Summary of Comments on SCSI Architecture Model - 4

Page: i

Author: George Penokie Subject: Note Date: 11/20/2007 2:18:19 PM Comments: 001 - Brocade 017 - Emulex 205 - HPQ 001 - Network Appliance 021 - Quantum 096 - Western Digital Corporation -----341

Author: George Penokie Subject: Note Date: 11/2/2007 9:52:53 AM -05'00' Key to PDF comments:

- A comment that has not been looked at yet in the current run through of the comments has no Checkmark.
- A comment that has been looked at but not responded to yet (i.e., editor has no clue what to do about it) is not marked.
- Comment with Status of Accepted has been incorporated into SAM-4.
- Comment with Status of Completed has been incorporated but needs to be talked about in a working group meeting.
- Comment with Status of Rejected has been rejected or the wording has changed from the commenters suggestion.

- Comment with reply indicates a the actual text the was incorporated if it is different than the proposed text or the reason for the comment being rejected.

Author: relliott Subject: Note Date: 10/10/2007 12:51:20 PM -05'00' move right-justified text on page i right by .2 inches to line up with the horizontal lines

Status

George Penokie Accepted 10/29/2007 2:42:03 PM -05'00'

Page: iii

Author: relliott Subject: Highlight Date: 10/27/2007 12:11:19 PM -05'00' SCSI Architecture Model - 4 s/b SCSI Architecture Model - 4 (SAM-4)

Status George Penokie Accepted 10/29/2007 2:43:52 PM -05'00'

Page: xviii

Author: relliott Subject: Highlight Date: 10/27/2007 12:08:39 PM -05'00' The SCSI Architecture Model - 4 standard s/b This standard Status George Penokie Accepted 10/29/2007 2:44:50 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:16:32 PM -05'00' T s/b this standard and previous versions of this standard Status George Penokie Accepted 10/29/2007 2:45:44 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:09:01 PM -05'00' <mark>℃</mark>∟. s/b Lists lists Status George Penokie Accepted 10/29/2007 2:46:16 PM -05'00' Author: suhlerp Subject: Replacement Text Date: 10/26/2007 9:11:58 AM -05'00' Lists [don't capitalize, for consistency] Status George Penokie Accepted 10/26/2007 1:31:13 PM -05'00'

Author: relliott Subject: Highlight Date: 10/28/2007 9:48:46 PM -05'00' Carchitecture model concepts s/b concepts

conc

Status George Penokie Accepted 10/29/2007 2:47:28 PM -05'00'

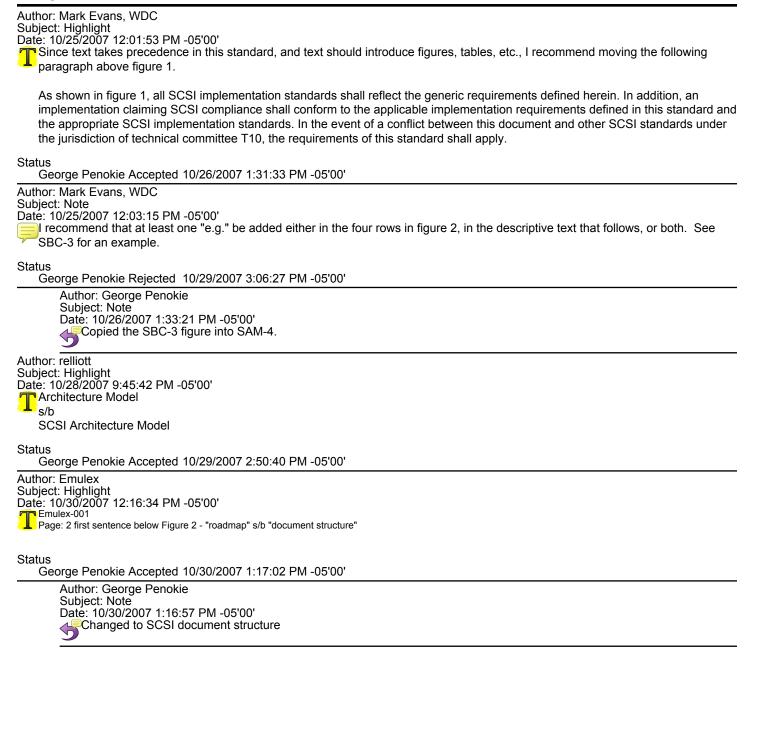
Author: relliott Subject: Highlight Date: 10/28/2007 9:47:53 PM -05'00' SCSI Architecture Model - 4 s/b

SCSI Architecture Model - 4 (SAM-4)

(page 1 footer differs from the other pages)

Status

George Penokie Accepted 10/29/2007 2:50:02 PM -05'00'



Author: relliott Subject: Highlight Date: 10/28/2007 9:46:07 PM -05'00' Architecture Model SCSI Architecture Model

Status

George Penokie Accepted 10/29/2007 2:51:15 PM -05'00'

Author: Emulex Subject: Highlight Temulex-002 Page: 3 Device-Type Specific Command Sets: - second sentence "is" s/b "are"

Status George Penokie Rejected 10/30/2007 1:19:45 PM -05'00'

Author: George Penokie Subject: Note Date: 10/30/2007 1:19:22 PM -05'00' Changed to "behaviors that are"

Author: Mark Evans, WDC Subject: Highlight Date: 10/5/2007 10:35:26 AM -05'00' I'm not sure that "The following standards.." is correct because I thought the OMG document was a specification -- not a standard. If this is true, then this should be changed to, "The following standards and specifications..." Status George Penokie Accepted 10/26/2007 1:33:45 PM -05'00' Author: Mark Evans. WDC Subject: Highlight Date: 10/24/2007 12:31:16 PM -05'00' "Copies of the following documents..." I think that some of the following documents are not available from ANSI (e.g., the IETF and OMG documents as noted below), therefore, I think this... s/b "Except where noted in the following subclauses, copies of the following documents...". Status George Penokie Rejected 10/29/2007 3:07:37 PM -05'00' Author: George Penokie Subject: Note Date: 11/8/2007 7:24:00 PM Changed to "Copies of the following documents may be obtained from ANSI: a) approved ANSI standards; b) approved and draft international and regional standards (ISO, IEC); and c) approved and draft foreign standards (including JIS, and DIN). Author: relliott Subject: Cross-Out Date: 10/9/2007 3:58:55 PM -05'00' Telete "IEC 60027-2:2000, Letter symbols to be used in electrical technology - Part 2: Telecommunications and electronics" This is the reference that defines Ki, Mi, etc. prefixes for powers-of-two units to avoid misusing the SI powers-of-ten units. These prefixes are not used in this standard. Status George Penokie Accepted 11/8/2007 7:26:09 PM Author: suhlerp Subject: Sticky Note Date: 10/23/2007 10:24:43 AM -05'00' ADC-2 will probably have completed INCITS approval by the time SAM-4 finishes LB comment resolution. Status George Penokie Accepted 10/26/2007 1:44:42 PM -05'00' Author: George Penokie Subject: Note Date: 10/26/2007 1:44:37 PM -05'00' ADC-2 moved to approved references Author: relliott Subject: Highlight Date: 10/8/2007 4:22:38 PM -05'00' References s/b references Status

George Penokie Accepted 10/29/2007 2:52:19 PM -05'00'

Author: Mark Evans, WDC Subject: Note

Date: 10/29/2007 12:19:47 PM -05'00'

The definitions (i.e., those with the numbers 3.1.x) are all left and right justified, and several have hyphens added by FrameMaker to split words across lines. All of the other clauses are left justified and right ragged with no hyphens added to split words. At a quick glance, SPC-4 is left and right justified with hyphens added throughout. SBC-3 and SAS- 2 are left justified and right ragged with no hyphens added throughout. Interesting to me, the style guide (i.e., 05-085r7) has the same odd combination as SAM-4. I wonder why that is? One way or the other, I think that all the clauses should have the same format -- editor's choice.

Status

George Penokie Accepted 10/29/2007 7:17:48 AM -05'00'

Author: George Penokie Subject: Note Date: 10/26/2007 2:09:39 PM -05'00' There was one paragraph style that had justification and hyphenation set. That has been corrected.

Author: relliott

Subject: Cross-Out Date: 10/29/2007 9:38:22 AM -05'00' performed by a task Status George Penokie Accepted 11/8/2007 7:27:38 PM Author: Mark Evans, WDC Subject: Highlight

Date: 10/29/2007 12:20:00 PM -05'00'

Tsee 3.1.8: This cross reference hot link is broken. When I click on it, nothing happens. This is true for almost all of the "3.1.x" cross references in this subclause and for some of them in other clauses.

Status

George Penokie Accepted 10/29/2007 7:17:59 AM -05'00'

Author: George Penokie Subject: Note Date: 10/26/2007 3:20:09 PM -05'00' This was a pdf generation issue. To make it work in the pdf setup link tab the Create named destinations for all paragraphs box must be checked.

Author: relliott Subject: Highlight Date: 10/8/2007 5:28:38 PM -05'00' ACA task attribute s/b ACA (smallcaps lowercase) task attribute

Status

George Penokie Accepted 10/29/2007 2:55:20 PM -05'00'

Author: Mark Evans, WDC Subject: Note Date: 10/24/2007 12:32:48 PM -05'00' Add "(see 8.5.3)" at the end of 3.1.10.

Status

George Penokie Accepted 10/29/2007 7:26:50 AM -05'00'

Author: George Penokie Subject: Note Date: 10/29/2007 7:25:46 AM -05'00'

Author: Emulex Subject: Highlight Date: 10/30/2007 12:21:18 PM -05'00' TPage: 5 3.1.10 "When in this state" s/b "A state in which"

Comments from page 5 continued on next page

Status George Penokie Accepted 10/30/2007 1:21:03 PM -05'00'
Author: Mark Evans, WDC
Subject: Note Date: 10/24/2007 12:37:33 PM -05'00'
Add "(see 8.9.1)" at the end of 3.1.11.
Status George Penokie Accepted 10/29/2007 7:27:03 AM -05'00'
Author: George Penokie
Subject: Note Date: 10/29/2007 7:26:42 AM -05'00'
Added "See 8.9." as that is a more accurate reference
Author: relliott Subject: Note
Date: 10/16/2007 6:28:28 PM -05'00'
Status George Penokie Accepted 10/29/2007 2:57:09 PM -05'00'
Author: Mark Evans, WDC Subject: Note
Date: 10/24/2007 2:02:08 PM -05'00'
Status George Penokie Accepted 10/29/2007 7:28:42 AM -05'00'
Author: George Penokie Subject: Note
Date: 10/29/2007 7:28:36 AM -05'00'
Added "See 4.3."
Author: Mark Evans, WDC Subject: Highlight
Date: 10/29/2007 12:22:04 PM -05'00'
T"possibly a member of a series of defined numeric values," This phrase tells me nothing. Remove the "ly" adverb and add an "e.g.", and then it tells me something.
s/b
"sometimes a member of a series of defined numeric values (e.g., an additional sense code),"
Status George Penokie Rejected 11/8/2007 7:34:03 PM
Author: George Penokie Subject: Note
Date: 11/8/2007 7:33:39 PM
Deleted the entire glossary entery

Author: relliott Subject: Note

Date: 10/29/2007 9:19:32 AM -05'00'

The relationship of command and task is unclear now that linked commands are gone. The standard uses a mix of the terms with no apparent reason (if read without remembering the history).

Author: George Penokie Subject: Note Date: 11/16/2007 2:51:49 PM Change task to command in all places were the two are really referring to one entity. Make sure to change task identifier to command identifier.

Author: relliott Subject: Highlight Date: 10/29/2007 9:15:30 AM -05'00' returning a status and service response of TASK COMPLETE s/b returning a service response of TASK COMPLETE

The status is of secondary importance and doesn't need to be mentioned. As worded, it sounds like TASK COMPLETE could be a status value.

Status

George Penokie Completed 10/29/2007 3:00:37 PM -05'00'

Author: relliott

Subject: Cross-Out

Date: 10/29/2007 9:17:20 AM -05'00' 3.1.22 completed task: A task that has ended by returning a status and service response of TASK COMPLETE.

J

Delete this definition and replace all uses of "completed task" with "completed command." Their definitions are identical now that task=command.

Author: Emulex Subject: Highlight Date: 10/30/2007 12:31:54 PM -05'00' Emulex-004 Page: 6 3.1.28 "supplier" s/b "server"

Status

George Penokie Accepted 10/30/2007 1:23:01 PM -05'00'

Author: relliott Subject: Highlight Date: 10/28/2007 9:50:27 PM -05'00' (see 3.1.45), also s/b (see 3.1.45). Also,

Status

George Penokie Rejected 10/29/2007 3:03:23 PM -05'00'

Author: George Penokie Subject: Note Date: 10/29/2007 3:03:15 PM -05'00' Changed to "(see 3.1.45) and that is...

Author: Mark Evans, WDC Subject: Highlight

Date: 10/24/2007 2:05:27 PM -05'00'

Comments from page 6 continued on next page

"(e.g., a block device or a stream device)."

Status

George Penokie Accepted 10/29/2007 7:33:02 AM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/24/2007 2:06:21 PM -05'00' "..a service delivery subsystem." s/b "..the service delivery subsystem." Status George Penokie Accepted 10/29/2007 7:33:47 AM -05'00' Author: Mark Evans, WDC Subject: Note Date: 10/24/2007 2:08:39 PM -05'00' Add "(see 8.5.4)" at the end of 3.1.35. Status George Penokie Accepted 10/29/2007 7:36:07 AM -05'00' Author: George Penokie Subject: Note Date: 10/29/2007 7:35:47 AM -05'00' Added "See 8.5.4." Author: Emulex Subject: Highlight Daté: 10/30/2007 12:32:04 PM -05'00' Emulex-005 Page: 6 3.1.35 and 3.1.36 "When in this state" s/b "A state in which" Status George Penokie Accepted 10/30/2007 1:22:08 PM -05'00' Author: Mark Evans, WDC Subject: Note Date: 10/24/2007 2:10:36 PM -05'00' Add "(see 8.5.2)" at the end of 3.1.36. Status George Penokie Accepted 10/29/2007 7:36:00 AM -05'00' Author: George Penokie Subject: Note Date: 10/29/2007 7:35:56 AM -05'00' Added "See 8.5.2." Author: Emulex Subject: Highlight Date: 10/30/2007 12:37:09 PM -05'00' Emulex-005 Page: 6 3.1.35 and 3.1.36 "When in this state" s/b "A state in which" Status George Penokie Accepted 10/30/2007 1:22:19 PM -05'00'

5
Author: Mark Evans, WDC
Subject: Highlight Date: 10/24/2007 2:12:12 PM -05'00'
T"for transmission, but not yet received." s/b
"for transmission, but has not yet arrived at the intended recipient."
Status George Penokie Completed 10/29/2007 7:39:38 AM -05'00'
Author: Mark Evans, WDC
Subject: Highlight Date: 10/24/2007 2:13:23 PM -05'00'
T"in an object diagram. Represents an instance" s/b
"in an object diagram representing an instance"
Status George Penokie Accepted 10/29/2007 7:40:29 AM -05'00'
Author: suhlerp
Subject: Sticky Note Date: 10/25/2007 2:31:38 PM -05'00'
Should there be a definition for "logical unit name" (see 4.5.19.3)? A designator can be associated with a logical unit.
3.1.x logical unit name: A name (see 3.1.68) of a logical unit that is world wide unique within the SCSI transport protocol of a SCSI domain in which the SCSI device containing the logical unit has SCSI ports (see 4.5.4.2). The logical unit name may be made available to other SCSI devices or SCSI ports in SCSI transport protocol specific ways.
Status George Penokie Completed 10/29/2007 7:41:24 AM -05'00'
Status
George Penokie Completed 11/16/2007 3:16:58 PM Author: George Penokie
Subject: Note Date: 11/16/2007 3:16:53 PM Subject: 11/16/2007 3:16:53 PM
Author: Mark Evans, WDC Subject: Cross-Out
Date: 10/29/2007 12:21:32 PM -05'00' Delete "(e.g., the terms name and world wide identifier (WWID) may be interchangeable)", as neither the terms "world wide identifier" or "WWID" are used anywhere else in this document. Alternately, those terms could be defined, but that would be a little odd since they are only used in this definition.
Status George Penokie Completed 10/29/2007 7:48:13 AM -05'00'
Author: suhlerp Subject: Replacement Text Date: 10/23/2007 11:43:01 AM -05'00' Shows [capitalize] Status
George Penokie Accepted 10/29/2007 7:49:00 AM -05'00'
Author: relliott Subject: Note Date: 10/16/2007 6:28:48 PM -05'00' At the end of 3.1.72 object diagram, add "See 3.6.3."

