

Clarification Request

Request from: David Hudson (dhudson@deltacontrols.com)

Reference: "ASHRAE 135.1-2003"

Background:

Test 9.14.2.2 tests the server side functionality when the IUT receives an AddListElement-Request with a single element to be added that is of an incorrect data type. The test requires the IUT Respond with the following packet:

2. RECEIVE AddListElement-Error,
Error Class = PROPERTY,
Error Code = INVALID_DATATYPE,
'First Failed Element' = 0

Test 9.14.2.3 tests the server side functionality when the IUT receives an AddListElement-Request to add multiple elements to a list where one of the elements cannot be added (due to a wrong datatype). The test requires the IUT to respond with the following packet:

4. RECEIVE AddListElement-Error,
Error Class = SERVICES,
Error Code = INVALID_PARAMETER_DATATYPE
'First Failed Element' = 2

It seems inconsistent that the two tests require different error classes and codes be returned when the problem in both cases is essentially the same (an incorrect data type) especially considering there is a "First Failed Element" element of the response that can indicate the difference between the case of the single list item and the second case with multiple list items to be added.

Complete Tests:

135.1 - 9.14.2.2 Adding a List Element With an Invalid Datatype

Purpose: To verify the ability of the IUT to correctly respond to an AddListElement service request to add an element with an invalid datatype to a list.

Test Steps:

1. TRANSMIT AddListElement-Request,
 'Object Identifier' = L,
 'Property Identifier' = ListProp,
 'List of Elements' = (a single element with a datatype inappropriate for this property)
2. RECEIVE AddListElement-Error,
Error Class = PROPERTY,
Error Code = INVALID_DATATYPE,
'First Failed Element' = 0

135.1 - 9.14.2.3 An AddListElement Failure Part Way Through a List

Purpose: To verify the ability of the IUT to respond to an AddListElement service request to add multiple elements to a list where one of the elements cannot be added. Upon failure, the AddListElement service should leave the list unchanged.

Test Steps:

1. TRANSMIT ReadProperty-Request,
 'Object Identifier' = L,
 'Property Identifier' = ListProp
2. RECEIVE ReadProperty-ACK,
 'Object Identifier' = L,
 'Property Identifier' = ListProp,
 'Property Value' = (any valid value referred to as "InitialList" below)
3. TRANSMIT AddListElement-Request,
 'Object Identifier' = L,
 'Property Identifier' = ListProp
 'List of Elements' = (two or more elements to be added to the list with the second element
 having the wrong datatype)
4. **RECEIVE AddListElement-Error,**
 Error Class = SERVICES,
 Error Code = INVALID_PARAMETER_DATATYPE
 'First Failed Element' = 2
5. VERIFY (L), ListProp = InitialList

Question:

Should the Error Class, Error Code PROPERTY, INVALID_DATATYPE also be acceptable in the case where more than one list item is being written and one fails (Test 9.14.2.2)? Is the Error Class, Error Code Services, INVALID_PARAMETER_DATATYPE actually appropriate for either case? Thank you.

Response:

The BTL-WG agrees that the preferred error for both tests is PROPERTY, INVALID_DATATYPE. It is strongly recommended by the BTL that this error be returned. Proposed addendum 135-2004b addresses this question and requires this error to be returned. Since the current standard does not address this question, either error will be accepted by the BTL for either test. Once this addendum is accepted then any device that implements the revision of this addendum or beyond will be required to return PROPERTY, INVALID_DATATYPE.