You should change the statement 'SCSI-3 family' to 'SCSI family'.

PDF Page 17

26: IBM comment from George Penokie

I believe it would be much less confusing if the name of this standard was change to 'Fibre Channel Protocol for SCSI, Second Version'. The term 'revision' makes me think of document revision numbers (e.g., Rev. 02, 03).

27: IBM comment from George Penokie

Page 1 - The statement 'This standard defines a second revision of the ...' should be 'This standard defines a second version of the ...'

28: IBM comment from George Penokie

Page 1 - The statement 'This standard defines a second revision of the ...' should be 'This standard defines a second version of the ...'

PDF Page 18

29: IBM comment from George Penokie

Page xx - In many, but not all, cases standards are referenced by the ANSI number. This is not very useful to the reader. These should be changed to the standards acronym throughout the standard.

30: IBM comment from George Penokie

Page 2 - section 3.1.10 - I believe B comes before C so the BMCM definition should be moved to the correct alpha position.

31: IBM comment from George Penokie

Page 2 - section 2.2 - The project number of FC-FS is 1331D not 3111D.

PDF Page 19

32: IBM comment from George Penokie

Page 3 - section 3.1.17 - The term 'Execute Command' should not be capitalized.

33: IBM comment from George Penokie

Page 3 - section 3.1.20 - When did tokens become part of FC? Address would be a better term.

34: IBM comment from George Penokie

Page 3 - section 3.1.23 - Replace token with address.

35: IBM comment from George Penokie

Page 3 - section 3.1.30 - Another reference to FC-PH where it should be a reference to all the FC-PH standards.

36: IBM comment from George Penokie

The terms Exchange, Originator, and Responder should not be capitalized.

37: IBM comment from George Penokie

Page 3 - section 3.1.32 - The reference to 'Responder Exchange Identifier' should be replaced with a sub-clause number.

PDF Page 20

38: IBM comment from George Penokie

Page 4 - section 3.1.34 - Another reference to FC-PH where it should be a reference to all the FC-PH standards

39: IBM comment from George Penokie

Page 4 - section 3.2 - The FCP-2 abbreviation does not need the ANSI document reference. And if it stays the TBD needs to be removed.

40: IBM comment from George Penokie

Page 4 - section 3.2 - I cannot believe the fibre channel is wholly defined in a single standard. This reference should be removed.

PDF Page 21

41: IBM comment from George Penokie

Page 5 - section 3.2 - SCSI-2 - What is ANS X3.131-1994? I believe it should be ANSI X3.131-1994..

42: IBM comment from George Penokie

Page 5 - section 3.2 - SCSI-2 - This is an abbreviations list but this does not tell what SCSI-2 is. It should be changed to 'Small Computer System Interface-2'.

43: IBM comment from George Penokie

Page 5 - section 3.2 - SCSI-3 - This is an abbreviations list but this does not tell what SCSI-3 is. It should be changed to 'Small Computer System Interface-3'. Also there is no single SCSI-3 standard so the current reference is incorrect.

PDF Page 22

44: IBM comment from George Penokie

Page 6 - section 3.4 - The bit order and byte order should be specified here not by reference to another document.

45: IBM comment from George Penokie

Page 6 - section 3.4 - The following ISO editorial conventions need to be added in and followed: Decimals are indicated with a comma (e.g., two and one half is represented as 2,5). Decimal numbers having a value exceeding 999 are represented with a space (e.g., 24 255).

PDF Page 23

46: IBM comment from George Penokie

If fibre channel was changed to FC every where except the first occurrence then the issue about capitalizing fibre channel would be resolved.

47: IBM comment from George Penokie

Page 7 - section 4.4 - The statement 'In the FCP-2 document N_Ports...' should be 'In this standard N_Ports...'.

48: IBM comment from George Penokie

Section 4 - There are several references to standards that use the ANSI number all these should be changed to reference the standards name.

49: IBM comment from George Penokie

Page 7 - section 4.1 - There is a reference to a specific annex outside this standard that should be removed.

50: IBM comment from George Penokie

Page xx - There are several references to 'SAM and SAM-2' this implies that these two standards are both needed when you only need one or the other. The best thing to do is to reference only one; SAM-2 is preferred.

51: IBM comment from George Penokie

Page 7 - section 4.1 - The sentence that contains the reference to CAM is not necessary and should be removed. This would then allow the removal of CAM from the normative reference list.

52: IBM comment from George Penokie

Page 7 - section 4.1 - The word 'paradigm' should be replaced with 'structure' or some such word.

PDF Page 24

53: IBM comment from George Penokie

Page 8 - section 4.1 - The term '65535' should be '65 535'.

54: IBM comment from George Penokie

Page 8 - section 4.2 - The term Execute should not be capitalized.

55: IBM comment from George Penokie

Page 8 - section 4.2 - Again SAM-2 is not an incremental standard to SAM therefore only one should be listed here and in other places throughout this standard.

56: IBM comment from George Penokie

Page 8 - section 4.2 - The term Send should not be capitalized.

57: IBM comment from George Penokie

Page 8 - section 4.2 - A cross-reference to the section that explains about FQXIDs would be helpful at this point in the document.

58: IBM comment from George Penokie

Page 8 - section 4.2 - The document should be de-whiched. For example in this section the statement '...initiator to indicate which portion of the data.., should be changed to '...initiator to indicate the portion of the data...'.

59: IBM comment from George Penokie

Page 8 - section 4.2 - The sentence 'Exactly one FCP_DATA IU follows each FCP_XFER_RDY IU.' should be changed to 'One FCP_DATA IU shall follow each FCP_XFER_RDY IU.'

60: IBM comment from George Penokie

Page 8 - section 4.2 - What is the statement 'other mechanisms for controlling the data transfer.' supposed to mean? Do you mean 'mechanisms outside the scope of this standard'? If so then say it that way.

61: IBM comment from George Penokie

Page 8 - section 4.2 - All note should be numbered. But this note should be remove and a list of obsolete things placed in one place, preferably in the Scope clause.

62: IBM comment from George Penokie

Page 8 - section 4.2 - What exactly is an 'unusual condition'? Would this be an error condition or something else; it is not clear at all. "Unusual conditions' need to be defined or replaced with something that is defined.

63: IBM comment from George Penokie

Page 8 - section 4.2 and other places - The term 'Operation ' should not be capitalized.

64: IBM comment from George Penokie

Page 8 and 9 - section 4.2 - This entire section contains descriptions of sequences of operations that occur written in paragraphs. This is difficult to read and understand. It would be much clearer if the operations were placed in lists were each step was a new list entry.

65: IBM comment from George Penokie

Page 8 - section 4.2 - 'Send Command Complete' should not be capitalized.

66: IBM comment from George Penokie

Page 8 - section 4.2 - The statement 'The SCSI logical unit determines whether ...'. is not correct, it is the task manager that controls the command sequencing..

PDF Page 25

67: IBM comment from George Penokie

Page 9 - section 4.2 - The statement ' ..confirmation information to the software that requested...' should be '...confirmation information to the application client that requested...'.

68: IBM comment from George Penokie

Page 9 - section 4.2 - Unlike editors, standards do not have emotions. The statement '...performed the desired operations with the..' should be changed to '...performed the requested operations with the...'

69: IBM comment from George Penokie

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Page 9 - section 4.2 - The statement 'The Flag bit defined by SAM for linked commands is obsolete in FCP-2.' should be removed and a list of obsolete things placed in one place, preferably in the Scope clause

70: IBM comment from George Penokie

Page 9 - section 4.2 The term Flag in the statement ' The Flag bit defined by SAM...' should be in small caps as it is the name of a field.

71: IBM comment from George Penokie

Page 9 - section 4.2 - The statement '...of the particular SCSi devices and ..' should be changed to '...of the SCSI device...'

72: IBM comment from George Penokie

Page 9 - section 4.2 - I/O operations are not between a host and a peripheral subsystem. I/O operations are between application clients and device servers. This needs to fixed in the last paragraph of section 4.2.

73: IBM comment from George Penokie

Page 9 - section 4.2 - Asynchronous Event Notification should not be capitalized.

74: IBM comment from George Penokie

Page 9 - section 4.3 - The statement 'for the proper operation and error recovery of a device server' should be removed as it carries no value in a standard.

75: IBM comment from George Penokie

Page 9 - section 4.3 - The statement 'In many cases, SCSI communications between an application client and a device server are stateless. In such applications, verification...' shows bias. It should be changed to 'In applications were SCSI communications between an application client and a device server are stateless, verification...'

76: IBM comment from George Penokie

Page 9 - section 4.3 - The statement 'For those special cases where checking for the precise delivery of SCSI...' should be changed to 'In applications where checking for the precise delivery of SCSI...'

77: IBM comment from George Penokie

Page 9 - section 4.3 - The cross-reference contains a page number. This is not the proper form. The page number should be removed.

78: IBM comment from George Penokie

Page 9 - section 4.3 - All the following except LUN should not be capitalized - Target Reset, LUN Reset, or Fibre Channel Login or Process Login..

79: IBM comment from George Penokie

Page 9 - section 4.3 - There is a 'will' that needs to be changed into a 'shall'.

80: IBM comment from George Penokie

Page xx - section xx - The term 'FCP I/O Operation' is stated to be he same as 'FCP exchange' but both are used throughout the standard. One term should be used in all cases. Pick one and change all others to

match it. There also are places where the term 'task' seems to be being used where FCP exchange or FCP I/O operation may be better (e.g., table 4).

81: IBM comment from George Penokie

Page 9 - section 4.3 - The information about what things cause the CRN to be cleared is also in table 4. It appears that table 4 is more precise. The sentence 'The integer begins with a value of one after any Target Reset, LUN Reset, or Fibre Channel Login or Process Login occurs.' should be replaced with 'See table 5 for the actions that cause the CRN field to be set to 1.'

PDF Page 26

82: IBM comment from George Penokie

Page 10 - section 4.3 - The 1,2,3 list should be an a,b,c list as there is not required order to the things listed.

83: IBM comment from George Penokie

Page 10 - section 4.3 - number 6 - There is no such thing as an execution queue. You may mean 'all tasks are in the ended state as defined by SAM-2' but in any case the term 'execution queue' needs to be replaced with a valid term.

84: IBM comment from George Penokie

Page 10 - section 4.3 - The statement 'Any command, including such initialization commands as INQUIRY, TEST UNIT READY, and MODE SENSE/ SELECT may always use a CRN of zero if the state of the EPDC bit is not known or if precise delivery is not...' First states 'Any command' then gives a list of some commands, why?. What is the point in saying 'any command' if you are going to qualify it. The statement should read 'Any command may use a CRN of zero if the state....'

85: IBM comment from George Penokie

Page 10 - section 4.4 - The word can needs to be removed.

86: IBM comment from George Penokie

Page 10 - section 4.4 - The statement 'Upon receiving the FCP_CONF, the SCSI target can be assured that the initiator has the information necessary to perform stateful recovery and can then discard its own copy of the information.' Should be changed to ' Upon receiving the FCP_CONF, the SCSI target shall (or may?) discard its own copy of the information. The removed wording add no information to the standard.

87: IBM comment from George Penokie

Page 10 - section 4.4 - All information should be assumed to be 'critical' therefore it need not be stated as such. Remove the word 'critical' .

88: IBM comment from George Penokie

Page 10 - section 4.3 - item 1 - The information about what things cause the CRN to be cleared is also in table 4. It appears that table 4 is more precise. The statement 'A PRLI, Target Reset task management function, and LUN Reset task management function shall reset the CRN to be transmitted....' should be replaced with 'See table 5 for the actions that cause the CRN to be transmitted .... '.

PDF Page 27

89: IBM comment from George Penokie

9

Page 11 - section 4.4 - The term 'intermediate status' needs to be written as 'INTERMEDIATE status'.

90: IBM comment from George Penokie

Page 11 - section 4.4 - The 1,2 list should be an a,b list there is no order to the items in the list.

91: IBM comment from George Penokie

Page 11- Section 4.6 - table 2 - MODE SENSE should be MODE SENSE command.

92: IBM comment from George Penokie

Page 11- Section 4.6 - table 2 - What is 'none' supposed to mean?

93: IBM comment from George Penokie

Page 11- Section 4.6 - table 2 - Why is there a blank row in this table?

PDF Page 28

94: IBM comment from George Penokie

Page 12 - section 4.7 - The page number on the cross reference needs to be removed.

95: IBM comment from George Penokie

Page 12 - section 4.8 - The statement 'cleared to its default or power-on value...' is not really correct. In many cases information is cleared to its saved values which in many cases is not the same as the default. Also, power-on value is not a good description. I think the best thing to say would be 'most recent saved value'.

96: IBM comment from George Penokie

Page 12 - section 4.8 - Sequences and exchanges should not be capitalized.

97: IBM comment from George Penokie

Page 12 - table 3 - The term 'SCSI-3 function' should be 'SAM-2 function'.

PDF Page 29

98: IBM comment from George Penokie

Page 13 - table 4 - The term 'TPRLO' is not defined or a referenced made as to where it is defined. This needs to be fixed.

99: IBM comment from George Penokie

Page 13 - table 4 - The the clearing actions for TPRLO and SCSI target reset are identical. Why have both?

100: IBM comment from George Penokie

Page 13 - table 4 - The terms 'SCSI initiator port', L_Ports, SCSI initiators, and ports all seem to be the same thing. One term should be used or the deferences between these terms clearly stated.

101: IBM comment from George Penokie

Page 13 - table 4 - The terms 'tasks', 'FCP exchanges', and 'I/O Operations' seem to be the same thing. Only one name should be used.

102: IBM comment from George Penokie

Page 13 - table 4 - The row entry 'only for ports of specified TYPE' should be removed as this standard only defines on TYPE (i.e., SCSI). No other TYPE applies..

103: IBM comment from George Penokie

Page 13 - table 4 - The 'N' in the TPRLO column/for all logged-in SCSI initiator ports should be a 'Y' when the 'only for ports of specified TYPE' row is removed.

104: IBM comment from George Penokie

Page 13 - table 4 - In several places a statement like 'for all xxxx SCSI initiator ports' is made. The meaning of this is not clear. Does it mean for all initiators on all the ports connected either physically or logically to the device on which the port resides or only those initiator ports that reside on the same physical loop? The current wording could be interpreted either way.

105: IBM comment from George Penokie

Page 13 - table 4 - The 'Y' in columns LOGO, PLOGI and PRLI, PRLO row PRLI parameters cleared only for port initiating action should be '-'. Because the operation on the port is the login or logout so there can be no specified tasks going on.

106: IBM comment from George Penokie

Page 13 - table 4 - The 'N' and 'Y' in column LOGO, PLOGI rows for 'SCSI target mode page parameters restored form saved pages' should both reference note 12.

107: IBM comment from George Penokie

Page 13 - table 4 - The row 'pre-existing SCSI, UA, and deferred error conditions cleared only of port initiating action' it is not clear that these actions only apply for any pre-existing conditions that where caused by the initiating initiator. (i.e., if there is an ACA and an initiator logs in that is not the initiator that caused the ACA the ACA will not be cleared.) This needs to be made clear.

108: IBM comment from George Penokie

Page 13 - table 4 - The term 'UA' is not defined and should be changed to 'unit attention' in all cases.

109: IBM comment from George Penokie

Page 13 - table 4 - It is not clear if the clearing actions causes the CRN to be set to 1 or 0. This needs to be specified.

PDF Page 30

110: IBM comment from George Penokie

Page 14 - table 4 - note 4 - The statement '...,not the entire SCSI target.' contains no useful information and should be deleted.

111: IBM comment from George Penokie

Page 14 - table 4 - note 5 - The statements 'Global bit = '1b'. If the Global bit ='0b',...' should be 'GLOBAL is set to 1. IF the GLOBAL bit is set to 0,....' Global should be in small caps. Also there is no indication as to where the global bit is defined. This needs to be added.

112: IBM comment from George Penokie

Page 14 - table 4 - note 8 - The statement '...only "establish image pair"=1.' is unclear. What is an establish image pair and where is it defined?

