

Clarification Request

References: "ASHRAE 135-2010", "ASHRAE Addendum 135.1-2009"

Date of BTL-WG Response: _Feb 16, 2012

Background / Proposed Solution:

Notes to Tester: for test 9.20.1.8 states: If no optional properties are supported then an empty 'List of Results' shall be returned.

9.20.1.8 Reading OPTIONAL Properties

Purpose: To verify the ability to correctly execute a ReadPropertyMultiple service request that uses the special property identifier OPTIONAL. One instance of each object-type supported is tested.

Test Steps:

1. REPEAT ObjectX = (one instance of each supported object type) DO {

TRANSMIT ReadPropertyMultiple-Request,

'Object Identifier' = Object1,

'Property Identifier' = OPTIONAL

RECEIVE ReadPropertyMultiple-ACK,

'Object Identifier' = Object1,

REPEAT P = (each optional property supported by Object1) DO {

'Property Identifier' = P,

'Property Value' = (the value of P specified in the EPICS)

Notes to Tester: If no optional properties are supported then an empty 'List of Results' shall be returned for the specified property.

But note that in

Table 15-12. Structure of 'Read Access Result' Parameter

Parameter Name	Rsp	Cnf	Datatype
Object Identifier	M	M(=)	BACnetObjectIdentifier
List of Results	M	M(=)	
Property Identifier	M	M(=)	BACnetPropertyIdentifier
Property Array Index	U	U(=)	Unsigned
Property Value	S	S(=)	ANY
Property Access Error	S	S(=)	Error

shows List of Results as M(=), mandatory. This could be dismissed as “the standard wasn’t paying attention” but

Table 15-9. Structure of 'Read Access Result' Parameter

Parameter Name	Rsp	Cnf	Datatype
Object Identifier	M	M(=)	BACnetObjectIdentifier
List of Results	U	U(=)	
Property Identifier	M	M(=)	BACnetPropertyIdentifier
Property Array Index	U	U(=)	Unsigned
Property Value	S	S(=)	ANY
Property Access Error	S	S(=)	Error

in 135-2008, for the ReadPropertyConditional service, shows List of Results as U(=), parameter is a User option and may not be provided. The standard appears to have been paying attention.

Furthermore, in section 15.7.2, which describes the service procedure for RPM, this sentence in 15.7.2 has led at least one development team to conclude that the test goes beyond the requirements of the BACnet standard: “If none of the specified objects is found or if none of the specified properties of the specified objects can be accessed, either a 'Result(-)' primitive or a Result(+) primitive that returns error codes for all properties shall be issued.”

According to another development team (I have not verified this report myself):

For (Data Sharing - Read Property Multiple - B 135.1-2009 - 9.20.1.8), the card should give an Empty List of results if it has no optional properties. In VTS version 3.5.1d it is working properly, but in Version 3.5.5 it giving Response "Illegal Data Claims to be Optional ".

Question:

Does BTL-WG affirm the Notes to Tester in test 9.20.1.8.doc?

Response:

Yes.

Note that 'List Of Results' in **Table 15-12** is mandatory and this means that there shall be a 'List Of Results' in the response; it does not mean that the 'List Of Results' cannot be empty. As such there is no contradiction here. It is worth noting that 'Property Identifier' is also mandatory but that this indicates that it is mandatory for each entry that is in the list; not that there must be an entry in the list.

The standard does not explicitly address the situation where OPTIONAL is empty and there are two reasonable interpretations for how to respond to the request (an empty 'List Of Results' or an error) but since 135.1 explicitly calls out one of those, the BTL-WG will follow that direction unless directed otherwise by the SSPC.

To ensure that the BTL-WG's direction is correct, an interpretation request will be sent to the SSPC requesting clarification on this matter.