Comments from page 8 continued on next page

Status

George Penokie Accepted 10/30/2007 10:00:00 AM -05'00'

Author: Mark Evans, WDC

Subject: Highlight Date: 10/29/2007 12:22:01 PM -05'00'

TFrom the point of view of the application client, the description of command between the time that the application client calls the Send SCSI Command SCSI transport protocol service and the time one of the SCSI target device responses described in 5.5 is received."

s/b

"From the point of view of the application client, a command from the time that the application client calls the Send SCSI Command SCSI transport protocol service until the application client receives a response for the command from the SCSI target device (see 5.5)."

Status

George Penokie Rejected 11/16/2007 3:20:32 PM

Author: George Penokie Subject: Note Date: 11/16/2007 3:20:27 PM Changed to "A command for which an application client task (see 4.5.10) exists."

Author: relliott Subject: Note Date: 10/27/2007 12:40:45 PM -05'00' Add:

3.1.xx power loss expected: A condition resulting from a power loss expected event in which the logical unit performs the power loss expected operations described in 6.3.5, SPC-4, and the appropriate transport protocol and command standards.

Status

George Penokie Completed 10/30/2007 10:03:51 AM -05'00'

Author: relliott Subject: Note

Date: 10/27/2007 12:41:44 PM -05'00'

Add:

3.1.xx power loss expected event: An event that results in a power loss expected condition (see 3.1.xx) as described in 6.3.5.

Status

George Penokie Completed 10/30/2007 10:06:07 AM -05'00'

Author: relliott Subject: Note Date: 10/16/2007 6:29:08 PM -05'00'

At the end of 3.1.80 procedure call, add "See 3.6.4."

Status

George Penokie Accepted 10/30/2007 10:07:05 AM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/24/2007 2:18:46 PM -05'00' "...usually according to the temporal order..." s/b

"...most often according to the temporal order..."

Status

George Penokie Accepted 10/29/2007 8:40:54 AM -05'00'

Author: George Penokie Subject: Note Date: 11/16/2007 3:24:19 PM Deleted ', most often according to the temporal order in which they were created.'

Author: relliott Subject: Highlight Date: 10/28/2007 9:55:10 PM -05'00' whose objects are, or an object that is, within the logical unit representing s/b

within the logical unit whose objects represent, or an object that represents,

Status

George Penokie Accepted 10/30/2007 10:26:08 AM -05'00'

Author: relliott Subject: Highlight Date: 9/28/2007 5:49:07 PM -05'00'

> task identifier s/b task tag

There is no good justification for making this change from SAM-3 to SAM-4. Every transport protocol uses the name "tag" now and will have to unnecessarily change. This is reminiscent of changing "queue" to "task set" from SCSI-2 to SCSI-3.

This helps make the ingredients in I_T_L_Q nexus have similar names, but "logical unit number" is not being renamed to "logical unit identifier" to make them all consistent.

Status

George Penokie Rejected 10/30/2007 10:40:38 AM -05'00'

Author: George Penokie Subject: Note Date: 10/30/2007 10:40:30 AM -05'00' The old term "task tag" is just confusing and not consistent. The change is justified as it does not have heavy usage. It is only used 2 times in SAS-2. FCP-4 is it only used 1 time. SPC-4 is only used 2 times. SBC-3 has none.

Author: George Penokie Subject: Highlight Date: 11/8/2007 6:21:39 PM The portion of an I_T_L_Q nexus (i.e., the Q) that is the identifier of the task (see 3.1.122) within an I_T_L nexus. See 4.7.2.

Author: Emulex Subject: Highlight Date: 10/30/2007 12:38:35 PM -05'00' T Emulex-006 Page: 11 3.1.121 This definition is a partial sentence. It needs to specify: The portion (i.e., Q) of an I_T_L nexus (see 3.1.49) in a task set that uniquely identifies each task.

Status

George Penokie Rejected 10/30/2007 1:25:41 PM -05'00'

Author: George Penokie Subject: Note Date: 10/30/2007 1:25:36 PM -05'00' Sentence now reads "The portion of an I_T_L_Q nexus (i.e., the Q) that is the numerical identifier of the task (see 3.1.122) in a task set (see 3.1.131)."

Author: George Penokie Subject: Note Date: 11/8/2007 6:22:53 PM Sentence now reads "The portion of an I_T_L_Q nexus (i.e., the Q) that is the identifier of the task (see 3.1.122) within an

Comments from page 11 continued on next page

Author: Mark Evans, WDC Subject: Highlight Date: 10/24/2007 2:20:19 PM -05'00' The portion (i.e, Q) of an I_T_L nexus (see 3.1.49) in a task set (see 3.1.128). See 4.7.2." s/b "The portion of an I_T_L_Q nexus (i.e., the Q) that is the numerical identifier of the task in the nexus (see 3.1.49) in a task set (see 3.1.128). See 4.7.2." Status George Penokie Completed 10/29/2007 8:46:59 AM -05'00' Author: George Penokie Subject: Note Date: 10/29/2007 8:44:56 AM -05'00' **5**010... 4.7.2." Changed to "The portion of an I_T_L_Q nexus (i.e., the Q) that is the numerical identifier of the task (see 3.1.49). See Author: George Penokie Subject: Highlight Date: 11/8/2007 6:10:42 PM 4.7.2. Author: George Penokie Subject: Highlight Date: 11/8/2007 6:10:41 PM 4.7.2. Author: Mark Evans, WDC Subject: Note Date: 10/24/2007 2:21:44 PM -05'00' Add "See clause 7." at the end of 3.1.123. Status George Penokie Accepted 10/29/2007 8:48:32 AM -05'00' Author: relliott Subject: Highlight Date: 10/28/2007 9:57:31 PM -05'00' whose objects are, or an object that is, within a logical unit that controls s/b within a logical unit whose objects control, or an object that controls Status George Penokie Accepted 10/30/2007 10:44:53 AM -05'00' Author: relliott Subject: Highlight Date: 10/28/2007 11:26:07 PM -05'00' whose objects are, or an object that is, within a SCSI target port that routes s/b within a SCSI target port whose objects route, or an object that routes Status George Penokie Accepted 10/30/2007 10:45:51 AM -05'00' Author: relliott Subject: Highlight Date: 10/16/2007 6:30:44 PM -05'00' "assume the SCSI initiator device role" The logical unit doesn't become an SCSI initiator device itself. The command forces the SCSI device containing that logical unit to assume the SCSI initiator device role.

Author: Mark Evans, WDC Subject: Highlight

Comments from page 11 continued on next page

Date: 10/24/2007 2:23:41 PM -05'00'

s/b

"...and send one or more commands to another SCSI target device."

Status

George Penokie Accepted 10/29/2007 8:49:31 AM -05'00'

Author: George Penokie Subject: Note Date: 11/16/2007 3:25:57 PM Deleted term as it is not used in this standard.

Author: relliott

Subject: Highlight Date: 10/28/2007 11:25:16 PM -05'00' **T**are s/b

are each

to match "is" later

Status

George Penokie Accepted 10/30/2007 10:47:23 AM -05'00'

Author: suhlerp Subject: Sticky Note Date: 10/23/2007 12:00:37 PM -05'00' ADT-2 Automation/Drive Interface Transport Protocol - 2 (see 1.3) [used in table A.3]			
Status George Penokie Accepted 10/29/2007 8:53:12 AM -05'00'			
Author: Emulex Subject: Note Date: 10/30/2007 12:41:47 PM -05'00' Emulex-007 Page: 12 ADC-2, FCP-4, SAS-2, SBC-3, SBP-3 and SPC-4 make hyphenation consistent in all full standard names. Some have a space before hyphen some do not. ADC-2 has a space after the hyphen.			
Status George Penokie Accepted 10/30/2007 1:28:56 PM -05'00'			
Author: George Penokie Subject: Note Date: 10/30/2007 1:28:51 PM -05'00' Added space before and after hyphen when not already there.			
Author: Mark Evans, WDC Subject: Highlight Date: 10/24/2007 2:51:51 PM -05'00' T"preference (synonymous with may or may not)." s/b "preference. May is synonymous with the phrase "may or may not"."			
Status George Penokie Accepted 10/29/2007 9:17:51 AM -05'00'			
Author: Mark Evans, WDC Subject: Highlight Date: 10/24/2007 2:53:03 PM -05'00' T"preference (synonymous with may or may not)." s/b "preference. May not is synonymous with the phrase "may or may not"."			
Status George Penokie Accepted 10/29/2007 9:17:57 AM -05'00'			
Author: Mark Evans, WDC Subject: Cross-Out Date: 10/5/2007 11:38:32 AM -05'00' 3.3.7 prohibited: this definition should be deleted as it is not used in this standard.			
Author: George Penokie Subject: Note Date: 10/29/2007 1:12:02 PM -05'00' Although not in the standard it is a keyword.			

Author: Emulex Subject: Highlight Date: 11/8/2007 6:33:08 PM Emulex-008 Page: 13 3.3.8 last sentence: For backward compatibility in future standards, shouldn't this be "Recipients shall not check ..."? Status George Penokie Rejected 11/8/2007 6:32:27 PM Author: George Penokie Subject: Note Date: 11/8/2007 6:31:50 PM This is the way it's been as long as SCSI has been around. Author: relliott Subject: Highlight Date: 10/27/2007 12:18:29 PM -05'00' as error s/b as an error Status George Penokie Accepted 10/30/2007 10:49:21 AM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 12:12:30 PM -05'00' The paragraph that begins, "Lists sequenced by letters...", s/b ...replaced by something more complete (e.g., how lists are described in the SCSI style guide). Author: George Penokie Subject: Note Date: 10/29/2007 9:23:17 AM -05'00'

If we do this then we would have to add in the style guide as a referenced document. I do not think that is a good idea. I think the statement is adequate.

Author: relliott Subject: Highlight Date: 10/8/2007 6:11:07 PM -05'00'

Within class diagrams and object diagrams there may be constraints which specify requirements and notes which are informative.

Class diagrams and object diagrams may include constraints, which specify requirements, and notes, which are informative.

Status George Penokie Accepted 10/30/2007 10:52:29 AM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:19:21 PM -05'00' "Solid lines with arrowheads (see figure 4) are the notation..." s/b "...is the notation..." ["notation" meaning, "...any particular system of characters or symbols used to briefly express elements...", and this is my first choice] or "...are the notations..." ["notations" meaning, "...the characters or symbols used in such a system...] One way or the other, the verb has to agree with the object (i.e., either "is the notation" or "are the notations").

Status

George Penokie Accepted 10/29/2007 9:25:26 AM -05'00'

Author: George Penokie Subject: Note Date: 10/29/2007 9:25:18 AM -05'00' Changed to "is the notation"

Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:18:53 PM -05'00' "Solid lines with diamonds (see figure 5) are the notation..." s/b "...is the notation..." [see my earlier comment]

Status George Penokie Accepted 10/29/2007 9:26:15 AM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:18:31 PM -05'00' "Solid lines with triangles (see figure 6) are the notation..."][s/b "...is the notation ... " [see my earlier comment] Status George Penokie Accepted 10/29/2007 9:26:34 AM -05'00' Author: suhlerp Subject: Replacement Text Date: 10/23/2007 12:08:48 PM -05'00' **T**Attribute Status George Penokie Accepted 10/29/2007 9:28:16 AM -05'00' Author: suhlerp Subject: Replacement Text Date: 10/23/2007 12:08:57 PM -05'00' Attribute Status George Penokie Accepted 10/29/2007 9:28:21 AM -05'00' Author: suhlerp Subject: Replacement Text Date: 10/23/2007 12:09:18 PM -05'00' **T** Attribute Status George Penokie Accepted 10/29/2007 9:28:26 AM -05'00' Author: suhlerp Subject: Replacement Text Date: 10/23/2007 12:09:23 PM -05'00' **T**Attribute Status George Penokie Accepted 10/29/2007 9:28:34 AM -05'00' Author: suhlerp Subject: Sticky Note Date: 10/23/2007 12:12:43 PM -05'00' Page break before this paragraph. All the other notational elements start on a new page. Status George Penokie Rejected 10/29/2007 9:30:33 AM -05'00' Author: George Penokie Subject: Note Date: 10/29/2007 9:30:28 AM -05'00' The others are that way because it keeps the text with the figure. That is no need to do that as it fits on one pape. Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:21:41 PM -05'00' Dashed lines with arrowheads (see figure 7) are the notation... s/b ... is the notation ... [see earlier comment] Status George Penokie Accepted 10/29/2007 9:31:17 AM -05'00'

Author: suhlerp

Subject: Sticky Note Date: 10/23/2007 12:19:54 PM -05'00'

Does this mean that the value of the attribute is the set $\{x,y,z\}$? Maybe an example would help.

Author: George Penokie Subject: Note

Date: 10/29/2007 2:30:04 PM -05'00'

Having multiple values for an attribute is not valid for an instance of a class. It has been deleted from the figure. Note this change was also made to the style guide.

Status

George Penokie Completed 10/29/2007 2:30:04 PM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:21:29 PM -05'00' "Solid lines (see figure 9) are the notation..." s/b

"...is the notation ... " [see my earlier comment]

Status

George Penokie Accepted 10/29/2007 2:30:47 PM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/24/2007 3:08:43 PM -05'00' T s/b "...transitions using ... " Status George Penokie Accepted 10/29/2007 2:31:40 PM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/24/2007 3:09:35 PM -05'00' "Using figure 10 as an example, the transition list might read as follows:" s/b "Using figure 10 as an example, the transition list reads as follows:" Status George Penokie Accepted 10/29/2007 2:32:19 PM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/24/2007 4:14:51 PM -05'00' "State transitions are logically instantaneous;" s/b "Transitions from one state to another are instantaneous;"

Author: relliott Subject: Highlight Date: 10/27/2007 12:24:37 PM -05'00' The model does not address other requirements that may be essential to some I/O system implementations s/b The model does not address other requirements that are essential to some I/O system implementations

Author: relliott Subject: Cross-Out Date: 10/8/2007 5:40:56 PM -05'00'

None of the classes include that as their single attribute.

