INTERPRETATION IC 135-2008-12 OF
ANSI/ASHRAE STANDARD 135-2008 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks

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Request from: William (Bill) Swan (bill.swan@honeywell.com), Alerton – Honeywell, 6670 - 185th Ave NE, Redmond, WA 98052.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 135-2008, Sections 12.1 and 12.1.11, relating to Accumulator object's Scale property.

Background: A question was raised in the BACNET-L forum about the Accumulator object's Scale property. This property is a CHOICE between REAL and INTEGER datatypes and the question was whether both had to be supported when the underlying application uses only integers. A response to this question noted that if the property were read-only it could be a fixed datatype, though this could be a deficiency if there were a need to change the scale value.

It was surmised that the intent was for the choice to be determined by the application and not my a client, as hinted in 12.1 (the Accumulator object), "Its purpose is to provide information about the quantity being measured, such as electric power, water, or natural gas usage, according to criteria specific to the application" and 12.1.11, (the Scale property), "The choice of options for this property determine how the scaling operation (which is performed by the client reading this object) is performed."

This runs somewhat counter to the general approach of SSPC 135 as regards services, where the server supports all options and the client selects which option, but in terms of properties there are other cases where ths server determines the datatype and the client has to adapt (think Schedule's Present_Value).

Therefore it is proposed that the application selects the datatype of the Scale property and the client adapts.

Interpretation: The application represented by the Accumulator object determines the datatype of the Scale object, and the client has to accept the datatype presented.

Question: Is this interpretation correct?

Answer: No. The standard, as currently written, is not clear about this topic. Based on that, an application is free to take the approach described here, but another application is also free to take the less restrictive approach.