

Interpretation Number: 2-11/01
Topic: PCS receive state diagram, part b
Relevant Clauses: 36.2.4.2.2, figure 36-7b
Classification: Defect

Interpretation Request

The specific designation of the standard, including the year of publication: IEEE Std 802.3, 2000 Edition. The specific subsection being questioned: 36.2.4.2.2 Figure 36-7b. The applicable conditions for the case in question:

The transition from RECEIVE to RX_DATA uses notation that is not explained and is not consistent with the notation used elsewhere in the state machines. The transition condition is <element of symbol>[/D/] Where /D/ is a constant defined as representing the set of data code groups. The problem is that there is nothing on the transition to indicated what is being tested. Normally, the notation would be similar to that used on the left exit from RX_CB in Figure 36-7a. SUDI(<element of symbol>[/D/]) where it is clear that the condition is a test of whether the code-group in the current SUDI was a data code group.

I believe that the intent of the state diagram is that the test be against the code-group contained from the SUDI that cause the transition to RECEIVE. The notation that is used on the exit from RX_CB can't be used here because the SUDI has already been used to transition to RECEIVE. One way to clarify the notation would be to add to the RECEIVE state an assignment of the parameter from the SUDI to a variable which can be tested in the transition condition. Another alternative is to add text to the description of the receive state machine explaining the deviation in the notation.

Interpretation for IEEE std 802.3-2000

The analysis of this state machine transition provided in the request is correct however this has illustrated a lack of clarity of the conditions for this transition. A change request has been generated to correct this which is available at the URL <http://www.ieee802.org/maint/requests/all.html> and this request will be included in the next maintenance ballot.