Status

George Penokie Accepted 10/30/2007 11:03:00 AM -05'00'

Author: relliott Subject: Highlight Date: 10/8/2007 6:12:38 PM -05'00' CA client may only originate requests for service. A server may only respond to such requests. s/b

A client only originates requests for service. A server only responds to such requests.

Status George Penokie Accepted 10/30/2007 11:04:58 AM -05'00'

Author: relliott Subject: Note

Date: 10/28/2007 9:37:45 PM -05'00'

The last paragraph in 4.3.1 discusses commands and device server requests. It should also discuss TMFs and task management requests, to cover everything shown in figure 12.

Author: relliott

Subject: Highlight Date: 10/28/2007 9:40:39 PM -05'00' SCSI initiator device" is not quite right.

The SCSI initiator device might deduce that a command was received by the target by noticing data transfer requests for that command. Some protocols explicitly mention that "implicit ACK."

It might be better to word this sentence with "application client", since although it is part of the initiator device it is not involved in the data transfer protocol services.

Status

George Penokie Completed 10/30/2007 11:09:15 AM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/24/2007 4:15:53 PM -05'00' "...the response has been received successfully..." s/b "...the response has been received without error..." Status George Penokie Accepted 10/30/2007 1:31:15 PM -05'00' Author: relliott Subject: Highlight Date: 10/28/2007 9:41:08 PM -05'00' architecture model s/b SCSI architecture model Status George Penokie Accepted 10/30/2007 1:32:19 PM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/24/2007 4:17:28 PM -05'00' s/b "...until the response has been delivered without error..." Status George Penokie Accepted 10/30/2007 1:31:50 PM -05'00'

Author: relliott Subject: Highlight Date: 10/8/2007 5:56:09 PM -05'00' SCSI domain s/b SCSI Domain class

Status George Penokie Accepted 10/30/2007 1:33:08 PM -05'00'

Author: relliott Subject: Note

Date: 10/29/2007 8:34:12 AM -05'00'

The implication that a logical unit is contained within only one SCSI target device may be too tight.

1. The way hierarchical logical units are currently modeled, a logical unit is part of its real SCSI target device and also part of each of the SCSI target devices that route to it. (A separate comment suggests removing hierarchical logical units from the model)

2. With virtualization (e.g., RAID), some logical units (e.g., the physical disk drives) are used by a "higher level" logical unit (e.g., a RAID-5 volume). There is some interaction between the states of the higher and lower level logical units.

3. With remote replication, a logical unit can be in two different places at the same time. The media is essentially synchronized (writes to New York are immediately picked up by reads in Los Angeles). However, the task set states are not (an ABORT TASK SET in New York doesn't abort commands pending in Los Angeles).

To acknowledge these oddities, perhaps add a statement like "The medium accessed by a logical unit may not be exclusively accessible through that logical unit."

An optional containment relationship from logical unit to logical unit might represent the more complex interactions.

Author: suhlerp Subject: Sticky Note Date: 10/23/2007 3:54:35 PM -05'00' [Technical] Both ADC-2 and SSC-2 & -3 include a physical device as part of the SCSI target device. If you wish, I could provide a proposal to add this. Otherwise, it could wait for SAM-5. Status George Penokie Rejected 10/30/2007 1:35:33 PM -05'00'

Author: George Penokie Subject: Note Date: 10/30/2007 1:35:28 PM -05'00'

Author: relliott Subject: Note

Date: 10/29/2007 8:56:10 AM -05'00'

The SCSI Device to SCSI Target Device/SCSI Initiator Device relationship should be an inheritance relationship, not an aggregation relationship. Same for SCSI Port to SCSI Initiator Port/SCSI Target Port. This would be a proper use of multiple inheritance.

Comment from someone experienced with UML at HP:

"When they start showing that ports "contain" target and initiator ports, it seems to me that they really are describing inheritance. If that is true, they are mixing inheritance (a port shouldn't really be a SCSI device so much as a Network device anyway so that SCSI can go over any topology) and containment concepts in the same UML by overloading the aggregation symbol to include inheritance.

It is probably going to be hard for UML people to decipher. It is not at all consistent with UML for SCSI management (read SMI-S here), so if they are planning on representing topologies or developing a data model for management or as part of the protocol with this then I am really concerned."

Status

George Penokie Rejected 10/30/2007 1:48:26 PM -05'00'

•	•
Author: Georg	e Penokie
Subject: Note	
	007 1:48:19 PM -05'00'
The proble	em with making the SCSI target device and the SCSI initiator device a children of the SCSI device is that you
	v have to create another class called a SCSI initiator/target device. By using containment that is not required. We

would now have to create another class called a SCSI initiator/target device. By using containment that is not required. We went to great lengths to eliminate initiator/target things and I have no intention of putting them back in. The same is true for

Comments from page 28 continued on next page

the SCSI ports. This is the model that represents SCSI as it it today, shifting it around to make it look like some other interconnect is not a good idea. As far as the SMI-S is concerned, I have seen what they call UML and I would suggest what they call UML is not very closely related to what is in the UML standards.

Author: relliott Subject: Highlight Date: 10/8/2007 5:53:52 PM -05'00' SCSI Domain class (figure 15) s/b SCSI Domain class (see figure 15)

Status George Penokie Accepted 10/30/2007 2:42:44 PM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:21:01 PM -05'00'

"Each instance of a SCSI Domain class shall contain the following objects:

a) one service delivery subsystem;

b) one or more SCSI devices; and

c) one or more SCSI ports."

I think there shall be two or more SCSI devices and two or more SCSI ports, as shown in figure 16.

Status

George Penokie Rejected 10/30/2007 2:47:54 PM -05'00'

Author: George Penokie

Subject: Note Date: 10/30/2007 2:47:47 PM -05'00'

That's not correct. A SCSI device is allowed to contain both an initiator and a target. Also a SCSI port is allowed to contain an initiator port and a target port. So given that it's one or more SCSI devices and one or more SCSI ports. The instance diagram is only one example of what it could look like. The could be an instance diagram that showed only one SCSI device and one SCSI port but that would not be very interesting.

Author: relliott

Subject: Highlight Date: 10/8/2007 5:54:20 PM -05'00' A Service Delivery Subsystem class s/b The Service Delivery Subsystem class

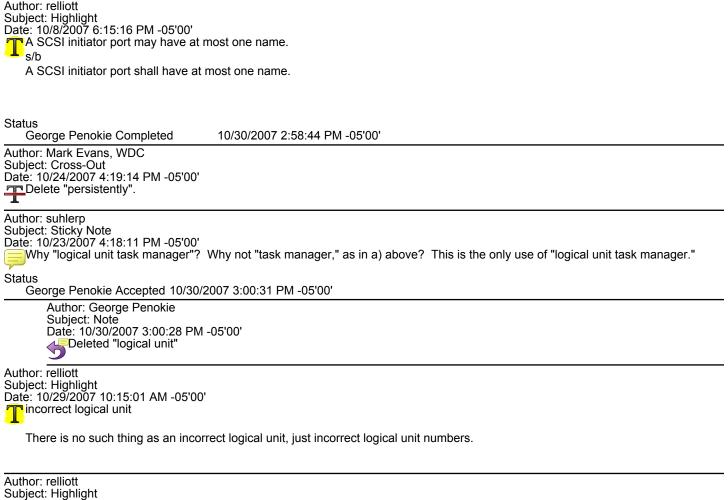
Status

George Penokie Accepted 10/30/2007 2:48:33 PM -05'00'

Author: relliott Subject: Highlight Date: 10/28/2007 9:44:44 PM -05'00' Tarchitecture model S/b SCSI architecture model Status George Penokie Accepted 10/30/2007 2:49:10 PM -05'00' Author: relliott Subject: Highlight Date: 10/8/2007 5:53:35 PM -05'00' T'See figure 17 for the SCSI Device class diagram. The SCSI Device class" s/b "The SCSI Device class (see figure 17)" Status George Penokie Accepted 10/30/2007 2:51:18 PM -05'00' Author: Mark Evans, WDC Subject: Cross-Out Date: 10/24/2007 4:18:54 PM -05'00' TDelete "persistently".

Author: relliott Subject: Highlight Date: 10/8/2007 6:14:17 PM -05'00' Relative port identifiers may be retrieved through the Device Identification VPD page (see SPC-4) and the SCSI Ports VPD page (see SPC-4). s/b The Device Identification VPD page (see SPC-4) and the SCSI Ports VPD page (see SPC-4) report relative port identifiers. Author: relliott Subject: Highlight Date: 10/8/2007 5:57:01 PM -05'00' ₹; s/b . 1 Status George Penokie Accepted 10/30/2007 2:54:55 PM -05'00' Author: relliott Subject: Highlight Date: 10/8/2007 6:14:45 PM -05'00' A SCSI target port may have at most one name. s/b A SCSI target port shall have at most one name. Status George Penokie Completed 10/30/2007 2:56:57 PM -05'00' Author: Mark Evans, WDC Subject: Cross-Out Date: 10/24/2007 4:19:08 PM -05'00' Delete "persistently". Author: relliott Subject: Highlight Date: 10/8/2007 5:50:37 PM -05'00' SCSI Initiator Port class s/b SCSI Initiator Port class (see figure 18) Status George Penokie Accepted 10/30/2007 2:57:59 PM -05'00' Author: relliott Subject: Highlight Date: 10/8/2007 5:50:59 PM -05'00' SCSI Initiator Port (see figure 18) class s/b SCSI Initiator Port class Status

George Penokie Accepted 10/30/2007 2:58:10 PM -05'00'



Date: 10/29/2007 10:15:51 AM -05'00'

There is no such thing as an incorrect logical unit, just incorrect logical unit numbers.

Date: 10/30/2007 3:13:06 PM -05'00'

t has been deleted

Author: relliott Subject: Note Date: 10/8/2007 5:53:04 PM -05'00' Nexus and Function Identifier should be swapped in figure 19 and in sections 4.5.11.2 and 4.5.11.3 to match the SCSI Target Device side in figure 22 and following sections. (or the target side should be swapped to follow this) Status George Penokie Accepted 10/30/2007 3:10:10 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 1:12:55 PM -05'00' s/b Service Response[1] like in Application Client Task (also see comment on text removing "if any") Status George Penokie Accepted 10/30/2007 3:10:22 PM -05'00' Author: Mark Evans, WDC Subject: Cross-Out Date: 10/24/2007 4:20:44 PM -05'00' Delete "originates commands by issuing Send SCSI Command requests (see 5.4.2)." I don't know where this goes, but it doesn't go here. Status George Penokie Accepted 10/30/2007 3:12:48 PM -05'00' Author: Emulex Subject: Highlight Date: 10/30/2007 12:44:24 PM -05'00' Emulex-009 Page: 34 4.5.10 second paragraph: This sentence fragment seems to be out of place. Status George Penokie Accepted 10/30/2007 3:13:09 PM -05'00' Author: George Penokie Subject: Note

Author: Emulex Subject: Highlight

Date: 10/30/2007 12:45:39 PM -05'00'

Emulex-010

Page: 35 Paragraph after second a-b list "The interactions between the task manager, or a task router, &" remove the first comma.

Status

George Penokie Accepted 10/30/2007 3:13:54 PM -05'00'

Author: relliott Subject: Highlight Date: 10/8/2007 5:49:43 PM -05'00' Application Client Task Management Function class Т s/b

Application Client Task Management Function class (see figure 19)

Status

George Penokie Accepted 10/30/2007 3:15:02 PM -05'00'

Author: Emulex Subject: Highlight Date: 10/30/2007 3:15:16 PM -05'00' Emulex-011 Page: 35 4.5.11.3 "The Function Identifier attribute contains function identifier" s/b "The Function Identifier attribute contains a function identifier"

Status George Penokie Accepted 10/30/2007 3:17:01 PM -05'00'

Author: relliott Subject: Highlight Date: 10/27/2007 1:12:42 PM -05'00' Service Response attribute, if any, s/b Service Response attribute

(also see comment on table changing [0..1] to [1])

Status

George Penokie Accepted 10/30/2007 3:17:36 PM -05'00'

Author: relliott Subject: Highlight Date: 10/8/2007 5:49:27 PM -05'00' Application Client Task class s/b Application Client Task class (see figure 19) Status George Penokie Accepted 10/30/2007 3:18:14 PM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 8:50:14 AM -05'00' "The application client task persists until a task complete response is sent..." s/b "The application client task persists until a task complete response is received..." Status George Penokie Accepted 10/30/2007 3:23:43 PM -05'00' Author: relliott Subject: Note Date: 10/30/2007 3:26:20 PM -05'00' All the "output" attribute sections 4.5.13.2 to 4.5.13.12 and 4.5.13.19 should cross reference 5.4.2.2 (Send SCSI Command), just like the "input" attribute sections (4.5.13.13 to 4.5.13.16) reference 5.4.2.5 (Command Complete Received). Status George Penokie Accepted 10/30/2007 3:44:57 PM -05'00' Author: relliott Subject: Highlight Date: 10/29/2007 9:13:03 AM -05'00' SPC-3 s/b SPC-4 or delete this reference and just refer to 5.2 alone Status George Penokie Accepted 10/30/2007 3:47:29 PM -05'00' Author: George Penokie Subject: Note Date: 10/30/2007 3:47:26 PM -05'00' Changed to SPC-4. Author: relliott Subject: Highlight Date: 10/27/2007 12:27:49 PM -05'00' (e.g., SIMPLE task attribute, ORDERED task attribute, HEAD OF QUEUE task attribute, ACA task attribute) s/b (e.g., SIMPLE, ORDERED, HEAD OF QUEUE, or ACA) Status George Penokie Rejected 10/30/2007 3:49:48 PM -05'00' Author: George Penokie Subject: Note Date: 10/30/2007 3:49:44 PM -05'00' The correct name as used in the rest of the standard is xxx task attribute. So no change made.

Author: relliott Subject: Highlight Date: 10/29/2007 8:59:30 AM -05'00' command (see 5.4.2.5). command (see 5.8.6 and 5.4.2.5). Status George Penokie Accepted 10/30/2007 3:52:02 PM -05'00' Author: George Penokie Subject: Note Date: 10/30/2007 3:51:57 PM -05'00' Reference placed right after the term "sense data" Author: relliott Subject: Highlight Date: 10/29/2007 8:59:10 AM -05'00' command (see 5.4.2.5). s/b command (see 5.8.6 and 5.4.2.5) Status George Penokie Accepted 10/30/2007 3:52:40 PM -05'00' Author: George Penokie Subject: Note Date: 10/30/2007 3:52:23 PM -05'00' Reference placed right after the term "sense data" Author: relliott Subject: Highlight Date: 10/29/2007 8:58:14 AM -05'00' the retry delay time for the completed command (see 5.4.2.5) s/b the additional status information for the completed command (see 5.3.2 and 5.4.2.5).

