

Clarification Request

References: 135-2012bg- 6 Ensure UTC_Offset is configurable

Date of BTL-WG Response: May 19, 2022

Background: Specified Tests 20.0 7.3.2.10.X

7.3.2.10.X Ensure UTC_Offset is Configurable

Reason for Change: New test to standard.

Purpose: This test verifies UTC_Offset is configurable and accepts from -1440 to +1440.

Test Concept: For each value in a set of valid values across the acceptable range for UTC_Offset, verify that the UTC_Offset can be configured with the value.

Configuration Requirements: If the Protocol_Revision of the device is less than 18, this test shall be skipped.

Test Steps:

1. REPEAT UO = (-1440, -780, 0, +780, +1440, and 2 other values which are multiples of 15 minutes) DO
{

```
IF (UTC_Offset is writable) THEN
WRITE UTC_Offset = UO
ELSE
MAKE UTC_Offset = UO
VERIFY (Device Object) UTC_Offset = UO
}
```

Problem:

Real BACnet implementations, especially more sophisticated devices, that execute on Windows or Linux will normally use the timezone settings from their underlying operating system. The operating system will then automatically take care of things like day light saving transitions at the correct dates with correct offset, which are not covered at all by the BACnet standard.

But the operating system will normally only provide settings, that represent timezones, that exist on the world. Implementing arbitrary utc offsets over the whole range would require ugly hacks in the implementation without real use case (besides passing the test in the lab).

Besides many BBC devices nearly all BACnet workstations are affected by that problem.

Question:

If the IUT only supports timezone settings, that relate to real world existing timezones is it sufficient to perform the test with such real world settings instead of the artificial settings of the current test specification and pass the device?

Response:

No. It is not sufficient to restrict testing to currently defined time zones. Products must support the full range and resolution for UTC offset as defined in the standard.