

### Clarification Request

**Request from:** "Horst Hannappel" <Horst.Hannappel@mbs-software.de>

**References:** BTL Test Plan 9.0.final, 135.1-2009i-7 test 7.3.2.9.3

**Stage:** ☒ Request, ☐ Listed, ☐ Analysis, ☐ Resolved

**Actions necessitated:** ☐ Checklist/Test Plan change, ☐ BTL Specified Tests change,  
☐ SSPC Interpretation required, ☐ Implementation Guidelines change,

**Date of BTL-WG Response:** \_\_\_\_\_  
☐ All actions necessitated have been completed

### Background:

#### 135.1-2009 test 7.3.2.9.3 (with modifications in 135.1-2009i-7)

7.3.2.9.3 External Writes 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 write to external objects. If the IUT does not support writing to external objects from a Command object this test shall be omitted.

**Test Concept:** The IUT is configured with a Command object having an action list that includes writing to an object in the TD. The TD invokes this action list by writing the appropriate value to the Command object. The TD verifies that the IUT transmits the appropriate WriteProperty-Request.

**Configuration Requirements:** The IUT shall be configured with a Command object that has an Action property that contains an action list, X, that includes a command to write to the Present\_Value of (Analog Value, 0) in the TD.

#### Test Steps:

1. WRITE Present\_Value = X
2. RECEIVE Simple-ACK-PDU
3. BEFORE External Command Fail Time  
 RECEIVE WriteProperty-Request,  
 'Object Identifier' = (Analog Value, 0),  
 'Property Identifier' = Present\_Value,  
 'Property Value' = (any Real value)
4. VERIFY In\_Process = TRUE
5. TRANSMIT BACnet-Simple-ACK
6. VERIFY In\_Process = FALSE

**1. Following the test steps the test expects, that immediately after the simple-Ack in step 5 the property In\_Process of the IUT will change its value to FALSE. This assumption would only hold true if the monitored write request was the last request in the action list. Even then there might be additional delays. The Configuration Requirements do not mention any restrictions to the action list. The text ...that includes a command... does indicate that the monitored write to AV0 might well be one among others.**

**2. The whole checking of the “In\_Process” value seems pointless regarding the expressed purpose: “verify that a Command object can write to external objects” of the test.**

**3. The conditionality should be moved away from the “purpose”. Actually it is not necessary at all inside this test! (Why should anybody consider performing the test for external writes when the IUT does not support external writes?)**

**One additional minor point:**

**4. Why does the test spec insist on performing the test with analog value zero present value?**

**It would certainly be beneficial to be able to use different tester selected properties for the test.**

**Question:**

Should the test be modified?

**Response:**

Yes, but not in the way that is proposed.

1. Yes, Step 6 needs to be delayed.
2. No, the In\_Process check is beneficial since it should not go FALSE before the SimpleACK arrives.
3. The conditionality will be moved to Configuration Requirements.
4. Yes, different tester selected properties for the test would be acceptable.  
     'Object Identifier' = O1  
     'Property Identifier' = (any valid value)

### **135.1-2009 test 7.3.2.9.3 (with modifications in 135.1-2009i-7)**

#### 7.3.2.9.3 External Writes 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 write to external objects. **If the IUT does not support writing to external objects from a Command object this test shall be omitted.**

Test Concept: The IUT is configured with a Command object having an action list **X**, that includes writing to an object **O<sub>i</sub>** in the TD. The TD invokes this action list by writing the appropriate value to the Command object. The TD verifies that the IUT transmits the appropriate WriteProperty-Request.

Configuration Requirements: **If the IUT does not support writing to external objects from a Command object this test shall be omitted** The IUT shall be configured with a Command object that has an Action property that contains an action list, **X**, that includes a command to write to the Present\_Value of (Analog Value, 0) in the TD.

Test Steps:

1. WRITE Present\_Value = X
2. RECEIVE BACnet-SimpleACK-PDU
3. BEFORE **External Command Fail Time**  
     RECEIVE WriteProperty-Request,  
     'Object Identifier' = **(Analog Value, 0)O<sub>i</sub>**,

'Property Identifier' = ~~Present\_Value~~(any valid property of the specified object),  
'Property Value' = ~~(any Real value)~~(any value appropriate to the specified property)  
4. VERIFY In\_Process = TRUE  
5. TRANSMIT BACnet-SimpleACK-PDU  
6. IF (Post\_Delay is present)  
    WAIT (Post\_Delay)  
67. VERIFY In\_Process = FALSE

*Note to Tester: Any WriteProperty request generated by the IUT may have a Priority parameter for any of the properties written. If included, the Priority parameter shall be in the range 1-16, excluding 6.*