Author: George Penokie Subject: Note Date: 10/30/2007 3:53:40 PM -05'00'

Author: relliott

Subject: Note Date: 10/29/2007 9:01:22 AM -05'00'

Move 4.5.13.16 First Burst Enabled attribute up after 4.5.13.12 Task Priority attribute so the outputs are all ahead of the inputs. Also move it higher in the UML diagram attribute list.

Status

George Penokie Accepted 10/30/2007 4:00:24 PM -05'00'

Author: relliott

Subject: Note Date: 10/28/2007 11:47:45 PM -05'00'

Delete the hierarchical logical unit classes from the UML model.

UML should just model the logical units that are contained in the SCSI target device (i.e., the level 1 hierarchical logical units). Some LUN values address those logical units; others address logical units in other SCSI target devices. They should not be considered part of the same SCSI target device.

The Task Router class should own the rules about parsing a LUN field (e.g. deciding where to send a task or TMF - send it to a logical unit in this target, or forward it elsewhere)

Comments from page 37 continued on next page

Author: relliott Subject: Highlight Date: 10/8/2007 5:57:27 PM -05'00' T; s/b : Status George Penokie Accepted 10/30/2007 4:01:32 PM -05'00'

Author: relliott Subject: Highlight Date: 10/8/2007 6:19:23 PM -05'00' THierarchical Logical Unit class

There is no class with that name, and it doesn't appear in figure 22.

Status George Penokie Accepted 10/30/2007 4:05:22 PM -05'00'

Author: George Penokie Subject: Note Date: 10/30/2007 4:05:06 PM -05'00' Deleted the entry as it was a hold over from a previous version of the UML.

Author: relliott Subject: Highlight Date: 10/8/2007 5:47:24 PM -05'00' T_I_T_L_Q nexus s/b I_T_L_Q Nexus

Status George Penokie Accepted 10/30/2007 4:06:13 PM -05'00'

Author: Mark Evans, WDC Subject: Cross-Out Date: 10/25/2007 8:51:02 AM -05'00' T Delete "persistently". Author: relliott Subject: Highlight Date: 10/8/2007 6:18:17 PM -05'00' T in the logical unit s/b

s/b if the logical unit

Status

George Penokie Accepted 10/30/2007 4:06:51 PM -05'00'

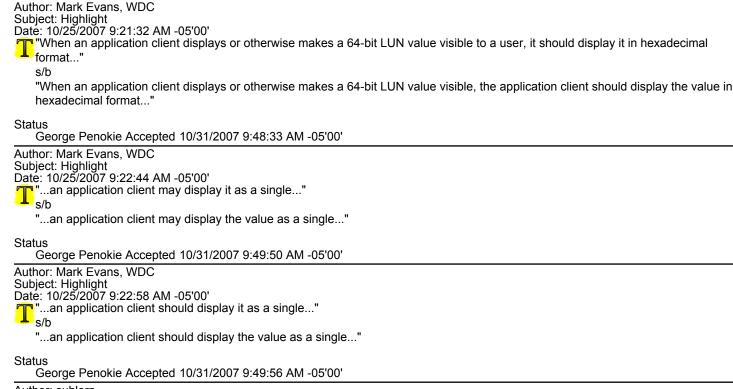
Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:20:11 PM -05'00' "c) Data Transfer Terminated operation (see 5.4.3.4.3) to determines..."][s/b "c) Data Transfer Terminated operation (see 5.4.3.4.3) to determine..." Status George Penokie Accepted 10/30/2007 4:07:29 PM -05'00' Author: relliott Subject: Highlight Date: 10/8/2007 5:46:55 PM -05'00' Task class s/b Task class (see figure 22) Status George Penokie Accepted 10/30/2007 4:08:13 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:29:14 PM -05'00' (see 8.6) contains Delete the blue underline after the ")" and before "contains" Status George Penokie Accepted 10/30/2007 4:09:25 PM -05'00' Author: suhlerp Subject: Sticky Note Date: 10/23/2007 4:52:53 PM -05'00' SPC-4? Status George Penokie Accepted 10/30/2007 4:10:07 PM -05'00' Author: George Penokie Subject: Note Date: 10/30/2007 4:10:04 PM -05'00' Changed to SPC-4. Author: relliott Subject: Highlight Date: 10/29/2007 9:13:13 AM -05'00' SPC-3 s/b SPC-4 or delete this reference and just refer to 5.2 alone

Status

George Penokie Accepted 10/30/2007 4:10:19 PM -05'00'

Author: George Penokie Subject: Note Date: 10/30/2007 4:10:16 PM -05'00'

Author: relliott
Subject: Highlight
Date: 10/8/2007 5:46:29 PM -05'00'
4.5.24.3 should be swapped with 4.5.24.2 to match the order the attributes are listed in figure 22.
Statua
Status George Penokie Accepted 10/30/2007 4:11:36 PM -05'00'
Author: suhlerp
Subject: Sticky Note
Date: 10/25/2007 5:21:35 PM -05'00'
Should this say "receives a task or a task management function specifying a W-LUN" ?
Status George Penekia Accepted 10/30/2007 1:13:52 PM 05:00'
George Penokie Accepted 10/30/2007 4:13:52 PM -05'00'
Author: George Penokie Subject: Note
Date: 10/30/2007 4:13:49 PM -05'00'
Yes
Author: relliott
Subject: Highlight
Date: 10/29/2007 10:16:28 AM -05'00'
T selection of incorrect logical units
s/b
incorrect logical unit numbers
Author: George Penokie
Subject: Note
Date: 10/30/2007 4:16:49 PM -05'00'
If we change the name "incorrect logical units" to something else then this will have a corresponding change
Author: relliott
Subject: Highlight Date: 10/16/2007 6:15:48 PM -05'00'
"If a well known logical unit is supported within a SCSI target device, then that logical unit shall support all the commands defined
for it."
s/b
"A well known logical unit shall support all the commands defined for it."
Author: relliott
Subject: Highlight
Date: 10/8/2007 6:20:28 PM -05'00'
VPD page (see SPC-4).
s/b
The Device Identification VPD page (see SPC-4) reports the names of the SCSI target device (i.e., the names of the well-known
logical unit).



Author: suhlerp

Subject: Sticky Note Date: 10/23/2007 5:02:47 PM -05'00'

Is the use of "SCSI device" rather than "SCSI target device" in the first two sentences intentional? If so, then is the implication that a SCSI initiator device shall be able to issue commands to LUN 0?

Or should both sentences be changed to "SCSI target device"?

Status

George Penokie Completed 10/31/2007 10:25:46 AM -05'00'

Author: George Penokie Subject: Note Date: 10/31/2007 9:58:18 AM -05'00' Both were changed to "SCSI target device".

Author: George Penokie Subject: Note Date: 10/31/2007 10:27:20 AM -05'00' There are several cases thoughtout section 4.6 that has this problem. All have been fixed.

Author: Mark Evans, WDC
Subject: Highlight
Date: 10/25/2007 9:24:13 AM -05'00' T"All logical unit number structure fields beyond byte 1 shall be zero (see table 3)."
s/b
"Byte 2 through byte 7 in an 8-byte single level logical unit number structure using the peripheral device addressing method shall
contain 00h (see table 3)."
Status George Penokie Accepted 10/31/2007 10:00:34 AM -05'00'
Author: Mark Evans, WDC
Subject: Highlight
Daté: 10/29/2007 12:21:05 PM -05'00'
The 00b in the ADDRESS METHOD field specifies peripheral device addressing (see 4.6.6) and the 00h in the BUS IDENTIFIER
field specifies the current level (see 4.6.7)."
s/b "A value of 00h in the ADDRESS METHOD field aposition parinheral device addressing (200.4.6.6). A value of 00h in the in the
"A value of 00b in the ADDRESS METHOD field specifies peripheral device addressing (see 4.6.6). A value of 00h in the in the BUS IDENTIFIER field specifies the current level (see 4.6.7)."
George Penokie Accepted 10/31/2007 10:01:50 AM -05'00'
Author: Mark Evans, WDC Subject: Highlight
Date: 10/25/2007 9:26:04 AM -05'00'
"All logical unit number structure fields beyond byte 1 shall be zero (see table 4)."
s/b
"Byte 2 through byte 7 in an 8-byte single level logical unit number structure using the flat space addressing method shall contain
00h (see table 4)."
Status
George Penokie Accepted 10/31/2007 10:02:54 AM -05'00'
Author: Mark Evans, WDC
Subject: Highlight
Date: 10/29/2007 12:21:58 PM -05'00' The 01b in the ADDRESS METHOD field specifies flat space addressing (see 4.6.8) at the current level."
"A value of 01b in the ADDRESS METHOD field specifies flat space addressing (see 4.6.8) at the current level."

"A value of 01b in the ADDRESS METHOD field specifies flat space addressing (see 4.6.8) at the current level."

Status George Penokie Accepted 10/31/2007 10:03:25 AM -05'00'

Author: relliott Subject: Highlight Date: 10/29/2007 9:25:05 AM -05'00' 891011 s/b 4567 Status George Penokie Accepted 10/31/2007 10:04:43 AM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 9:28:12 AM -05'00' "All logical unit number structure fields beyond byte 3 shall be zero (see table 5)." s/b "Byte 4 through byte 11 in an 12-byte single level logical unit number structure using the extended flat space addressing method shall contain 00h (see table 3)." Status George Penokie Accepted 10/31/2007 10:05:51 AM -05'00' Author: Mark Evans. WDC Subject: Highlight Date: 10/29/2007 12:20:59 PM -05'00' "The 11b in the ADDRESS METHOD field with a 2h in the EXTENDED ADDRESS METHOD field specifies extended flat space addressing (see 4.6.12) at the current level. The 01b in the LENGTH field specifies that the LUN specified in the EXTENDED FLAT SPACE ADDRESS field is three bytes in length." s/b

"A value of 11b in the ADDRESS METHOD field with a value of 2h in the EXTENDED ADDRESS METHOD field specifies extended flat space addressing (see 4.6.12) at the current level. A value of 01b in the LENGTH field specifies that the LUN specified in the EXTENDED FLAT SPACE ADDRESS field is three bytes in length."

Status

George Penokie Accepted 10/31/2007 10:06:53 AM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 9:29:44 AM -05'00' "n/a"

Status George Penokie Accepted 10/31/2007 10:07:18 AM -05'00'

Author: relliott Subject: Note Date: 10/28/2007 11:56:01 PM -05'00' The field name is ADDRESS METHOD, but the descriptions all use "addressing method" Status George Penokie Rejected 10/31/2007 10:11:18 AM -05'00'

Author: George Penokie Subject: Note Date: 10/31/2007 10:11:11 AM -05'00' And what's wrong with that. I didn't know we had a rule that the name of a field had to use exactly the same wordings as the description of the field.

Author: Mark Evans, WDC

Subject: Highlight Date: 10/29/2007 12:20:52 PM -05'00'

The SCSI device does not relay any commands or task management functions to the addressed dependent logical unit, it shall follow the rules for selection of incorrect logical units described in 5.8.4 and 7.12."

s/b

"If the SCSI device does not relay any commands or task management functions to the addressed dependent logical unit, then the SCSI device shall follow the rules for selection of incorrect logical units described in 5.8.4 and 7.12."

Status

George Penokie Accepted 10/31/2007 10:29:27 AM -05'00'

Author: relliott

Subject: Highlight

Date: 10/29/2007 10:16:56 AM -05'00'

s/b

incorrect logical unit numbers

Author: Mark Evans, WDC

Subject: Highlight Date: 10/29/2007 12:20:55 PM -05'00'

Date: 10/29/2007 12:20:55 PM -05'00'

L _{s/b}

"If the SCSI device does relay some commands and task management functions to the addressed dependent logical unit, then the SCSI device shall:"

Status

George Penokie Accepted 10/31/2007 10:30:37 AM -05'00'

Author: relliott

Subject: Note

Daté: 10/29/2007 10:21:20 AM -05'00'

In 4.6.7 Peripheral device addressing method and 4.6.9 Logical unit addressing method, add a figure showing one level of hierarchy to illustrate the relay concept and how those addressing methods parse the fields.

Author: Mark Evans, WDC

Subject: Highlight

Date: 10/29/2007 12:21:49 PM -05'00'

T "However, bus identifier zero shall specify that the command or task management function is to be relayed to a logical unit within the SCSI device at the current level."

s/b

"However, if the BUS IDENTIFIER field is set to 00h, then the command or task management function shall be relayed to a logical unit within the SCSI device at the current level."

Status

George Penokie Accepted 10/31/2007 10:32:45 AM -05'00'

Author: relliott Subject: Highlight Date: 10/8/2007 6:21:53 PM -05'00' Tby a BUS IDENTIFIER field d/n

nu a BUS IDENTIFIER field of zero

Status

George Penokie Rejected 10/31/2007 10:39:02 AM -05'00'

Author: George Penokie Subject: Note Date: 10/31/2007 10:38:55 AM -05'00'

Changed to "The SCSI target device located within the current level is addressed when the bus identifier field is set to zero and the target or lun field is set to zero, also known as LUN 0 (see 4.6.4)."

Author: relliott Subject: Highlight Date: 10/8/2007 6:22:14 PM -05'00' Tay be addressed s/b

is addressed

Status

George Penokie Accepted 10/31/2007 10:37:58 AM -05'00'

Author: Mark Evans, WDC

Subject: Highlight

Date: 10/29/2007 12:21:38 PM -05'00'

T "If the SCSI device does not relay any commands or task management functions to the addressed dependent logical unit, it shall follow the rules for selection of incorrect logical units described in 5.8.4 and 7.12."

s/b

"If the SCSI device does not relay any commands or task management functions to the addressed dependent logical unit, then the SCSI device shall follow the rules for selection of incorrect logical units described in 5.8.4 and 7.12."