113: IBM comment from George Penokie

Page 14 - table 4 - note 11 - The term 'APTPL' is not defined. It needs to be defined a reference added to where it is defined.

114: IBM comment from George Penokie

Page 14 - table 4 - note 12 - The statement '...of proper management of mode pages.' should be 'of management of mode pages.' The term 'proper' should be deleted from here are in the table 5 heading.

115: IBM comment from George Penokie

Page 14 - table 5 - The two entries labeled 'discard current mode pages' should be changed to 'not specified'. There is no reason to force the device to discard current mode pages or do any other action with mode pages at this point.

116: IBM comment from George Penokie

Page 13 - table 4 - note 13 - This not attempts to give, what appears to be, a reason for an implicit logout may happen. This is more confusing that helpful. The reason should be removed and just the reference should be specified.

PDF Page 31

117: IBM comment from George Penokie

Page 15 - Section 4.10 - The reference to ANSI X3.230 should be changed to the common name of that standard.

PDF Page 32

118: IBM comment from George Penokie

Page 16 - section 5.1 - The word 'uniquely' should be deleted in 2 places. The term does add any information to the standards requirements.

119: IBM comment from George Penokie

Page 16 - section 5.1 - The statement ...'defined in the following table...' should reference the exact table.

120: IBM comment from George Penokie

Page 16 - section 5.1 - The statement '...parameters that uniquely identify the exchange between the initiator and target.' should be replaced with '...the fully qualified exchange identifier (FQXID).' Then replace the next sentence with 'The FQXID is defined in table xxx.' Of course there is another possibility and that is that there are some other undefined parameters in addition to the S_ID and D_ID. If that is the case then they should be stated and not left to the reader imagination. If that is the case then the second sentence still needs to be modified but how depends on the answers.

121: IBM comment from George Penokie

Page 16 - section 5.1 - The term Required should not be capitalized.

122: IBM comment from George Penokie

Page 16 - section 5.1 - LUs are not inside ports. The statement '...internal to an addressed NL_Port...' should be deleted from the sentence.

123: IBM comment from George Penokie

Page 16 - section 5.1 - You have been using the term FCP I/O operation and the term exchange independently up to this point. Now it appears you are equating it to an exchange. Are these two term interchangeable? If so then only one should be used exclusively except for possibly a single definition were both terms are used.

124: IBM comment from George Penokie

Page 16 - section 5.1 - In one sentence three undefined terms appear; logical initiator, logical target, and process associator. These terms need to be defined..

125: IBM comment from George Penokie

Page 16 - section 5.1 - I did not know targets were a form of intelligent life! The sentence: 'The target is required to be cognizant of the OX_ID to perform error recovery and task management functions.' should be changed to: 'In order to perform error recovery and task management functions SCSI device servers shall support the OX_ID address identifier.'

126: IBM comment from George Penokie

Page 16 - section 5.1 - table 6 - The definition of 'R' should be in the table not part of the text outside the table.

127: IBM comment from George Penokie

Page 16 - section 5.1 - table 6 - There is a blank cell under RX_ID; what does that mean?

128: IBM comment from George Penokie

Page 16 - section 5.2 - The first three sentences would read better if rewritten as follows: 'Any third-party SCSI command parameters that contain 64-bit fields (e.g., COPY command, and RESERVE command) that define access to other SCSI devices through FCP_Ports shall format the 64-bit field as defined in table 7.

129: IBM comment from George Penokie

Page 16 - section 5.1 - table 6 - What is a 'basic operation'? I see no explanation of what it is or does. On needs to be added.

PDF Page 33

130: IBM comment from George Penokie

Page 17 - sections 5.2.1, 5.2.2, and 5.2.3 - There is no need for these sections. Normally the fields are defined in paragraphs under the table. If these sections remain then you have to eliminate the hanging text and table between 5.2 and 5.2.1 by putting that information into a section 5.2.1 and incrementing the remaining 5.2.x sections.

131: IBM comment from George Penokie

Page 17 - section 5.2.1 and throughout the document - All italics should be removed and replace with normal text.

132: IBM comment from George Penokie

Page 17 - section 5.2.1 - The statement 'If this bit is set...' should be changed to 'If the process association value (PA_VAL) bit is set...'. Without this change I have no idea what 'this bit' is. and The second 'If this bit...' should be 'If the PA_VAL bit ...'

133: IBM comment from George Penokie

Page 17 - section 5.2.2 - The statement 'This field defines..' should be changed to 'The FCP_Port identifier field defines...'.

134: IBM comment from George Penokie

Page 17 - section 5.2.3 - The statement 'If the PA_VAL bit indicates that this field is valid, the field defines the..' should be 'If the PA_VAL bit is set to 1, the process associator field defines the ....'

135: IBM comment from George Penokie

Page 17 - section 5.3 - The statement 'According to FC-PH...' should be 'As specified in FC-PH...'

136: IBM comment from George Penokie

Page 17 - section 5.3 - In one sentence 2 terms are used for the same thing; address identifier and S_ID. This is confusing to the reader. Only one name for one thing should be used. Pick one and use it constantly throughout the document.

137: IBM comment from George Penokie

Page 17 - section 5.3 - Remove the statement '(page code 83h)'. That information is not important to this standard and can be found in SPC-2.

138: IBM comment from George Penokie

(T) Page 17 - section 5.3 - The statement: 'For FCP-2 devices with a single LUN, the world-wide unique name of the LUN may be the same as the world-wide unique name for the Fibre Channel node.' should be changed to 'For FCP-2 devices with a LUN 0, the world-wide unique name of the LUN 0 may be the same as the world-wide unique name for the Fibre Channel node.' This change will have no effect on devices covered under the current definition but would give guidance to multi-LUN devices as to what the node should be.

139: IBM comment from George Penokie

Page 17 - section 5.3 - I would like to see everything relating to persistent reservation in this section placed in a section that only deals with persistent reservation. Putting it in this section is confusing. It may also need to be expanded somewhat to make it clear as to how WWIDs relate to Persistent reservation.

PDF Page 34

140: IBM comment from George Penokie

Page 18 - section 5.4 - table 8 - key - The references to specific subclauses in other standards should be removed.

141: IBM comment from George Penokie

Page 18 - section 5.4 - table 8 - key - The H and T need to be added to the key list not hidden in the explanation of a different key.

142: IBM comment from George Penokie

Page 18 - section 5.4 - table 8 - notes - The should be a cross-reference to table 9 after the statement '..an I5 frame...'

143: IBM comment from George Penokie

Page 18 - section 5.4 - table 8 - 'Note' should be 'Notes'

PDF Page 35

144: IBM comment from George Penokie

Page 19 - section 5.4 - table 9 - All the comments on table 8 apply to table 9 except for the cross-reference.

145: IBM comment from George Penokie

Page 19 - section 5.5 - The statement 'The FCP needs only...' should be changed to 'The FCP requires only...'

146: IBM comment from George Penokie

Page 19 - section 5.5 - There are references to specific annexs in another standard that must be removed.

147: IBM comment from George Penokie

Page 19 - section 5.5 - I assume the '.' between FC_PH_SEQUENCE_TAG.indication should not be there..

PDF Page 36

148: IBM comment from George Penokie

Page 20 - section 5.6 - table 10 - There is a format problem with the table in that the right side is missing some of its double-lines.

149: IBM comment from George Penokie

Pages 20 and 21 - sections 5.6.1 to 5.6.11. - Although I can see a benefits to doing it this way normally the field definitions are not separated from a table by sections. The sections should be removed. However, if this comment is rejected then the hanging text and table must be removed in the same manor as described in a previous comment.

150: IBM comment from George Penokie

Pages 20 and 21 - sections 5.6.2, 5.6.3, 5.6.6 and 5.6.7 - All these sections have the same problem. They do not tell the reader what is in the field, instead they define terms which have already be defined elsewhere in the standard. To fix this the should all be changed to read for example: The D_ID field identifies the D_ID of the destination of the frame.

PDF Page 37

151: IBM comment from George Penokie

Page 21 - section 5.6.11 - There is no such thing as a 'SCSI-3 application client'. I assume this should be 'application client'.

152: IBM comment from George Penokie

Page 21 - section 5.6.11 - The statement 'other FC-PH information' is not clear. What other information is being referred to? This should be changed to 'FC-PH information' unless the 'other' can be more completely defined.

153: IBM comment from George Penokie

Page 21 - Section 5.6.9 and 5.9.10 - The term element is used in relation to FQXID but in the section that defines FQXID there is not description of elements. Maybe it should be '..is a part of the FQXID.' or '... is one of the identifiers contained within the FQXID.'

PDF Page 38

154: IBM comment from George Penokie

Page 22 - section 6 - The paragraphs between the 6 header and 6.1 header are hanging and should be fixed.

155: IBM comment from George Penokie

Page 22 - section 6 - In the following sentence it is not clear what '... and summarized below.' is supposed to mean. 'The protocol also includes the process login and process logout extended link services in ANSI X3.297 and summarized below.'

156: IBM comment from George Penokie

Page 22 - section 6 - The statement '...may require new login procedures.' Makes it should like this standard is going to define some new login procedures. I do not think this is the case. Maybe it should state '...may require login.'

157: IBM comment from George Penokie

Page 22 - section 6.1 - The term 'Process' should not be capitalized.

158: IBM comment from George Penokie

Page 22 - section 6.1 - The statement '(LS_Command code = "20" hexadecimal)' should be removed as it is defined in the referenced standard.

159: IBM comment from George Penokie

Page 22 - section 6.1 - The statement '...capabilities to be announced by the...' should be replaced with '...capabilities to be reported by the...'. This change assumes that FC does not have a PA system to make announcements over.

160: IBM comment from George Penokie

Page 22 - section 6.1 - The term 'image pair' should be added to the definitions section.

161: IBM comment from George Penokie

Page 22 - section 6.1 - In the statement '...PRLI can reject the command...' it is not at all clear what command is being rejected. So what command is being rejected?

162: IBM comment from George Penokie

Page 22 - section 6.1 - The text '...LS_Command code = "21" hexadecimal...' should be removed as it is defined in the referenced standard.

163: IBM comment from George Penokie

Page 22 - section 6.1 - The 1,2,3 list should be an a,b,c list.

164: IBM comment from George Penokie

Page 22 - section 6.1 - The statement '...is exchanged enabling subsequent...' would be clearer if it stated '...is exchanged during the process login enabling subsequent...'

165: IBM comment from George Penokie

Page 22 - section 6.1 - The term 'explicitly' should be deleted. There is no difference between explicitly establishes a relationship and establishes a relationship.

166: IBM comment from George Penokie

Page 22 - section 6.1 - The term 'modes of operation' seems to be equal to the term 'capabilities' used else where in this section. Replace 'modes of operation' with 'capabilities'.

167: IBM comment from George Penokie

Page 22 - section 6.1 - The sentence: 'Such capabilities include channel or device (FC-SB), initiator or target (FCP), and similar values.' should be replace with something like: '(e.g., indication if node is a channel or device (FC-SB), an initiator or target (this standard), and similar values).

168: IBM comment from George Penokie

Page 22 - section 6.1 - The following sentence 'Requirements include values such as the parameters controlling the FCP IUs that must be used.' should be replaced with something like '(e.g., parameters controlling the FCP IUs that must be used).

169: IBM comment from George Penokie

Page 22 - section 6.1 - The term Parameter should not be capitalized.

170: IBM comment from George Penokie

Page 22 - section 6.2 - The paragraphs between sections 6.2 and 6.2.1 are hanging.

171: IBM comment from George Penokie

Page 22 - section 6.2 - The statement '...according to the rules below.' is not specific. It needs to indicate by cross reference in which subclauses the rules are located.

172: IBM comment from George Penokie

Page 22 - section 6.1 - item 2 - Is this 'service parameter information' or some other form on 'information' . The current statement implies there is some, unspecified, type of information for the Binding mode.

173: IBM comment from George Penokie

Page 22 - section 6.1 - There should be a reference to table 4 which contains the clearing actions relating to PRLI and PRLO.

PDF Page 39

174: IBM comment from George Penokie

Page 23 - section 6.2 - Are the same PRLI parameters and codes defined in two different standards? If so then which one has priority when then is a conflict?

175: IBM comment from George Penokie

Page 23 - section 6.2.1 and else where - The term Process Associator should not be capitalized.

176: IBM comment from George Penokie

Page 23 - section 6.2.1 - The statement '...shall return exactly one page..' should be changed to '...shall return one page...' The is no additional information carried in the word exactly.

177: IBM comment from George Penokie

Page 23 - section 6.2.1 and others - What is a 'service parameter page'? What is in it and where is it defined?

178: IBM comment from George Penokie

Page 23 - section 6.2.1 and others - The term 'page' is used several times without a clear definition of what a 'page' is, what it contains, and where it is defined.

179: IBM comment from George Penokie

Page 23 - section 6.2.1 - In the statement 'Use if this mechanism requires...' I assume you mean 'Use of process associators requires...'. If so it should be changed if not the mechanism needs to be stated.

180: IBM comment from George Penokie

Page 23 - section 6.2.1 - The statement 'precise and detailed' should be removed as it add no value to the sentence it is in.

181: IBM comment from George Penokie

Page 23 - section 6.2.1 - The sentence 'That information may be obtained by mechanisms outside the scope of the FCP or may be obtained by performing a PRLI requesting informative communication. needs to be restated as 'That information may be obtained by performing a PRLI requesting informative communication or by other mechanisms outside the scope of the this standard.'

182: IBM comment from George Penokie

Page 23 - section 6.2.1 and others - So in addition to undefined service parameter pages and pages this section also has undefined service pages. All this needs to be cleared up.

183: IBM comment from George Penokie

Page 23 - section 6.2.1 - The term 'informative communications' does not seem to be defined anywhere. What is it?

184: IBM comment from George Penokie

Page 23 - section 6.2.2 - The sentence 'In the ACC, the service parameter pages shall be returned using the same originator PA and invalid responder PA indication.' Seems incomplete. The same originator PA and invalid responder PA indication as what? (i.e., The same as what?)

185: IBM comment from George Penokie

Page 23 - section 6.2.2 - Now we have binding communications which is not defined to go along with informative communications. What are all these forms of communication?

186: IBM comment from George Penokie

Page 23 - sections 6.2.1 and others - The acronym PA as suddenly appeared and it is not defined anywhere. I assume it stands for process associator but it could be anything. I recommend PA be replaced with process associator in all cases (assuming that's what it stands for.

187: IBM comment from George Penokie

Page 23 - section 6.2.3 - The statement 'The request pages...' should be 'The requested pages...'.

188: IBM comment from George Penokie

Page 23 - section 6.2.3 - Now we have binding communications which is not defined to go along with informative communications. What are all these forms of communication?

PDF Page 40

189: IBM comment from George Penokie

Page 24 - section 6.2.5 - To add to the list of unknown pages this section now references a PRLI page. The same questions apply; What's in it, and where is it defined,

190: IBM comment from George Penokie

Page 24 - section 6.2.5 - The following sentence is unclear as to the information it is conveying. 'A new PRLI page to an already established image pair replaces the previous parameters with new PRLI parameters.' I believe the following would be better 'A new PRLI page that references an already established image pair replaces the previous parameters with the new PRLI parameters.'

191: IBM comment from George Penokie

Page 24 - sections 6.2.5 - In may long standing war against excess executions I would like the following statement; 'Immediately after the execution of the first PRLI....' changed to 'After the competition of the first PRLI...' The term 'immediately' cannot be quantified and therefore should be removed where ever used.

192: IBM comment from George Penokie

Page 24 - section 6.2.5 - The 'will' needs to be replaced with a shall.

193: IBM comment from George Penokie

Page 24 - section 6.2.5 - The statement 'The MODE SELECT parameters will assume their default or saved states...' should be changed to 'The MODE SELECT parameters shall be set to their default or saved values...'

194: IBM comment from George Penokie

Page 24 - section 6.2.5 - The statement '... for all image pair.' should be '...for all image pairs.'

