ASHRAE ADDENDA

BACnet®—A Data Communication Protocol for Building Automation and Control Networks

Approved by the ASHRAE Standards Committee on January 29, 2011; by the ASHRAE Board of Directors on February 2, 2011; and by the American National Standards Institute on February 3, 2011.

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[This foreword and the "rationales" on the following pages are not part of this standard. They are merely informative and do not contain requirements necessary for conformance to the standard.]

FOREWORD

Addendum 135*ag* to ANSI/ASHRAE Standard 135-2008 contains a number of changes to the current standard. These modifications are the result of change proposals made pursuant to the ASHRAE continuous maintenance procedures and of deliberations within Standing Standard Project Committee 135. The changes are summarized below.

135-2008*ag*-1 Prevent BBMD Broadcast Storms, p. 2.
135-2008*ag*-2 Align BIBBs for Automated Trend Retrieval, p. 3.

In the following document, language added to existing clauses of ANSI/ASHRAE 135-2008 and addenda is indicated through the use of *italics*, while deletions are indicated by ~~strikethrough~~. Where entirely new subclauses are added, plain type is used throughout.

135-2008*ag*-1 Prevent BBMD Broadcast Storms

Rationale

In BBMDs implemented to a version of 135 prior to Addendum o, broadcast storms can occur if multiple BBMDs are installed on the same IP subnet and those BBMDS are using the same UDP port and those BBMD redistribute broadcasts to the same subnet from where they were received. This change prevents the re-broadcast to devices, including other BBMDs that have already heard or handled the message.

[Change **Clause J.4.5**, p. 3]
[Note: in the following plain text, the changes from Addendum 135-2008o have been incorporated. This is because this change modifies part of the text that was previously modified by Addendum o. When the next edition of Standard 135 is published, Addendum 135o will be incorporated prior to this addendum, 135ag.]

J.4.5 BBMD Operation - Broadcast Distribution

…
Upon receipt of a BVLL Forwarded-NPDU message, a BBMD shall process it according to whether it was received from a peer BBMD as the result of a directed broadcast or a unicast transmission. A BBMD may ascertain the method by which Forwarded-NPDU messages will arrive by inspecting the broadcast distribution mask field in its own BDT entry since masks referring to the same ~~subnet~~ *IP address* are required to be identical in all BBMDs. If the message arrived via directed broadcast, *or if the source is a device located on the same IP subnet, a situation which can occur if two or more BBMDs are installed on the same IP subnet*, it was also received by the other devices on the BBMD's subnet. In this case the BBMD merely retransmits the message directly to each foreign device currently in the BBMD's FDT. ~~If~~ *Otherwise* the message arrived via a unicast ~~transmission, it~~ *transmission and* has not yet been received by the other devices on the BBMD's subnet. In this case, the message is sent to the devices on the BBMD's subnet using the B/IP broadcast address as well as to each foreign device currently in the BBMD's FDT. A BBMD on a subnet with no other BACnet devices (such as a NAT-supporting BBMD, see *Clause* J.7.2) may omit the broadcast using the B/IP broadcast address. The method by which a BBMD determines whether or not other BACnet devices are present is a local matter.

135-2008*ag*-2 Align BIBBs for Automated Trend Retrieval

Rationale

The BIBBs for Automated Trend Retrieval were changed in Addendum 135-2008*z* to require the use of the UnconfirmedEventNotification service in addition to the ConfirmedEventNotification service for sending the BUFFER_READY Event Notifications. This addendum applies the same change to the Trend Log Multiple BIBBs.

[Change **Clause K.4.9,** p. 635]

K.4.9 BIBB - Trending-Automated Multiple Value Retrieval-A (T-AMVR-A)

The A device responds to a notification that a Trend Log Multiple object is ready with new data and acquires the new data from the log.

BACnet Service	Initiate	Execute
ConfirmedEventNotification		x
UnconfirmedEventNotification		*x*
ReadRange	x	

Devices claiming conformance to T-AMVR-A *shall*~~must~~ be able to process BUFFER_READY event notifications generated by Trend Log Multiple objects and Event Enrollment objects.

[Change **Clause K.4.10**, p. 636]

K.4.10 BIBB - Trending-Automated Multiple Value Retrieval-B (T-AMVR-B)

The B device notifies the A device that a Trend Log Multiple objects's buffer has acquired a predetermined number of data samples using the BUFFER_READY event algorithm either intrinsically in the Trend Log Multiple object or algorithmically using an Event Enrollment object.

BACnet Service	Initiate	Execute
ConfirmedEventNotification	x	
UnconfirmedEventNotification	*x*	
ReadRange		x

Devices claiming conformance to T-AMVR-B shall support the Trend Log Multiple object.

[Add a new entry to **History of Revisions**, p. 688]

(This History of Revisions is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard.)

HISTORY OF REVISIONS

Protocol		Summary of Changes to the Standard
Version	Revision	
…	…	…
1	12	**Addendum *ag* to ANSI/ASHRAE 135-2008** Approved by the ASHRAE Standards Committee January 29, 2011; by the ASHRAE Board of Directors February 2, 2011; and by the American National Standards Institute February 3, 2011. 1. Prevent BBMD Broadcast Storms. 2. Align BIBBs for Automated Trend Retrieval.

POLICY STATEMENT DEFINING ASHRAE'S CONCERN
FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the standards and guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive technical committee structure, continue to generate up-to-date standards and guidelines where appropriate and adopt, recommend, and promote those new and revised standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating standards and guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.