INTERPRETATION IC 135-2008-2 OF
ANSI/ASHRAE STANDARD 135-2008 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks

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Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 135-2008, Section 12.24.4, related to the calculation of the Present_Value property of a Schedule object.

Background: There is potentially some ambiguity in how a Schedule object's Present_Value shall be calculated in the following situation:
- there are no entries in the Exception_Schedule that are in effect for the current day.
- there are no entries in the Weekly_Schedule array for the present day with a time prior to the current time.
- there are entries in the Weekly_Schedule array for an earlier day.

Most of the language in Section 12.24.4 appears to support the interpretation that the Present_Value should NOT be assigned a value from the Weekly_Schedule in this case. Therefore, the Present_Value should take on the value of Schedule_Default, according to item 3. in paragraph 3 of 12.24.4

However, section 12.24.4, paragraph 4 states: "The method for evaluating the current value of a schedule (either exception or weekly) is to find the latest element in the list of BACnetTimeValues that occurs on or before the current time, and then use that element's value as the current value for the schedule." Reading the Weekly_Schedule as a continuous list of time value pairs, the "latest element in the list" is the BACnetTimeValue that appeared for the previous day, or perhaps earlier. So according to this, if the previous day has a value at some point, this is the value the Present_Value should take on. In this case, the Present_Value would only be driven by Schedule_Default when there are no entries in either the Exception_Schedule or the Weekly_Schedule. This implies the need for a cross-day backwards evaluation to determine the Present_Value.

Interpretation: My interpretation is that each element of the Weekly_Schedule is distinct from the other elements, and one day's entries have no effect on another the object's Present_Value for another day. The object is re-evaluated at 00:00:00.00 of every day, and if no entry exists in the Weekly_Schedule at that time, it takes on the Schedule_Default value.

Question: Is this interpretation correct?

Answer: Yes.

<u>Comments:</u> This is made clear by the last paragraph of clause of 12.24.4 which reads as follows: Note that the Present_Value property will be assigned the value of the Schedule_Default property at 00:00 of any given day, unless there is an entry for 00:00 in effect for that day.