195: IBM comment from George Penokie

Page 24 - section 6.2.5 - The statements '(Sense Key = 6)' and (ASC=29,ASCQ=00) should be removed as they are defined in other standards.

196: IBM comment from George Penokie

Page 24 - sections 6.2.5 - The 'which' should be replaced with a 'that'..

197: IBM comment from George Penokie

Page 24 - section 6.2.5 - The statement 'first attempt to communication' seem vague. Do you mean 'the first SCSI task sent'? If so change the words should be changed.

198: IBM comment from George Penokie

Page 24 - section 6.2.5 - The term 'reset state' is not correct. It should be 'reset condition'.

199: IBM comment from George Penokie

Page 24 - section 6.2.5 - The statement; 'Devices may have default PRLI information provided at the time the device is installed in the configuration.' should be changed to 'Devices may have default PRLI information provided in a manor outside the scope of this standard.'

200: IBM comment from George Penokie

Page 24 - section 6.2.5 - The statement; 'If a device has no such default parameters and...' should be changed to 'If a device has no default parameters and...'

201: IBM comment from George Penokie

Page 24 - section 6.2.5 - The statement '...if no PRLI has been performed since power on or the last PRLO,..' does not talk about reset. Is this intentional?

202: IBM comment from George Penokie

(T) Page 24 - section 6.2.5 - The statement ...'will close the exchange with an ABTS or ABTX ELS." is in direct conflict with PLDA which states that a target shall never initiate an ABTS. PLDA states that in this case the target does a PRLO. Because many devices have been implemented to the PLDA this standard should be made to match it. This section is also in direct conflict with section 12.7.

203: IBM comment from George Penokie

Page 24 - section 6.2.5 - The term 'ABTX ' is only used one time in this standard. It needs to be defined or a reference added to where it is defined.

PDF Page 41

204: IBM comment from George Penokie

Page 25 - section 6.2.6 - table 11 and 12 - The entry 'hexadecmial '08', SCSI FCP' should be changed to 'SCSI FCP (08h)'.

205: IBM comment from George Penokie

(T) Page 25 - section 6.2.6 - table 11 and 12 - One of the obsolete entries has a requirement. How can something that is obsolete have a requirement? The requirement should be removed.

206: IBM comment from George Penokie

Page 25 - section 6.2.6 - The information between 6.2.6 and 6.2.6.1 is hanging and needs to be unhung.

207: IBM comment from George Penokie

Page 25 -27 - sections 6.2.6.x - These section titles should be removed. I suggest making them into run in headers (like the definitions list) which would keep the identity of the sections and get rid of the hung information.

208: IBM comment from George Penokie

Page 25 - section 6.2.6.1 - The statement 'The value of hexadecimal '08' in this byte...' needs to be changed to 'The value 08h in this byte...'

PDF Page 42

209: IBM comment from George Penokie

Page 26 - section 6.2.6.5 - The term 'originator process associator' is in small caps when it is not the name of the field but the contents of the field. The term should be in normal text not caps.

210: IBM comment from George Penokie

Page 26 - section 6.2.6.6 - The term 'responder process associator' is in small caps when it is not the name of the field but the contents of the field. The term should be in normal text not caps.

211: IBM comment from George Penokie

Page 26 - section 6.2.6.7 - Here we are again back to the 'page' name. I assume this is the 'FCP service parameter page, PRLI request' but it is not clear if that is the case or not.

212: IBM comment from George Penokie

Page 26 - section 6.2.6.7 - The following sentence would be clearer if made into 2 sentences as shown. Original sentence:' If the process has both initiator and target capabilities, the RETRY bit shall apply to both and SRR may be both transmitted by and accepted by the process .' New sentences: If the process has both initiator and target capabilities, the RETRY bit shall apply to both. In addition SRR may be both transmitted by and accepted by the process.

213: IBM comment from George Penokie

Page 26 - sections 6.2.6.8 to 6.2.6.11 - Here we are again back to the 'page' name. I assume this is the 'FCP service parameter page, PRLI request' but it is not clear if that is the case or not

214: IBM comment from George Penokie

Page 26 - section 6.2.6.8 - It is not clear what the 'its' in the statement '...is indicating that its initiator function...' is referring to.

215: IBM comment from George Penokie

Page 26 - section 6.2.6.7 - It is not clear what the 'it' in the statement '...is indicating that it supports as an initiator function...' is referring to.

216: IBM comment from George Penokie

Page 26 - section 6.2.6.9 - It is not clear what the 'its' in the statement '...is indicating that its initiator func-tion...' is referring to.

217: IBM comment from George Penokie

Page 26 - section 6.2.6.8 - last sentence - The term 'confirmed completion allowed ' is in small caps when it is not being used as the name of a bit. The term should be in normal text not caps in this case.

218: IBM comment from George Penokie

Page 26 - section 6.2.6.8 - The term 'bit' is used in several cases with no name associated with the bit. The should be fixed in all cases. Bit should never stand alone as it may become unclear as to which bit is being referred to.

219: IBM comment from George Penokie

Page 26 - section 6.2.6.9 - The term 'bit' is used in several cases with no name associated with the bit. The should be fixed in all cases. Bit should never stand alone as it may become unclear as to which bit is being referred to.

220: IBM comment from George Penokie

Page 26 - section 6.2.69 - last paragraph - The term 'data overlay allowed' is in small caps when it is not being used as the name of a bit. The term should be in normal text not caps in this case..

221: IBM comment from George Penokie

Page 26 - section 6.2.6.10 and 6.2.6.11 - It is not clear what the 'it' in the statement '...is indicating that it operates as a SCSI ...' is referring to.

222: IBM comment from George Penokie

Page 26 - section 6.2.6.10 - last sentence - The term 'initiator function ' is in small caps when it is not being used as the name of a bit. The term should be in normal text not caps in this case.

223: IBM comment from George Penokie

Page 26 - section 6.2.6.11 - 3rd sentence - The term 'target function ' is in small caps when it is not being used as the name of a bit. The term should be in normal text not caps in this case.

PDF Page 43

224: IBM comment from George Penokie

Page 27 - section 6.2.6.11 - The statement 'Both bits 4 and 5 may be set.' should be changed to 'Both the initiator function bit and the target function bit may be set.' This makes it clear which bits are being talked about.

225: IBM comment from George Penokie

Page 27 - section 6.2.6.11 - The statement 'If neither bit is set...' should be 'If neither the target function bit or the initiator function bit is set...'.

226: IBM comment from George Penokie

Page 27 - section 6.2.6.11 - The statement; '...with a PRLI ACCEPT RESPONSE CODE of 1000b (Invalid service parameters for page) indication.' should be changed to 'with a PRLI accept reason code of INVALID SERVICE PARAMETERS OF PAGE indication.

227: IBM comment from George Penokie

Page 27 - section 6.2.6.12 - This bit is marked as obsolete so what is it doing being defined. This section should be removed.

228: IBM comment from George Penokie

Page 27 - section 6.2.6.13 - The statement '..may be not used before the first FCP_DATA IU...' mean. I believe it should be '... may not be used before the first FCP_DATA IU...'. or '... shall not be used before the first FCP_DATA IU...'

229: IBM comment from George Penokie

Page 27 - sections 6.2.6.13 The term 'Operation' should not be capitalized.

230: IBM comment from George Penokie

Page 27 - section 6.2.6.13 The statement 'after the first one' is redundant and should be removed.

231: IBM comment from George Penokie

Page 27 - section 6.2.6.13 - In the following statement the term SCSI write is used, but this seems to be the only place a read or write is noted as being a SCSI write or read. The SCSI should be removed here or added in everywhere else. '...then all FCP I/O Operations performing SCSI writes between the FCP_Ports shall operate without using the FCP_XFER_RDY IU before the first FCP_DATA IU.'

PDF Page 44

232: IBM comment from George Penokie

Page 28 - section 6.2.7.1 - The statement; 'IMAGE PAIR ESTABLISHED is valid only if bit 13 was set to 1...' should be 'IMAGE PAIR ESTABLISHED bit shall only be valid it the IMAGE PAIR ESTABLISHED bit was set to 1...'

233: IBM comment from George Penokie

Page 28 - section 6.2.7.1 - The statement 'If this bit...' should be 'If the IMAGE PAIR ESTABLISHED bit...'.

234: IBM comment from George Penokie

Page 28 - section 6.2.7.1 - The statement 'If set to...' should be 'If the IMAGE PAIR ESTABLISHED bit is set to...'

PDF Page 45

235: IBM comment from George Penokie

Page 29 - section 6.2.7.2 - The statement 'This 4-bit value is defined....' should be 'The PRLI ACCEPT RESPONSE CODE field is defined...'

236: IBM comment from George Penokie

Page 29 - section 6.3 - The statement 'Only the specified image pairs are logged out...' should be 'Only the image pairs specified in the ???? are logged out...'

237: IBM comment from George Penokie

Page 29 - section 6.3 - To add to the list of unknown pages this section now references a PRLO page. The same questions apply; What's in it, and where is it defined,

238: IBM comment from George Penokie

Page 29 - section 6.3 - The term process associator should not be capitalized.

239: IBM comment from George Penokie

Page 29 - section 6.3 - The acronym PA as suddenly appeared and it is not defined anywhere. I assume it stands for process associator but it could be anything. I recommend PA be replaced with process associator in all cases (assuming that's what it standards for.

240: IBM comment from George Penokie

Page 29 - section 6.3 - last sentence - The term 'accept response coeds' is in small caps when it is not being used as the name of a field. The term should be in normal text not caps in this case.

PDF Page 46

241: IBM comment from George Penokie

Page 30 - section 7 - The term 'NCTIS project 1356-D, FC-GS-3' need only state 'FC-GS-3'.

242: IBM comment from George Penokie

Page 30 - section 7 - The information between section 7 and 7.1 is hanging.

243: IBM comment from George Penokie

Page 30 - section 7.1 - tables 13 and 14 - The text in the cells needs space between the cell lines and the text.

244: IBM comment from George Penokie

Page 30 - section 7.1 - Why is the term 'TYPE' in all caps. I believe it should not have any caps.

245: IBM comment from George Penokie

Page 30 - section 7.1 - The following sentence is not clear and does not contain a proper table reference: 'The returned information contains a list header and a list of 4-byte values, described in FC-GS-3 as in the following table.' Something like this would be better: 'The returned information contains a list header and a list of 4-byte values as shown in table 13.

246: IBM comment from George Penokie

Page 30 - section 7.1 - table 13 - The title of the first column is 'item' but the text above the table seems to indicate that column should be titled 'list header'. If that is not the case then some other change must be made..

247: IBM comment from George Penokie

Page 30 - section 7.1 - table 13 - I assume that the '...' means there can be any number of these 4 byte entries but it would be cleared if the '...' was vertical rather then horizontal.

248: IBM comment from George Penokie

Page 30 - section 7.1 - The statement '...as in the following table' should be '...as shown in table 14.'

249: IBM comment from George Penokie

Page 30 - section 7.1 - table 14 - The first column should be hex values (e.g., 0h, 1h, 2h, 3h) or binary values (e.g., 0001b, 0010b, 0011b).

250: IBM comment from George Penokie

Page 30 - section 7.1 - table 13 -The 'rrr' is not defined. What does it stand for?

251: IBM comment from George Penokie

Page 30 - section 7 - The term 'Name Server' should not be capitalized.

252: IBM comment from George Penokie

Page 30 - section 7.2 - The term 'NCTIS project 1356-D, FC-GS-3' need only state 'FC-GS-3'.

253: IBM comment from George Penokie

Page 30 - section 7.2 - The term 'NCTIS project 1236-D, SPC-2' need only state 'SPC-2'.

254: IBM comment from George Penokie

Page 30 - section 7.2 - The NCITS Project 1356-D should state the FC-xx-n standard.

255: IBM comment from George Penokie

Page 30 - section 7.2 and others - Why is the term 'TYPE' in all caps. I believe it should not have any caps

256: IBM comment from George Penokie

Page 30 - section 7.2 - Why is the term 'TYPE' in all caps. I believe it should not have any caps

257: IBM comment from George Penokie

Page 30 - section 7.2 - The statement '(08h as specified by FC-FS)' should be '(as specified by FC-FS)'.

258: IBM comment from George Penokie

Page 30 - section 7.2 - The term 'Inquiry' should not be capitalized.

259: IBM comment from George Penokie

Page 30 - section 7.2 - The terms 'Register and Query' should not be capitalized.

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260: IBM comment from George Penokie

Page 31 - section 8 - The term 'TYPE' should be in small caps as it is the name of a field.

261: IBM comment from George Penokie

Page 31 - section 8 - The text and table between section 8 and 8.1 is hanging.

262: IBM comment from George Penokie

Page 31 - sections 8, 8.1, etc. - The terms 'Link Services, Sequences, Information Category, Unable, Relative Offset, Target, Exchange, Payload, Recipient, Vendor Specific' to name a few should not be capitalized.

263: IBM comment from George Penokie

Page 31 - section - 8 - The statement 'The FCP-2 ELS functions in table 15 are defined in this standard.' would be clearer if it was stated as 'The FCP-2 ELS functions defined by this standard are shown in table 15.'

264: IBM comment from George Penokie

Page 31 - section 8 - table 15 - There is no reference to where the FCP FC-4 LS Accept and Reject are defined. This should be added into the table.

265: IBM comment from George Penokie

Page xx - section xx - The usage of the term FCP and FCP-2 seems to be random throughout the standard. This need to be fixed by consistently using one or the other.

266: IBM comment from George Penokie

Page 31 - section 8.1 - There is not need to restate the definition of the acronyms. One time is good enough.

267: IBM comment from George Penokie

Page 31 - section 8.1 - The statement '...with a reason code hex '09' (i.e. Unable to perform the command request).' should be changed to '...with a reason code of UNABLE TO PERFORM THE COMMAND REQUEST.'

268: IBM comment from George Penokie

Page 31 - section 8.1 - The statement '...with a reason code 00092A00h (i.e. Unable to perform the command request / Unable to supply requested data).' with '...with a reason code of UNABLE TO PERFORM THE COMMAND REQUEST/UNABLE TO SUPPLY REQUESTED DATA.'

269: IBM comment from George Penokie

Page 31 - section 8.1 - There is a jump into areas labeled 'Protocol, format, addressing, etc. what no explanation to the read as to what is being talked about. In would be helpful if there were a few words talking about this.

270: IBM comment from George Penokie

Page 31 - section 8.1 - What is FT_1 supposed to be.

271: IBM comment from George Penokie

Page 31 - section 8.1 - The statement '...present a check condition as if it had responded to an Initiator Detected Error with a Restore Pointers message (i.e., Sense Key = 4h, ASC/ASQ = 48h/00h).' should be 're-

turn CHECK CONDITION status with the sense key set to HARDWARE ERROR and an additional sense code of INITIATOR DETECTED ERROR MESSAGE RECEIVED.'

PDF Page 48

272: IBM comment from George Penokie

Page 32 - section 8.1 - The following statement '...Payload is shown in the following table.' should be '...payload is shown in table 16.

273: IBM comment from George Penokie

Page 32 - section 8.1 - There is a cross-reference to a section in another standard. The reference

274: IBM comment from George Penokie

Page 32 - section 8.1 - The statement 'Tables 28, 29; i.e., 05 = Data Descriptor (FCP_XFER_RDY), 07 = Command Status (FCP_RSP), 01 = Solicited Data (FCP_DATA).' should be changed to '... FC-PH (i.e., data descriptor (FCP_XFER_RDY), command status (FCP_RSP), solicited data (FCP_DATA)).'

275: IBM comment from George Penokie

Page 32 - section 8.1 - The term 'meaningful' should be 'valid'.

276: IBM comment from George Penokie

Page 32 - section 8.1 - The statement '...set to 01 for...' to ...set to 01h for...'

277: IBM comment from George Penokie

Page 32 - section 8.1 - The statement '...or to 05 for...' to '...or to 05h for...'

