



**BSR/ASHRAE Addendum br to
ANSI/ASHRAE Standard 135-2016**

Public Review Draft

Proposed Addendum br to Standard 135-2016, BACnet[®] - A Data Communication Protocol for Building Automation and Control Networks

**First Publication Public Review (December 2018)
(Draft shows Proposed Changes to Current Standard)**

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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

The purpose of this addendum is to present a proposed change for public review. 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 proposed changes are summarized below.

135-2016*br*-1. Add new engineering units, p. 3.

135-2016*br*-2. Add mandate to accept writes of NULL to non-commandable properties, p. 4.

135-2016*br*-3. Add intrinsic fault reporting to Lighting Output object type, p. 6.

135-2016*br*-4. Deprecate Time form of timestamps, p. 10

135-2016*br*-5. Clarify the Multi-state object types when Number_Of_States shrinks, p. 12

135-2016*br*-6. Fix the language for event type and message text parameters of event notifications, p. 14

135-2016*br*-7. Clarify the object instance 4194303, p. 16

135-2016*br*-8. Wildcard instance for Network Port objects in ReadPropertyMultiple requests, p. 17

135-2016*br*-9. Clarify the timestamp of trend log and trend log multiple log records, p. 18

In the following document, language to be added to existing clauses of ANSI/ASHRAE Standard 135-2016 and Addenda 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. Only this new and deleted text is open to comment at this time. All other material in this addendum is provided for context only and is not open for public review comment except as it relates to the proposed changes.

This is a review of Independent Substantive Changes that were made since the last public review. Areas where substantive changes have been made are **highlighted in gray**. In these areas, text that was removed from the previous public review is provided for reference but is shown in ~~double-strikeout~~ and text that has been added is shown with double underlines. This notation allows changes between reviewed versions to be indicated while preserving the traditional meaning of italics and single strikeout to indicate changes to the standard.

Only the changes highlighted in gray are open to comment at this time. All other material in this addendum is provided for context only and is not open for public review comment except as it relates to the proposed changes.

The use of placeholders like XX, YY, ZZ, X1, X2, NN, x, n, etc., should not be interpreted as literal values of the final published version. These placeholders will be assigned actual numbers/letters only after final publication approval of the addendum.

135-2016br-6. Fix the language for event type and message text parameters of event notifications.

Rationale

In Table 13-3, the 'Event Type' parameter in the Acknowledgment Transition column is contradicting the structure of the ConfirmedEventNotification request in Clause 13.8.1 and the structure of the UnconfirmedEventNotification request in Clause 13.9.1

The definition of the 'Event Type' parameter in Clauses 13.8.1.1.7 and 13.9.1.1.7 does not mention the 'Event Type' for transitions to the FAULT event state and from the FAULT event state.

Also for the 'Message Texts' parameter of these services, clarify their requirement to derive the value from the value configured in the corresponding transition in the Event_Message_Texts_Config property, if that property exists, and to place the value into the corresponding Event_Message_Texts, if that property exists.

[Change **Clause 13.2.5.2**, p. 599]

13.2.5.2 Service Parameters of Event Notification Service Requests

...

Table 13-3. Event Notification Service Parameter Values

Service Parameter	Event State Transition (all transitions)	Acknowledgment Transition
...
Event Type	When 'To State' or 'From State' is FAULT, set to CHANGE_OF_RELIABILITY, Otherwise the value associated with the event-initiating object's <i>configured</i> event algorithm.	Not present When 'To State' is FAULT, set to CHANGE_OF_RELIABILITY. When 'To State' is NORMAL, and the device can determine reporting acknowledgement of a transition from FAULT, set to CHANGE_OF_RELIABILITY. Otherwise the value associated with the event-initiating object's <i>configured</i> event algorithm.
Message Text	Optional The value is <i>derived from the value in the Event_Message_Texts_Config property configured in the entry corresponding to the transition, if the property exists. Otherwise the value is a local matter. The Message Text transmitted</i> is reflected into the Event_Message_Texts array, if the property exists.	Optional The value is a local matter.
...

[Change Clause 13.8.1.1.7 and 13.8.1.1.8, p. 644]

13.8.1.1.7 Event Type

This parameter, of type BACnetEventType, shall specify the type of event that has occurred.

If 'Notify Type' is ALARM or EVENT when ~~When~~ the 'To State' parameter is FAULT, then this parameter shall have a value of CHANGE_OF_RELIABILITY. The Event Type CHANGE_OF_RELIABILITY shall be used for reporting a transition from FAULT. Otherwise, this parameter shall have the value associated with the event-initiating object's configured event algorithm.

If 'Notify Type' is ACK_NOTIFICATION when 'To State' is FAULT, the Event Type shall be CHANGE_OF_RELIABILITY. When 'To State' is NORMAL, and the device can determine reporting acknowledgement of a transition from FAULT, the Event Type shall be CHANGE_OF_RELIABILITY. Otherwise, the Event Type shall be the value associated with the event-initiating object's configured event algorithm.

13.8.1.1.8 Message Text

This optional parameter, of type CharacterString, shall convey a string of printable characters. This parameter may be used to convey a message to be logged or displayed, which pertains to the occurrence of the event.

If 'Notify Type' is ALARM or EVENT, the ~~The~~ content of the message is a local matter. text shall be derived from the value in the Event_Message_Texts_Config entry corresponding to the transition, if the property exists. Otherwise, the value is a local matter. If the optional property Event_Message_Texts is present in the event-initiating ~~generating~~ object, the text conveyed in this Message Text parameter shall be stored in the respective field of the Event_Message_Texts array.

If 'Notify Type' is ACK_NOTIFICATION, the value is a local matter.

[Change Clause 13.9.1.1.7 and 13.9.1.1.8 p. 647]

13.9.1.1.7 Event Type

This parameter, of type BACnetEventType, shall specify the type of event that has occurred.

If 'Notify Type' is ALARM or EVENT when ~~When~~ the 'To State' parameter is FAULT, then this parameter shall have a value of CHANGE_OF_RELIABILITY. The Event Type CHANGE_OF_RELIABILITY shall be used for reporting a transition from FAULT. Otherwise, this parameter shall have the value associated with the event-initiating object's configured event algorithm.

If 'Notify Type' is ACK_NOTIFICATION when 'To State' is FAULT, the Event Type shall be CHANGE_OF_RELIABILITY. When 'To State' is NORMAL, and the device can determine reporting acknowledgement of a transition from FAULT, the Event Type shall be CHANGE_OF_RELIABILITY. Otherwise, the Event Type shall be the value associated with the event-initiating object's configured event algorithm.

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If 'Notify Type' is ACK_NOTIFICATION, the value is a local matter.