

Clarification Request

References: 135.1-2011 - 7.3.2.9.2

Date of BTL-WG Response: July 18, 2013

Background:

7.3.2.9.2 Quit on Failure Test

Dependencies: ReadProperty Service Execution Tests, 9.18; WriteProperty Service Execution Tests, 9.22.

BACnet Reference Clause: 12.10.8.

Purpose: To verify that a Command object can successfully execute Quit_On_Failure procedures.

Test Concept: The IUT is configured with two action lists that include a sequence of externally visible outputs with a write somewhere in the sequence that will fail. The action lists are identical except that one has Quit_On_Failure set to TRUE and the other set to FALSE. The TD triggers both action lists. The external outputs are observed to verify that the failure procedures are properly implemented. If the IUT does not support action list configuration for this Test Concept, then this test shall be omitted.

Configuration Requirements: The IUT shall be configured with a Command object having at least two action lists, X and Y, that includes writing to a sequence of externally visible outputs. Somewhere in the sequence there shall be a write command that will fail that is followed by write commands that will succeed. Both action lists shall be identical except that list X shall have Quit_On_Failure set to TRUE and Y shall have Quit_On_Failure set to FALSE.

Test Steps:

1. WRITE Present_Value = X
2. RECEIVE Simple-ACK-PDU
3. VERIFY In_Process = TRUE
4. CHECK (for the externally visible actions and verify that they stop when the failure occurs)
5. VERIFY In_Process = FALSE,
6. VERIFY All_Writes_Successful = FALSE
7. WRITE Present_Value = Y
8. RECEIVE Simple-ACK-PDU
9. VERIFY In_Process = TRUE
10. CHECK (for the externally visible actions and verify that they continue to the end after the failure occurs)
11. VERIFY In_Process = FALSE,
12. VERIFY All_Writes_Successful = FALSE

Problems:

the VERIFY In_Process in step 3 will always fail if the device is fast in executing the command from step 1. The probability of failure is increased by the fact, that the VERIFY contains an implicit "wait InternalProcessingFailTime".

Same problem in step 9.

Question:

Should steps 3 and 9 be removed from the test?

Response:

"Not necessarily. Add to Configuration Requirements that: Delays shall be configured into the Action, if necessary, sufficient to let the tester observe In_Process equal TRUE in steps 3 and 9. If it cannot be so configured, then steps 3 and 9 should be skipped."