278: IBM comment from George Penokie

Page 32 - section 8.1 - table 17 - The notation 'hex '02000000' 'needs to be changed to '02000000h'

279: IBM comment from George Penokie

Page 32 - section 8.1 -table 17 - I can find no reference to this table. All table must have al least one reference to them.

280: IBM comment from George Penokie

Page 32 - section 8.1 - table 16 - The column numbers under size should be centered.

PDF Page 49

281: IBM comment from George Penokie

Page 33 - section 8.1 - The following statement '...code is defined below.' should be changed to '...code is defined in table 18.'

282: IBM comment from George Penokie

Page 33 - section 8.1 - table 18 - The reason code name should be in all caps and the ',' should be replaced with a '/' to make it consistent with the usage above.

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283: IBM comment from George Penokie

Page 33 - section 8.2 - The term 'terminate' should be change to 'end'.

284: IBM comment from George Penokie

Page 33 - section 8.2 - The statement '(Bit 20)' should be removed.

285: IBM comment from George Penokie

Page 33 - section 8.2 - The statement '...is unique to the link...' should be changed to '...is defined by the link..' or something like that.

286: IBM comment from George Penokie

Page 33 - section 8.2 - There is a jump into areas labeled 'Protocol, format, addressing, etc. what no explanation to the read as to what is being talked about. In would be helpful if there were a few words talking about this.

287: IBM comment from George Penokie

Page 33 - section 8.2 - What is FT_1 supposed to be.

288: IBM comment from George Penokie

Page 33 - section 8.2 - The statement '...accepted while the S_ID...' should be changed to '...accepted. The S_ID...'

289: IBM comment from George Penokie

Page 33 - section 8.2 - payload - There should be a cross-reference to where the link service requests are defined.

290: IBM comment from George Penokie

Page 33 - section 8.3 - There is a jump into areas labeled 'Protocol, format, addressing, etc. what no explanation to the read as to what is being talked about. In would be helpful if there were a few words talking about this.

291: IBM comment from George Penokie

Page 33 - section 8.2 - What is FT_1 supposed to be.

292: IBM comment from George Penokie

Page 33 - section 8.3 - There should be a cross-reference to where the reason codes are defined.

293: IBM comment from George Penokie

Page 33 - section 8.3 - The sentence 'FCP FC-4 Link Service Reject may be transmitted for a variety of conditions.' has no useful information and should be deleted.

294: IBM comment from George Penokie

Page 33 - section 8.3 - The statement '...rejected while the S_ID...' should be changed to '...rejected. The S_ID...'

295: IBM comment from George Penokie

Page 33 - section 8.3 - payload - The statement '...shall indicate the reason for rejecting the request.' should be '...shall contain a reason code (see table 20) for rejecting the request.'

PDF Page 50

296: IBM comment from George Penokie

Page 34 - section 8.3 - table 19 - There is no cross-reference to this table.

297: IBM comment from George Penokie

Page 34 - section 8.3 - table 20 -The text in the cells is too close to the top row lines. There needs to be space added there.

298: IBM comment from George Penokie

Page 34 - section 8.3 - table 20 - All the reason codes should be all caps.

299: IBM comment from George Penokie

Page 34 - section 8.3 - Why are there no section numbers on what appear to be sections (i.e. FCP_RJT Reason Code Descriptions, and FCP_RJT Reason explanation?

300: IBM comment from George Penokie

Page 34 - section 8.3 - All the response code should be all caps.

301: IBM comment from George Penokie

Page 34 - section 8.3 - Where are the 'rules of the extended link service protocol' specified? There should be a cross-reference to that place.

302: IBM comment from George Penokie

PDF Page 51

Page 35 - section 8.3 - table 21 -The text in the cells is too close to the top row lines. There needs to be space added there

303: IBM comment from George Penokie

Page 35 - section 8.3 - table 21 -There are two blank row that should be removed.

PDF Page 52

304: IBM comment from George Penokie

Page 36 - section 9 - The text between section 9 and 9.1 is hanging.

305: IBM comment from George Penokie

Page 36 - section 9.1 - The information between section 9.1 and 9.1.1 is hanging.

306: IBM comment from George Penokie

Page 36 - section 9.1 - The statement '...carries either a SCSI Command to be executed or a task management request to be performed.' would be clearer if it was stated as '...contains either a SCSI Command or a task management request.'

307: IBM comment from George Penokie

Page 36 -41 - sections 9.1.1.x - These section titles should be removed. I suggest making them into run in headers (like the definitions list) which would keep the identity of the sections and get rid of the hung information.

308: IBM comment from George Penokie

Pages 36 -41 - sections 9.1.1.x - All the descriptions should start out with a statement like: 'The XXXX field contains the xxx is...' For example FCP_LUN would be 'The RCP_LUN field contains the address of the logical unit where the FCP_CMND payload is sent.' Note that this sentence should replace the sentence; ' The FCP logical unit number (FCP_LUN) is the address of the desired logical unit in the attached subsystem.'

309: IBM comment from George Penokie

Page 36 - section 9.1.1.1 - The statement '(0000 0000 0000 0000 hexadecimal).' should be removed.

310: IBM comment from George Penokie

Page 36 - section 9.1.1.1 - The term 'SCSI INQUIRY' should be just 'inquiry'.

311: IBM comment from George Penokie

Page 36 - section 9.1.1.1 - The statement '...can determine the SCSI device type, manufacturer, model of the logical unit, and addressing structure.' should be replaced with '...can, for example, determine the SCSI device type, manufacturer, model of the logical unit, and addressing structure.' The list is not a complete list therefore the 'for example' needs to be added.

312: IBM comment from George Penokie

Page 36 - section 9.1.1.1 - The statement 'as recommended by SPC-2' carries no additional value and should be removed.

PDF Page 53

313: IBM comment from George Penokie

Page 37 - section 9.1.1.1 - The sentences 'If the FCP_LUN address locates a valid logical unit, the command shall be executed according to standard SCSI behavior. Behavior may include successful execution of the command, presentation of errors associated with the command, or rejection of the command.' Should be condensed to 'If the FCP_LUN address contains a valid logical unit the command shall be routed to the addressed logical unit.' There is no reason to tell the reader how SCSI commands work we have entire standards that do that.

314: IBM comment from George Penokie

Page 37 - section 9.1.1.1 - The statement '...the responses shall report that...' does not make sense. It should be '... device server shall report that...'

315: IBM comment from George Penokie

Page 37 - section 9.1.1.1 - The statement '... is provided by the...' should be '...is sent by the...'

316: IBM comment from George Penokie

Page 37 - section 9.1.1.2 - I believe the following statement is incorrect '...enabled, a zero value of CRN shall be ignored and that command...'. It is not zero value that is ignored but the CRN. To fix this changed the statement to '...enabled, a zero value of CRN indicates the COMMAND REFERENCE NUMBER field shall be ignored and that command

317: IBM comment from George Penokie

Page 37 - section 9.1.1.2 - The statement '...the value of CRN shall be ignored...' should be 'the COMMAND REFERENCE NUMBER field shall be ignored...'

318: IBM comment from George Penokie

Page 37 section 9.1.1.2 - The statement 'special care must be exercised to guarantee successful ordering.' needs to be removed as it is editorial comment.

319: IBM comment from George Penokie

Page 37 - section 9.1.1.2 - The following sentences 'With a class 2 fabric, special care must be exercised to guarantee successful ordering. Sequential delivery must be requested at login to ensure correct ordering among tasks.' should be changed to 'With a class 2 fabric sequential delivery shall be requested at login to ensure correct ordering among tasks.'

320: IBM comment from George Penokie

Page 37 section 9.1.1.2 - All the musts must be changed to shalls.

321: IBM comment from George Penokie

Page 37 - section 9.1.1.2 - All the task attribute descriptions should reference SAM-2.

322: IBM comment from George Penokie

(T) Page 37 - section 9.1.1.2 - The untagged task option should be make obsolete in FCP-2 as it serves no useful purpose.

PDF Page 54

323: IBM comment from George Penokie

Page 38 - section 9.1.1.4 - The statement '...the FCP_CDB, FCP_DL, TASK ATTRIBUTES, RDDATA, and WRDATA fields and bits are not valid and are ignored.' should be changed to '...the FCP_CDB field, FCP_DL field, TASK ATTRIBUTE field, RDDATA bit, and WRDATA bit shall be ignored.

324: IBM comment from George Penokie

Page 38 - section 9.1.1.4 - So what does the target do if more than one task management flag is set? This should be defined.

325: IBM comment from George Penokie

Page 38 - section 9.1.1.4 - table 24 - The first column should be centered..

326: IBM comment from George Penokie

31

Pages 38 -39 - section 9.1.1.4 - All the descriptions of the bits should start out as 'The xxx bit...'. For example ; The CLEAR ACA bit...'

327: IBM comment from George Penokie

Page 38 - section 9.1.1.4 - The term 'states' in the target reset should be 'conditions'.

328: IBM comment from George Penokie

Page 38 -39 - section 9.1.1.4 - The statements 'The initiator and target clear all resources that can be cleared unambiguously. Any open exchanges that are in an ambiguous state as defined in the next paragraph shall be terminated using a recovery abort by whichever port detects the ambiguous state. The ports may issue additional recovery abort operations if they are unable to determine in a simple manner whether the state of an FCP I/O operation is ambiguous.' Is very unclear and does not give the read enough guidance as to what resources can be cleared unambiguously or what is a simple manner and what is not.

329: IBM comment from George Penokie

Page 38 - 40 - Section 9.1.1.4 - Some of the target reset, LU reset, clear task set, and abort task set information is defined here and in table 4. It should only be defined in one place and a reference placed in the other. It is not clear which place is better in this case.

PDF Page 55

330: IBM comment from George Penokie

Page 39 - section 9.1.1.4 - The note contains a requirement therefore it cannot be a note. Either the note must make part of the text or the requirement removed.

331: IBM comment from George Penokie

Page 39 - section 9.1.1.4 - The 1,2,3 list should be an a,b,c list.

332: IBM comment from George Penokie

Page 39 - section 9.1.1.4 - item 4 - The statement '...similar to those conditions...' means what exactly? How similar do I have to be? Either the conditions are the same as those of power on or they are not. If they are not then how are they different? These questions need to be answered and wording put in so they do not have to be asked.

333: IBM comment from George Penokie

Page 39 - section 9.1.1.4 - How is the 1,2,3 list different than what is described in SAM-2. The only things that should be described are those that are not already described in SAM-2 anything else should be removed.

334: IBM comment from George Penokie

Page 39 - section 9.1.1.4 - The statements 'The initiator and target clear all resources that can be cleared unambiguously. Any open exchanges that are in an ambiguous state as defined in the next paragraph shall be terminated using a recovery abort by whichever port detects the ambiguous state. The ports may issue additional recovery abort operations if they are unable to determine in a simple manner whether the state of an FCP I/O operation is ambiguous.' Is very unclear and does not give the read enough guidance as to what resources can be cleared unambiguously or what is a simple manner and what is not.

335: IBM comment from George Penokie

Page 39 - section 9.1.1.4 - The note contains a requirement therefore it cannot be a note. Either the note must make part of the text or the requirement removed..

336: IBM comment from George Penokie

Page 39 - section 9.1.1.4 - In the logical unit reset descriptions paragraph before the note TARGET RESET is used where it should be LOGICAL UNIT RESET.

337: IBM comment from George Penokie

Page 39 - section 9.1.1.4 - The statements 'The initiator and target clear all resources that can be cleared unambiguously. Any open exchanges that are in an ambiguous state as defined in the next paragraph shall be terminated using a recovery abort by whichever port detects the ambiguous state. The ports may issue additional recovery abort operations if they are unable to determine in a simple manner whether the state of an FCP I/O operation is ambiguous.' Is very unclear and does not give the read enough guidance as to what resources can be cleared unambiguously or what is a simple manner and what is not.

PDF Page 56

338: IBM comment from George Penokie

Page 40 - section 9.1.1.4 - The note contains a requirement therefore it cannot be a note. Either the note must make part of the text or the requirement removed.

339: IBM comment from George Penokie

Page 40 - section 9.1.1.4 - The note contains a requirement therefore it cannot be a note. Either the note must make part of the text or the requirement removed.

340: IBM comment from George Penokie

Page 40 - section 9.1.1.4 - The statements 'The initiator and target clear all resources that can be cleared unambiguously. Any open exchanges that are in an ambiguous state as defined in the next paragraph shall be terminated using a recovery abort by whichever port detects the ambiguous state. The ports may issue additional recovery abort operations if they are unable to determine in a simple manner whether the state of an FCP I/O operation is ambiguous.' Is very unclear and does not give the read enough guidance as to what resources can be cleared unambiguously or what is a simple manner and what is not.

341: IBM comment from George Penokie

Page 40 - section 9.1.1.6 - The statement 'SCSI read-type operation' should be 'SCSI read operation'. I do not recall ever seeing a read-type operation in SCSI.

342: IBM comment from George Penokie

Page 40 - section 9.1.1.7 - What is the target supposed to do if the FCP_DL is not 0 when both read data and write data bits are set to 0? What is the target supposed to do it both the read data and write data bits are set to 1? These error conditions need to be specified.

343: IBM comment from George Penokie

Page 40 - section 9.1.1.8 - The statement 'the actual CDB to be interpreted by' should be 'the CDB to be sent to '.

344: IBM comment from George Penokie

Page 40 - section 9.1.1.8 - The statement '..is not valid and is ignored...' should be just '...shall be ignored...'.

33

345: IBM comment from George Penokie

Page 40 - section 9.1.1.8 - The last to paragraphs should be deleted as they contain no information that is not already in SAM-2. They should be replaced with a 'As defined in SPC-2' statement..

PDF Page 57

346: IBM comment from George Penokie

Page 41 - section 9.1.1.9 - The statement 'The contents of the field shall be those bytes of an extended CDB beyond the first 16 bytes of the CDB as defined in the SCSI command standards.' should be replaced with 'The contents of the ADDITIONAL_FCP_CDB field are defined in the SCSI command standards.

347: IBM comment from George Penokie

Page 41 - section 9.1.1.9 - The term 'expected' implies the number of bytes to transfer is uncertain. Removing the term will remove the uncertainty.

348: IBM comment from George Penokie

Page 41 - section 9.1.1.10 - The statement 'The parameter is...' should be 'The FCP_DL field contains ...'.

349: IBM comment from George Penokie

Page 41 - section 9.1.2 - This seem like a very odd place to put this information. It appears to be more like model type information that should be placed in the model sections.

350: IBM comment from George Penokie

Page 41 - section 9.1.2.1 - The information in this section seems disjointed and I am not sure what point is trying to be made. Something needs to be added to make it clearer what is being described.

351: IBM comment from George Penokie

Page 41 - section 9.1.2.2 - The sentence 'The following protocol has been selected for simplicity, completeness, and robustness.' is an interesting opinion but does not belong in a standard. It should be replaced with 'The following protocol shall be followed during a recovery abort:'

352: IBM comment from George Penokie

Page 41 - section 9.1.2.2 - The statement '...ABTS sequence is generated...' should be 'ABTS sequence shall be generated...'.

353: IBM comment from George Penokie

Page 41 - section 9.1.2.2 - The term 'FFFF h' is used. It should be 'FFFFh'. (i.e., not space between the last F and the h.

354: IBM comment from George Penokie

Page 41 - section 9.1.2.2 - The statement '...reason code of "logical error/invalid OX_ID/ RX_ID combination"...' should be '...reason code of LOGICAL ERROR/INVALID OX_ID/RX_ID COMBINATION.'

355: IBM comment from George Penokie

Page 41 - section 9.1.2.2 - In the statement '...the L_S bit set in the...' it is not clear what the bit is set to. This needs to be corrected.

356: IBM comment from George Penokie

Page 41 - section 9.1.2.2 - The indented paragraphs should be an a,b,c list.

357: IBM comment from George Penokie

Page 41 - Section 9.1.2.1 - Some of the abort task set information is defined here and in table 4. It should only be defined in one place and a reference placed in the other. It is not clear which place is better in this case..

