

T10/07-199r1 SMC-3 POSITION TO ELEMENT command clarification

To: T10 Technical Committee

From: Noud Snelder, BDT (Noud.Snelder@BDT.de)

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Subject: T10/07-199r1 POSITION TO ELEMENT command clarification

Revision History

Revision 0 (16 April 2007): initial revision

Revision 1 (10 July 2007): incorporated changes recommended by July SMC-3 WG meeting

Related Documents

SMC3r06 - SCSI Media Changer Commands - 3 revision 6

Overview

The POSITION TO ELEMENT command refers to the Device Capabilities mode page for supported source element or destination element combinations. This mode page is not relevant for the POSITION TO ELEMENT command; therefore this proposal suggests removing this text. The new Extended Device Capabilities mode page includes a property relevant for the POSITION TO ELEMENT command. This proposal proposes to include text to refer to this property bit.

Suggested Changes to SMC-3

6.8 POSITION TO ELEMENT command

The POSITION TO ELEMENT command (see table 13) ~~shall requests the device server to position the medium transport address element to a specified element address. such that further motion of the medium transport address element is unnecessary to execute an appropriate MOVE MEDIUM command between the medium transport address element and the destination address element.~~

Table 13 — POSITION TO ELEMENT command

Bit	7	6	5	4	3	2	1	0
Byte								
0	OPERATION CODE (2Bh)							
1	Reserved							
2	(MSB)	MEDIUM TRANSPORT ADDRESS						(LSB)
3								
4	(MSB)	DESTINATION ADDRESS						(LSB)
5								
6	Reserved							
7	Reserved							
8	Reserved							INVERT
9	CONTROL							

The MEDIUM TRANSPORT ADDRESS field specifies the medium transport element used ~~to execute in the processing of~~ this command. The default medium transport element address of zero may be used. If the ~~element address specified in the~~ MEDIUM TRANSPORT ADDRESS ~~element field~~ has not been assigned ~~or that element address has been assigned to a different~~ to a medium transport element type, then the ~~logical unit~~ device server shall ~~return terminate the command with~~ CHECK CONDITION status. The sense key shall be ILLEGAL REQUEST and the additional sense code INVALID ELEMENT ADDRESS.

The ~~element specified by the~~ DESTINATION ADDRESS field may represent a storage element, an import/export element, a data transfer element, or a medium transport element. If the ~~element~~ address specified ~~in the~~ DESTINATION ADDRESS ~~field~~ has not been assigned ~~to a specific element of the media~~

changer, then the target device server shall return-terminate the command with CHECK CONDITION status. The sense key shall be ILLEGAL REQUEST and the additional sense code INVALID ELEMENT ADDRESS.

~~The Device Capabilities mode page (see 7.3.2), provides a matrix with the supported source element or destination element combinations for the POSITION TO ELEMENT command.~~

An INVERT bit of one specifies that the medium transport element be inverted or rotated prior to positioning at the destination address element. If the media changer does not support volume rotation for handling double-sided media, then the INVERT bit should be set to zero. If this bit is set to one, then a target that is not capable of volume rotation shall terminate the command with return CHECK CONDITION status. The sense key shall be ILLEGAL REQUEST and the additional sense code INVALID FIELD IN CDB.

See SAM-3 for a description of the CONTROL byte.

Note: See PEPOS bit in 7.3.3.