Status

George Penokie Accepted 10/31/2007 10:48:06 AM -05'00'

Author: relliott Subject: Highlight Date: 10/29/2007 10:17:13 AM -05'00' Selection of incorrect logical units s/b incorrect logical unit numbers

Author: Mark Evans, WDC

Subject: Highlight Date: 10/29/2007 12:21:43 PM -05'00'

T "If the SCSI device does relay some commands and task management functions to the addressed dependent logical unit, it shall:" s/b

"If the SCSI device does relay some commands and task management functions to the addressed dependent logical unit, then the SCSI device shall:"

Status

George Penokie Accepted 10/31/2007 10:48:18 AM -05'00'

Author: relliott Subject: Highlight Date: 10/28/2007 11:57:43 PM -05'00' Tm should be two rows : n+1 m

sharing the EXTENDED ADDRESS METHOD SPEIFIC field

Status

George Penokie Accepted 10/31/2007 1:21:05 PM -05'00'

Author: relliott Subject: Note Date: 10/29/2007 9:55:07 AM -05'00' A LUN that includes a LENGTH field value that goes beyond the LUN field length supported by the transport protocol (2 bytes or 8 bytes) is invalid. For example, if the protocol supports 8-byte LUNs, and a LUN contains: bytes 0-1: logical unit addressing format byte 2: address method 11b, length 11b bytes 3-7: ... that L:UN must be treated as an invalid LUN (two bytes are being truncated). For example, if the protocol only supports 2-byte LUNs, then a LUN containing anything longer must be considered invalid: byte 0: address method 11b, length 01b, 10b, or 11b byte 1: ... Status George Penokie Completed 10/31/2007 1:35:45 PM -05'00' Author: George Penokie Subject: Note Date: 10/31/2007 1:34:18 PM -05'00' Added the following statement: "A LUN that includes a LENGTH field value that goes beyond the LUN field length supported by the transport protocol is invalid shall follow the rules for selection of incorrect logical units described in 5.8.4." Author: relliott Subject: Note Date: 10/29/2007 12:01:48 AM -05'00' Earlier addressing format tables used n-1 to n. Tables 13, 15, 16, 17, 20, 21 should end in n, not start with n. Status George Penokie Completed 10/31/2007 2:01:57 PM -05'00' Author: George Penokie Subject: Note Date: 10/31/2007 2:01:52 PM -05'00' Changed the table that used the "n-1 to n " to (n to n+1). Author: relliott Subject: Cross-Out Date: 10/29/2007 9:26:51 AM -05'00' Delete (MSB)/(LSB) from the EXTENDED ADDRESS METHOD SPECIFIC field in table 16, 17, 18 Status George Penokie Accepted 10/31/2007 2:03:22 PM -05'00' Author: relliott Subject: Cross-Out Date: 10/29/2007 9:27:14 AM -05'00' Delete (MSB)/(LSB) from the EXTENDED ADDRESS METHOD SPECIFIC field in table 16, 17, 18 Status

George Penokie Accepted 10/31/2007 2:03:14 PM -05'00'

Author: relliott Subject: Cross-Out Date: 10/29/2007 9:27:18 AM -05'00' Delete (MSB)/(LSB) from the EXTENDED ADDRESS METHOD SPECIFIC field in table 16, 17, 18

Status

George Penokie Accepted 10/31/2007 2:03:31 PM -05'00'

Author: relliott Subject: Note Date: 10/29/2007 9:56:49 AM -05'00' Code Fh length 00b Code Fh length 01b Code Fh length 10b should each also be a variant of "Logical unit not specified", used for hierarchical LUN situations where the lowest level logical unit receives one of these incoming LUN values, not all FFs: FFFF000_0000000h FFFFFFFF_00000000h FFFFFFFF_FFFF0000_000000h

Author: relliott Subject: Cross-Out Date: 10/8/2007 6:24:52 PM -05'00' Delete "A SCSI target device may support zero or more well known logical units (see 4.5.25)."

Since this allows 0 through infinity, it is not stating a requirement or allowance. Could replace with ""A SCSI target device supports zero or more well known logical units (see 4.5.25)."

Author: Brocade Subject: Highlight Date: 10/31/2007 2:09:20 PM -05'00'

The text in SAM-4 rev 13, clause 4.7.2

"The task identifier (i.e., the Q in an I_T_L_Q nexus) represents a task, allowing many uniquely identified tasks to be outstanding at once. Each SCSI transport protocol defines the size of the task identifier, up to a maximum of 64 bytes, to be used by SCSI ports that support that SCSI transport protocol." Has been changed to read something like:

"The Task Identifier (i.e., the Q in an I_T_L_Q nexus) uniquely identifies a task,..."

I do not believe that is precisely correct. It only identifies the task uniquely within the context of a particular I_T_L nexus. As an example, see SPI-3's use of the Message Out and Message In to provide the Q value, which is only valid for a particular I_T_L nexus. As a second example, consider FCP, that uses X_ID between a single initiator and target as the identifier, but where the same X_ID may appear on other commands from a different initiator to the same target.

As a result, the proper wording would be something like:

"The Task Identifier (i.e., the Q in an I_T_L_Q nexus) uniquely identifies a task in the context of a particular I_T_L nexus, ..."

Author: relliott

Subject: Highlight Date: 10/8/2007 6:25:41 PM -05'00'

A SCSI device may contain only SCSI target ports, only SCSI initiator ports, or any combination of ports.

s/b

A SCSI device shall contain only SCSI target ports, only SCSI initiator ports, or any combination of ports.

Author: relliott Subject: Highlight Date: 10/8/2007 6:26:20 PM -05'00' TMove "a single" into each of a) b) and c) to improve readability

Author: Mark Evans, WDC Subject: Highlight

Date: 10/29/2007 12:21:23 PM -05'00'

"Two-way communications shall be possible between all logical units and all SCSI target ports, however, communications between any logical unit and any SCSI target port may be inactive. Two-way communications shall be available between each task manager and all task routers. Each SCSI target port shall accept commands sent to LUN 0 or the REPORT LUNS well-known logical unit and the task router shall route them to a device server for processing. REPORT LUNS commands (see SPC-4) shall be accepted by the logical unit with the logical unit number zero or the REPORT LUNS well-known logical unit from any SCSI target port and shall return the logical unit inventory available via that SCSI target port. The availability of the same logical unit through multiple SCSI target ports is discovered by matching logical unit name values in the INQUIRY command Device Identification VPD page (see SPC-4)."

s/b

"Two-way communications shall be possible between all logical units and all SCSI target ports in a SCSI device. However, communications between any logical unit and any SCSI target port in a SCSI device may be inactive. Two-way communications shall be available between each task manager and all task routers in the SCSI target ports in the SCSI device. Each SCSI target port in a SCSI device shall accept commands sent to LUN 0 or the REPORT LUNS well-known logical unit, and the task router in that SCSI target port shall route the commands to a device server in a logical unit in the SCSI device for processing. REPORT LUNS commands (see SPC-4) shall be accepted by the logical unit with the logical unit number zero or the REPORT LUNS well-known logical unit from any SCSI target port in the SCSI device, and the logical unit shall return the logical unit inventory available via that SCSI target port. An application client determines the availability of the same logical unit through multiple SCSI target ports in a SCSI device by matching logical unit name values in the Device Identification VPD page (see SPC-4)."

Status

George Penokie Accepted 10/31/2007 2:19:50 PM -05'00'

Author: suhlerp Subject: Sticky Note Date: 10/23/2007 5:19:34 PM -05'00'

Status

George Penokie Accepted 10/31/2007 2:20:18 PM -05'00'

Author: Mark Evans, WDC Subject: Highlight

Date: 10/29/2007 12:21:34 PM -05'00'

"Two-way communications shall be possible between all logical units and all SCSI target ports, however, communications between any logical unit and any SCSI target port may be inactive. Two-way communications shall be available between each task manager and all task routers. Each SCSI target port shall accept commands sent to LUN 0 or the REPORT LUNS well-known logical unit and the task router shall route them to a device server for processing. REPORT LUNS commands (see SPC-4) shall be accepted by the logical unit with the logical unit number zero or the REPORT LUNS well-known logical unit from any SCSI target port and shall return the logical unit inventory available via that SCSI target port. The availability of the same logical unit through multiple SCSI target ports is discovered by matching logical unit name values in the INQUIRY command Device Identification VPD page (see SPC-4)."

s/b

"Two-way communications shall be possible between all logical units and all SCSI target ports in a SCSI device. However, communications between any logical unit and any SCSI target port in a SCSI device may be inactive. Two-way communications shall be available between each task manager and all task routers in the SCSI target ports in the SCSI device. Each SCSI target port in a SCSI device shall accept commands sent to LUN 0 or the REPORT LUNS well-known logical unit, and the task router in that SCSI target port shall route the commands to a device server in a logical unit in the SCSI device for processing. REPORT LUNS commands (see SPC-4) shall be accepted by the logical unit with the logical unit number zero or the REPORT LUNS well-known logical unit inventory available via that SCSI target port. An application client determines the availability of the same logical unit through multiple SCSI target ports in a SCSI device by matching logical unit name values in the Device Identification VPD page (see SPC-4)."

Status

George Penokie Accepted 10/31/2007 2:24:05 PM -05'00'

Author: Mark Evans, WDC Subject: Highlight

Date: 10/29/2007 12:21:56 PM -05'00'

T"A SCSI target device may be connected to multiple SCSI domains such that a SCSI initiator port is only able to communicate with its logical units using a single SCSI target port."

s/b

"A SCSI target device may have SCSI target ports connected to different SCSI domains such that a SCSI initiator port is only able to communicate with the logical units in the SCSI target device using the SCSI target ports in a single SCSI domain."

Status

George Penokie Accepted 10/31/2007 2:26:34 PM -05'00'

Author: relliott Subject: Highlight Date: 10/8/2007 6:27:49 PM -05'00' Capplication clients may not be able to distinguish between s/b application clients are not required to be able to distinguish between

Author: relliott Subject: Note Date: 10/29/2007 12:04:52 AM -05'00'

Status George Penokie Accepted 10/31/2007 2:53:47 PM -05'00'

Author: Mark Evans, WDC Subject: Highlight

Date: 10/25/2007 10:10:07 AM -05'00'

"This standard does not require a SCSI target device to have the ability to detect the presence of a SCSI initiator device with multiple SCSI initiator ports. Therefore, a SCSI target device handles a SCSI initiator device with multiple SCSI initiator ports exactly as it would handle multiple separate SCSI initiator devices (e.g., a SCSI target device handles the configurations shown in figure 29 and figure 30 in exactly the same way it handles the configuration shown in figure 28)."

"This standard does not require a SCSI target device to be able to detect that a SCSI initiator device contains more than one SCSI initiator port. In the cases where a SCSI target device does not detect that a SCSI initiator device contains more than one SCSI initiator port, the SCSI target device interacts with the SCSI initiator device as if each SCSI initiator port was contained in a separate SCSI initiator device (e.g., a SCSI target device operates in the configurations shown in figure 29 and figure 30 in the same way it operates in the configuration shown in figure 28)."

Status

George Penokie Accepted 10/31/2007 2:57:13 PM -05'00'

Author: relliott Subject: Highlight Date: 10/29/2007 9:06:17 AM -05'00' TA buffer containing

This sentence should reference 5.4.3, where the buffer is described in more detail.

Status George Penokie Accepted 10/31/2007 3:03:32 PM -05'00'

Author: relliott Subject: Note Date: 10/27/2007 12:55:00 PM -05'00' Does power loss expected have any impact on CRN?

> Author: George Penokie Subject: Note Date: 10/31/2007 3:04:40 PM -05'00' Solution of the same thing that happens if a CLEAR QUEUE is issued.

Author: relliott Subject: Highlight Date: 10/29/2007 9:06:33 AM -05'00'

This sentence should reference 5.4.3, where the buffer is described in more detail.

Status

George Penokie Accepted 10/31/2007 3:05:24 PM -05'00'

Author: relliott Subject: Highlight Date: 10/29/2007 9:08:03 AM -05'00' Sense Data s/b

Sense Data (see 5.8.6)

The Data-In Buffer Size field description points to 5.4.3, so the Sense Data Length field description should point to 5.8.6.

Status

George Penokie Accepted 10/31/2007 3:06:37 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 1:09:40 PM -05'00' Coutput parameters s/b output arguments

Status

George Penokie Accepted 10/31/2007 3:07:49 PM -05'00'

Author: relliott Subject: Note Date: 10/10/2007 3:17:43 PM -05'00' After first sentence in 5.2, add "CDB formats are defined in SPC-4."

Status

George Penokie Completed

10/31/2007 3:10:55 PM -05'00'

Author: George Penokie Subject: Note Date: 10/31/2007 3:10:45 PM -05'00' Changed "The CDB defines the operation to be performed by the device server." to "The CDB defines the operation to be performed by the device server. See SPC-4 for the CDB formats."

Author: relliott Subject: Highlight Date: 10/29/2007 10:13:55 AM -05'00' parameter s/b field Status

George Penokie Accepted 10/31/2007 3:12:04 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 6:58:20 PM -05'00' OPERATION CODE s/b OPERATION CODE field

Status George Penokie Accepted 10/31/20	007 3:12:09 PM -05'00'	
Author: suhlerp Subject: Cross-Out Date: 10/25/2007 5:59:49 PM -05'00'		
Status George Penokie Accepted 10/31/20	007 3:14:08 PM -05'00'	
Author: suhlerp Subject: Inserted Text Date: 10/25/2007 6:00:02 PM -05'00' C determinant Status		
George Penokie Completed	10/31/2007 3:14:43 PM -05'00'	
Author: George Penokie Subject: Note Date: 10/31/2007 3:14:39 PM -	05'00' ate"	

Author: relliott Subject: Highlight Date: 10/8/2007 6:06:00 PM -05'00' An NACA bit s/b a NACA bit

(last line of this paragraph uses "a naca" so it must be pronounced "a nak-ka")

Author: relliott Subject: Highlight Date: 10/8/2007 6:06:21 PM -05'00' An NACA bit S/b A NACA bit

Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 10:11:08 AM -05'00' "This status indicates that the device server has successfully completed the task." "This status indicates that the device server has completed the task without error."

Status

George Penokie Accepted 10/31/2007 3:16:37 PM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:20:04 PM -05'00' "If the UA_INTLCK_CTRL field in the Control mode page contains 11b (see SPC-4), termination of a command with BUSY status shall cause a unit attention condition to be established for the SCSI initiator port that sent the command with an additional sense code set to PREVIOUS BUSY STATUS unless a PREVIOUS BUSY STATUS unit attention condition already exists." s/b "If the UA_INTLCK_CTRL field in the Control mode page contains 11b (see SPC-4), then completion of a command with BUSY status shall cause a unit attention condition to be established for the I_T nexus on which the command was received with an additional sense code set to PREVIOUS BUSY STATUS unless a PREVIOUS BUSY STATUS unit attention condition already exists." Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:20:19 PM -05'00' "Retry delay timer," s/h "The retry delay timer," Status George Penokie Accepted 10/31/2007 3:18:31 PM -05'00' Author: relliott Subject: Highlight Date: 10/8/2007 6:29:55 PM -05'00' Retry delay timer, when supported by a protocol, may provide the SCSI initiator port with more information on when the command should be retransmitted (see table 26). s/b Retry delay timer, when supported by a SCSI transport protocol, provides the SCSI initiator port with more information about when the command should be retransmitted (see table 26). (same comment on both BUSY and TASK SET FULL descriptions) Status George Penokie Accepted 10/31/2007 3:21:42 PM -05'00' Author: Mark Evans. WDC Subject: Highlight Date: 10/29/2007 12:20:39 PM -05'00' "This status shall be returned whenever a command attempts to access a logical unit in a way that conflicts with an existing reservation." s/b "This status shall be returned whenever a command is directed by an application client to access a logical unit in a way that conflicts with an existing reservation." Status George Penokie Accepted 10/31/2007 3:24:03 PM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:20:46 PM -05'00' "If the UA_INTLCK_CTRL field in the Control mode page contains 11b (see SPC-4), termination of a command with RESERVATION CONFLICT status shall cause a unit attention condition to be established for the SCSI initiator port that sent the command with an additional sense code set to PREVIOUS RESERVATION CONFLICT STATUS unless a PREVIOUS RESERVATION CONFLICT STATUS unit attention condition already exists." s/b "If the UA INTLCK CTRL field in the Control mode page contains 11b (see SPC-4), then completion of a command with RESERVATION CONFLICT status shall cause a unit attention condition to be established for the I T nexus on which the command was received with an additional sense code set to PREVIOUS RESERVATION CONFLICT STATUS unless a PREVIOUS RESERVATION CONFLICT STATUS unit attention condition already exists."

Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 10:17:08 AM -05'00'

Comments from page 72 continued on next page

"...prevents accepting a received task from that I_T nexus into the task set,"

"...prevents the logical unit from accepting an additional task received from that I_T nexus into the task set,"

Status

s/b

George Penokie Accepted 10/31/2007 3:29:08 PM -05'00'

Author: Emulex Subject: Highlight Date: 10/30/2007 12:58:47 PM -05'00'

Page: 72 task set full end of second paragraph there is an extraneous "c" in sentence

Status

George Penokie Accepted 10/31/2007 3:30:15 PM -05'00'

Author: Mark Evans, WDC

Subject: Highlight Date: 10/25/2007 10:19:05 AM -05'00'

Te: (i.e., for each SCSI target port, allow at least one command from each SCSI initiator port that has identified itself to the SCSI target

port in a SCSI transport protocol specific manner (e.g., login), or by the successful transmission of a c command).

s/b

"(i.e., a logical unit should allow at least one command into the task set for any I_T nexus that has been identified in a SCSI transport protocol specific manner (e.g., a login), or by the successful reception of a command)."

Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:21:27 PM -05'00' "Retry delay timer," s/b "The retry delay timer," Status George Penokie Accepted 10/31/2007 3:31:03 PM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:21:36 PM -05'00' "If the UA_INTLCK_CTRL field in the Control mode page contains 11b (see SPC-4), termination of a command with TASK SET "If the UA_INTLCK_CTRL field in the Control mode page contains 11b (see SPC-4), termination of a command with TASK SET

FULL status shall cause a unit attention condition to be established for the SCSI initiator port that sent the command with an additional sense code set to PREVIOUS TASK SET FULL STATUS unless a PREVIOUS TASK SET FULL STATUS unit attention condition already exists."

s/b

"If the UA_INTLCK_CTRL field in the Control mode page contains 11b (see SPC-4), then completion of a command with TASK SET FULL status shall cause a unit attention condition to be established for the I_T nexus on which the command was received with an additional sense code set to PREVIOUS TASK SET FULL STATUS unless a PREVIOUS TASK SET FULL STATUS unit attention condition already exists."

Author: relliott Subject: Highlight Date: 10/27/2007 12:23:42 PM -05'00' Retry delay timer s/b either a) Retry delay time. Reason: the timer is the entity initialized to this value, not the value itself.

or

b) Additional status code. Reason: it is likely that this field will have a different meaning if used by any of the other status codes. A more generic name would be clearer. There can still be a "retry delay timer" that uses this code value for BUSY and TASK SET FULL.

Author: relliott Subject: Highlight Date: 10/29/2007 8:41:10 AM -05'00' Chusy s/b

BUSY

Status

George Penokie Accepted 10/31/2007 3:33:03 PM -05'00'

Author: relliott

Subject: Note Date: 10/29/2007 8:48:15 AM -05'00'

Some designs cannot return this information on a per I_T_L basis, but can return it on a per I_T basis. The target device should be able to return whichever scope it wants (perhaps with a "should" preferring the I_T_L scope).

Either:

a) Add a bit indicating scope (logical unit, target port, target device). This requires changing the transport protocols.

b) redefine the code values:

0001h - 4FFFh wait for this logical unit (any I, any T, this L) 5000h - 9FFFh wait for this target port (any I, this T, any L) A000h - EFFFh wait for this target device (any I, any T, any L) F000h - FFEFh reserved

The current maximum of FFEFh is 65519, so the current field supports 6551.9 seconds (109 minutes). Reducing that range by a third shouldn't overload a fabric with retries.

Lack of results on a google search hints that this has not been widely implemented yet, so a change may still be viable.

Author: relliott Subject: Highlight Date: 10/29/2007 8:41:19 AM -05'00' Ttask set full s/b TASK SET FULL Status George Penokie Accepted 10/31/2007 3:34:06 PM -05'00' Author: relliott Subject: Highlight Date: 10/29/2007 8:40:40 AM -05'00' addition s/b additional Status

Comments from page 73 continued on next page

Author: relioitt Subject: Note Date: 10/16/2007 5:57:03 PM -05'00' Replace the GOOD through TASK ABORTED rows with:

All others 0000h - FFFFh Reserved

That covers all the reserved status codes (table 25 defines 256 total codes).

Author: Network Appliance Subject: Note Date: 10/30/2007 9:34:15 AM -05'00' From proposal 07-450 - Add the following to the end of section 5.3.3 A pending I_T nexus unit attention (e.g. REPORTED LUNS DATA HAS CHANGED) should be reported with a higher precedence than ILLEGAL REQUEST when an incorrect LUN is addressed (see 5.8.4).
Status George Penokie Rejected 11/8/2007 7:05:19 PM
Author: George Penokie Subject: Note Date: 11/8/2007 7:03:07 PM Added the following to section 5.3.3 "Any unit attention condition that was established for all logical units should be reported with a higher precedence than a CHECK CONDITION status with a sense key set to ILLEGAL REQUEST and an additional sense code set to LOGICAL UNIT NOT SUPPORTED."
Author: relliott Subject: Highlight Date: 11/20/2007 2:20:40 PM Combine the last 3 sentences into an a)b) list
Status George Penokie Completed 11/20/2007 2:24:36 PM
Author: George Penokie Subject: Note Date: 11/20/2007 2:24:31 PM Preplaced with: The following two groups of SCSI transport protocol services are described: The SCSI transport protocol services that support the delivery of the command and status (see 5.4.2); and The SCSI transport protocol services that support the data transfers associated with processing a command (see 5.4.3).
Author: relliott Subject: Highlight Date: 10/8/2007 4:24:13 PM -05'00' Status s/b status
Status George Penokie Accepted 10/31/2007 3:35:56 PM -05'00'
Author: relliott Subject: Highlight Date: 10/8/2007 4:24:18 PM -05'00' Status s/b status
Status George Penokie Accepted 10/31/2007 3:36:00 PM -05'00'

Author: Mark Evans, WDC

Subject: Highlight Date: 10/25/2007 2:24:19 PM -05'00'

This standard assumes that the buffering resources available to the logical unit are limited and may be less than the amount of data that is capable of being transferred in one command."

s/b

"This standard assumes that the buffering resources available to a logical unit are limited, and the buffer in the logical unit may not be capable of containing all of the data required to be transferred for one command."

Status

George Penokie Accepted 10/31/2007 3:38:02 PM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 10:27:40 AM -05'00' "...media..." s/b "...logical unit..."

Author: Mark Evans, WDC Subject: Highlight

Date: 10/29/2007 12:20:43 PM -05'00'

"Random buffer access occurs when the device server requests data transfers to or from segments of the application client's buffer that have an arbitrary offset and byte count. Buffer access is sequential when successive transfers access a series of increasing, adjoining buffer segments. Support for random buffer access by a SCSI transport protocol standard is optional. A device server implementation designed for any SCSI transport protocol implementation should be prepared to use sequential buffer access when necessary."

s/b

Move this paragraph above the one that begins, "If a SCSI transport protocol supports random buffer access,".

Status

George Penokie Accepted 10/31/2007 3:39:44 PM -05'00'

Author: relliott Subject: Highlight Date: 10/16/2007 6:11:11 PM -05'00' interactions s/b interactions for data transfers

Status

George Penokie Accepted 10/31/2007 3:41:49 PM -05'00'

Author: relliott Subject: Highlight Date: 10/16/2007 5:51:18 PM -05'00' T:T s/b : T Status George Penokie Accepted 10/31/2007 3:42:51 PM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 10:53:15 AM -05'00' s/b a space after the colon. Status George Penokie Accepted 10/31/2007 3:43:03 PM -05'00' Author: relliott Subject: Highlight Date: 10/16/2007 5:51:11 PM -05'00' A: ∎.″ s/b : A Status George Penokie Accepted 10/31/2007 3:43:57 PM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 10:54:18 AM -05'00' "DELIVERY FAILURE: A service delivery subsystem error occurred while attempting to deliver the data." s/b a space after the colon. Status

George Penokie Accepted 10/31/2007 3:44:17 PM -05'00' Author: Emulex Subject: Note Date: 10/30/2007 12:59:59 PM -05'00' Emulex-013 Page: 79 Receive Data-Out Input argument list: Put these arguments in the same order as in the service request above.

Status George Penokie Accepted 10/31/2007 3:45:58 PM -05'00'

Author: relliott Subject: Highlight Date: 10/16/2007 5:51:35 PM -05'00' T s/b : T Status George Penokie Accepted 10/31/2007 3:46:16 PM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 10:55:08 AM -05'00' T "DELIVERY SUCCESSFUL:The data was delivered successfully." s/b a space after the colon.

Status

George Penokie Accepted 10/31/2007 3:46:31 PM -05'00'

Author: relliott Subject: Highlight Date: 10/16/2007 5:51:42 PM -05'00' Carteria Signature Signature A

Status

George Penokie Accepted 10/31/2007 3:46:34 PM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 10:54:33 AM -05'00' "DELIVERY FAILURE:A service delivery subsystem error occurred while attempting to receive the data." s/b a space after the colon.

Status

George Penokie Accepted 10/31/2007 3:46:39 PM -05'00'

Author: relliott

Subject: Cross-Out Date: 10/16/2007 6:08:32 PM -05'00'

The terminate data transfer request and confirmation may be used by a task manager to terminate partially

completed transfers to the Data-In Buffer or from the Data-Out Buffer."

Delete that and replace "device server" with "device server or task manager" in the next sentence

Author: relliott Subject: Highlight Date: 10/16/2007 6:08:07 PM -05'00' Cevice server s/b device server or task manager

allowing deletion of the first sentence in 5.4.3.4.1.

Author: relliott Subject: Highlight Date: 10/16/2007 6:09:00 PM -05'00' Cevice server s/b device server or task manager

Comments from page 80 continued on next page

Author: relliott Subject: Highlight Date: 10/16/2007 6:09:13 PM -05'00' Cevice server s/b device server or task manager

Author: Mark Evans, WDC Subject: Highlight
Date: 10/29/2007 12:20:25 PM -05'00'
The application client maintains an application client task to interact with the task from the time the Send SCSI Command SCSI transport protocol service request is invoked until it receives one of the following SCSI target device responses:"
s/b
"An application client maintains an application client task to interact with the task from the time the Send SCSI Command SCSI transport protocol service request is invoked until the application client receives one of the following SCSI target device responses:"
Status George Penokie Accepted 10/31/2007 3:50:54 PM -05'00'
Author: relliott
Subject: Highlight Date: 10/16/2007 6:43:12 PM -05'00'
Tapplication client task to interact with the task
s/b application client task to represent the task
Status George Penokie Accepted 11/1/2007 1:46:59 PM -05'00'
Author: relliott
Subject: Note
Date: 10/27/2007 12:23:21 PM -05'00' [Institution condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service response was reported after the line attention condition of service res
task arrived at the target port. Otherwise, it might still be in flight. This is the subtle ordering assumption in 4.3.3.
Author: suhlerp
Subject: Sticky Note Date: 10/25/2007 6:46:49 PM -05'00'
How about
h) A service response of FUNCTION COMPLETE following a QUERY TASK task management function directed to the specified
task; or i) A service response of FUNCTION COMPLETE following a QUERY TASK SET task management function directed to the
specified task set.
Author: relliott
Subject: Highlight
Date: 10/16/2007 6:43:37 PM -05'00'
L s/b
application client task to represent the task
Status George Penokie Accepted 11/1/2007 1:54:36 PM -05'00'
Author: suhlerp
Subject: Sticky Note Date: 10/25/2007 6:47:01 PM -05'00'
Technical]
How about
 d) Completion of a QUERY TASK task management function specifying the task with a service response of FUNCTION COMPLETE; or
e) Completion of a QUERY TASK SET task management function specifying the task set [more words needed?] with a service
response of FUNCTION COMPLETE.
Author: relliott
Subject: Note Date: 10/16/2007 7:00:24 PM -05'00'
This list is incomplete (not that it claims to be complete). Receiving unit attention condition about a reset, etc items b) through g)

in the previous list - also apply here.

Comments from page 81 continued on next page

This list might have originally been worded as the application client may send these TMFs to actively make the determination, but it's now worded too much like the previous list.

Author: Mark Evans, WDC Subject: Highlight

Date: 10/29/2007 12:30:34 PM -05'00'

"Some commands (e.g., commands with immediate bits like SEND DIAGNOSTIC, or write commands when a write cache is enabled) start background operations that operate after the task containing the command is no longer in the task set."

s/b

"Some commands initiate background operations that are processed after the task containing the command is no longer in the task set (i.e., status has been returned for the command). For examples, see the SEND DIAGNOSTIC command when used to initiate a background self-test (see SPC-4) or write commands when write cache is enabled (see SBC-3). "

Author: relliott

Subject: Highlight Date: 10/8/2007 6:30:56 PM -05'00' hard resets, or logical unit resets s/b hard reset, or logical unit reset Status George Penokie Accepted 11/1/2007 2:05:35 PM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:19:41 PM -05'00' This sentence part is included in the preceding comment at the bottom of the previous page. Author: relliott Subject: Highlight Date: 10/27/2007 12:43:25 PM -05'00' Background operations shall not be aborted by I T nexus loss. Add "or power loss expected." Author: Mark Evans, WDC Subject: Cross-Out Date: 10/29/2007 12:19:56 PM -05'00' Delete "completed", as the sense data is not reported for a "completed" command, but as part of the command completion process for the subsequent command. Status George Penokie Accepted 11/1/2007 2:09:39 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:43:48 PM -05'00' Deferred errors should not be cleared by I T nexus loss.

Add "or power loss expected."

Author: Mark Evans, WDC Subject: Highlight

Date: 10/25/2007 11:02:18 AM -05'00'

T["]Unless a command completes with a GOOD or CONDITION MET status the degree to which the required command processing has been completed is vendor specific."

s/b

"Unless a command completes with GOOD status or CONDITION MET status, the degree to which the required command processing has been completed is vendor specific."

Status

George Penokie Accepted 11/1/2007 2:10:30 PM -05'00'

Author: relliott Subject: Highlight Date: 10/24/2007 6:24:37 PM -05'00' ""that had task(s) aborted" might be incorrect.

Is the unit attention condition with COMMANDS CLEARED BY ANOTHER INITIATOR created for all I_T nexuses that were affected by the preempt, regardless of whether or not they actually had tasks aborted?

Or is it only created for I_T nexuses that had one or more tasks aborted?

Author: Mark Evans, WDC

Subject: Highlight Date: 10/25/2007 2:28:57 PM -05'00' all of those tasks before entering additional tasks received on that I T nexus into the task set."

s/b

"When a logical unit completes one or more tasks received on an I_T nexus with a status of TASK ABORTED, the logical unit should terminate all of the affected tasks before entering any other tasks received on that I_T nexus into the task set."

