

Memo to: John Lohmeyer, Chairman X3T9.2
NCR Corporation
3718 Rock Road
Wichita, KS 67226

Memo from: Robert Snively
Adaptec
580 Cottonwood
Milpitas, CA 95037
(408) 432-8600 X442

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Subject: Consideration of phase definitions.

Dear Mr. Lohmeyer

In what is probably a vain attempt to finally clarify the phase definition problem, let me make the following proposal. Section 5.1.6, paragraphs 3 and 4 should be modified to read as follows:

The information transfer phases use one or more REQ/ACK handshakes to control the information transfer. Each REQ/ACK handshake allows the transfer of one byte of information. During the information transfer phases BSY shall remain true and SEL shall remain false. Additionally, during the information transfer phases, the target shall continuously envelope the REQ/ACK handshake(s) with C/D, I/O, and MSG in such a manner that these control signals are valid for a bus settle delay before the assertion of REQ of the first handshake and remain valid until after the negation of ACK at the end of the handshake of the last transfer of the defined phase.

IMPLEMENTORS NOTE: After the fall of ACK of the last transfer of the defined phase, the target may prepare for a new phase by setting C/D, I/O, and MSG to different values. C/D, I/O, and MSG may be changed together or in any order and each individual line may change more than one time. For low overhead, it is desirable but not required that each line change only once and that each line change quickly to its new desired value. A new phase is not defined as beginning until REQ is asserted for the first byte of the new phase.

A phase is defined as ending when C/D, I/O, and /or MSG change after the negation of ACK. An undefined state exists between the end of a phase and the assertion of REQ beginning a new phase. An initiator is allowed to predict a new phase based on the previous phase, the expected new phase, and early information provided by changes in the C/D, I/O, and MSG signals, but the prediction is only proved valid when REQ appears to begin the new phase.

Sincerely,


Robert N. Snively