

**INTERPRETATION IC 135-2020-16 OF
ANSI/ASHRAE STANDARD 135-2020 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks**

Approval Date: April 19, 2023

Request from: Michael Osborne, Reliable Controls Corporation, 120 Hallowell Road, Victoria, BC, Canada V9A 7K2.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 135-2020, Clause 12.7, requiring a Binary Output object to support the COMMAND_FAILURE event algorithm if intrinsic reporting is supported.

Background: Clause 12.7 stipulates a Binary Output object must support the COMMAND_FAILURE algorithm if intrinsic reporting is supported and uses the Feedback_Value property to determine if a COMMAND_FAILURE has occurred.

Clause 13.2.5.3 allows a Binary Output object to initiate a CHANGE_OF_RELIABILITY event and optionally include the Feedback_Value in the event.

In some implementations, such as gateway devices, the Feedback_Value cannot be determined so generating a COMMAND_FAILURE event has no practical value. These same implementations may benefit from generating a CHANGE_OF_RELIABILITY event which can indicate a communication or configuration issue.

Interpretation No.1: A Binary Output object is not required to generate a COMMAND_FAILURE event if the Feedback_Value cannot be made different from the Present_Value.

Question No.1: Is this Interpretation correct?

Answer No.1: Yes

Comments: Paragraph 12.7, preamble to Binary Output, will be updated to reflect that the object can support COMMAND_FAILURE *or* CHANGE_OF_RELIABILITY or both.

In the case where Feedback_Value is not attainable (i.e the actual value of the entity controlled by Present_Value can only approximate the present-value), yet the object needs to report changes in Reliability, the object should keep Feedback_Value equal to Present_Value.

Interpretation No.2: A Binary Output object is required to contain the intrinsic properties even if the object only generates CHANGE_OF_RELIABILITY events.

Question No.2: Is this Interpretation correct?

Answer No.2: Yes

Comments: Use of the CHANGE_OF_RELIABILITY event type by an object to report changes in its Reliability property is considered intrinsic reporting, and as such, these properties are required to be present.