PDF Page 58

358: IBM comment from George Penokie

Page 42 - section 9.2 - The term 'write type command' should be change to 'write command' in all occurrences..

359: IBM comment from George Penokie

Page 42 - section 9.2 - What is a SCSI-3 data delivery service? Do you mean a SAM-2 data delivery service?

360: IBM comment from George Penokie

Page 42 - section 9.2 - The term 'write XFER_RDY disabled' should be in small caps and are cross-reference added in to tell me where it is defined.

361: IBM comment from George Penokie

Page 42 - section 9.2 - The term 'write XFER_RDY disabled' that is in small caps should be in normal non-cap text.

362: IBM comment from George Penokie

Page 42 - section 9.2 - The term 'planned' should be deleted.

363: IBM comment from George Penokie

Page 42 - section 9.2 - The statement '...entire FCP_DL bytes of data.' should be changed to '...number of bytes indicated in the FCP_DL field.'

364: IBM comment from George Penokie

Page 42 - section 9.2 - The obsolete function should only be listed in one place in the front of the document. Remove the reference to the obsolete function from this place.

365: IBM comment from George Penokie

Page 42 - section 9.2 - The information between 9.2 and 9.2.1 is hanging information.

366: IBM comment from George Penokie

Page 42-43 - sections 9.2.x - These section titles should be removed. I suggest making them into run in headers (like the definitions list) which would keep the identity of the sections and get rid of the hung information.

367: IBM comment from George Penokie

Page 42 - section 9.2.1 - There needs to be a cross reference to where the RLTV_OFF field is defined.

368: IBM comment from George Penokie

Page 42 - section 9.2.1 - The term 'disconnect-reconnect mode page' should be 'disconnect-reconnect page' .

369: IBM comment from George Penokie

Page 42 - section 9.2.1 - The term 'SCSI-3 application client' should be 'SAM-3 application client'.

370: IBM comment from George Penokie

Page 42 - section 9.2.2 - The term 'exact' should be deleted.

371: IBM comment from George Penokie

Page 42 - section 9.2.2 - The statement 'SCSI data delivery' should be SAM-3 data delivery'..

372: IBM comment from George Penokie

Page 42 - section 9.2.2 - The statement 'The value is this field...' should be 'The value in the BURST_LEN field...'.

373: IBM comment from George Penokie

Page 42 - section 9.2.2 - The statement '...MODE SELECT/MODE SENSE.' should be MODE SELECT command and MODE SENSE command.

PDF Page 59

374: IBM comment from George Penokie

Page 43 - section 9.3 - The sentence 'The disconnect/reconnect page is examined and set by the MODE SENSE and MODE SELECT commands.' should be deleted as that is stated in other standards.

375: IBM comment from George Penokie

Page 43 - section 9.3 - The statement '...shall post the error code indicating...' is made but no specific error code is listed. What is 'the' error code?

376: IBM comment from George Penokie

Page 43 - section 9.3 - The following statement is unclear and I don't know how to fix it but it does need to be fixed. '...and the subsequent FCP_DATA IU has a lowest RLTV_OFF that differs from the DATA_RO of the FCP_XFER_RDY,...'

377: IBM comment from George Penokie

Page 43 - section 9.3 - The term 'exact' in the statement '...payload that indicates the exact location and length of the data delivery.' adds no value to the standard and should be removed.

378: IBM comment from George Penokie

Page 43 - section 9.3 - The statement ' ...(an operation that uses the Data In action,...' needs a ')'.

379: IBM comment from George Penokie

Page 43 - section 9.3 - The statement '...FC_RSP IU shall contain the FCP_RESID_UNDER bit.' should be stated as '...FC_RSP IU shall contain an FCP_RESID_UNDER bit set to 1.'

380: IBM comment from George Penokie

Page 43 - section 9.3 - The term 'always' in the statement '...initiator shall always have available...' add on value and should be deleted.

381: IBM comment from George Penokie

Page 43 - section 9.3 - The statement '...setting the FCP_RESID_OVER bit in the FC_RSP IU.' should be '...setting the FCP_RESID_OVER bit to 1 in the FC_RSP IU.

382: IBM comment from George Penokie

Page 43 - section 9.3 - The statement '...disconnect-reconnect mode page...' should be '...disconnect-reconnect page...'

383: IBM comment from George Penokie

Page 43 - section 9.3 - A undefined term 'sets of data' has suddenly appeared. What are 'sets of date' supposed to be.

384: IBM comment from George Penokie

Page 43 - section 9.3 - The following sentence has to 'not's in it that make it difficult to understand. It should be rewritten. 'The target shall not request that sets of data in the middle of a transfer not be transferred.'

385: IBM comment from George Penokie

Page 43 - section 9.3 - The statement 'The manner in which a SCSI Initiator determines that the correct amount of data is returned is outside the scope of this standard.' should be rewritten to 'The method used by the SCSI initiator to determine the correct amount of data is returned is vendor specific.'

386: IBM comment from George Penokie

Page 43 - section 9.3 - The sentence 'Data that has been retransmitted and overlaid shall be counted only once.' states 'shall be counted only once' what does this mean? I see no reference to a counter in any other part of this section.

PDF Page 60

387: IBM comment from George Penokie

Page 44 - section 9.3 - The following sentence 'The mechanisms vary with which Class of Service is being used and what service parameters are in effect.' should be rewritten to 'The mechanisms vary with the Class of Service being used and the service parameters in effect.

388: IBM comment from George Penokie

Page 44 -section 9.3 - The statement 'ANSI X3.230 specifies the mechanisms by which an IU shall be transferred.' should be 'The FC-PH standard specifies the mechanisms for transferring IUs.'

389: IBM comment from George Penokie

Page 44 - section 9.4 - Why is the term 'information unit' now being using instead of 'IU'. Pick one or the other and only use that one.

390: IBM comment from George Penokie

Page 44 - section 9.4 - When do bytes 10 and 11 being not indicate a successful completion? If there are no cases then the term 'normally' should be deleted. If there are cases then they should be stated or a reference added to where it is explained.

391: IBM comment from George Penokie

Page 44 - section 9.4 - The statement '...either byte 10 or byte 11 should be examined by the application client to determine...' should be '...either byte 10 or byte 11 should cause the application client to examine the fields in the FCP_RSP IU to determine...'

392: IBM comment from George Penokie

Page 44 - section 9.4 - The term 'executed' in the statement '..for each command executed.' should be executed.

393: IBM comment from George Penokie

Page 44 - section 9.4 - The statement 'The Flag bit defined by SAM for command linking is obsolete in FCP-2.' should be moved to section that list obsolete things and deleted from here.

394: IBM comment from George Penokie

Page 44 - section 9.4 - The information between 9.4 and 9.4.1 is hanging.

PDF Page 61

395: IBM comment from George Penokie

Page 45 -48 - sections 9.4.x - These section titles should be removed. I suggest making them into run in headers (like the definitions list) which would keep the identity of the sections and get rid of the hung information.

396: IBM comment from George Penokie

Page xx - table xx - There are two notations used for labeling reserved bytes. One uses all small caps (the preferred) and the other uses normal text with first letter capitalized. Pick one and make them all the same.

397: IBM comment from George Penokie

Page 45 - section 9.4 - table 26 - Byte 10 - bits 5-7 have no information as to what they are. I assume they are reserved and should be labeled as such.

398: IBM comment from George Penokie

Page 45 - section 9.4.1 - The statement 'FCP_CONF_REQ, when 1, indicates...' should be An FCP_CONF_REQ bit of 1 indicates...' This form should be followed in all the bit descriptions.

399: IBM comment from George Penokie

Page 45 - section 9.4.1 - The statement 'FCP_CONF_REQ, when 0, indicates...' should be 'An FCP_COMF_REQ bit of 0 indicates...' This form should be followed in all the bit descriptions.

PDF Page 62

400: IBM comment from George Penokie

Page 46 - section 9.4.7 - The statement 'If the FCP_RESID_UNDER or the...' should be 'If the FCP_RESID_UNDER bit or the...'

401: IBM comment from George Penokie

Page 46 - section 9.4.7 - The statement 'If the FCP_RESID_UNDER bit is set, a transfer...' should be 'If the FCP_RESID_UNDER bit is set to 1, a transfer...;

402: IBM comment from George Penokie

Page 46 - section 9.4.7 - The statement '..equal to: FCP_DL - highest offset of any byte transmitted' is not clear. Is it a=b-c or something else. If this is an equation then it needs to be stated more clearly than it is.

403: IBM comment from George Penokie

Page 46 - section 9.4.7 - The statement 'If the FCP_RESID_OVER bit is set, the transfer...' should be 'If the FCP_RESID_OVER bit is set to 1, the transfer...;

404: IBM comment from George Penokie

Page 46 - section 9.4.7 - The statement '...equal to: (Transfer length required by command) - FCP_DL' is not clear. Is it a=b-c or something else. If this is an equation then it needs to be stated more clearly than it is

PDF Page 64

405: IBM comment from George Penokie

Page 48 - section 9.4.10 - table 27 - Why is this table in a format that is different than other table that have the same type of information (e.g., table 26). This table should be changed to make it like the others.

406: IBM comment from George Penokie

Page 48 - section 9.4.10 - table 28 - The values in the value column should all be in the format xxh and the term 'hexadecimal' should be removed from the header.

407: IBM comment from George Penokie

Page 48 - section 9.4.10 - table 28 - All the RDP_CODEs should be all caps.

408: IBM comment from George Penokie

Page 48 - section 9.4.10 - The statement 'Values 04 and 05 are not...' should be 'Values 04h and 05h are not...'.

PDF Page 66

409: IBM comment from George Penokie

Page 50 - section 10 - The information between section 10 and 10.1 is hanging.

410: IBM comment from George Penokie

Page 50 - section 10.1 - The information between section 10.1 and 10.1.1 is hanging.

411: IBM comment from George Penokie

Page 50 - section 10.1 - The statement 'This clause describes...' is not correct in that the statement is in a subclause. A better was to say it would be 'Clause 10 describes...'

412: IBM comment from George Penokie

Page 50 - section 10.1 - The term 'influence' should be removed in its first use and changed to 'control' in its second use.

413: IBM comment from George Penokie

Page 50 - section 10.1.1 - I do not believe the sentence 'The name for this mode page (disconnect-reconnect) comes from the SCSI-2 parallel bus definitions.' contains a useful information and should be deleted.

414: IBM comment from George Penokie

Page 50 - section 10.1.1 - The statement 'This clause specifies which parameters defined...' should be changed to 'This subclause specifies the parameters defined...'

415: IBM comment from George Penokie

Page 50 - section 10.1.1 - The sentences 'The application client and initiator communicate to determine what values are most appropriate for a device server. The device server communicates the parameter values in this mode page to the Target Role Agent, normally the Fibre Channel interface circuitry. This communication is internal to the target device and is outside the scope of SCSI-3.' talk about actions that are outside the control of this standard and therefore it should be removed.

416: IBM comment from George Penokie

Page 50 - section 10.1.1 - The statement 'If a parameter that is not appropriate for the an FCP-2 SCSI-3 device is nonzero,...' is incorrect and makes no sense. Maybe it should be 'If a field or bit contains a value that is not supported by the FCP-2 device,...'

417: IBM comment from George Penokie

Page 50 - section 10.1.1 - All the information between 10.1.1 and 10.1.1.1 is hanging.

418: IBM comment from George Penokie

Page 50 - section 10.1 - There should be a something here about seeing table 4 for how to handle mode pages under various conditions.

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419: IBM comment from George Penokie

Page 51 -53 - sections 10.1.1.x - These section titles should be removed. I suggest making them into run in headers (like the definitions list) which would keep the identity of the sections and get rid of the hung information.

PDF Page 68

420: IBM comment from George Penokie

Page xx - section xx - The term 'device' or 'devices' should be qualified in all cases. In this standard that could be 'FCP-2 devices' or 'FCP-2 SCSI devices' or 'SCSI devices' one should be picked and used throughout the standard.

421: IBM comment from George Penokie

Page 52 - section 10.1.1.4 - There is no such thing as a 'target device' there are 'targets' and 'SCSI devices'. In this case the term 'devices' should be deleted.

422: IBM comment from George Penokie

Page 52 - sections 10.1.1.3, 10.1.1.4, and 10.1.1.5 - In the second paragraph in all these section there is a term in small caps that should be in normal text. (i.e., bus inactivity limit, disconnect time limit, and connect time limit).

423: IBM comment from George Penokie

Page 52 - section 10.1.1.7 - The following wording is different from the rest of the standard. If should always be the same. 'If the xxxx bit is zero/one...' should in all cases be change to 'If the xxxx bit is set to 1/0....'

424: IBM comment from George Penokie

Page 52 - section 10.1.1.7 - In the statement 'This bit does not...' it is not clear what bit is being talked about. Change to 'The xxx bit does not...'.

PDF Page 69

425: IBM comment from George Penokie

Page 53 - section 10.1.1.7 - There should be a cross-reference to where SRR is defined.

426: IBM comment from George Penokie

Page 53 - section 10.1.1.8 - What is an FA bit??

427: IBM comment from George Penokie

Page 53 - section 10.1.1.8 - The following wording is different from the rest of the standard. If should always be the same. 'If the xxxx bit is zero/one...' should in all cases be change to 'If the xxxx bit is set to 1/0....

428: IBM comment from George Penokie

Page 53 - section 10.1.1.9 - The statement '...SPC-2 are not implemented and are reserved for FCP-2 devices.' should be change to '...SPC-2 are reserved in FCP-2 devices.'

429: IBM comment from George Penokie

Page 53 - section 10.1.1.10 - The statement '...will be transmitted...' should be '...shall be transmitted....'

430: IBM comment from George Penokie

Page 53 - section 10.1.1.10 - The statement '...but more data must still be transferred...' should be '...but more data is required to be transferred...'

431: IBM comment from George Penokie

Page 53 - section 10.1.1.10 - The term 'etc.' should be deleted. An etc. in an e.g. list is redundant..

432: IBM comment from George Penokie

Page 53 - section 10.1.1.10 - The statement 'This value shall...' needs to state which value is being referred to.

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433: IBM comment from George Penokie

Page 54 - section 10.1.2 - The statement '...follows the MODE SENSE/MODE SELECT rules...' should be '...follows the MODE SENSE command and MODE SELECT command rules...'

434: IBM comment from George Penokie

Page 54 - section 10.1.2 - The statement '(See See "4.3" on page 9)' should be changed to '(See 4.3)'.

435: IBM comment from George Penokie

Page 54 - section 10.1.2 - The following wording is different from the rest of the standard. If should always be the same. 'If the xxxx bit is zero/one...' should in all cases be change to 'If the xxxx bit is set to 1/0....

436: IBM comment from George Penokie

Page 54 - section 10.1.2 - The statement '...follows the MODE SENSE/MODE SELECT rules...' should be '...follows the MODE SENSE command and MODE SELECT command rules...'

437: IBM comment from George Penokie

Page 54 - section 10.1.3 - The information between 10.1.3 and 10.1.3.1 is hanging.

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438: IBM comment from George Penokie

Page 55 - Section 10.1.3 - table 32 - There are several cells that have no text. I assume these should be marked reserved.

439: IBM comment from George Penokie

Page 55 - section 10.1.3 - The statement '...follows the MODE SENSE/MODE SELECT rules...' should be '...follows the MODE SENSE command and MODE SELECT command rules...'

440: IBM comment from George Penokie

Page 55 -58 - sections 10.1.3.x - These section titles should be removed. I suggest making them into run in headers (like the definitions list) which would keep the identity of the sections and get rid of the hung information.

441: IBM comment from George Penokie

Page 54 - section 10.1.3.x - The following wording is different from the rest of the standard. If should always be the same. 'If the xxxx bit is zero/one...' should in all cases be change to 'If the xxxx bit is set to 1/0....

442: IBM comment from George Penokie

Page 55 - section 10.1.3.1 - The term 'LIP' is not defined anywhere nor is there a cross-reference to where it is defined.

