

**INTERPRETATION IC 135-2010-7 OF  
ANSI/ASHRAE STANDARD 135-2010 BACnet® -  
A Data Communication Protocol for Building  
Automation and Control Networks**

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**Reference:** This request for interpretation refers to standard ANSI/ASHRAE 135-2010, Clause 13.1, "**Change of Value Reporting**" on page 412, Table 13-1 on page 413, and Table 13-1a on page 414.

**Background:**

In the course of testing property Change of Value (COV) reporting functionality, a discussion with a test tool supplier came up on criteria for when to notify a change, and what property values should be conveyed in the respective COV notifications.

COV reporting appears to have two flavors:

**Object COV Reporting**

The service SubscribeCOV is used to subscribe for COV notifications from an object. Standardized objects use the standardized criteria for when to notify a change, and a defined set of property values is conveyed in COV notifications, as per Table 13-1.

**Property COV Reporting**

The service SubscribeCOVProperty is used to subscribe for COV notifications of a particular property. The Table 13-1a lists criteria per property data type for when to notify a change, and the set of property values conveyed in COV notifications, for properties **other than those listed in Table 13-1**.

For Property COV Reporting of a particular property, there seem to be two cases:

- a) If the property subscribed to is the property that appears to be the "monitored property" as with Object COV Reporting, then Table 13-1 applies for the criteria and set of properties conveyed in COV notifications.
- b) For any other property subscribed to, then Table 13-1a applies for the criteria and set of property values conveyed in the COV notifications.

The Device object property Active\_COV\_Subscriptions, Clause 12.11.39, page 201, does not specify what property the "Monitored Property" field of the COV context should reference.

Language in Clause 13.1, third paragraph, last sentence, refers to properties listed in Table 13-1, but Table 13-1 lists object types. The table caption of Table 13-1a "Criteria Used for COV Reporting of Properties Other Than Those Listed in Table 13-1" makes the same reference to Table 13-1, but which lists object types.

Following interpretations do not necessarily depend on each other, and their sequence is arbitrary.

**Interpretation 1:**

For Object COV Reporting, the "monitored property" of standard object types as listed in Table 13-1 is the Present\_Value, except for Access Point objects, where the Access\_Event property is the "monitored property". This is the property the COV context in the Device object shall refer to.

**Question 1:** Is this interpretation correct?

**Answer 1:** Yes

**Interpretation 2:**

In Property COV Reporting, the "monitored property" is the property specified in the Subscribe COV Property service. This is the property the COV context in the Device object shall refer to.

**Question 2:** Is this interpretation correct?

**Answer 2:** Yes

**Interpretation 3:**

In Property COV Reporting, if the "monitored property" is the property that is also the "monitored property" in Object COV Reporting for the object, Table 13-1 applies for the criteria when to notify changes and what property values have to be conveyed in the COV notification.

**Question 3:** Is this interpretation correct?

**Answer 3:** Yes

**Interpretation 4:**

In Property COV Reporting, if the "monitored property" is any other property than the "monitored property" in Object COV Reporting for the object, Table 13-1a applies, for both the criteria when to notify changes and what property values have to be conveyed in the notification.

**Question 4:** Is this interpretation correct?

**Answer 4:** Yes

**Interpretation 5:**

Based on Table 13-1a, column "Properties Reported": If the monitored property is not a "monitored property" from Table 13-1, the property values conveyed in COV notifications shall be: 1) the "monitored property" (or subscribed-to property), and 2) the value of the Status\_Flags property if the object has one.

**Question 5:** Is this interpretation correct?

**Answer 5:** Yes

**Interpretation 6:**

As a critical case: For Property COV Reporting, as per Table 13-1a, if the "monitored property" is Status\_Flags, the COV notification shall convey two property values: 1) Status\_Flags as the "subscribed-to" property, and 2) Status\_Flags (the object has one, obviously).

**Question 6:** Is this interpretation correct?

**Answer 6:** Yes