adaptec, inc.

ANSI X3T9.2
Bill Burr, Chairman
National Bureau of Standards
Room A-216, Bldg 225
Gaithersburg, Maryland 20899

January 6, 1987
Revised February 13, 1987

Subject: Consideration of Off Line bits for SEND DIAGNOSTIC
Revision: Modifications proposed by working group, Jan, 1987

Dear Mr. Burr:

The new draft of X3T9.2/86-109, dated Oct 31, 1986 describes the Send Diagnostic command in section 7.1.6, page 7-25. Some modifications should be made to clarify the use of the Device Off Line bit (DevOfL) and the Unit Off Line bit (UnitOfL).

The command operation in the case of a self-test bit on zero is not clearly explained. As a result, the effect of the UnitOfL bit and the DefOfL bit is not well defined. The following modifications should help to clarify the functions of the SEND DIAGNOSTIC command.

Add a paragraph after the second paragraph of section 7.1.6 to say the following:

A self test bit of zero directs the target to perform vendor unique test or state modification functions defined by the bytes in the parameter list. Depending on the vendor unique function requested, a response may or may not be required. If no response is required, successful completion of the function is indicated by presentation of GOOD status.

Disconnection is optional during the execution of the function. If a response is required, successful completion of the function and preparation of the response is indicated by presentation of GOOD status. The response will then be recovered by execution of the RECEIVE DIAGNOSTIC command.

Replace paragraph three (A logical....same target.) with the following paragraphs.

The DevOfL and UnitOfL bits grant permission to perform vendor unique diagnostic operations on the target which may be visible to attached initiators. The bits only effect the diagnostic operation invoked by the particular SEND DIAGNOSTIC command and can be considered reset so that the unit is no longer offline at the time status is presented to terminate the SEND DIAGNOSTIC command.

A UnitOfL bit of one permits diagnostic operations that may affect the initiator visible medium on the addressed LUN, including write operations to the data space accessible through the READ commands, repositioning of sequential access media, and similar activities. A UnitOfL bit of zero prohibits any diagnostic activity that may be detected by later initiator generated activity. Operations that have no effect on the function of subsequent commands on any LUN are still allowed, including Direct Access device seek operations, REZERO UNIT, cache replacement, and similar operations.

A DevOfL bit of one permits diagnostic operations that may affect the initiator visible functions of the target and LUN's other than the one addressed, including destruction of reservation information, error logs, and sense information. A DevOfL bit of zero prohibits any diagnostic activity that may be detected by later initiator generated activity. Operations that have no effect on the function of subsequent commands on any LUN are still allowed, including verification of internal table validity, testing of alternate interfaces, and similar operations.

Thank you for your consideration of this proposal.

Sincerely,

Robert N. Snively