

**Source:** Girish J on BACnet-L (17-Jul-2008)

Question: *Please can you explain to me what is the difference between object type Analog Output and object type Analog Value similarly what is the difference between object type Binary Output and object type Binary Value. I will tell you where I got confused, I was trying to define that to set the AC temperature I will use the object Analog Output but I also thought that I can use the object of type Analog Value.*

**Answer:** David Fisher

There are several key differences between "output" and "value" object types:

1. Output object types (AO, BO, MSO for example) are REQUIRED to have writable Present\_Value AND it must also be commandable. This means it MUST support Relinquish\_Default and Priority\_Array and MUST implement ALL 16 LEVELS of prioritization for writes to the Present\_Value. It does not have to always represent a physical output, but often it will.
2. Value object types (AV, BV, MSV for example) may represent inputs or outputs according to your needs. In the same device you might have some instances that are like inputs and only reflect a read-only status value, and some instances that act like outputs that you can write to. Sometimes these represent physical outputs or inputs and sometimes only internal calculated or setpoint types of values. The standard does not prohibit any of these applications. Value objects MAY also implement commandability when they are output-style, or not according to your wishes. Value objects are NOT REQUIRED to implement Relinquish\_Default or Priority\_Array or commandability, but they are allowed to implement these features if you want them to.

QUESTION