

T10/02-067r0 SAM-2 Remove TAGGED OVERLAPPED TASKS additional sense code

To: T10 Technical Committee  
From: Rob Elliott, Compaq Computer Corporation (Robert.Elliott@compaq.com)  
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Subject: T10/02-067r0 SAM-2 Remove TAGGED OVERLAPPED TASKS additional sense code

### **Revision History**

Revision 0 (29 January 2002) first revision

### **Related Documents**

s2-r10l - SCSI-2

sam2r21 - SCSI Architecture Model - 2 revision 21 (Ralph Weber)

02-034r1 - Duplicate tag ASC correction in SPI-4 (George Penokie)

### **Overview**

SCSI-2 defined an additional sense code named OVERLAPPED COMMANDS ATTEMPTED (4Eh) to report tag problems. Its ASCQ is always 00h.

SAM-1 and SAM-2 added TAGGED OVERLAPPED TASKS (4Dh), whose ASCQ is set to the overlapping tag, and mandated that it be used for tags <= FFh. OVERLAPPED COMMANDS ATTEMPTED is still required for tags > FFh or untagged tasks; its ASCQ is still 00h.

SIP (paired with SPI-1) adopted this, but SPI-2 and SPI-3 reverted to OVERLAPPED COMMANDS ATTEMPTED with the ASCQ set to the overlapping tag (violating SAM-2).

Other protocols are silent about the issue. In many protocols the tag is bigger than 8 bits (e.g. FCP fully qualified exchange identifier) yet they do not define which bits to compare numerically. In most packetized protocols the tag is included in the status packet reporting the error; including it again in the sense data doesn't help.

02-034r1, adopted for SPI-4, made the ASCQ 00h again matching SCSI-2. This proposal eliminates TAGGED OVERLAPPED TASKS from SAM-2.

Editor's note: SPC-2 includes it in the additional sense code tables, which is probably harmless.

### **Suggested Changes to SAM-2**

#### **5.8.2 Overlapped commands**

An overlapped command occurs when a task manager detects the use of a duplicate I\_T\_L\_x nexus (see 4.9.1) in a command before a pending task holding that I\_T\_L\_x nexus completes its task lifetime (see 5.5). Each SCSI protocol standard shall specify whether or not a task manager is required to detect overlapped commands.

A task manager that detects an overlapped command shall abort all tasks for the faulted initiator in the task set and the device server shall return CHECK CONDITION status for that command. ~~If the overlapped command condition was caused by an untagged task or a tagged task with a tag value exceeding FFh, then t~~The sense key shall be set to ABORTED COMMAND and the additional sense code shall be set to OVERLAPPED COMMANDS ATTEMPTED. ~~Otherwise, an additional sense code of TAGGED OVERLAPPED TASKS shall be returned with the ADDITIONAL SENSE CODE QUALIFIER field set to the value of the duplicate tag.~~