443: IBM comment from George Penokie

Page 55 - section 10.1.3.2 - The term 'loop port enable primitive sequence' is not defined and there are no references to where it is defined.

444: IBM comment from George Penokie

Page 55 - section 10.1.3.2 - The term 'LPE primitive sequence' is not defined and there are no references to where it is defined.

445: IBM comment from George Penokie

Page 55-56 - sections 10.1.3.1 to 10.1.3.3 and 10.1.3.5 to 10.1.3.8 - The following sentence should be first like in section 10.1.3.4 'Targets not attached to an FC-AL loop shall ignore this bit.'

PDF Page 72

446: IBM comment from George Penokie

Page 56 - section 10.1.3.3 - The term 'monitoring state' is not defined and there are no references to where it is defined.

447: IBM comment from George Penokie

Page 56 - section 10.1.3.4 - The term 'LISA phase' is not defined and there are no references to where it is defined.

448: IBM comment from George Penokie

Page 56 - section 10.1.3.4 - The term 'LIFA phase' is not defined and there are no references to where it is defined.

449: IBM comment from George Penokie

Page 56 - section 10.1.3.4 - The term 'LIPA phase' is not defined and there are no references to where it is defined.

450: IBM comment from George Penokie

Page 56 - section 10.1.3.4 - The term 'LIHA phase' is not defined and there are no references to where it is defined.

451: IBM comment from George Penokie

Page 56 - section 10.1.3.5 - The term 'LISM frames' is not defined and there are no references to where it is defined.

452: IBM comment from George Penokie

Page 56 - section 10.1.3.6 - The terms 'address or port discovery' are not defined and there are no references to where they are defined.

453: IBM comment from George Penokie

Page 56 - section 10.1.3.6 - The statement 'A target with a valid fabric login shall ignore this bit.' should be moved out of the center of this paragraph and made into its own paragraph.

PDF Page 73

454: IBM comment from George Penokie

Page 57 - section 10.1.3.8 - The statement '..fabric loop port, FL_Port, on...' should be '...fabric loop port (FL_Port) on...'

455: IBM comment from George Penokie

Page 57 - section 10.1.3.9 - The following sentence 'The RR_TOV (See "11.3" on page 60.) is defined by bytes 6 and 7 in the following manner.' should be changed to 'The RR_TOV (see 11.3) timer values are defined by bytes 6 and 7 of table 32.'

456: IBM comment from George Penokie

Page 57 - section 10.1.3.9 - The statement '...RR_TOV value in byte 7 shall..' should be '...RR_TOV value shall..'.

457: IBM comment from George Penokie

Page 57 - section 10.1.3.9 - The sentence 'Those functions are specified by FC-PLDA and by section 11.3 of this standard.' should be 'See 11.3 and FC-PLDA for the RR_TOV time-out functions.'

PDF Page 75

458: IBM comment from George Penokie

Page 59 - section 11 - The information between section 11 and 11.1 is hanging.

459: IBM comment from George Penokie

Page 59 - section 11 - What is the statement 'indicates the implications of timers defined' supposed to mean??

460: IBM comment from George Penokie

Page 59 - section 11 -table 35 - The text is the cells is too close to the cell tops.

461: IBM comment from George Penokie

Page 59 - section 11 - table 35 - There appears to be no definition for any of the TOVs. They all should be added into the definitions list. On second look I now see the description column looks to do this. But it would still be a good idea to add the TOVs to the acronym list.

462: IBM comment from George Penokie

Page 59 - section 11 - table 35 - There is no key that tells me what a 'R' or 'A' stands for.

463: IBM comment from George Penokie

Page 59 - section 11 - table 35 - The terms 'public' and 'private' are used but there is no indication as to what they relate to.

464: IBM comment from George Penokie

Page 59 - section 11 - table 35 - The reference column contains what appear to be references to sections in PLDA. But I see they are not. The confusion is from the reference that list PLDA and 11.3 in one cell.

These should be split into 2 cells. It is also not clear if those 2 references apply to both default values or one applies to one and the other the other.

465: IBM comment from George Penokie

Page 59 - section 11 - table 35 - What does the '1:>' in the 'Retry = 1:> 3 X REC_TOV' mean?

466: IBM comment from George Penokie

Page 59 - section 11 - table 35 - What does '>=' mean? I assume it means greater than or equal but without a key to the symbols I do not know for sure.

467: IBM comment from George Penokie

Page 59 - section 11 - table 35 - In one place you have a caps 'X' with spaces around it and in another a 'x' with no spaces. Do they mean different things? If not then they should both be the same.

468: IBM comment from George Penokie

Page 59 - section 11 - table 35 - note 2 - The statement ' SCSI Target devices' should be 'Targets'.

469: IBM comment from George Penokie

Page 59 - section 11 - table 35 - note 1 - This note is very confusing. I believe this is because it contains unclear references and information that is not relevant to this standard. It should be changed to something like: 'R_A_TOV is defined by FC-PH. FCP-2 defines those default values required by the recovery protocol, deriving the values as described in xxx..FCP-2 defines the default R_A_TOV for sequence qualifiers as 0 for private loops and 10 seconds for public loops. FCP-2 defines the default R_A_TOV for ELS responses as 2 seconds for private loops and 10 seconds for public loops. If extended link services are used to set R_A_TOV, the same value is applied private and public loops. Other FC standards may specify different R_A_TOV default values.'

470: IBM comment from George Penokie

Page 59 - section 11 - table 35 - note 3 - The statement '...deriving the value as described below:' should be '...that value is derived as follows:'

471: IBM comment from George Penokie

Page 59 - section 11 - table 35 - note 3 - The list of items should be an a,b,c list.

472: IBM comment from George Penokie

Page 59 - section 11 - table 35 - note 3 - There is a reference to a specific section in FC-FS that needs to be removed.

473: IBM comment from George Penokie

Page 59 - section 11 - table 35 - note 4 - The term 'SCSI target' should be 'target'.

474: IBM comment from George Penokie

Page 59 - section 11 - table 35 - note 5 - The statement '3 X REC_TOV' should be '3 times REC_TOV'.

475: IBM comment from George Penokie

Page 59 - section 11 - table 35 - In the references column there are no references in some of the row to sections in this document yet there is a section for row. These reference should be added in.

476: IBM comment from George Penokie

Page 59 - section 11.1 - The statement '...Its use is specified in FC-PH, FC-AL, FC-PLDA, FC-FLA, FC-TAPE and other standards.' should be changed to either list all the standards or just state 'Its use is specified in other FC standards.'

477: IBM comment from George Penokie

Page 59 - 60 - section 11.1 - The bulleted list should be an a,b,c list.

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478: IBM comment from George Penokie

Page xx - section xx - As stated in another comment; one term should be used when talking about a target throughout the standard. There are 2 valid options; target or FCP-2 target. Pick one and change all others to it.

479: IBM comment from George Penokie

Page 60 - section 11.2 - The 'which' should be changed to 'that'.

480: IBM comment from George Penokie

Page 60 - section 11.2 - The list of items between the ( ) should be (i.e., ...).

481: IBM comment from George Penokie

Page 60 - section 11.2 - 1st note - The 'shall' needs to be removed from the note or text of the note made into main line text.

482: IBM comment from George Penokie

Page 60 - section 11.2 - The term 'FLOGI' is not defined anywhere. It should at least be added to the acronym list.

483: IBM comment from George Penokie

Page xx - section xx -One term should be used when talking about an initiator throughout the standard. There are 2 valid options; initiator or FCP-2 initiator. Pick one and change all others to it.

484: IBM comment from George Penokie

Page 60 - section 11.3 - The term 'LOGO' is not defined. It should at least be added to the acronym list.

485: IBM comment from George Penokie

Page 60 - section 11.3 - The statement '(hex '16') should be removed and replaced with a cross reference to the mode pages description.

486: IBM comment from George Penokie

Page 60 - section 11.3 - The statement '...always appropriate to ADISC address discovery time.' make no sense.

PDF Page 77

487: IBM comment from George Penokie

Page 61 - section 11.4 - table 36 - It is not clear what is meant by the statement '(optional timer restart)'. Does that mean that the timer may not start when this event occurs or does it mean something else?

PDF Page 78

488: IBM comment from George Penokie

Page 62 - section 12.1.1 - The statement '..in this chapter..' is not correct and should be change to '..in the following subclauses...' or deleted altogether.

489: IBM comment from George Penokie

Page 62 - section 12.1.1 - The statement '...of this document.' should be changed to '...of this standard.'

490: IBM comment from George Penokie

Page 62 - section 12.1.1 - In the statement 'FCP-2 has expanded the error detection...' it is not stated what FCP-2 has expended from. This needs to be stated.

491: IBM comment from George Penokie

Page 62 - section 12.1.1 - The statement '...that will allow..' should be '...that allows...'

492: IBM comment from George Penokie

Page 62 - section 12.1.2 - The statement '...shall use and accept the REC and SRR ELSs as required to perform the retransmission unless unusual events have made the recovery features unavailable 'has a re-quirement that is removed with one sentence. If it is not a requirement then the shall should be make into a may or it is a requirement then the 'unusual events' (what ever those are) statement should be removed.

493: IBM comment from George Penokie

Page 62 - section 12.1.2 - What is meant by the statement '..by this clause.'. Do you mean clause 12 or subclause 12.1.2 or some group of subclauses under clause 12? It should be made clare as to what is being referenced..

494: IBM comment from George Penokie

Page 62 - section 12.2 - The text between section 12.2 and 12.2.1 is hanging.

495: IBM comment from George Penokie

Page 62 - section 12.2.1 - All the 1,2,3 lists should be an a,b,c lists.

496: IBM comment from George Penokie

Page 62 - section 12.2 - There should be an i.e., within the ( )s.

497: IBM comment from George Penokie

Page 62 - section 12.2 - The statement 'read-type command' should be 'read command'.

498: IBM comment from George Penokie

47

Page 62 - section 12.2 - The statement '...is set to 0b' should be change to '...is set to 0'. This is in line with the notation that has been used up to this point in the standard so there is no point in changing.

499: IBM comment from George Penokie

Page 62 -63 - section 12.2.1 - Each item in the list should end with a ';' with the 2nd to the last ending in a '; and'.

500: IBM comment from George Penokie

Page 62 - 69 - The statement 'after expiration of the time-out period' should be change in all cases to 'after xxx_TOV times out ...' this will remove the to post a death notice after the timers expire.

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501: IBM comment from George Penokie

Page 63 - section 12.2.2 - All the 1,2,3 lists should be an a,b,c lists.

502: IBM comment from George Penokie

Page 63 - section 12.2 - The statement '...is set to 1b' should be change to '...is set to 1'.

503: IBM comment from George Penokie

Page 63 - section 12.2.2 - Each item in the list should end with a ';' with the 2nd to the last ending in a '; and'.

504: IBM comment from George Penokie

Page 63 - section 12.2 - item 1 - The statement 'for detection of a...' should be 'after detection of a ...'

505: IBM comment from George Penokie

Page 63 - section 12.2.2 - item 5 - The statement '..an "Abort, Perform ABTS" is...' sounds like a error code. If is then it should state 'an xxxx code of ABORT, PERFORM ABTS is...' where xxx is the name of the error code type.

506: IBM comment from George Penokie

Page 63 - section 12.2.2 - The statement '(due to a missing ACK)' should be in ','s not '( )'s.

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507: IBM comment from George Penokie

Page 64 - section 12.3.4 - All the 1,2,3 lists should be an a,b,c lists

508: IBM comment from George Penokie

Page 64 - section 12.3.1 - The statement '2x...' should be '2 times...'.

509: IBM comment from George Penokie

Page 64 - section 12.3.1 - The statement 'If the response is an LS_RJT with a reason code indicating that the function is not supported, treat the Target as a device not supporting error detection using...' is unclear. If the response (to what?)....treat the target (whom is treating the target?) . I am guessing the following is

correct: 'If the response to the new exchange is an LS_RJT with a reason code indicating that the function is not supported, the initiator shall assume the target as a device not supporting error detection using...'

510: IBM comment from George Penokie

Page 64 - section 12.3.1 - In the statement 'If a proper ACC...' what is an improper ACC etc.? The statement should read 'If an ACC...'.

511: IBM comment from George Penokie

Page 64 - section 12.3.2 - The statement in '( )'s should start with 'i.e.,'.

512: IBM comment from George Penokie

Page 64 - section 12.3.2 - The statement '...shall be retransmitted. This is to ensure that...' should be '...shall be retransmitted to ensure that...'

513: IBM comment from George Penokie

Page 64 - section 12.3.3 - The statement in '( )'s should start with 'i.e.,'.

514: IBM comment from George Penokie

Page 64 - section 12.3.3 - The statement '(r_CTL = data descriptor).' should be changed to 'with R_CTL set to data descriptor.'.

515: IBM comment from George Penokie

Page 64 - section 12.3.3 - The sentence 'When the FCP_XFER_RDY is successfully received, the data is sent, and the operation continues normally.' is not a complete sentence and I do not know how to fix it.

516: IBM comment from George Penokie

Page 64 - section 12.3.4 - The statements in '( )'s should start with 'i.e.,'.

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517: IBM comment from George Penokie

Page 65 - section 12.3.4 - Each item in the list should end with a ';' with the 2nd to the last ending in a '; or'.

518: IBM comment from George Penokie

Page 65 - section 12.3.4 - The statement '..response and will perform...' should be 'response and shall perform...'

519: IBM comment from George Penokie

Page xx - All FCP-2 IUs should be labeled as IUs through out the standard. There are many cases where an FCP-2 IU leaves off the IU and it is then not clear it the term is an IU or some new thing.

520: IBM comment from George Penokie

Page 65 - section 12.3.4 - The statement '...terminated before execution by a...' should be '...terminated by a..'. The 'before execution' term is meaningless as there is no definition of what command execution is, when it starts, or when it ends..

521: IBM comment from George Penokie

(T) Page 65 - section 12.3.4 - non-tagged queueing should be made obsolete in FCP-2.

522: IBM comment from George Penokie

Page 65 - section 12.3.4 - item 2 - The '3x' should be '3 times'.

523: IBM comment from George Penokie

Page 65 - section 12.3.4 - item 3 - The statement 'status retention resources are exhausted and the oldest retained status must be flushed from the retention resource.' should be 'no status retention resources are available.' The remaining information in that statement is implementation specific and should be removed.

524: IBM comment from George Penokie

Page 65 - section 12.3.5 - The sentence 'As documented in 12.3.9, the Target discards the Sequence in error, but does not initiate any recovery action for Class 3.' should be The Target discards the Sequence in error, but does not initiate any recovery action for Class 3 (see 12.3.9).'

525: IBM comment from George Penokie

Page 65 - section 12.3.6 - The statement in '( )'s should start with 'i.e.,'.

526: IBM comment from George Penokie

Page 65 - section 12.3.6 - The statement '(R_CTL = solicited data)...' should be changed to 'with R_CTL set to solicited data ....'.

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527: IBM comment from George Penokie

Page 66 - section 12.3.6 - The statement '...Sense key 4, ASC/ASQ of 48/00 (Initiator Detected Error message received)).' should be '...sense key of HARDWARE ERROR and an ASC/ASCQ of INITIATOR DETECTED ERROR MESSAGE RECEIVED)).'

528: IBM comment from George Penokie

Page 66 - section 12.2.6 - The statement '(retry, allow ULP time out, or return status to ULP)' should be '(e.g. retry, allow ULP time out, or return status to ULP)'.

529: IBM comment from George Penokie

Page 66 - section 12.3.6 - The statement '...and other internal state'. should be '...and other internal states.'.

530: IBM comment from George Penokie

Page 66 - section 12.3.6 - The sentence 'As stated in 12.3.9, the SCSI Target does not initiate error recovery for Class 3.' should be 'The SCSI Target shall not initiate error recovery for Class 3 (see 12.3.9).

531: IBM comment from George Penokie

Page 66 - section 12.3.7 - The statement '...target will be a LS_RJT..' should be '...target shall be a LS_RJT...'.

