

TO: T10 Members  
 FROM: Paul Suhler, Seagate Technology  
 SUBJECT: ADI: Required and Optional SCSI Commands (T10/02-106r1)  
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Following is a table listing all of the SCSI commands which might be implemented in the ADI Command (ADC) layer by a tape drive. It is a union of the commands listed in SPC-3 Rev. 5 and SSC-2 Rev. 8. This list was revised by the working group on 12 March.

A similar table is not needed for commands forwarded (bridged) to the library by the drive. These commands are defined by SPC and SMC. The drive should be capable of forwarding any command without regard to the opcode. The forwarding feature itself is Optional. We may need to decide whether bidirectional commands will be Optional or Mandatory in implementing forwarding, although at the moment, it is a moot point as there are no bidirectional commands for media changers.

#### Useful

The column "Useful" records the working group's sense of whether the command might need to be implemented by an ADI device server.

#### Commands Honoring Reservations

The commands marked below with a 'Y' in the "Honor Res'ns" column may be made available on the ADI, and shall honor reservations held on the SSC device server. These commands might only be offered through the SSC device server, and not the ADI device server. Most of these commands involve access to media, and the most probably usage would be for firmware tapes.

#### Commands Not Honoring Reservations

The commands marked below with a 'N' are to be supported by the proposed Automation-Drive Interface device server; they shall not honor reservations held on the SSC device server.

#### Required

Commands are listed as being either Mandatory (M) or Optional (O). Optional indicates that the library shall not rely upon the drive's implementing the command, and that the ADI device server may implement the command. I think that we do not need a separate category of Prohibited.

Command	Useful	Honor Res'ns?	Required	Doc	Notes
ACCESS CONTROL IN	N		O	SPC-3	
ACCESS CONTROL OUT	N		O	SPC-3	
CHANGE ALIASES	N		O	SPC-3	
ERASE(6)	N		O	SSC-2	
ERASE(16)	N		O	SSC-2	
EXTENDED COPY	N		O	SPC-3	
FORMAT MEDIUM	N		O	SSC-2	
INQUIRY	Y	N	M	SPC-3	
LOAD UNLOAD	Y	N	M	SSC-2	
LOCATE(10)	Y	Y	O	SSC-2	
LOCATE(16)	Y	Y	O	SSC-2	
LOG SELECT	Y	N	O	SPC-3	1
LOG SENSE	Y	N	M	SPC-3	
MODE SELECT(6)	Y	N/Y	O	SPC-3	2
MODE SELECT(10)	Y	N/Y	O	SPC-3	2
MODE SENSE(6)	Y	N	O	SPC-3	
MODE SENSE(10)	Y	N	O	SPC-3	

Command	Useful	Honor Res'ns?	Required	Doc	Notes
PERSISTENT RESERVE IN	N		O	SPC-3	
PERSISTENT RESERVE OUT	N		O	SPC-3	
PREVENT ALLOW MEDIUM REMOVAL	N		O	SSC-2	
READ(6)	Y	Y	O	SSC-2	
READ(16)	Y	Y	O	SSC-2	
READ ATTRIBUTE	Y	N	O	SPC-3	
READ BLOCK LIMITS	N		O	SSC-2	
READ BUFFER	Y	N	O	SSC-2	
READ POSITION	Y	N	O	SSC-2	3
READ REVERSE(6)	N		O	SSC-2	
READ REVERSE(16)	N		O	SSC-3	
RECEIVE COPY RESULTS	N		O	SPC-3	
RECEIVE DIAGNOSTIC RESULTS	Y	N	O	SPC-3	
RECOVER BUFFERED DATA	N		O	SSC-2	
RELEASE(6)	N		O	SPC-3	
RELEASE(10)	N		O	SPC-3	
REPORT ALIASES	N		O	SPC-3	
REPORT IDENTIFIER	N		O	SPC-3	
REPORT DENSITY SUPPORT	Y	N	O	SSC-2	
REPORT LUNS	Y	N	O	SPC-3	
REPORT SUPPORTED OPERATION CODES	Y	N	O	SPC-3	
REPORT TARGET PORT GROUPS	N		O	SPC-3	
REQUEST SENSE	Y	N	M	SPC-3	
RESERVE(6)	N		O	SPC-3	
RESERVE(10)	N		O	SPC-3	
REWIND	Y	Y	O	SSC-2	
SEND DIAGNOSTIC	Y	N	O	SPC-3	4
SEND DEVICE IDENTIFIER	N		O	SPC-3	
SET CAPACITY	N		O	SSC-2	
SET TARGET PORT GROUPS	N		O	SPC-3	
SPACE(6)	Y	Y	O	SSC-2	
SPACE(16)	Y	Y	O	SSC-2	
TEST UNIT READY	Y	N	M	SPC-3	
VERIFY(6)	N		O	SSC-2	
VERIFY(16)	N		O	SSC-2	
WRITE(6)	Y	Y	O	SSC-2	
WRITE(16)	Y	Y	O	SSC-2	
WRITE ATTRIBUTE	Y	N/Y	O	SPC-3	5
WRITE BUFFER	Y	N	O	SPC-3	6
WRITE FILEMARKS(6)	Y	Y	O	SSC-2	
WRITE FILEMARKS(16)	Y	Y	O	SSC-2	

- 1 ADI device server maintains separate pages to avoid changing SSC device server's data.
- 2 Only parameters relevant to ADI.
- 3 Need to clarify this scenario if this forces a buffer flush.
- 4 Self test at a minimum; vendor specific as to support involving media.
- 5 Reservations are honored only for host-accessible attributes and not for others.
- 6 Reservations are not honored for buffers 4 and 5 only. Writing other buffers will honor reservations.

