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BACnet TESTING LABORATORIES

IUT SPECIAL TEST INSTRUCTIONS

Revision 23.0

Revised December 8, 2022

# Introduction

This form is filled out by the applicant to inform the BTL tester how to make the IUT perform specific operations required for testing. The applicant will fill out this form during the test planning phase, or the pre-test phase with instructions that the BTL will require in order to test the IUT.

For every test that requires the IUT's configuration to be changed, an alternate configuration to be used, or a manual operation to be performed in order to meet the configuration requirements for the test, the applicant should add an entry to this form with instructions for the BTL tester.

In the Test row, enter the test reference number and name as found in the BTL Test Plan document.

In the Instruction field, enter the instructions.

In order to minimize the costs of BTL Testing, the entries in this document should be provided in the same order as found in the BTL Test Plan document.

# IUT Specific Detailed Test Instructions

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| --- | --- |
| **Test:** | 135.1 - 8.18.1 Reading Non-Array Properties |
| *This is a sample instruction entry.Please delete this entry from the document when filling it out.* To cause the Binford 3000 Super Controller to initiate a ReadProperty-request, use the Binford Configuration Tool to create a Binford Poll object and assign a remote object reference to the object reference field. Reset the Binford 3000 and wait 1.5 minutes for the ReadProperty-Request. | |
| **Test:** *This is a sample instruction entry* | 135.1 – Section 9.24 DeviceCommunicationControl Service Execution Tests |
| Password “1922” | |
| **Test:** *This is a sample instruction entry* | 135.1 – Section 9.27 ReinitializeDevice Service Execution Tests |
| Password “1922” | |
| **Test:** |  |
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# Some examples of functionalities needing instructions

Data Sharing - ReadProperty - A

135.1-2013 - 8.18.1

135.1-2013 - 8.18.2

Can read list properties

Need instructions to initiate ReadProperty request for list properties from IUT.

Data Sharing - ReadPropertyMultiple - A

Need instructions to initiate ReadPropertyMultiple request from IUT.

Data Sharing - WriteProperty - A

135.1-2013 - 8.22.1 135.1-2013 - 8.22.2

Can write whole lists

Need instructions to initiate WriteProperty request from IUT.

Data Sharing - COV - A

Need instructions to initiate SubscribeCOV request from IUT.

135.1-2013 - 8.10.3

Cancelling a COV Subscription test

Verify that the IUT can initiate a SubscribeCOV service request to cancel a subscription.

Need to be instructed about the means within a device that supports DS-COV-A, how to setting up the IUT (which may check to see if the target device supports DS-COV-B), then attempt to Subscribe to a monitored object. After a successful subscription is made, need to be instructed about the means so the IUT would send out a SubscribeCOV-Request to cancel the subscription.

BACnet/IP - Annex J - non-BBMD Functionality

135.1-2013 - 14.X1

Is able to register as a Foreign Device

Need instructions to initiate the ‘Registering as a Foreign Device’ request from IUT.

BACnet/IP - Annex J - BBMD

If IUT is not always configured in BBMD mode, then instructions are needed to configure IUT into and out of BBMD mode.

Data Link Layer - MS/TP - Manager Node

BTL - 2.2.1

BTL - 2.2.2

BTL - 2.2.3

Verify Tpostdrive, Tframe\_gap and Tturnaround with Oscilloscope

These tests need to execute on all supported baud rates of the IUT.

Need instructions to change the baud rate of the IUT.

Data Link Layer - MS/TP - Manager Node

BTL - 2.2.11

Poll for Manager w/ Serial Analyzer

Testing needs to change the MAC address of the IUT.

Need instructions to configure the MAC address of the IUT.

Device Management - Dynamic Object Binding - A

135.1-2013 - 8.32.1

Object Identifier Selection with no Device Instance Range

To execute this test, we need instructions to initiate the Who-Has service request with Object Identifier parameter and no range.