532: IBM comment from George Penokie

Page 66 - section 12.3.7 - The statement '...an "Invalid OX_ID-RX_ID combination" reason code explanation.' should be '...the reason code set to INVALID OX_ID-RX_ID COMBINATION'.'

533: IBM comment from George Penokie

Page 66 - section 12.3.7 - The statement '...FCP_CONF_REQ bit set and...' should be ...'FCP_CONF_REQ bit set to 1 and....'.

534: IBM comment from George Penokie

Page 66 - section 12.3.7 - The statement '...reply will be...' should be '...reply shall be...'

535: IBM comment from George Penokie

Page 66 -section 12.3.9 - The term 'error policy' shows up here for the first time and there is not indication as to what an 'error policy' is or where it is defined. This needs to be fixed.

536: IBM comment from George Penokie

Page 66 - section 12.3.9 - The statement '(refer to Annex B.2.1)' should be '(see Annex B.2.1)'.

537: IBM comment from George Penokie

Page 67 - section 12.3.9 - The note contains requirements that are not allowed in notes. The requirement must be removed.

538: IBM comment from George Penokie

(T) - Page 66 - section 12.3.9 - This states targets may issue an ABTS. This should be change to prohibited class-3 device when running in target mode from issuing any ABTSs. This would match the PLDA and most of the implementations.

PDF Page 83

539: IBM comment from George Penokie

Page 67 - section 12.4 - Each item in the list should end with a ';' with the 2nd to the last ending in a '; or'.

540: IBM comment from George Penokie

Page 67 - section 12.3.9 - Each item in the list should end with a ';' with the 2nd to the last ending in a '; and'.

541: IBM comment from George Penokie

Page 67 - section 12.3.9 - The term 'SCSI target authentication' is used for the first time with no reference as to where it is defined or what it is. This needs to resolved.

542: IBM comment from George Penokie

Page 67 - section 12.4 - The statement '(refer to Annex B.2.1)' should be '(see Annex B.2.1)'.

543: IBM comment from George Penokie

Page 67 - section 12.4 - The statement '...values are reused quickly and..' should be '...values are reused and...'. The term 'quickly' cannot be quantified so it should be removed.

544: IBM comment from George Penokie

Page 67 - section 12.5.1 - The sentence 'This subclause does not define the protocol by which multiple SCSI Initiators communicate or synchronize shared peripherals.' should be removed because it adds nothing to the standard. This subclause does not define how to bake bread but we do not state that in the standard.

545: IBM comment from George Penokie

Page 67 - section 12.5 - The text between 12.5 and 12.5.1 is hanging.

546: IBM comment from George Penokie

(T) Page 67 - section - 12.5 - The statement 'All FCP-2 devices shall support the use of ABTS-....' should be changed to 'All FCP-2 SCSI devices when operating as an initiator shall support the use of ABTS-...' this goes along with my other comments on no allowing ABTS for target devices.

547: IBM comment from George Penokie

Page 67 - section 12.5.1 - The statement '...Exchange" bit is received...' should be '...exchange" bit set to one is received...'.

548: IBM comment from George Penokie

Page 67 - section 12.5.1 - The statement '...after certain task management functions have been executed.' is not clear in that it does not tell which task management functions this applied to. There needs to be a list.

549: IBM comment from George Penokie

Page 67 - section 12.5.1 - The '( )' in the following statement should be dropped. '(or the data may already be in flight at the time the ABTS was sent).'.

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550: IBM comment from George Penokie

Page 68 - section 12.5.2 - Each item in the list should end with a ';' with the 2nd to the last ending in a '; or'.

551: IBM comment from George Penokie

Page 68 - section 12.5.1 - The statement '...status byte indicating COMMAND CLEARED...' should be '...status set to COMMAND CLEARED...'

552: IBM comment from George Penokie

Page 68 - section 12.5.1 - The statement '...after certain task management functions have been executed.' is not clear in that it does not tell which task management functions this applies to. There needs to be a list.

553: IBM comment from George Penokie

Page 68 - section 12.5.1 - The statement '...specified LUN on...' should be '...specified logical unit on...'.

554: IBM comment from George Penokie

Page 68 - section 12.5.1. The statement '...(no STATUS returned...' should be '...(i.e., no status returned...'.

555: IBM comment from George Penokie

Page 68 - section 12.5.1 - In the statement 'If a proper BA_ACC...' what is an improper BA_ ACC etc.? The statement should read 'If a BA_ ACC...'.

556: IBM comment from George Penokie

Page 68 - section 12.5.1 - The '2x' should be '2 times'.

557: IBM comment from George Penokie

Page 68 - section 12.5.2 - Item a - In two places - The statement 'in (no PLOGI).' should be 'in (i.e., no PLO-GI).'

558: IBM comment from George Penokie

Page 68 - section 12.5.2 - item b in two places - The statement '...bit set to one if...' should be '...bit set to 1 if...' . This is to maintain consistency within the standard.

559: IBM comment from George Penokie

Page 68 - section 12.5.2 - item b in two places - The sentence 'The reason code shall be "Logical Error" with a reason code explanation of "Invalid OX_ID/RX_ID combination".' should be 'The reason code shall be LOGICAL ERROR with a reason code explanation of INVALID OX_ID.RX_ID COMBINATION.'

560: IBM comment from George Penokie

Page 68 - section 12.5.2 - item c in two places - The term 'otherwise' should be deleted as it is implied by the to be added 'or' at the end of item b..

561: IBM comment from George Penokie

Page 68 - section 12.5.2 - in multiple places - There should be no space between the 'FFFF' and the 'h' as there is now.

562: IBM comment from George Penokie

Page 68 - section 12.5.2 - In the statement '...upon D_ID || S_ID || OX_ID,...' what is the meaning of the '||'? That symbol is not defined in this standard and should be removed and replaced to the equivalent text.

563: IBM comment from George Penokie

Page 68-69 - section 12.6.1 - in two places - The term '2x' should be replaced with '2 times'.

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564: IBM comment from George Penokie

Page 69 - section 12.6.3 - Each item in the list should end with a ';' with the 2nd to the last ending in a '; and'.

565: IBM comment from George Penokie

Page 69 - section 12.6.2 - Each item in the list should end with a ';' with the 2nd to the last ending in a '; and'.

566: IBM comment from George Penokie

Page 69 - section 12.6.1 - in two places - The statement inside the '( )'s should start with 'i.e.,'.

567: IBM comment from George Penokie

Page 69 - section 12.6.2 - The term '2x' should be replaced with '2 times'.

568: IBM comment from George Penokie

Page 69 - section 12.6.3 - The term '2x' should be replaced with '2 times'.

569: IBM comment from George Penokie

Page 69 - section 12.7 - The statement ...'NL_Port with which it has...' should be changed to '...NL_Port that it has...'. in multiple places.

570: IBM comment from George Penokie

Page 69 - section 12.7 - The statement '(PLOGI)' should be '(i.e., PLOGI). in several places.

571: IBM comment from George Penokie

(T) - Page 69 - section 12.7 - The is a 'TBD' in this section. There can be no TBDs in a standard.

572: IBM comment from George Penokie

(T) Page 69 - section 12.7 - Several statements in this section are in direction conflict with statements in section 6.2.5. This conflict needs to be resolved. believe the wording in section 12.7 is more correct.

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573: IBM comment from George Penokie

Page 71 - several places - Only one SAM standard should be referenced. I believe this standard would only reference SAM-2.

574: IBM comment from George Penokie

Page 71 - section A.1 - The editors note needs to be removed.

575: IBM comment from George Penokie

Page 71 - section a.1 - item c - There needs to be a '.' at the end of the statement in item c.

PDF Page 88

576: IBM comment from George Penokie

Page 72 - section A.1 - table A.1 - note 3 - The term 'SCSI-3 ' should be replaced with 'SCSI'.

PDF Page 89

577: IBM comment from George Penokie

Page 73 - The symbols used in this annex are not defined. You need to define these symbols in section 3. I suggest you copy section 3.5 out of SPI-3 which has every thing you should need to cover this comment.

578: IBM comment from George Penokie

Page 73 - section a.4 - The information between a.4 and a.4.1 is hanging.

PDF Page 90

579: IBM comment from George Penokie

Page - 74 - section a.5 - The information between a.5 and a.5.1 is hanging.

580: IBM comment from George Penokie

Page 74 - section a.5.1 - The term 'SCSI parallel interface service' should be replaced with 'FCP-2 service'.

581: IBM comment from George Penokie

Page 74 - section a.5.1 - The information between a.5.1 and a.5.1.1 is hanging.

PDF Page 91

582: IBM comment from George Penokie

Page 75 - section a.5.1.1 - a.5.1.7 - Replace the term 'SCSI parallel interface services' with 'FCP-2 services' and the term 'message' with 'flag'.

PDF Page 93

583: IBM comment from George Penokie

Page 77 - section b.2 - The text between b.2 and b.2.1 is hanging.

584: IBM comment from George Penokie

Page 77 - section b.1 - All the text in this section should be removed. This information will not be removed from this standard no matter what happens with other standards because once it if forwarded it cannot be changed.

585: IBM comment from George Penokie

Page 77 - section b.2.1 - The statement '...parameter field' should be '...PARAMETER (in small caps) field as shown in table b.1.'

586: IBM comment from George Penokie

Page 77 - section b.2.1 - The statement '...determine which behavior...' needs to be de-whiched. I suggest '...determine the behavior...'.

587: IBM comment from George Penokie

Page 77 - section b.2.1 - The term 'parameter' should be in small caps.

588: IBM comment from George Penokie

Page 77 -section b.2.1 - in two places - The notation 'as described in section x.x.x on page xxx' is used. This need to be changed to 'see x.x.x'.

589: IBM comment from George Penokie

Page 77 - section b.2.1 - There is a reference to a clause in another standard; this reference needs to be removed.

590: IBM comment from George Penokie

Page 77 - section b.3 - The information between section b.3 and b.3.1 is hanging.

55

591: IBM comment from George Penokie

Page 77 - section b.3 - The information about the values that are frame should be reformatted into a table so the reader has a change of understanding what is required to be set to what value.

592: IBM comment from George Penokie

Page 77 - section b.3 - The statement '.. are defined or modified in this annex.' is not correct. It makes no sense because how can you both define and modify something at the same time either you are defining it or modifying it, so which is it? Also the term 'this annex' must be removed or somehow changed into the term 'subclause' or 'clause'.

593: IBM comment from George Penokie

Page 77 - section b.3 - table b.2 - There is a blank row that must be eliminated.

PDF Page 94

594: IBM comment from George Penokie

Page 78 - section b.3.1 - The term 'would use' should be 'should use' or 'shall use' depending on your intent which in not clear.

595: IBM comment from George Penokie

Page 78 - section b.3.1 - The statement 'To avoid ambiguity in the termination and reuse of exchanges,...' should be deleted. The standard does not have to explain why it makes a requirement, it only needs to clearly state the requirements.

596: IBM comment from George Penokie

Page 78 - section b.3.1 - The statement '...reason code hex '09' (i.e. Unable to perform command request).' should be '...reason code of UNABLE TO PERFORM COMMAND REQUEST.'.

597: IBM comment from George Penokie

Page 78 - section b.3.1 - It is not clear as the interpretation of this format. This needs to be explained so the reader understands what is being defined.

598: IBM comment from George Penokie

Page 78 - section b.3.1 - format - This is no definition of what the term 'FT_1' means.

599: IBM comment from George Penokie

Page 78 - section b.3.1 - payload - The statement '...the following table.' should be '...table b.3.'.

600: IBM comment from George Penokie

Page 78 - section b.3.1 - addressing - The term 'which' needs to be removed.

601: IBM comment from George Penokie

Page 78 - section b.3.1 - table b.3 - The term 'hex '13000000'' should be '13000000h'.

602: IBM comment from George Penokie

Page 79 - section b.3.1 - accept payload - The statement '...in the table below.' should be '...in table b.4.'..

603: IBM comment from George Penokie

Page 79 - section b.3.1 - accept payload - The statement '...is specified below.' should indicate exactly where it is specified, below could be anywhere from here to the end of the standard.

604: IBM comment from George Penokie

Page 79 - section b.3.1 - table b.4 - The term 'hex '02000000'' should be '02000000h'.

605: IBM comment from George Penokie

Page 79 - section b.3.1 - There is a reference to a section in another standard that must be removed.

606: IBM comment from George Penokie

Page - 79 section b.3.1 - The sentence 'The bits specifying whether the Exchange is complete (Bit 29) and whether the responder holds Sequence Initiative (Bit 30) must be valid; the setting of other bits is not required.' should be changed to 'The xxxx bit and the yyy bit of the zzzz shall be set to x. The settings of the other zzzz bits is ignored.' It is not clear as to what bits are being referred to.

607: IBM comment from George Penokie

Page 79 - section b.3.1 - It appears the terms originator address identifier, responder address identifier, and data transfer count are all field names and therefore should be small caps and have the term 'field' after them in the last 3 paragraphs.

608: IBM comment from George Penokie

Page 81 - section c.1 - The text between c.1 and c.1.1 is hanging.

609: IBM comment from George Penokie

Page 81 - section c.1 - The statement 'The following sections...' should be 'This annex...'

610: IBM comment from George Penokie

Page 81 - section c.1 - The note should be removed and all obsolete information placed in one place in the front of the standard.

611: IBM comment from George Penokie

Page 83 - section c.1.6 - The term 'intermediate status' should be 'INTERMEDIATE status'.

612: IBM comment from George Penokie

Page 88 - section d.1 - The statement '...SCSI devices conforming to this profile.' is not correct. It should be '...SCSI devices conforming to the FCP-2.'.

613: IBM comment from George Penokie

Page 88 - section d.1 - table d.1 - There is not reference to this table. One needs to be added.

614: IBM comment from George Penokie

Page 88- 102 - section d.1 - figure d.x - The titles of these figures is at the top of the figure, it should be moved to the bottom of the figure.

615: IBM comment from George Penokie

Page 89 - figure d.1 - What does the term 'None:' mean? Is it a typo that should be 'Note:' or does it mean 'No error recover'? whichever it is it should be made clear.

616: IBM comment from George Penokie

Page 92 - figure d.4 - What does the term 'None:' mean? Is it a typo that should be 'Note:' or does it mean 'No error recover'? whichever it is it should be made clear.

PDF Page 110

617: IBM comment from George Penokie

Page 94 - figure d.6 - What does the term 'None:' mean? Is it a typo that should be 'Note:' or does it mean 'No error recover'? whichever it is it should be made clear.

PDF Page 111

618: IBM comment from George Penokie

Page 95 - figure d.7 - The '(' and ')' should be deleted.

PDF Page 112

619: IBM comment from George Penokie

Page 96 - figure d.8 - The '(' and ')' should be deleted.

PDF Page 115

620: IBM comment from George Penokie

Page 99 - figure d.11 - What does the term 'None:' mean? Is it a typo that should be 'Note:' or does it mean 'No error recover'? whichever it is it should be made clear.

PDF Page 116

621: IBM comment from George Penokie

Page 100 - figure d.12 - What does the term 'None:' mean? Is it a typo that should be 'Note:' or does it mean 'No error recover'? whichever it is it should be made clear. There is not space between the 1st and 2nd sentences.

622: IBM comment from George Penokie

Page 103 - section e.1 - The statement '...count (FCP_DL - FCP_RESID)...' should be '...count (i.e., FCP_DL - FCP_RESID)...'

623: IBM comment from George Penokie

Page 103 - section e.1 - The statement '...Initiator will use the...' should be '....initiator uses the...'. You cannot state a requirement in an informative annex.

624: IBM comment from George Penokie

Page 103 - section e.1 - The statement '...Initiator can detect that...' should be '... initiator detects that...'

625: IBM comment from George Penokie

Page 103 - section e.1 - table e.1 - This table is not referenced from anywhere. This must be fixed.

626: IBM comment from George Penokie

Page 103 - section e.2 - The text between e.2 and e.2.1 is hanging.

