

Clarification Request

References: BTL Specified Tests 9.21.1.4

Date of BTL-WG Response: __21-Apr-2011__

Background:

9.21.1.4 Reading Items by Time

Purpose: To verify that the IUT correctly responds to a ReadRange service request to return items specified by indicating a time and the number of items after that time to return.

Test Concept: A ReadRange request is transmitted by the TD requesting a range of items known to be in the Log_Buffer. This range is specified using the 'By Time' option and a positive value for 'Count'. The 'Reference Index' and 'Count' are selected so that the results can be conveyed in a single acknowledgement.

Test Steps:

1. TRANSMIT ReadRange-Request,
 - 'Object Identifier' = (the Trend Log object configured for this test),
 - 'Property Identifier' = Log_Buffer,
 - 'Reference Time' = (any value x: x is older than (of earlier time) the last time in the buffer),
 - 'Count' = (any value y: y > 0)
 2. RECEIVE ReadRange-ACK,
 - 'Object Identifier' = (the Trend Log object configured for this test),
 - 'Property Identifier' = Log_Buffer,
 - 'Result Flags' = {?, ?, FALSE},
 - 'Item Count' = min(Total_Record_Count - z + 1, y),
 - 'Item Data' = ('Item Count' trend records in order of increasing sequence number, starting with the record having sequence number z),
- ',
- 'First Sequence Number' = (Total_Record_Count - y + 1)

Notes to Tester: The first item returned shall be the entry in the Log_Buffer with a timestamp newer (later time) than the time specified by the 'Reference Time' parameter. If there is an entry in the Log_Buffer with a timestamp that exactly matches the 'Reference Time' parameter, that entry should not be included in the 'Item Data'.

Issue:

Step 2 calculation states that the required result is Total_Record_Count - y + 1, where y is the Count (transmitted). In the example provided in BTL-Specified test it returns 23 for that example. This is fine. If, however I change the test parameters to Count = 1.

1. TRANSMIT ReadRange-Request,
 - 'Object Identifier' = (Trend Log, Instance 1),
 - 'Property Identifier' = Log_Buffer,
 - 'Reference Time' = 13:21:00.00

'Count' = 1

2. RECEIVE ReadRange-ACK,

'Object Identifier' = (Trend Log, Instance 1),

'Property Identifier' = Log_Buffer,

'Result Flags' = {FALSE, TRUE, FALSE},

'Item Count' = 1,

'Item Data' = Records < h, i, j, k > in that order.

'First Sequence Number' = 26 (26 – 1 + 1)

It will calculate a require sequence number of 26, but since the time is 13:21:00:00, the actual element which should be returned is position 23.

Question:

Is there an issue with this test case?

Response:

Test 9.21.1.4 is already modified to address this in Addendum 135.1-2009g-16, and that version of the test shall be incorporated into BTL Specified Tests.