

Clarification Request

References: “e.g” Specified Tests 18.1 and 20 test 7.3.1.1.X2

Date of BTL-WG Response: June 16, 2022 (Revisited after SSPC unofficial interpretation)

Background: **ASHRAE 135-2020 12.4.9 and similar**

From ASHRAE 135-2020 specification OutOfService for AnalogValueObject chapter 12.4.9:

Out_Of_Service

This property, of type BOOLEAN, is an indication whether (TRUE) or not (FALSE) the Present_Value property is controllable by software local to the BACnet device.

When Out_Of_Service is TRUE:

(a) the Present_Value of the object is prevented from being changed by software local to the BACnet device in which the

object resides;

(b) the Present_Value property and the Reliability property, if present and capable of taking on values other than

NO_FAULT_DETECTED, shall be writable to allow simulating specific conditions or for testing purposes;

(c) other functions that depend on the state of the Present_Value, or Reliability properties shall respond to changes made

to these properties, as if those changes had occurred while the object was in service;

(d) if the Priority_Array and Relinquish_Default properties are present, the Present_Value property shall still be

controlled by the BACnet command prioritization mechanism (see Clause 19).

Restrictions on changing the Present_Value property by software local to the BACnet device do not apply to local human- machine interfaces.

7.3.1.1.X2 Out_Of_Service for Commandable Value Objects Test

Purpose: To verify that Present_Value is no longer updated by software local to the IUT when Out_Of_Service is TRUE.

Test Concept: Select an object who's Present_Value is being modified by software local to the IUT at Priority PTY1. The value of the Out_Of_Service property is set to TRUE, the Present_Value property is written at PTY1 and the Present_value is checked to ensure the Present-Value is no longer being modified by software local to the IUT.

Configuration Requirements: The values of the entries in the Priority_Array above PTY1 shall be NULL.
Test Steps:

1. MAKE (Present_Value = PV1, any valid value, using software local to the IUT)
2. IF (Out_Of_Service is writable) THEN

 WRITE Out_Of_Service = TRUE

ELSE

 MAKE (Out_Of_Service TRUE)
3. VERIFY Present_Value = PV1
4. WRITE Present_Value, PTY1 = PV2, any valid value other than PV1
5. MAKE (Present_Value = PV3, any valid value other than PV2, using software local to the IUT)
6. VERIFY Present_Value = PV2

Problem:

According to 135-2020 12.4.9 (d) PresentValue is controlled by the command prioritization mechanism when OutOfService is TRUE. When OutOfService is FALSE the same applies anyways.

It seems not at all clear what the tester is supposed to do in steps 1 and 5 because local software does not have any direct effect on Present_Value. It seems the test can not be executed as written.

Even the purpose seems to be already pointless.

Same pattern applies to all value objects.

Question:

Should the test 7.3.1.1.X2 be removed from the BTL testplan?

Response:

No. Test 7.3.1.1.X2 correctly exercises point (a) from the Out_of_Service Property. BTL-WG will improve the language of steps 1 and 5 to make it clear that in step 1 the change in Present_Value succeeds and that in step 5, the attempted change in Present_Value would not be expected to succeed.