Status

George Penokie Accepted 11/1/2007 2:12:56 PM -05'00'

Author: relliott Subject: Note Date: 10/16/2007 6:39:31 PM -05'00' Consider eliminating the 5.8 Command processing considerations level and upgrading each of the 5.8.x sections to 5.xx. The Unit Attention section, for example, is as important as 5.6 Aborting tasks. Author: George Penokie Subject: Note Date: 11/1/2007 2:18:28 PM -05'00' would rather move the out of place abourting task section under 5.8. Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:20:49 PM -05'00' "When a command completes with a CHECK CONDITION status, the application client may request that the device server alter command processing by establishing an ACA condition, using the NACA bit in the CONTROL byte of the CDB as follows:" s/b "An application client uses the NACA bit in the CONTROL byte of the CDB (see 5.2) to specify whether or not the device server establishes an ACA condition when a command completes with CHECK CONDITION status. The meaning of the value in the NACA bit is as follows:" Status George Penokie Completed 11/1/2007 2:36:49 PM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:21:25 PM -05'00' "Which I_T nexuses are associated with the task set is influenced by the TST field in the Control mode page (see SPC-4)." s/h "Which I T nexuses are associated with a task set is specified by the value in the TST field in the Control mode page (see SPC-4)." Status George Penokie Accepted 11/1/2007 2:38:19 PM -05'00' Author: relliott Subject: Highlight Date: 10/8/2007 5:22:47 PM -05'00' ACA s/b smallcaps lowercase Status George Penokie Completed 11/1/2007 2:42:34 PM -05'00' Author: George Penokie Subject: Note Date: 11/1/2007 2:42:29 PM -05'00' Changed to ACA task attribute Author: relliott Subject: Highlight Date: 10/8/2007 5:22:51 PM -05'00' ACA s/b smallcaps lowercase Status George Penokie Completed 11/1/2007 2:42:49 PM -05'00' Author: George Penokie Subject: Note Date: 11/1/2007 2:42:42 PM -05'00' Changed to ACA task attribute.

Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:21:10 PM -05'00' "When a command completes with a CHECK CONDITION status, the application client may request that the device server alter command processing by establishing an ACA condition, using the NACA bit in the CONTROL byte of the CDB as follows: a) If the NACA bit is set to zero, an ACA condition shall not be established (see 5.8.1.1); or b) If the NACA bit is set to one, an ACA condition shall be established." s/b "An application client specifies if an ACA condition is established when a command completes with CHECK CONDITION status (see 5.8.1.1)."

[All of the words that are recommended for replacement are in 5.8.1.1 and don't need to repeated here.]

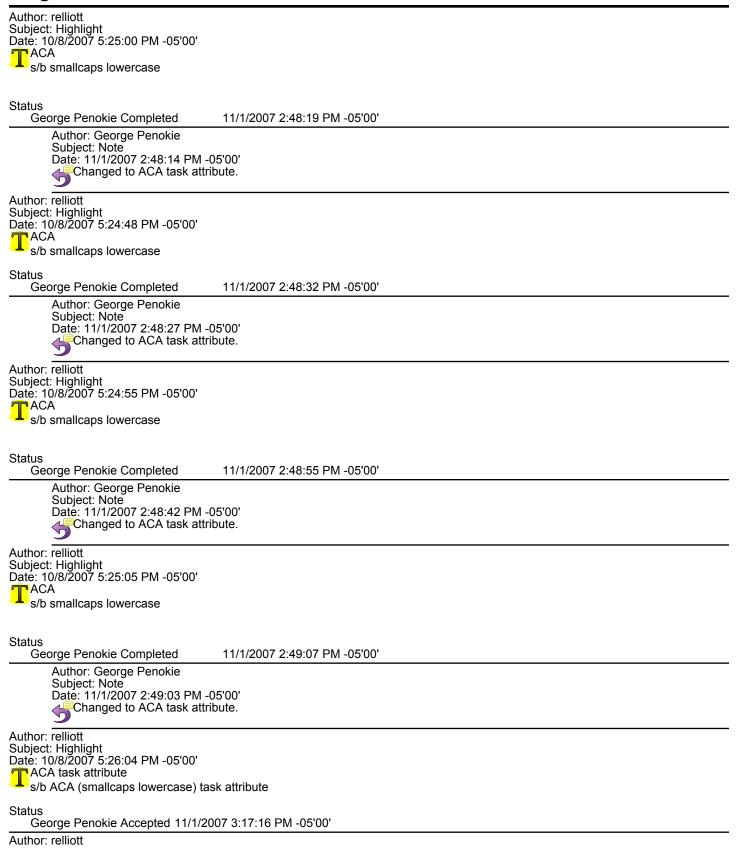
Author: relliott Subject: Highlight Date: 10/8/2007 5:23:29 PM -05'00' CACA task attribute s/b ACA (smallcaps lowercase) task attribute

Status George Penokie Accepted 11/1/2007 2:45:07 PM -05'00' Author: relliott Subject: Highlight Date: 10/8/2007 5:23:36 PM -05'00' ACA task attribute s/b ACA (smallcaps lowercase) task attribute

Status George Penokie Accepted 11/1/2007 2:45:11 PM -05'00' Author: relliott Subject: Highlight Date: 10/8/2007 5:23:45 PM -05'00' ACA task attribute s/b ACA (smallcaps lowercase) task attribute

Status George Penokie Accepted 11/1/2007 2:45:15 PM -05'00'

Author: relliott Subject: Highlight	
Date: 10/8/2007 5:24:05 PM -05'00'	
Status George Penokie Completed	11/1/2007 2:47:46 PM -05'00'
Author: George Penokie Subject: Note Date: 11/1/2007 2:47:42 PM -0	5'00' bute.
Author: relliott Subject: Highlight Date: 10/8/2007 5:24:10 PM -05'00' TACA s/b smallcaps lowercase	
Status George Penokie Completed	11/1/2007 2:48:00 PM -05'00'
Author: George Penokie Subject: Note	
Date: 11/1/2007 2:47:56 PM -0	
Author: relliott Subject: Highlight Date: 10/8/2007 5:24:32 PM -05'00' CACA task attribute s/b	tributo
ACA (smallcaps lowercase) task at	Indute
Status George Penokie Accepted 11/1/200	07 2:49:55 PM -05'00'



Comments from page 91 continued on next page

Subject: Highlight Date: 10/8/2007 5:25:39 PM -05'00' CACA task attribute s/b ACA (small caps lowercase)

Status George Penokie Accepted 11/1/2007 3:17:20 PM -05'00'

Author: relliott Subject: Highlight Date: 10/8/2007 5:26:08 PM -05'00' CACA task attribute s/b ACA (smallcaps lowercase) s/b ACA (smallcaps lowercase) task attribute

Status George Penokie Accepted 11/1/2007 3:17:25 PM -05'00'

Author: relliott Subject: Highlight Date: 10/29/2007 10:17:55 AM -05'00' Incorrect logical unit selection s/b

Incorrect logical unit numbers

"select" is an ancient parallel SCSI term, and the logical unit number is what is incorrect, not the logical unit.

Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:21:54 PM -05'00' "...the command shall be terminated with CHECK CONDITION status, sense key set to ILLEGAL REQUEST, and additional sense code set to INVALID MESSAGE ERROR." s/b "...the command shall be terminated with CHECK CONDITION status with the sense key set to ILLEGAL REQUEST and the additional sense code set to INVALID MESSAGE ERROR."

Status

George Penokie Accepted 11/1/2007 3:19:10 PM -05'00'

Author: relliott Subject: Highlight Date: 10/8/2007 4:21:56 PM -05'00' Attention s/b attention Status George Penokie Accepted 11/1/2007 3:19:42 PM -05'00' Author: relliott Subject: Note Date: 10/27/2007 1:08:24 PM -05'00' Incorporate 07-459 Unit attention queuing Author: relliott Subject: Highlight Date: 10/8/2007 6:31:54 PM -05'00' A removable medium may have been changed; s/b A removable medium has possibly been changed Author: relliott Subject: Note Date: 10/8/2007 5:20:00 PM -05'00' The list of unit attention conditions includes some but not all those defined in SPC-4. What is the basis for including some reasons here? Item j) does serve as a catch-all, but perhaps all the non-SAM related items should be removed. Not covered include: - successful completion of a SET IDENTIFYING INFORMATION command that changes identifying information saved by the logical unit (see SPC-4) - On successful completion of a SET PRIORITY command or change to the mode page - On successful completion of a SET TIMESTAMP command - If the ETC bit is set to one and the result of the comparison is true (log parameters) - block descriptor values changed - informational exceptions Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:21:46 PM -05'00' "...(e.g., a unit attention condition with an additional sense code set to POWER ON OCCURRED may be followed by one with an additional sense code set to MICROCODE HAS BEEN CHANGED)." s/b "...(e.g., a unit attention condition with an additional sense code set to COMMANDS CLEARED BY ANOTHER INITIATOR may be followed by a unit attention condition with an additional sense code set to MODE PARAMETERS CHANGED)." If think the example to be replaced is a poor example (i.e., if both a POWER ON OCCURRED and a MICROCODE HAS BEEN CHANGED occurred, most SCSI target devices would only report the POWER ON OCCURRED), and the suggested replacement is a much more likely scenario.] Author: relliott Subject: Highlight Date: 10/29/2007 9:36:38 AM -05'00' perform s/b process Status

George Penokie Accepted 11/1/2007 3:29:29 PM -05'00'

Author: relliott Subject: Highlight Date: 10/29/2007 9:36:42 AM -05'00'

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Status George Penokie Accepted 11/1/2007 3:29:34 PM -05'00'

Author: George Penokie Subject: Highlight Date: 11/8/2007 6:51:40 PM SCSI initiator port associated with that I_T nexus.

Author: George Penokie Subject: Highlight Date: 11/8/2007 6:51:55 PM Ceach Iogical unit accessible by that I_T nexus

Author: relliott Subject: Highlight Date: 10/29/2007 9:37:14 AM -05'00' perform s/b process

Status

George Penokie Accepted 11/1/2007 4:08:18 PM -05'00'

Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:20:28 PM -05'00' "Events that occur in the SCSI device..." "Events that occur in a SCSI device ... "

Status George Penokie Accepted 11/1/2007 4:09:05 PM -05'00'

Author: relliott Subject: Note Date: 10/27/2007 12:53:42 PM -05'00' The row "Power loss expected/COMMANDS CLEARED BY POWER LOSS NOTIFICATION"

needs to move down in table 36 to be below (higher specificity) than I_T nexus loss.

Section 6.3.5 says it simply aborts tasks; it doesn't wipe out background operations, clear deferred errors, etc. This means it has less impact than a hard reset, logical unit reset, and a set of I_T nexus losses (it has more impact than a single I_T nexus loss...). If the target device experiences hard reset, logical unit reset, or I_T nexus loss, it is not an acceptable substitute to only report COMMANDS CLEARED BY POWER LOSS NOTIFICATION, which its current position in the table endorses.

Author: relliott Subject: Highlight Date: 10/27/2007 1:04:11 PM -05'00' T may use the I_T NEXUS LOSS OCCURRED additional sense code s/b should use ...

Author: relliott Subject: Highlight Date: 10/27/2007 1:04:54 PM -05'00' when establishing a unit attention condition s/b when establishing a unit attention condition for an I_T nexus loss Status George Penokie Accepted 11/1/2007 4:10:57 PM -05'00' Author: relliott Subject: Highlight Date: 10/16/2007 6:06:30 PM -05'00' Thard reset condition s/b hard reset condition (see 6.3.2) Status

Status

George Penokie Accepted 11/1/2007 4:12:03 PM -05'00'

Author: relliott Subject: Note Date: 10/27/2007 1:06:48 PM -05'00' In 6.3.3, add "abort all task management functions;"

Author: relliott Subject: Note Date: 10/27/2007 1:06:55 PM -05'00'

Author: relliott Subject: Note Date: 10/27/2007 1:07:34 PM -05'00' Does power loss expected also abort task management functions? I think it should do so.

If so, then the comparison to "CLEAR TASK SET for all task sets" is incomplete, and the a) b) list needs to be expanded to include "abort all task management functions;"

If not, then rules in 7.11 about task management function lifetimes are incorrect.

Author: relliott Subject: Highlight Date: 10/29/2007 9:40:17 AM -05'00' T protocol standards s/b SCSI transport protocol standards

Status

George Penokie Accepted 11/1/2007 4:13:29 PM -05'00'

Author: relliott Subject: Highlight Date: 10/16/2007 6:01:57 PM -05'00' Throduction s/b Task management function procedure calls
(to parallel the section heading of 5.1 for commands)
Status George Penokie Accepted 11/1/2007 4:14:21 PM -05'00'
Author: relliott Subject: Highlight Date: 10/10/2007 1:02:44 PM -05'00' The following procedure call s/b a procedure call using the following format:
Status George Penokie Accepted 11/1/2007 4:14:55 PM -05'00'
Author: relliott Subject: Highlight Date: 10/27/2007 12:22:12 PM -05'00' (IN (nexus), OUT ([additional response information]) s/b (IN (Nexus), OUT ([Additional Response Information])
Status George Penokie Accepted 11/1/2007 4:15:43 PM -05'00'
Author: relliott Subject: Note Date: 10/27/2007 12:22:10 PM -05'00' add the following after the Service Response = line: where: Function Name is one of the task management function names listed in table 34 Nexus is either: a) an I_T Nexus argument; b) an I_T_L Nexus Argument; or c) an I_T_L_Q Nexus argument Additional Response Information is the Additional Response Information output argument described below
Status George Penokie Rejected 11/2/2007 8:02:17 AM -05'00'
Author: George Penokie Subject: Note Date: 11/2/2007 8:02:04 AM -05'00' That format is inconsistent with all the other areas in the standard that document procedure calls. The current format is.
Author: relliott Subject: Highlight Date: 10/27/2007 12:22:04 PM -05'00' Nexus: An I_T nexus, I_T_L nexus, or I_T_L_Q nexus (see 4.7) identifying the task or tasks affected by the task management function. I_T Nexus: A SCSI initiator port and SCSI target port nexus (see 4.7). I_T_L Nexus: A SCSI initiator port, SCSI target port, and logical unit nexus (see 4.7). I_T_L_Q Nexus: A SCSI initiator port, SCSI target port, logical unit, and task identifier nexus (see 4.7). s/b I_T Nexus: The I_T nexus (see 4.7) affected by the task management function. I_T_L Nexus: The I_T nexus (see 4.7) affected by the task management function.

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I_T_L_Q Nexus: The I_T_L_Q nexus (see 4.7) affected by the task management function.

Author: relliott

Subject: Highlight Date: 10/27/2007 12:21:52 PM -05'00' Cone of the following SCSI transport protocol specific service responses shall be returned s/b Service Response assumes one of the following values to match wording in section 5.1 for Execute Command. Wording could be changed in both places if "assumes" is not agreeable. There is no need for the Service Response values to be determined by the transport protocol here. When included in RESPONSE frames over the wire, they are; when returned from the initiator port to the application client, the values are probably remapped to protocol-independent values (so generic SCSI software isn't affected by the transport protocol choice). Status George Penokie Completed 11/2/2007 8:17:56 AM -05'00' Author: George Penokie

Subject: Note Date: 11/2/2007 8:17:50 AM -05'00' Changed the wording in section 5.1 to "One of the following SCSI transport protocol specific service responses shall be returned:" so it will match what is stated here and gets rid of the "assumes" term.

Author: relliott Subject: Note Date: 10/10/2007 1:08:40 PM -05'00' At end of SERVICE DELIVERY OR TARGET FAILURE description, add "All output arguments are invalid."

That means Additional Response Information is not usable.

