INTERPRETATION IC 135-2004-19 OF
ANSI/ASHRAE STANDARD 135-2004 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks

Approval Date: January 27, 2007

Request from: Rene Quirighetti (rene.quirighetti@siemens.com), Siemens Schweiz AG, Gubelstrasse 22, Zug, Switzerland CH-6300.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 135-2004, Sections.15.9.1.1.5, 15.10.3.2.4 and 19.2.1.

Background: Sections 15.9.1.1.5, 15.10.3.2.4 and 19.2.1 in BACnet Standard 135-2004 define, that if an attempt is made to write to a commandable property without specifying the priority, a default priority of 16 (the lowest priority) shall be assumed.
The standard does not explicitly define, how the responder shall react on an attempt to write to a commandable or a not commandable but writable property if the value of the Priority parameter in the WriteProperty or in the WritePropertyMultiple service is outside the defined range of 1..16.
There are two different kind of behaviour possible: Either
(a) the parameter is regarded as malformed leading to a Reject PDU or
(b) the parameter is regarded as absent leading to a prio 16 commanding in case of a commandable property or to a simple writing in case of a non commandable property respectivly.

Interpretation: Even so both types of behavior could comply with the general rules of the standard we are opting for (b). This is in line with the definition given for writing to a commandable property without specifying a priority. It therefore leads to a better understandable and predictable behavior of the service.

Question: Is this interpretation correct?

Answer: No.

Comments:

The committee's initial response to this interpretation request, approved at the Winter 2006 meeting, stated:

> *In the case where the property being written to is commandable, the request shall result in a Reject-PDU being returned. If the property being written to is not commandable, the device has the option to ignore the invalid priority or return a Reject-PDU.*

Upon further review, it was noted that use of a Reject-PDU is inconsistent with the WritePropertyMultiple service procedure. From clause 15.10.2:

> *If, in the process of carrying out the modification of the indicated properties in the order specified in the 'List of Write Access Specifications', a property is encountered that*

cannot be modified, the responding BACnet-user shall issue a 'Result(-)' response primitive indicating the reason for the failure. The result of this service shall be either that all of the specified properties or only the properties up to, but not including, the property specified in the 'First Failed Write Attempt' parameter were successfully modified.

The intent is *not* to force implementations to scan an entire WritePropertyMultiple request for errors before executing any part of the request. Therefore, at the Summer 2006 meeting, the committee agreed to revise the response. Following is the updated response:

In the case where the property being written to is commandable, it is a local matter as to whether the request shall cause a Reject PDU to be returned or cause a Result(-) response to be issued.

If the property being written to is not commandable, it is a local matter as to whether the request shall:

− *Be executed, ignoring the invalid Priority value*

− *Result in the return of a Reject PDU*

− *Cause a Result(-) response to be issued*