Device Management - Device Communication Control - B

135.1-2013 - 9.24.2.1

Supports receiving a DeviceCommunicationControl service request with a password

Testing is performed with no password and with invalid password and IUT shall accept both or neither.

Need correct Password of the IUT, if it accepts neither.

BTL - 9.24.2.2

Device Management - Reinitialize Device - B

135.1-2013 - 9.27.1.2

Implements ReinitializeDevice with a password

Testing is performed with no password and with invalid password and IUT shall accept both or neither.

Need correct Password of the IUT, if it accepts neither.

135.1-2013 - 9.27.1.4

Device Management - Backup and Restore - B

135.1-2013 - 13.8.1.8

Attempting Backup with an Invalid Password

Testing is performed with no password and with invalid password and IUT shall accept both or neither.

Need correct Password of the IUT, if it accepts neither.

135.1-2013 - 13.8.1.9

Attempting Restore with an Invalid Password

Testing is performed with no password and with invalid password and IUT shall accept both or neither.

Need correct Password of the IUT, if it accepts neither.

Segmentation Support

BTL - 9.18.1.X3

Respects max-segments-accepted bit pattern

BACnet-Confirmed-Request-PDU sent shall be one where the response size will require at least three segments.

Need to be instructed about a service where the response size will exceed 100 or more octets.

**Request you provide the instructions to proceed on execution of all tests needing these kinds of instructions.**

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| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Change** |
| 5.0.1 | 3-Nov-2008 | Lori Tribble | * Added revision history table * Corrected footer of page 1. * Updated version from 4.0.3 to 5.0.1 |
| 5.0.2 | 24-Feb-2009 | Lori Tribble | * Updated version from 5.0.1 to 5.0.2 |
| 5.0.final | 26-Jun-2009 | Lori Tribble | * Updated to final revision |
| 5.1.1 | 10-Jul-2010 | Duffy O’Craven | * Added passwords as example second and third items. |
| 9.0.1 | 13-Oct-2011 | Duffy O’Craven | * Updated from 5.1.1 to 9.0.1 without change. |
| 9.0.final | 01-Dec-2011 | Duffy O’Craven | * Updated to final revision |
| 12.0.final | 07-Aug-2012 | Duffy O’Craven | * Updated to 12.0.final without change. |
| 14.0.1 | 09-May-2014 | Duffy O’Craven | * Added examples of functionalities needing instructions |
| 14.0.2 | 15-May-2014 | Duffy O’Craven | * Eliminate all familiar and first-person in instructions |
| 14.0.3 | 09-Jul-2014 | Duffy O’Craven | * Added instruction request for Segmentation Support test BTL - 9.18.1.X3 |
| 14.0.final | 17-Nov-2014 | Duffy O’Craven | * Updated to 14.0.final without change. |
| 14.1.1 | 25-Feb-2015 | Duffy O’Craven | * Added instruction request for 135.1-2013 - 8.10.3 - Cancelling a COV Subscription test |
| 15.0 | 24-Oct-2017 | E Hayes | * Updatee to 15.0 without change |
| 15.1 | 1-Jun-2018 | E.Hayes | * Updated to 15.1 without change |
| 15.2 | 25-Sep-2018 | E Hayes | * Updated to 15.2 without change |
| 16.0 | 30-Sep-2019 | E Hayes | * Updated footer. Updated to 16.0 without change to content. |
| 16.0 v2 | 11-Nov-2019 | E Hayes | * Changed to 16.0 v2 |
| 16.1 | 10-Dec-2019 | Lori Tribble | * Changed to 16.1 |
| 18.0 | 18-Oct-2020 | E Hayes | * Changed to 18.0 |
| 18.1 | 26-Jan-2021 | E. Hayes | * Renamed to 18.1 |
| 20.0 | 17-Jan-2022 | E. Hayes | * Renamed to 20.0 |
| 23.0 | 08-Dec-2022 | E. Hayes | * Renamed to 23.0 |