Author: relliott Subject: Highlight Date: 10/10/2007 12:57:48 PM -05'00' Request s/b Procedure call:

(this is at the same level as Execute Command, not the same level as Send SCSI Command)

Status

George Penokie Accepted 11/1/2007 4:22:41 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 12:57:58 PM -05'00' Request s/b Procedure call:

(this is at the same level as Execute Command, not the same level as Send SCSI Command)

Status George Penokie Accepted 11/1/2007 4:22:49 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 12:58:05 PM -05'00' Request s/b Procedure call:

(this is at the same level as Execute Command, not the same level as Send SCSI Command)

Status

George Penokie Accepted 11/1/2007 4:22:57 PM -05'00'

Author: relliott Subject: Highlight Date: 10/8/2007 5:26:29 PM -05'00' ACA task attribute s/b ACA (smallcaps lowercase) task attribute

Status

George Penokie Accepted 11/1/2007 4:24:28 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 12:58:12 PM -05'00' Request s/b Procedure call:

(this is at the same level as Execute Command, not the same level as Send SCSI Command)

Status

George Penokie Accepted 11/1/2007 4:23:05 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 12:58:19 PM -05'00' Request s/b Procedure call:

(this is at the same level as Execute Command, not the same level as Send SCSI Command)

Status George Penokie Accepted 11/1/2007 4:23:13 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 12:58:26 PM -05'00' Request s/b Procedure call:

(this is at the same level as Execute Command, not the same level as Send SCSI Command)

Status George Penokie Accepted 11/1/2007 4:23:20 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 12:58:35 PM -05'00' Request s/b Procedure call:

(this is at the same level as Execute Command, not the same level as Send SCSI Command)

Status

George Penokie Accepted 11/1/2007 4:23:30 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 1:01:19 PM -05'00' Request s/b Procedure call:

(this is at the same level as Execute Command, not the same level as Send SCSI Command)

Status George Penokie Accepted 11/1/2007 4:23:37 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 1:01:25 PM -05'00' Request s/b Procedure call:

(this is at the same level as Execute Command, not the same level as Send SCSI Command)

Status George Penokie Accepted 11/1/2007 4:23:41 PM -05'00'

Author: relliott Subject: Note

Date: 10/27/2007 12:58:54 PM -05'00'

Add "power loss expected (see 6.3.5)" to the list of things that cause a task management function to no longer exist. Make it item b) ahead of I T nexus loss.

Author: relliott

Subject: Highlight Date: 10/16/2007 6:44:25 PM -05'00'

polication client task to interact with the task management function

s/b

application client task management function to represent the task management function

Status

George Penokie Accepted 11/2/2007 8:38:48 AM -05'00'

Author: Mark Evans, WDC Subject: Highlight

Date: 10/29/2007 12:21:51 PM -05'00'

The application client maintains an application client task to interact with the task management function from the time the Send Task Management Request SCSI transport protocol service request is invoked until it receives one of the following SCSI target device responses:"

s/b

"An application client maintains an application client task to interact with the task management function from the time the Send Task Management Request SCSI transport protocol service request is invoked until the application client receives one of the following SCSI target device responses:"

Status

George Penokie Accepted 11/2/2007 8:36:22 AM -05'00'

Author: relliott Subject: Highlight Date: 10/16/2007 6:54:18 PM -05'00' FUNCTION COMPLETE, FUNCTION SUCCEEDED, FUNCTION REJECTED, or SERVICE DELIVERY OR TARGET FAILURE

1. Add INCORRECT LOGICAL UNIT NUMBER

2. If SERVICE DELIVERY OR TARGET FAILURE remains in this list, then there is no reason to list all of them - any service response suffices, so delete the list and just leave "A service response is received". See other comment about excluding SERVICE DELIVERY OR TARGET FAILURE, though.

Author: George Penokie Subject: Note Date: 11/20/2007 9:01:58 AM Added "incorrect logical unit number' to the list

Author: relliott

Subject: Note Date: 11/2/2007 8:44:25 AM -05'00'

For commands (5.5), a service response of SERVICE DELIVERY OR TARGET FAILURE leaves the application client task in existence until the initiator receives something else from the target that assures it is gone (a response to a TMF aborting that task).

Task management functions should be handled the same way. It is not safe to reuse the task identifier (task tag) if a SERVICE DELIVERY OR TARGET FAILURE is returned. The task management function should be assumed to exist until an I_T NEXUS RESET or LOGICAL UNIT RESET is successfully run (or a unit attention occurs reporting a reset).

Author: relliott Subject: Note

Date: 10/16/2007 6:56:51 PM -05'00'

Items b) c) and d) should be qualified with knowledge that the unit attention condition was reported after the task management request arrived at the target port. Otherwise, it might still be in flight. This is the subtle ordering assumption in 4.3.3.

Author: relliott Subject: Highlight Date: 10/10/2007 12:53:20 PM -05'00' (see 7.12.5) confirmation s/b confirmation (see 7.12.5)

Status

George Penokie Accepted 11/1/2007 4:26:20 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 12:53:42 PM -05'00' Send Task Management Request s/b Send Task Management Request request

Status

George Penokie Accepted 11/1/2007 4:26:59 PM -05'00'

Author: relliott Subject: Highlight Date: 10/10/2007 12:54:12 PM -05'00' task manger 1 s/b task manager Status George Penokie Accepted 11/1/2007 4:27:34 PM -05'00' Author: relliott Subject: Highlight Daté: 10/27/2007 12:21:12 PM -05'00' (IN (Nexus, Service Response)) s/b (IN (Nexus, Service Response, [Additional Response Information])) with this added to Input arguments: Additional Response Information: The Additional Response Information output argument for the task management procedure call (see 7.1): Status George Penokie Completed 11/2/2007 9:07:34 AM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:21:10 PM -05'00' (IN (Nexus, Service Response)) 1 s/b (IN (Nexus, Service Response, [Additional Response Information])) with this added to Input arguments: Additional Response Information: The Additional Response Information output argument for the task management procedure call

Status

(see 7.1):

George Penokie Completed 11/2/2007 9:10:49 AM -05'00'

Author: relliott Subject: Highlight Date: 10/16/2007 6:40:10 PM -05'00' Application Client Task s/b

Application Client Task Management Function

Status

George Penokie Accepted 11/1/2007 4:31:21 PM -05'00'

Author: relliott Subject: Highlight Date: 10/16/2007 6:40:30 PM -05'00' Papplication client task s/b

application client

Status

George Penokie Accepted 11/2/2007 9:12:14 AM -05'00'

Author: relliott Subject: Highlight Date: 10/27/2007 1:13:40 PM -05'00' Temperature response argument s/b Service response argument or just replace "service response argument is set to a value of" with "service response of" (this is how most of the standard is worded) Status George Penokie Rejected 11/2/2007 9:17:11 AM -05'00' Author: George Penokie Subject: Note Date: 11/2/2007 9:17:07 AM -05'00' Changed to "...client and a service response of FUNCTION COMPLETE." Author: relliott Subject: Highlight Date: 10/16/2007 6:40:52 PM -05'00' Templication client task s/b application client

Status George Penokie Accepted 11/2/2007 9:17:39 AM -05'00'

Author: relliott Subject: Cross-Out Date: 10/27/2007 12:32:08 PM -05'00' TDelete ", or no task attribute." and move the "or" to earlier in the sentence.

SAM-4 requires each task have a task attribute.

Status George Penokie Accepted 11/2/2007 9:19:34 AM -05'00'

Author: relliott Subject: Note Date: 10/27/2007 12:20:52 PM -05'00' When referring to "(simple, ordered, head of queue, and ACA) task", Mixed Case should be used, not lowercase.

Status

George Penokie Rejected 11/2/2007 9:26:25 AM -05'00'

Author: George Penokie Subject: Note Date: 11/2/2007 9:26:20 AM -05'00' See no instance where it is not correct. The table is a list of task attributes which are allways small caps.

Author: Mark Evans, WDC Subject: Highlight Date: 10/29/2007 12:20:57 PM -05'00' "If the task has a task attribute other than SIMPLE, the task priority is not used." s/h "If a task has a task attribute other than SIMPLE, then task priority is not used." Status George Penokie Accepted 11/2/2007 9:27:31 AM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 11:52:03 AM -05'00' If the Task Priority argument is set to zero or is not contained within the Send SCSI Received SCSI transport protocol service indication (see 5.4.2) and a priority has been assigned to the I T L nexus, the device server shall use that priority as the task priority." s/b "If the Task Priority argument is set to zero or is not contained within the Send SCSI Received SCSI transport protocol service indication (see 5.4.2), and a priority has been assigned to the I T L nexus, then the device server shall use the priority specified for the I T L nexus as the task priority." Status George Penokie Rejected 11/2/2007 9:31:15 AM -05'00' Author: George Penokie Subject: Note Date: 11/8/2007 3:26:50 PM Change to: If the Task Priority argument is set to zero or is not contained within the Send SCSI Received SCSI transport protocol service indication (see 5.4.2), and a priority has been assigned to the I_T_L nexus, then the device server shall use the specified priority for the I T L nexus as the task priority. Author: relliott Subject: Highlight Date: 10/8/2007 6:33:21 PM -05'00' A priority may be assigned s/b A priority is assigned Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 11:53:40 AM -05'00'

In the priority has been assigned to the I_T_L nexus using the SET PRIORITY command and the logical unit does not support the INITIAL PRIORITY field in the Control Extension mode page the device server shall set the task priority to 0h (i.e., vendor specific) or the task shall have no task priority."

s/b

"If no priority has been assigned to the I_T_L nexus using the SET PRIORITY command, and the logical unit does not support the INITIAL PRIORITY field in the Control Extension mode page, then the device server shall set the task priority to 0h (i.e., vendor specific), or the task shall have no task priority."

Status

George Penokie Accepted 11/2/2007 9:33:02 AM -05'00'

Author: Emulex Subject: Highlight Date: 10/30/2007 1:02:51 PM -05'00' Emulex-014 Page: 122 A.2 first sentence "attribute" s/b "attributes" Status George Penokie Rejected 11/2/2007 9:37:09 AM -05'00' Author: George Penokie Subject: Note Changed to "This standard defines the identifier attributes and name attributes listed in A.1. Date: 11/2/2007 9:37:06 AM -05'00' Author: Mark Evans, WDC Subject: Highlight Date: 10/25/2007 11:57:00 AM -05'00' "This standard defines the identifier attributes and name attributes for the attribute listed in A.1." s/b "This standard defines the identifier attributes and name attributes for the SCSI architecture model objects listed in A.1." Status George Penokie Rejected 11/2/2007 9:38:04 AM -05'00' Author: George Penokie Subject: Note Date: 11/2/2007 9:37:31 AM -05'00' Changed to "This standard defines the identifier attributes and name attributes listed in A.1." Author: Emulex Subject: Highlight Date: 10/30/2007 1:13:27 PM -05'00' Emulex-015 Emulex-015 Page: 122 A.2 last two sentences of first paragraph: To clarify that the tables do not specify which standard makes requirements, change to: "Table A.1 also lists to standard or SPC-4. Table A.2 also lists whether SCSI whether SCSI transport protocols and logical units are required to support identifier attributes by either this standard or SPC-4. Table A.2 also lists whether SCSI transport protocols and logical units are required to support name attributes by either this standard or SPC-4." Status George Penokie Rejected 11/8/2007 6:37:38 PM Author: George Penokie Subject: Note

Date: 11/8/2007 6:37:30 PM

Made into footnotes. One for table A.1 and one for table A.2 and deleted the two senetences referenced in the comment.

Author: Emulex Subject: Highlight Date: 10/30/2007 1:14:48 PM -05'00' Emulex-016 Page: 127 A.3.4: This seems to be a self reference. Should this be "SAS-2 Serial SCSI Protocol (see SAS-2)."

Status George Penokie Accepted 11/8/2007 6:26:23 PM

Author: relliott Subject: Highlight Date: 9/28/2007 5:44:34 PM -05'00' TInformation s/b Additional Response Information

Status George Penokie Accepted 11/2/2007 9:47:09 AM -05'00'

Author: relliott
Subject: Highlight
Date: 10/27/2007 12:15:54 PM -05'00'
Terminology mapping
s/b
Terminology mapping to previous versions of this standard
Status
George Penokie Accepted 11/1/2007 4:35:43 PM -05'00'
Author: relliott
Subject: Highlight
Date: 10/27/2007 12:13:37 PM -05'00'
T Change "SAM-3" to "previous versions of this standard"
or add SAM-3 as a normative reference in 2.1.
Status
George Penokie Accepted 11/1/2007 4:37:13 PM -05'00'
Author: relliott
Subject: Highlight
Daté: 10/27/2007 12:14:14 PM -05'00'
TChange "SAM-4 to SAM-3 terminology mapping"
to
"Terminology mapping to previous versions of this standard"
or add SAM-3 as a normative reference in 2.1.
Status
George Penokie Accepted 11/1/2007 4:37:21 PM -05'00'
Author: relliott
Subject: Note
Date: 10/27/2007 12:15:14 PM -05'00'
In table C.1, center the left column and left-justify the right column (including the headers)
Status
Status George Penokie Completed 11/1/2007 4:40:30 PM -05'00'
George Penokie Completed 11/1/2007 4:40:30 PM -05'00'
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott 11/1/2007 4:40:30 PM -05'00'
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00'
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term"
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term" to
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term"
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' T Change "SAM-3 term" to "Term used in previous versions of this standard"
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term" to
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' T Change "SAM-3 term" to "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1.
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' The Change "SAM-3 term" to "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1. Status
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term" to "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1. Status George Penokie Accepted 11/1/2007 4:38:35 PM -05'00'
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' The Change "SAM-3 term" to "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1. Status George Penokie Accepted 11/1/2007 4:38:35 PM -05'00' Author: relliott
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term" to "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1. Status George Penokie Accepted 11/1/2007 4:38:35 PM -05'00' Author: relliott Subject: Highlight
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term" Change "SAM-3 term"
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term" to "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1. Status George Penokie Accepted 11/1/2007 4:38:35 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:47 PM -05'00' SAM-4 equivalent term
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term" to "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1. Status George Penokie Accepted 11/1/2007 4:38:35 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:47 PM -05'00'
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term" to "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1. Status George Penokie Accepted 11/1/2007 4:38:35 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:47 PM -05'00' SAM-4 equivalent term
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term" to "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1. Status George Penokie Accepted 11/1/2007 4:38:35 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:47 PM -05'00' Ts/b SAM-4 equivalent term s/b Term used in this standard
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' TChange "SAM-3 term" TChange "SAM-3 term" "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1. Status George Penokie Accepted 11/1/2007 4:38:35 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:47 PM -05'00' T SAM-4 equivalent term s/b Term used in this standard
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' Change "SAM-3 term" to "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1. Status George Penokie Accepted 11/1/2007 4:38:35 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:47 PM -05'00' Ts/b SAM-4 equivalent term s/b Term used in this standard
George Penokie Completed 11/1/2007 4:40:30 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:39 PM -05'00' TChange "SAM-3 term" TChange "SAM-3 term" "Term used in previous versions of this standard" or add SAM-3 as a normative reference in 2.1. Status George Penokie Accepted 11/1/2007 4:38:35 PM -05'00' Author: relliott Subject: Highlight Date: 10/27/2007 12:14:47 PM -05'00' T SAM-4 equivalent term s/b Term used in this standard