

To: T10 Technical Committee
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 Subject: Extended Copy Write filemarks operation Segment Descriptor Immediate Bit

Revision History

Revision 0 (July 16, 2002) first revision.

Revision 1 (August 12, 2002) second revision. Added suggested SPC-3 changes, including position of IMMED bit, and IMMED bit description.

Overview

In working through segment descriptors for Extended Copy commands, it has been determined that there is a need for an Immediate Bit in the Extended Copy commands Write filemarks operation segment descriptor (0x10), to improve the performance when executing queued segment descriptors by target data movers.

Because there is no Immediate Bit (would be located at Byte 8, Bit 0), the execution of this segment descriptor blocks the device from responding to other non-movement commands, and does not allow the device to accept another segment descriptors until this command returns with Good Status.

It is recommended that the Write filemarks operation Segment Descriptor be updated in SPC-3, to include the IMMED (Immediate) bit at Byte 8, Bit 0. The following are the recommended changes to SPC-3, in red:

7.2.7.14 Write filemarks operation

The segment descriptor format shown in table 40 instructs the copy manager to write filemarks or setmarks on the destination tape device.

Table 40 — Write filemarks operation segment descriptor

Bit Byte	7	6	5	4	3	2	1	0	
0	DESCRIPTOR TYPE CODE (10h)								
1	Reserved								
2	(MSB)	DESCRIPTOR LENGTH (0008h)						(LSB)	
3									
4	Reserved								
5	Reserved								
6	(MSB)	DESTINATION TARGET DESCRIPTOR INDEX						(LSB)	
7									
8	Reserved						WSMK	IMMED	
9	(MSB)	TRANSFER LENGTH							
10									
11	(LSB)								

If the immediate (IMMED) bit in the segment descriptor is set to one, then the copy manager shall issue a WRITE FILEMARKS command to the target logical unit in which the immediate bit is set to one. If the immediate bit is set to zero then the copy manager shall issue a WRITE FILEMARKS command to the target logical unit in which the immediate bit is set to zero. If the WRITE FILEMARKS command returns a CHECK CONDITION status then the extended copy command is terminated as specified in 7.3.3.