



BACnet[®] TESTING LABORATORIES ADDENDA

Addendum bc to BTL Test Package 18.1

**Revision v3
Revised 8/14/2021**

Approved by the BTL Working Group on June 10, 2021.
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[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-bc-1: Update DS-V-A and DS-M-A BIBBs [BTLWG-685]2

BTL-18.1-bc-2: Add Testing for Life Safety BIBBs [BTLWG-688]3

BTL-18.1-bc-3: Add B-Side Tests for Access Control BIBBs [BTLWG-689]4

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-bc-1: Update DS-V-A and DS-M-A BIBBs [BTLWG-685]**Overview:**

Addendum 135-2012bc made additions to the Object/Property tables for the DS-V-A and DS-M-A BIBB definitions derived from the introduction of new primitive objects in previous revisions that were overlooked. The current test package provides coverage for these additional objects but would benefit from clarifying the requirements for specific protocol revisions.

Changes:

Checklist Changes

[No checklist changes]

Test Plan Changes

[In BTL Test Plan, make the following changes to 4.11 Data Sharing-View-A]

4.11.1 Base Requirements

Base requirements must be met by any IUT claiming conformance to this BIBB.

135.1-2019 - 8.18.3 - Reading and Presenting Properties		
	Test Conditionality	Must be executed, unless the IUT also claims support for DS-AV-A this test may be omitted. <i>Note: if the IUT also claims support for DS-AV-A this test may be omitted.</i>
	Test Directives	Repeat the test for <u>each</u> of the standard object types and associated properties <i>defined for the claimed Protocol Revision and described in table K-1 in the DS-V-A BIBB definition of the BACnet standard.</i>
	Testing Hints	specified by DS-V-A.

[In BTL Test Plan, make the following changes to 4.13 Data Sharing-Modify-A]

4.13.1 Base Requirements

Base requirements must be met by any IUT claiming conformance to this BIBB.

135.1-2019 - 8.22.4 - Accepting Input and Modifying Properties		
	Test Conditionality	Must be executed, unless the IUT also claims support for DS-AM-A.
	Test Directives	Repeat the test for <u>each</u> of the required object types <i>and associated properties defined for the claimed Protocol Revision and described in table K-5 in the DS-M-A BIBB definition of the BACnet standard except for those properties which are commandable.</i> listed in the table in the BIBB definition. Repeat for each of the required properties listed in the table in the BIBB definition, except for those properties which are commandable.
	Testing Hints	Repeat the test for a variety of values that cover the range of values required by the “Minimum Writable Value Ranges” table <i>(table K-6)</i> in the DS-M-A BIBB definition.
135.1-2019 - 8.22.5 - Accepting Input and Commanding/Relinquishing Properties		
	Test Conditionality	Must be executed, unless the IUT also claims support for DS-AM-A.
	Test Directives	<i>Repeat the test for all commandable properties defined for the claimed Protocol Revision.</i> This test should be executed at priority 8 only, i.e. PR1 = 8.
	Testing Hints	

BTL Specified Tests Changes

[No Test Changes]

BTL-18.1-bc-2: Add Testing for Life Safety BIBBs [BTLWG-688]

Overview:

Add Testing For Life Safety BIBBs: AE-LS-A, AE-LSVM-A, AE-LSAVN-A, AE-LSVN-A, AE-LSAVM-A

Changes:

No Changes Required. Already exists in the published 18.1 Test Package documents.

BTL-18.1-bc-3: Add B-Side Tests for Access Control BIBBs [BTLWG-689]**Overview:**

135-2012bc-5 extended functionality to cover physical access controls with new BIBBs and profiles. A-side testing was added into BTL Interim Tests (BTLWG-720). This work item adds testing for B-side functionality.

Changes:

BTL Checklist Changes

[In the Checklist section, deletions should be shown in ~~strike through~~, and additions in *italics*]

[If a complete new section is being added in, do not use italics]

[Replace the four sections for these BIBBs with the below]

Data Sharing - Access Control User Configuration - B		
	R	Base Requirements
	R	Supports DS-WP-B
	BTL-C ¹	Supports Access User objects with writable configuration properties
	BTL-C ¹	Supports Access Rights objects with writable configuration properties
	BTL-C ¹	Supports Access Credential objects with writable configuration properties
¹ At least one of these options is required in order to claim conformance to this BIBB.		
...		
Data Sharing - Access Control Site Configuration - B		
	R	Base Requirements
	R	Supports DS-WP-B
	BTL-C ¹	Supports Access Point objects with writable configuration properties
	BTL-C ¹	Supports Access Zone objects with writable configuration properties
	BTL-C ¹	Supports Credential Data Input objects with writable configuration properties
	BTL-C ¹	Supports Access Door objects with writable configuration properties
¹ At least one of these options is required in order to claim conformance to this BIBB.		
...		
Data Sharing - Access Control Access Door - B		
	R	Base Requirements
	R	Supports DS-WP-B
	R	Supports Access Door objects
...		
Data Sharing - Access Control Credential Data Input - B		
	R	Base Requirements
	R	Supports DS-WP-B
	R	Supports DS-COV-B for the Present Value of at least one Credential Data Input object

BTL Test Plan Changes

[Replace sections 4.36, 4.38, 4.40, 4.42]

4.36 Data Sharing - Access Control User Configuration - B

4.36.1 Base Requirements

There are no base requirements for this BIBB.

