



# **BACnet<sup>®</sup> TESTING LABORATORIES ADDENDA**

## **Addendum bk to BTL Test Package 18.1**

**Revision v2  
Revised 7/6/2021**

Approved by the BTL Working Group on April 1, 2021;  
Approved by the BTL Working Group Voting Members on July 7, 2021;  
Published on July 13, 2021.

**[This foreword and the “Overview” on the following pages are not part of this Test Package. They are merely informative and do not contain requirements necessary for conformance to the Test Package.]**

**FOREWORD**

The purpose of this addendum is to present current changes being made to the BTL Test Package. These modifications are the result of change proposals made pursuant to the continuous maintenance procedures and of deliberations within the BTL-WG Committee. The changes are summarized below.

BTL-18.1-bk-1: Expand the Reserved Range of BACnetPropertyIdentifiers [BTLWG-678]..... 2

In the following document, language to be added to existing clauses within the BTL Test Package 18.1 is indicated through the use of *italics*, while deletions are indicated by ~~strike through~~. Where entirely new subclauses are proposed to be added, plain type is used throughout

In contrast, changes to BTL Specified Tests also contain a yellow highlight to indicate the changes made by this addendum. When this addendum is applied, all highlighting will be removed. Change markings on tests will remain to indicate the difference between the new test and an existing 135.1 test. If a test being modified has never existed in 135.1, the applied result should not contain any change markings. When this is the case, square brackets will be used to describe the changes required for this test.

Each addendum can stand independently unless specifically noted via dependency within the addendum. If multiple addenda change the same test or section, each future released addendum that changes the same test or section will note in square brackets whether or not those changes are reflected.

**BTL-18.1-bk-1: Expand the Reserved Range of BACnetPropertyIdentifiers [BTLWG-678]****Overview:****135-2016bk-1. Expand the reserved range of BACnetPropertyIdentifier.****Rationale**

The BACnetPropertyIdentifier enumeration will soon overflow the portion of the range reserved for definition by ASHRAE, with the addition of new enumerations for new properties.

[Change **Clause 21, BACnetPropertyIdentifier** production, p. 845]

**BACnetPropertyIdentifier** ::= ENUMERATED { -- see below for numerical order

...  
}

-- The special property identifiers all, optional, and required are reserved for use in the

-- ReadPropertyMultiple service or services not defined in this standard.

--

-- Enumerated values 0-511 *and enumerated values 4194304 and up* are reserved for definition by ASHRAE.

-- Enumerated values 512-4194303 may be used by others subject to the procedures and constraints described

**Changes:**

[In BTL Specified Tests, modify existing test with changes below]

**7.1.2 Non-documented Property Test**

Reason for Change: Revised test to exclude special property identifiers. Add a test step to cover the range add from revision 20

Purpose: To verify that all properties contained in every object are documented in the EPICS.

Test Concept: For each object in the EPICS database, attempt to read each standard property that the EPICS does not document as being part of the object.

**Test Steps:**

1. REPEAT X = (a tester selected set of objects) DO {  
 REPEAT Y = (0 through 511 *except 8 (all), 80 (optional) and 105 (required)*) DO {  
 IF (the property Y is not in the EPICS for object X) THEN  
 TRANSMIT ReadProperty-Request,  
     'Object Identifier' = X,  
     'Property Identifier' = Y  
 RECEIVE BACnet-Error-PDU,  
     'Error Class' = PROPERTY,  
     'Error Code' = UNKNOWN\_PROPERTY  
 }  
 }
2. IF (Protocol\_Revision >= 20) THEN  
 REPEAT Y = (random selection of N property IDs between 4194304 and  $(2^{32} - 1)$ ) DO {  
 IF (the property Y is not in the EPICS for object X) THEN  
 TRANSMIT ReadProperty-Request,  
     Object Identifier' = X,  
     'Property Identifier' = Y  
 RECEIVE BACnet-Error-PDU,  
     'Error Class' = PROPERTY,  
     'Error Code' = UNKNOWN\_PROPERTY  
 }

Notes to Tester: The objects selected by the tester should include one instance of each supported object type. Where some instances of an object type differ in the set of supported properties, the allowable value ranges for a property, or the writability of a property, then one instance of each variant of that object type should be selected.