

**INTERPRETATION IC 135-2012-9 OF
ANSI/ASHRAE STANDARD 135-2012 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 135-2012, Clause 12, relating to the execution of alarming related messages containing timestamps with wildcards.

Background: With Addendum 135-2008ac, consolidated into 135-2010 BACnet protocol Revision 12 the usage of wildcards in date and time datatypes has been clarified. Specifically:

Several object types defined in this clause have properties that contain timestamp values. If no event or operation has yet occurred, then timestamp values of type BACnetDateTime shall have an unspecified datetime value, timestamp values of type Time shall have an unspecified time value, and timestamp values of type Unsigned shall have a value of zero. If the event or operation has occurred, then the timestamp value shall have a specific datetime value, a specific time value, or a value greater than zero, respectively. If a device supports the Local_Date and Local_Time properties, then all timestamps created by the device shall use the BACnetDateTime form.

So a Revision 12 device is supposed to generate EventNotification or AcknowledgeAlarm ServiceRequests with TimeStamp arguments specific datetime or specific time. A Revision 12 device executing these services (alarm client or controller with EventLog External) might expect to only receive timestamps with specific datetime, specific time (or sequence).

Existing devices implementing BACnet Revisions lower than 12 are known to use wildcards in generating EventNotifications or Acknowledgements (That is one of the reasons why Addendum ac has been developed). Some devices e.g. that support clock resolutions lower than hundredths of seconds would fill the hundredths of seconds with “unspecified” instead of zero. Some would even support a resolution of minutes and fill the seconds with wildcards.

The question is whether devices with protocol Revision 12 or higher are allowed (or even required) to reject or ignore EventNotifications or AckAlarm Requests that contain unspecified time components.

For interoperability of BACnet devices implementing different Revisions, Revision 12 devices should be able to process Events from older devices.

Interpretation: An implementation conforming to BACnet Protocol Revision 12 (or higher) shall not ignore or reject EventNotification or AckAlarm ServiceRequests for the reason that they contain timestamps with trailing unspecified components. Such Events must be executed

(e.g., stored in EventLog Objects or presented in alarm views) the same way as ServiceRequests with specific times.

Question: Is this interpretation correct?

Answer: No

Comments: It is a local matter whether or not products claiming conformance to protocol revision 12 or greater accept or reject services containing timestamps with trailing unspecified values.