4.36.2 Supports DS-WP-B

The IUT supports the Write Property service for its Access Rights, Access User, and Access Credential objects.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for DS-WP-B.
	Testing Hints	

4.36.3 Supports Access User objects with writable configuration properties

The IUT supports the Access User object type with one or more configurable properties.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for the Access User object type with at least one of the following properties present and writable: - User_Type - User_Name - Members - Member_Of - Credentials
	Testing Hints	

4.36.4 Supports Access Rights objects with writable configuration properties

The IUT supports the Access Rights object type with one or more configurable properties.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for the Access Rights object type with at least one of the following properties present and writable: - Enable - Negative_Access_Rules - Positive_Access_Rules - Accompaniment
	Testing Hints	

4.36.5 Supports Access Credential objects with writable configuration properties

The IUT supports the Access Credential object type with one or more configurable properties.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for the Access Credential object type with at least one of the following properties present and writable: - Authentication_Factors - Activation_Time - Expiration_Time - Credential_Disable - Days_Remaining - Uses_Remaining - Absentee_Limit - Belongs_To - Assigned_Access_Rights - Threat_Authority - Extended_Time_Enable - Authorization_Exemptions
	Testing Hints	

4.38 Data Sharing - Access Control Site Configuration - B

4.38.1 Base Requirements

There are no base requirements for the BIBB.

4.38.2 Supports DS-WP-B

The IUT supports the Write Property service for its Access Point, Access Zone, Access Door, and Access Credential objects.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for DS-WP-B.
	Testing Hints	

4.38.3 Supports Access Point objects with writable configuration properties

The IUT supports the Access Point object type with one or more configurable properties.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for the Access Point object type with at least one of the following properties present and writable: <ul style="list-style-type: none"> - Active_Authentication_Policy - Authentication_Policy_List - Authorization_Mode - Lockout - Lockout_Relinquish_Time - Max_Failed_Attempts - Failed_Attempts_Time - Threat_Level - Occupancy_Upper_Limit_Enforced - Occupancy_Lower_Limit_Enforced - Occupancy_Count_Adjust - Accompaniment_Time - Access_Doors - Zone_To - Zone_From
	Testing Hints	

4.38.4 Supports Access Zone objects with writable configuration properties

The IUT supports the Access Zone object type with one or more configurable properties.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for the Access Zone object type with at least one of the following properties present and writable: <ul style="list-style-type: none"> - Occupancy_Count_Enable - Adjust_Value - Occupancy_Upper_Limit - Occupancy_Lower_Limit - Credentials_In_Zone - Passback_Mode - Passback_Timeout - Entry_Points - Exit_Points
	Testing Hints	

4.38.5 Supports Credential Data Input objects with writable configuration properties

The IUT supports the Access Door object type with one or more configurable properties.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for the Credential Data Input object type with at least one of the following properties present and writable: - Supported_Formats - Supported_Format_Classes
	Testing Hints	

4.38.6 Supports Access Door objects with writable configuration properties

The IUT supports the Credential Data Input object type with one or more configurable properties.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for the Access Door object type with at least one of the following properties present and writable: - Relinquish_Default - Door_Members - Door_Pulse_Time - Door_Extended_Pulse_Time - Door_Unlock_Delay_Time - Door_Open_Too_Long_Time - Masked_Alarm_Values
	Testing Hints	

4.40 Data Sharing - Access Control Access Door - B

4.40.1 Base Requirements

There are no base requirements for this BIBB.

4.40.2 Supports DS-WP-B

The IUT supports the Write Property service for its Access Door objects.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for DS-WP-B.
	Testing Hints	

4.40.3 Supports Access Door objects

The IUT supports the Access Door object type.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for the Access Door object type
	Testing Hints	

4.42 Data Sharing - Access Control Credential Data Input - B

4.42.1 Base Requirements

There are no base requirements for this BIBB.

4.42.2 Supports DS-WP-B

The IUT supports the Write Property service.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for DS-WP-B.
	Testing Hints	

4.42.3 Supports DS-COV-B for the Present_Value of at least one Credential Data Input object

The IUT supports the Change of Value service for at least one Credential Data Input object.

Verify Checklist		
	Test Conditionality	Must be executed.
	Test Directives	Verify that the IUT claims support for Credential Data Input objects in the DS-COV-B BIBB.
	Testing Hints	

BTL Specified Test Changes

[No test changes]