

**INTERPRETATION IC 135-2016-11 OF
ANSI/ASHRAE STANDARD 135-2016 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks**

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Request from: Horst Hannappel, MBS GmbH, Roemerstr. 15, Krefeld D-47809.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 135-2016 regarding BIBBs and Device Profiles.

Background: The BACnet Standard defines BIBBs and Device Profiles in order to have a method to compare and categorize different implementations. They are used by customers to help deciding which product they want to buy. They play an important part in the testing process for conformance and interoperability as devices are tested according to the BIBBs and Device Profiles they claim to conform to.

These BIBBs and Device Profiles are enhanced with the progress of the standard so in newer protocol revisions BIBBs and Device Profiles may have been added, removed or changed.

The question is now whether a device claiming a given protocol revision should be documented using the BIBB and Device Profile definitions from that claimed protocol revision or if it is allowed or even required to use definitions from newer protocol revisions.

In the BTL-WG there seems to be a strong fraction that favors applying BIBB and Device Profile rules from a new protocol revision also to implementations that claim older protocol revisions.

Advantage would be in cases, as recently happened, that new profiles are defined, that were missing previously (like router or BBMD profile)

Disadvantages are:

- It is difficult for a reader of the device documentation to be sure to which version of the BIBB definitions they refer.
- It might require vendors of existing products to change their documentation or even their implementation to comply to newly created rules. This would be especially troublesome for legacy products, that the vendor does not want to change in any way.
- New BIBBs might contain references to new things, e.g. new standard properties and objects that did not exist in an older revision. This would make it difficult to apply that BIBB to older devices. It would open wide gaps for different interpretations by different vendors and customers.

The Standard 135-2016 for all I can see does not contain explicit rules on the question in any way. For me that would mean, an application of rules from one protocol revision to another is not intended. The changing of BIBBs and profiles in standard enhancements by the ASHRAE SSPC 135 does not take application of the new rules to older revision devices into account.

Interpretation: For a device, that claims a certain BACnet protocol revision, the documentation of the BIBBs and supported Device Profiles shall be done according to the protocol revision the device claims. An exception would be if a later addendum explicitly states that specific changes also can be applied to specific previous protocol revisions.

Question: Is this Interpretation correct?

Answer: No.

Comments: BIBBs and device profiles were intended to be applied across protocol revisions, except as noted in the standard, and that BIBBs and device profiles from newer protocol revisions may be applied to earlier protocol revisions. The SSPC recognizes that the BTL applies BIBBs and device profiles across protocol revisions, and the committee will continue to support that application.