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MEMORANDUM

23 Dec 1987

TO: John Lohmeyer, Chairman X3T9.2  
FROM: Bill Spence, Texas's Instruments  
SUBJECT: SDTR Message Clarification No. 6

In our review of our error recovery paths in our synchronous implementation, we have found a hole needing filling, we think, as follows: If a target initiates an SDTR message exchange in order to modify an EXISTING synchronous agreement (not the usual case, but it happens), and if the initiator is unable to read the message properly, raises ATN, and offers a MESSAGE PARITY ERROR message, and if the initiator continues responding in this manner, the target must abandon the effort by going bus free, and the target must go to asynchronous mode. So must the initiator, IF it knows that it has been involved in an attempt at an SDTR exchange. In the present case, it may not know this, and so may remain in the synchronous mode established previously.

For anyone trying to track this matter, note that it pertains not to the initiator-initiated exchange of p 5-28 but to the target-initiated exchange of p 5-29 of Rev 3 of SCSI-2.

Rather than trying to write a narrow rule around this specific case, we suggest a broader rule which would cover the present case and perhaps others.

PROPOSAL

Add the following as the next-to-last paragraph of Scn. 5.5.5:

If an SCSI device having a current synchronous transfer agreement with another SCSI device must go from synchronous to asynchronous mode for any cause other than the successful completion of an exchange of SDTR messages (e.g., as a result of an error-recovery operation), there must be a subsequent SDTR message exchange successfully completed before any attempt is made to transfer data between the two SCSI devices. The SCSI device which changed to asynchronous mode shall initiate the SDTR message exchange unless preempted by the other device.