627: IBM comment from George Penokie

Page 103 - section e.2 - The statement '...example in Figure e.1 -on page 105,...' should be '...example in figure E.1, ...'.

628: IBM comment from George Penokie

Page 103 section e.2 - The terms '3000' and '1000' should be '3 000' and '1 000'.

629: IBM comment from George Penokie

Page 103 - section e.2 - The statement '... Fixed bit set and...' should be '....FIXED bit set to 1 and...'.

630: IBM comment from George Penokie

Page 103 - section e.2 - The term 'transfer length' should be in small caps.

631: IBM comment from George Penokie

Page 103 - section e.2 - The statement '(fixed-length block count)' should either be '(i.e., fixed-length block count)' or deleted.

632: IBM comment from George Penokie

Page 103 - section e.2.1 - There is something very wrong with this section. Although the sentences appear to be complete taken one at a time when put together they do not make any sense. This section needs to be rewritten to make it clear as to what is going on.

633: IBM comment from George Penokie

Page 103 - section e.2.1 - The term '36000' must be '36 000'.

634: IBM comment from George Penokie

Page 103 - section e.2.1 - The statement '...count (FCP_DL - FCP_RESID)...' should be '...count (i.e., FCP_DL - FCP_RESID)...'

PDF Page 120

635: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...know which of the...' should be '...know if any of the...'

636: IBM comment from George Penokie

(T) - Page 104 - section e.2.2 - If untagged queuing is made obsolete then the following sentences and other like it should be deleted. 'For an unqueued Target it would not have asked for an explicit FCP_CONF_REQ in this FCP_RSP with good status. Rather, it would be waiting for an implicit confirm (next command from the same Initiator).

637: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...is needed it will not...' should be changed to '...is needed it does not...'.

638: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...Initiator will instead issue...' should be '...initiator instead issues...'.

639: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...the Exchange Completion bit of Complete, and the Sequence Initiative bit indicating...' should be '...the EXCHANGE COMPLETION bit set to 1(?) to indicate completion and the SEQUENCE INITIATIVE bit set to 1(?) to indicate...'.

640: IBM comment from George Penokie

Page 104 - section e.2.2 - The term 'data transfer count' should be in small caps in 2 places.

641: IBM comment from George Penokie

Page 104 -section e.2.2 - The term '36000' should be '36 000' in 2 places..

642: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...the Exchange Completion bit of Open, and the Sequence Initiative bit indicating...' should be '...the EXCHANGE COMPLETION bit set to 0(?) to indicate open and the SEQUENCE INITIATIVE bit set to 0(?) to indicate...'.

643: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...reason code hex '09' (unable to perform command request)...' should be '...reason code of UNABLE TO PERFORM COMMAND REQUEST...'.

644: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...recovery will be necessary.' should be '...recovery becomes necessary.'

645: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...Initiator will send a Sequence...' should be '...initiator sends a sequence...'.

646: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...payload will have the...; should be '...payload has the...'.

647: IBM comment from George Penokie

Page 104 - section e.2.2 -The term 'relative offset' should be in small caps.

648: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement 'This will request...' should be 'This requests...'.

649: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...the FCP_RSP will also be retransmitted.' should be '...the FCP_RDP is also retransmitted.'.

650: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...Initiator has to use Relative...' should be '...initiator uses relative...'.

651: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...Target will then transfer...' should be '...target then transfers...'

652: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...and then transmit...' should be '...and then transmits...'.

653: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...field will be the same...' should be '...field is the same...'.

654: IBM comment from George Penokie

Page 104 - section e.2.3 - This section needs to be rewritten as it has several problems. I suggest the following rewrite: 'This method is easy to implement but errors are only detected after the FCP_RSP is processed and then all the data has to be retransmitted. This causes a large performance hit because the media is repositioned and reread. Initiators that only implement this type of discovery should limit the number of blocks transferred in one command in case Link Level recovery is required.'.

655: IBM comment from George Penokie

Page 104 - section e.2.2 - The statement '...queued Target, it will generate...' should be '...queued target, it generates...'.

PDF Page 121

656: IBM comment from George Penokie

Page 105 - 108 - section e.2.3 - figure e.x - The figure title should be after the figure not before.

657: IBM comment from George Penokie

Page 106 - section e.3 - All the comments made on section e.2 also apply to this section.

658: IBM comment from George Penokie

Page 106 - section e3.1 - There is something very wrong with this section. Although the sentences appear to be complete taken one at a time when put together they do not make any sense. This section needs to be rewritten to make it clear as to what is going on.

659: IBM comment from George Penokie

Page 106 - section e.3.2 - The statement '... Target, it will generate...' should be '...target, it generates...'.

660: IBM comment from George Penokie

Page 106 - section e.3.2 - The statement '...the Exchange Completion bit of Open, and the Sequence Initiative bit indicating...' should be '...the EXCHANGE COMPLETION bit set to 0(?) to indicate open and the SEQUENCE INITIATIVE bit set to 0(?) to indicate...'.

661: IBM comment from George Penokie

Page 106 -section e.3.2 - The term '36000' should be '36 000'.

662: IBM comment from George Penokie

Page 106 - section e.3.2 - The term 'data transfer count' should be in small caps in two places.

663: IBM comment from George Penokie

Page 106 - section e.3.2 - The statement '...field will indicate...' should be '...field indicates...'.

664: IBM comment from George Penokie

Page 106 - section e.3.2 - The statement '...point which may...' should be '....point that may...'.

665: IBM comment from George Penokie

Page 106 - section e.3.2 - The statement '...Initiator can proceed...' should be '...initiator may proceed...'.

666: IBM comment from George Penokie

Page 106 - section e.3.2 - The statement '...recovery will be necessary.' should be '...recovery is necessary.'.

667: IBM comment from George Penokie

Page 106 - section e.3.3 - OK, I give up trying to note all the wills, cans, and musts that are in the section. All wills, cans, and musts must be removed and none can be replaced with a 'shall'.

668: IBM comment from George Penokie

Page 106 - section e.3.2 - The term 'relative offset' needs to be in small caps when it is the name of a field.

669: IBM comment from George Penokie

Page 106 - section e.2.3 - The term '15000' must be '15 000' and '16000' must be '16 000'.

670: IBM comment from George Penokie

Page 106 - section e.3.2 - The statements between the ( ) must begin with 'i.e.,' in two places.

671: IBM comment from George Penokie

Page 106 - section e.3.3 - The statement 'The Target must be prepared...' should be 'The target is prepared...'

672: IBM comment from George Penokie

Page 106 - section e.3.3 - The statement '...it must be capable of ignoring...' should be '...it ignores...'

673: IBM comment from George Penokie

Page 106 - section e.3.3 - The statement '...it must be capable of setting up...' should be 'it sets up...'.

674: IBM comment from George Penokie

Page 106 - section e.3.3 - The term 'which' should be 'that' in 2 places.

675: IBM comment from George Penokie

Page 106 - section e.3.3 - There is no indication as to what an 'after status mode' is or where it is defined. This must be corrected.

PDF Page 123

676: IBM comment from George Penokie

Page 107 - section e.3.3 - The sentence 'This method of recovery detects the error much sooner.' does not tell you much sooner that what?

677: IBM comment from George Penokie

Page 107 - section e.3.3 - The sentence ' Only the data starting at the error must be retransmitted.' seems to be missing something when taking both this sentence and the one before it. It seem like there should only be one sentence with a 'because' between them.

678: IBM comment from George Penokie

Page 107 - section e.3.3 - The statement '...media must be...' should be '...media is...'.

PDF Page 125

679: IBM comment from George Penokie

Page 109 - section f.1 - The statement '...procedure shall also...' should be 'procedure also...' cannot have requirements in informative information.

680: IBM comment from George Penokie

Page 109 - section f.1- f.1.1 - f.1.2 - There are several terms in this section that have no definition or reference to a definition. These are: name server, fabric controller, state change notification, WWNN, and WWPN.

681: IBM comment from George Penokie

Page 109 - section f.1.1 - item 1 and 7 - section f.1.2 - item 2 - There is a statement 'if needed'. How I determine if the entry is needed or not?

682: IBM comment from George Penokie

Page 109 - section f.1.1 - item 8 - section f.1.2 item 4 - The statement '...EVPD bit set for...' should be '...EVPD bit set to 1 for...'.

683: IBM comment from George Penokie

Page 109 - section f.1 - The information between f.1 and f.1.1 is hanging.

684: IBM comment from George Penokie

Page 109 - section f.1.1 - The terms 'domain_ID_scope' and 'area_id_scope' are field names and should be in small caps.

685: IBM comment from George Penokie

Page 109 - section f.1.2 - item 1 - The '(' and ')' should be removed and the two statements merged into one sentence.

686: IBM comment from George Penokie

Page 109 - 110 - section f.2 - There are many 'shall's in this section. They all have to be removed from this informative annex.

687: IBM comment from George Penokie

Page 109 - 110 - section f.2- f.1.1 - f.1.2 - There are several terms in this section that have no definition or reference to a definition. These are: fabric port name, fabric name, loop fabric address, FAN, port name, node name, address identifier

PDF Page 127

688: IBM comment from George Penokie

Page 111 - section g.2 - The statement ' ... in figure g.1.' should be '...in table g.1.'.

689: IBM comment from George Penokie

Page 111-113 - section g.x - table g.x - The text in the cells is touching the top lines of the cells. There needs to be space added there.

690: IBM comment from George Penokie

Page 111 - table g.1 - The term 'FFFF h' should be 'FFFFh'.

691: IBM comment from George Penokie

Page 111 - table g.1 - It would be helpful if the bit positions for the Sequence context (bit 23) and the sequence initiative (bit 16) were placed into the sub-field description.

692: IBM comment from George Penokie

Page 111 - section g.2 - All the information between g.1 and g.2.1 is hanging.

693: IBM comment from George Penokie

(T) Page 111 - section g.2 - The statement 'The SCSI initiator or SCSI target may transmit...' should be changed to 'The SCSI initiator may transmit...'. This goes along with the other comments on restricting ABTS to initiators.

PDF Page 128

694: IBM comment from George Penokie

Page 112 - table g.2- table g.3 - It would be helpful if the bit positions for the Last_sequence (bit 20) and the sequence context (bit 22) were placed into the sub-field description.

695: IBM comment from George Penokie

Page 112 - table g.2 - Change '00 h', '80 h', '0000 h', and 'FFFF h' to '00h', '80h', '0000h' and 'FFFFh'.

696: IBM comment from George Penokie

Page 112 - section g.2.1 - The statement ' ... in figure g.2.' should be '...in table g.2.'.

697: IBM comment from George Penokie

Page 112 - section g.2.1 - The statement ' ... in figure g.3.' should be '...in table g.3.'

698: IBM comment from George Penokie

Page 112 - section G.2.2 - The statement 'When it does so, the...' should be 'When it does, the...'

PDF Page 129

699: IBM comment from George Penokie

Page 113 - section g.2.3 - The statement ' ... in figure g.4.' should be '...in table g.4.'

700: IBM comment from George Penokie

Page 113 - section g.2.3 - The statement '...Target shall respond with ACC.' should be '...target responds with ACC.'

701: IBM comment from George Penokie

Page 113 - table g.4 - The term 'FFFF h' should be 'FFFFh'.

PDF Page 131

702: IBM comment from George Penokie

Page 115 - section H - The statement '...it shall wait until...' should be 'it waits until...'.

703: IBM comment from George Penokie

Page 115 - The statement - '... it can return...' should be 'it may return...'.

704: IBM comment from George Penokie

Page 115 - The statement '...Target shall return...' should be '...target returns...'

705: IBM comment from George Penokie

Page 115 - The statement 'as required by NCITS 1157-D.' should be '(see SAM-2)'.

706: IBM comment from George Penokie

Page 115 - The statement '...Target shall respond...' should be '...target responses...'.

707: IBM comment from George Penokie

Page 115 the statement '...reason code "unable to perform command request" and reason explanation "insufficient resources to support Login" as required by NCITS 1311-D.' should be '...a reason code of UNABLE TO PERFORM COMMAND REQUEST and a reason explanation of INSUFFICIENT RESOURCES TO SUPPORT LOGIN (see FC-FS).

708: IBM comment from George Penokie

Page 115 - The statement '..outside the scope of this profile...' should be '...outside the scope of the standard...'.

PDF Page 133

709: IBM comment from George Penokie

Page 117 - The terms 'SCSI Target Reset, Logical Unit Reset, and Clear Task Set' should be all caps.

710: IBM comment from George Penokie

Page 117 - The statement 'The payload shall be zeros...; should be 'The payload is zeros...'.

711: IBM comment from George Penokie

Page 117 - The statement '...(which shall be set equal to 8)...' should be '...(set to 8h)...'..

712: IBM comment from George Penokie

Page 117 - The statement '...Initiators (an FCP_RSP...' should be '...initiators (e.g., an FCP_RSP...'.

713: IBM comment from George Penokie

Page 117 - The terms 'refer to' should be 'see'.

PDF Page 135

714: IBM comment from George Penokie

Page 119 - section j.1.3 - table h.1 - The terms '1000' , '1001' and '1111' should be '1000b', '1001b', and '1111b'.

715: IBM comment from George Penokie

Page 119 - The statement 'service parameters are invalid' should be in all caps.

716: IBM comment from George Penokie

Page 119 - The statement '...an "Invalid Service Parameters" response code of 1000 agree upon.' should be '...an INVALID SERVICE PARAMETERS response code of SERVICE PARAMETERS ARE INVALID agreed to.'

717: IBM comment from George Penokie

Page 119 - section j.1 - The statement '...this document effect text presently standardized in FC-PH-2 which will be corrected...' is nice but cannot be enforced by this standard and should be change to '...this annex effect text presently standardized in other standards that may be corrected in future versions of those standards.'

718: IBM comment from George Penokie

Page 119 - section j.1 - The text between j.1 and j.1.1 is hanging.

719: IBM comment from George Penokie

Page 119 - section j.1.1 - The section has to be deleted. You cannot call out section in another standard and this not only does that it states a specific page.

720: IBM comment from George Penokie

Page 119 - section j.1.2 - The statement 'FC-PH-2 21.11.1.2 incorrectly...' must be changed to 'FC-PH-2 incorrectly...'.

721: IBM comment from George Penokie

Page 119 - section j.1.2 - The statement 'I believe the wording of Annex A of FCP is better, where it says:...' should be 'The wording in annex A of FCP-2 is correct, where it states:...'

722: IBM comment from George Penokie

Page 119 - section j.1.2 - The following sentences cannot be enforced and should be removed: 'All these corrections must be installed in FC-FS.'.

723: IBM comment from George Penokie

Page 119 - section j.1.2 - The following sentence, after the section number is removed, restates what was in the first sentence of this section so it should be deleted : Delete 'The same error is repeated in FC-PH-2, section 21.11.1.3.'

724: IBM comment from George Penokie

Page 119 - annex j - I believe this entire annex should be deleted as it is not relevant to this standard. But if it is to stay then the changes indicated below are necessary..

725: IBM comment from George Penokie

Page 119 - section j.1.3 - The sentence 'The document should replace the last line in Table 118 (PRLI accept response code) and Table 123 (PRLO accept response code) with the following two lines:' needs to be replaced with 'The additional PRLI (PRLO) should be placed into the FC-FS standard as indicated in table H.1.'

PDF Page 136

726: IBM comment from George Penokie

67

Page 120 - section j.2.1 - The sentences list here are editorial and have not place in a standard. They needs to be deleted. 'This value rather meaninglessly requires that a target shall transfer all data for a command and complete the command within a single interconnect tenancy. I believe that 95-348r1 is correct and FC-PLDA is incorrect and have taken this approach in FCP-2.

727: IBM comment from George Penokie

Page 120 - section j.1.5 - The following statement implies something can be removed from a standard after it is processed, this is not the case and the sentence should be removed. 'Section 6.2.5 will be removed when FC-FS has been updated.'

PDF Page 137

728: IBM comment from George Penokie

Page 121 - Why is there a list of figures at the end of the document? They should be in the front of the document not at the end.