

To: T10 Technical Committee
 From: Rob Elliott, HP (elliott@hp.com)
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 Subject: 07-215r0 SPC-4 Protocol-Specific log page subpages

Revision history

Revision 0 (20 June 2007) First revision (offshoot of 07-091r1 and 07-214).

Related documents

- sas2r08 - Serial Attached SCSI - 2 (SAS-2) revision 8
- spc4r10 - SCSI Primary Commands - 4 (SPC-4) revision 10
- 07-091 - SAS-2 SMP support for SNW-3 phy capabilities (Rob Elliott, HP)
- 07-214 - SAS-2 Mode and log page support for SNW-3 phy capabilities (Rob Elliott, HP)

Overview

SPC-4 currently defines the Protocol-Specific Port log page as having page code 18h subpage code 00h. It does not define any log pages sharing page code 18h with other subpage code values (they are "reserved"). Those log pages should also be defined as protocol-specific.

The naming of the log pages becomes a bit confusing in a target device with target ports using multiple transport protocols, since different protocols would have different page names (and parameter definitions) for the same subpage numbers. Log page 18h/01h would return SAS-2 phy information for SAS target ports and something completely different for FC target ports.

Suggested changes to SPC-4

7.2.1 Log page structure and page codes for all device types

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The page code assignments for the log pages are listed in table 234.

Table 234 — Log page codes

Page Code	Subpage Code	Log Page Name ^a	Reference
...	...		
18h	00h 00h - FEh	Protocol Specific Port ^b	7.2.9
...	...		
<u>All others</u>		<u>Reserved</u>	
<p>All page code and subpage code combinations not shown in this table are reserved.</p> <p>^a Annex C contains a listing of log pages codes and subpage codes in numeric order.</p> <p>^b <u>The transport protocol for each log parameter accessed through one of these log pages may define a different name for the log page.</u></p>			

7.2.9 Protocol Specific Port log page

The Protocol Specific Port log page (see table 205) provides SCSI transport protocol specific parameters that are associated with the SCSI targets ports in the SCSI target device. This log page may be implemented in

any logical unit, including the TARGET LOG PAGES well-known logical unit (see 8.4). See the SCSI transport protocol standard (see 3.1.93) for definitions of the protocol specific log parameters.

Table 205 — Protocol-Specific Port log page

Byte\Bit	7	6	5	4	3	2	1	0
0	DS	SPF (0b)	PAGE CODE (18h)					
1	SUBPAGE CODE (00h 00h - FEh)							
2	(MSB)	PAGE LENGTH (n - 3)						(LSB)
3	Protocol-specific port log parameter list							
4	Protocol-specific port log parameter (first)							
...	...							
n	Protocol-specific port log parameter (last)							

The DS bit, SPF bit, PAGE CODE field, and SUBPAGE CODE field are described in 7.2.1.

Table 206 shows the format of a protocol specific log parameter.

Table 206 — Protocol-Specific Port log parameter

Byte\Bit	7	6	5	4	3	2	1	0
0	(MSB)	PARAMETER CODE (relative target port identifier)						(LSB)
1								
2	DU	Obsolete	TSD	ETC	TMC	FORMAT AND LINKING		
3	PARAMETER LENGTH (x - 3)							
4	Reserved				PROTOCOL IDENTIFIER (6h)			
5	SCSI transport protocol specific							
x								

The PARAMETER CODE field contains the relative target port identifier (see 3.1.100) of the target port for which the parameter data applies.

The contents of the DU bit, TSD bit, ETC bit, FORMAT AND LINKING field, and TMC field are defined in 7.2.1.

The PARAMETER LENGTH field indicates the number of bytes remaining in the log parameter.

The PROTOCOL IDENTIFIER field contains one of the values shown in table 313 (see 7.5.1) to identify the SCSI transport protocol standard that defines the SCSI transport protocol specific data in this log parameter. The SCSI transport protocol specific data is defined by the corresponding SCSI transport protocol standard.