

**INTERPRETATION IC 135-2020-20 OF
ANSI/ASHRAE STANDARD 135-2020 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks**

Approval Date: June 26, 2023

Request from: JJ Breitzkreutz, University of Nebraska-Lincoln, 1901 Y Street, Lincoln, NE 68503.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 135-2020, Clause 12.21-12.21.5 and Table 12-24, regarding Notification_Class property conformance.

Background: In Addendum 135-2012aw-6, intrinsic supporting reporting for fault conditions was added to the Notification Class object type:

135-2012aw-6 Add the Ability to Report Faults to the Command, Device and Notification Class Objects

Rationale

The Command, Device and Notification Class object types are currently not able to indicate and notify fault conditions.

This change adds the ability of detecting, indicating and intrinsically reporting faults to the Command, Device and Notification Class object types.

[Change Clauses 12.10 Command Object Type, Clause 12.11 Device Object Type and 12.21 Notification Class Object Type. The respective object type is replaced by "<TYPE>" below]

...

<TYPE> objects may optionally support intrinsic reporting to facilitate the reporting of fault conditions.
<TYPE> objects that support intrinsic reporting shall apply the NONE event algorithm.

The <TYPE> object type and its standardized properties are summarized in Table 12-X and described in detail in this subclause.

Table 12-X. Properties of the <TYPE> Object Type

...
Status_Flags	BACnetStatusFlags	O ²
Event_State	BACnetEventState	O ²
Reliability	BACnetReliability	O ²
Event_Detection_Enable	BOOLEAN	O ^{2,3}
Notification_Class	Unsigned	O ^{2,3}
Event_Enable	BACnetEventTransitionBits	O ^{2,3}
Acked_Transitions	BACnetEventTransitionBits	O ^{2,3}
Notify_Type	BACnetNotifyType	O ^{2,3}
Event_Time_Stamps	BACnetARRAY[3] of BACnetTimeStamp	O ^{2,3}
Event_Message_Texts	BACnetARRAY[3] of CharacterString	O ²
Event_Message_Texts_Config	BACnetARRAY[3] of CharacterString	O ²
Reliability_Evaluation_Inhibit	BOOLEAN	O ²
Profile_Name	CharacterString	O

² These properties are required if the object supports intrinsic reporting.

³ These properties shall be present only if the object supports intrinsic reporting.

² If this property is present, then the Reliability property shall be present.

The Notification Class object type already had a property named Notification_Class. This property reflected the instance number of the Notification Class object. This property was required. The language of this property was fixed in addendum 135-2012bg-11:

135-2012bg-11. Fix the Notification_Class property of the Notification Class object.

Rationale

Addendum section 135-2012aw-6 adds fault reporting to the Notification Class object. It proposes new language for the Notification_Class property, consistent with the general language used for this property in other object types which report events. The fact that the Notification Class object already has a Notification_Class property whose purpose is different was missed.

The current definition of the Notification Class's Notification_Class property just reflects the instance number of the Notification Class object. In contrast, fault reporting needs a Notification_Class property which indicates the Notification Class object through which events are to be reported. In most cases, it does not make sense that the Notification Class object use its own Recipient_List for reporting faults as it is expected that most faults will be due to the Notification Class object's inability to report events to its recipients.

Therefore, it is proposed that the Notification Class object's Notification_Class property be changed to behave in the same manner in which it behaves in all event generating objects. This is accomplished by using the general definition and language for the Notification_Class property as of Addendum 135-2012aw-6.

[Change **Clause 12.21.5**, p. 258]

[Note to reviewer: The proposed new language for the Notification Class object's Notification_Class property was already published with Addendum 135-2012aw-6 for the Notification Class object.]

12.21.5 Notification_Class

~~This property, of type Unsigned, shall indicate the numeric value of this notification class and shall be equal to the instance number of the Notification Class object. Event-initiating objects shall use this number to refer to this Notification Class object.~~

This property, of type Unsigned, shall specify the instance of the Notification Class object to use for event-notification-distribution.

In 135-2020 12.21, the standard states that Notification Class objects optionally supports intrinsic reporting:

Notification Class objects may optionally support intrinsic reporting to facilitate the reporting of fault conditions. Notification Class objects that support intrinsic reporting shall apply the NONE event algorithm.

In 135-2020 Table 12-24, the standard states the Notification_Class property is a required property:

Table 12-24. Properties of the Notification Class Object Type

Property Identifier	Property Datatype	Conformance Code
Object_Identifier	BACnetObjectIdentifier	R
Object_Name	CharacterString	R
Object_Type	BACnetObjectType	R
Description	CharacterString	O
Notification_Class	Unsigned	R
Priority	BACnetARRAY[3] of Unsigned	R
Ack_Required	BACnetEventTransitionBits	R
Recipient_List	BACnetLIST of BACnetDestination	R
Property_List	BACnetARRAY[N] of BACnetPropertyIdentifier	R
Status Flaes	BACnetStatusFlaes	O ¹

Interpretation No.1: The Notification_Class property of the Notification Class object is intended for intrinsic reporting. The Notification_Class property is required, therefore support of intrinsic reporting is required for the Notification Class object.

Question No.1: Is this Interpretation correct?

Answer No.1: No

Comments No.1: The Conformance Code was changed from R (Required) to O (Optional) in 135-2020 Errata of June 18th, 2021.

Interpretation No.2: The Notification_Class property of the Notification Class object is required. If this property contains an instance that does not reflect the instance of that Notification Class object, the object should forward notifications to the Notification Class object with the instance specified in the Notification_Class property.

Question No.2: Is this Interpretation correct?

Answer No.2: No

Comments No.2: The Notification_Class property is not a required property of the Notification Class object per the 135-2020 Errata of June 18th, 2021 (also see Interpretation Request No. 1 of this document).