

To: INCITS T10 Committee
From: Paul Entzel, Quantum
Date: 10 May 2006
Document: T10/06-224r1
Subject: SPC-4: Change “medium changer” to “media changer”

1 Revision History

Revision 0:
Posted to the T10 web site on 4 May 2006.

Revision 1:
The CAP WG decided it was better to remove the unreferenced definition of element than to fix it.

2 General

The SMC-3 working group has discussed the inconsistent use of the terms “medium changer” and media changer” to describe the automated devices that move media and have decided they prefer “media changer”. This proposal suggests changes in SPC-4 to remove instances of inconsistency with these terms.

3 Reference

T10/SPC-4 revision 4.

4 Changes to SPC-4

4.1 *Changes in the definitions subclause (3)*

~~3.1.33 element: An addressable physical component of a medium changer SCSI device that may serve as the location of a removable unit of data storage medium. A detailed definition of an element may be found in SMC-2.~~

3.1.64 **medium media changer**: A device that mechanizes the movement of media to and from the SCSI device that records on or reads from the media. A detailed definition of a **medium media** changer may be found in SMC-2.

4.2 Changes in the model subclause, background mode (5.5.3.3)

Table 29 — Exception commands for background self-tests

Device type	Command	Reference
All device types	SEND DIAGNOSTIC (with SELF-TEST CODE field set to 100b) WRITE BUFFER (with the mode set to any download microcode option)	6.30 6.37
Direct access block	FORMAT UNIT START STOP UNIT	SBC-2
Sequential access	ERASE FORMAT MEDIUM LOAD UNLOAD LOCATE READ READ POSITION READ REVERSE REWIND SPACE VERIFY WRITE WRITE BUFFER WRITE FILEMARKS	SSC-2
Medium Media changer	EXCHANGE MEDIUM INITIALIZE ELEMENT STATUS MOVE MEDIUM POSITION TO ELEMENT READ ELEMENT STATUS (if CURDATA=0 and device motion is required) WRITE BUFFER	SMC-2
Object-based storage	Any command with operation code 7Fh (i.e., all commands defined by the OSD standard)	OSD
NOTE 1 Device types not listed in this table do not have commands that are exceptions for background self-tests, other than those listed above for all device types.		

4.3 Standard INQUIRY data subclause (6.4.2)

Table 83 — Peripheral device type (part 1 of 2)

Code	Doc ^a	Description
00h	SBC-2	Direct access block device (e.g., magnetic disk)
01h	SSC-2	Sequential-access device (e.g., magnetic tape)
02h	SSC	Printer device
03h	SPC-2	Processor device
04h	SBC	Write once device (e.g., some optical disks)
05h	MMC-4	CD/DVD device
06h		Scanner device (obsolete)
07h	SBC	Optical memory device (e.g., some optical disks)
08h	SMC-2	Medium Media changer device (e.g., jukeboxes)
09h		Communication devices (obsolete)
0Ah - 0Bh		Obsolete
0Ch	SCC-2	Storage array controller device (e.g., RAID)
0Dh	SES	Enclosure services device
0Eh	RBC	Simplified direct-access device (e.g., magnetic disk)
0Fh	OCRW	Optical card reader/writer device
10h	BCC	Bridge Controller Commands
11h	OSD	Object-based Storage Device
<p>^a All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the listed standards.</p> <p>^b All well known logical units use the same peripheral device type code.</p>		

4.4 Appendix D.3.5

Table D.7 — Variable Length CDB Service Action Code Ranges

Code	Doc ^a	Description
0000h – 07FFh	SBC-2	Direct access block device (e.g., magnetic disk)
0800h – 0FFFh	SSC-2	Sequential-access device (e.g., magnetic tape)
1000h – 17FFh	SSC	Printer device
1800h – 1FFFh	This standard	Command for all device types (see table D.8)
2000h – 27FFh		Reserved
2800h – 28FFh	MMC-4	CD-ROM device
3800h – 3FFFh		Reserved
4000h – 47FFh	SMC-2	Medium Media changer device (e.g., jukeboxes)
5000h – 5FFFh		Defined by ASC IT8 (Graphics arts pre-press devices)
6000h – 67FFh	SCC-2	Storage array controller device (e.g., RAID)
7000h – 77FFh	RBC	Simplified direct-access device (e.g., magnetic disk)
7800h – 7FFFh	OCRW	Optical card reader/writer device
8800h – 8FFFh	OSD	Object-based Storage Device