

BACNet Communication Driver

This document has the specific information related to this driver configuration. For a generic explanation on Device Module, Channels, Nodes and Points configuration, please refer to reference guide.

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Section 1 – Summary Information

Communication Driver Name: BACNet

Implementation DLL: T.ProtocolDriver. BACNet.dll

Protocol: Proprietary

Manufacturer: BACNet

PC Hardware requirements: Ethernet Port

Section 2 – Channel Configuration

Protocol Options

Not used in this driver.

Section 3 – Node Configuration

Station Configuration

On the station configuration, there are the following parameters:

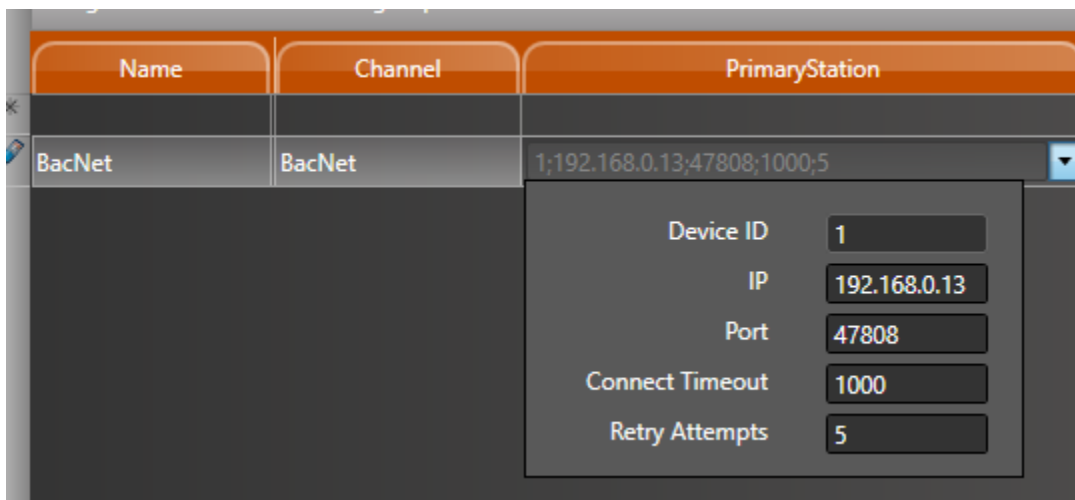
Device ID Each device on a BACnet inter-network is uniquely identified by its network number and device object instance.

IP Specifies the local BACnet/IP network number on which the driver is located.

Port Specifies the local UDP port.

Connect Timeout The connection timeout setting is the amount of time that the driver will wait for response

Retry Attempts The valid range is 1 to 10. The default setting is 3 retries.



Name	Channel	PrimaryStation
BacNet	BacNet	1:192.168.0.13;47808;1000;5

Device ID: 1

IP: 192.168.0.13

Port: 47808

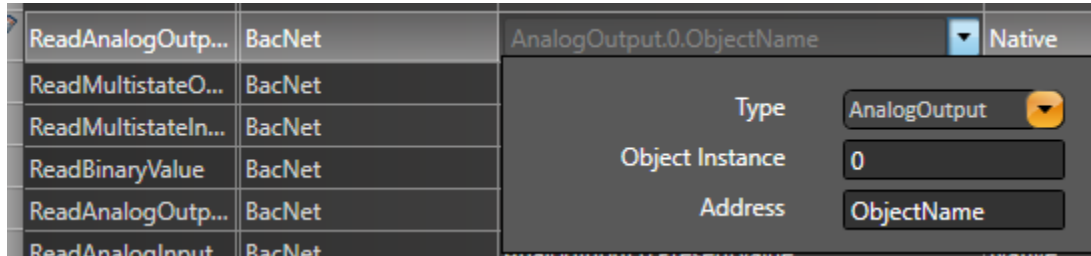
Connect Timeout: 1000

Retry Attempts: 5

Section 4 – Point Configuration

Address

The syntax for the BACnet communication point is as follows:



Type Datatype indicator, following the list below:

AnalogOutput
 AnalogInput
 AnalogValue
 BinaryOutput
 BinaryInput
 BinaryValue
 MultiStateInput
 MultiStateOutput

Object instance, as the instance on the BACnet Device.

Address, as the property that is going to be read/written.

Section 5 - BACnet/IP Objects

Accumulator

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AckedTransitions ¹	BACnetEventTransitionBits	Word , Short	Read Only	No
.ToFault		Boolean		
.ToNormal		Boolean		
.ToOffNormal		Boolean		
Description	CharacterString	String	Read Only	No
DeviceType	CharacterString	String	Read Only	No
EventEnable ¹	BACnetEventTransitionBits	Word , Short	Read/Write	No
.ToFault		Boolean		

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
.ToNormal		Boolean		
.ToOffNormal		Boolean		
EventState	BACnetEventState ²	DWord, Long	Read Only	No
EventTimeStamps[3]	Array of Timestamp	String	Read Only ³	No
HighLimit	Unsigned Integer	DWord, Long	Read Only	No
LimitEnable ¹	BACnetLimitEnable	Word, Short	Read/Write	No
.HighLimitEnable		Boolean		
.LowLimitEnable		Boolean		
LimitMonitoringInterval	Unsigned Integer	DWord, Long	Read/Write	No
LowLimit	Unsigned Integer	DWord, Long	Read Only	No
MaxPresValue	Unsigned Integer	DWord, Long	Read Only	No
NotificationClass	Unsigned Integer	DWord, Long	Read Only	No
NotifyType	BACnetNotifyType ²	DWord, Long	Read Only	No
ObjectIdentifier ⁴	BACnetObjectIdentifier	DWord, Long	Read Only ³	No
.ObjectInstance		DWord, Long		
.ObjectType		DWord, Long		
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ²	DWord, Long	Read Only ³	No
OutOfService	Boolean	Boolean	Read/Write	No
Prescale ³	BACnetPrescale	String	Read/Write	No
PresentValue	Unsigned Integer	DWord, Long	Read/Write	No
ProfileName	CharacterString	String	Read Only	No
PulseRate	Unsigned Integer	DWord, Long	Read Only	No
Reliability	BACnetReliability ²	DWord, Long	Read Only	No
Scale ⁶	BACnetScale	String	Read/Write	No
StatusFlags ¹	BACnetStatusFlags	Word, Short	Read Only	No
.Fault		Boolean		
.InAlarm		Boolean		
.OutOfService		Boolean		
.Overridden		Boolean		
TimeDelay	Unsigned Integer	DWord, Long	Read/Write	No
Units	BACnetEngineeringUnits ²	DWord, Long	Read Only	No
ValueBeforeChange	Unsigned Integer	DWord, Long	Read Only	No
ValueChangeTime	BACnetDateTime	String	Read Only ³	No
ValueSet	Unsigned Integer	DWord, Long	Read Only	No

Priority Array Elements

Priority Array elements may be "NULL" or the numerical command value currently in effect. The array element index may range from 1 to 16, inclusive.

Analog Input

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AckedTransitions ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word, Short Boolean Boolean Boolean	Read Only	No
COVIncrement	REAL	Float	Read/Write	No
Deadband	REAL	Float	Read/Write	No
Description	CharacterString	String	Read Only	No
DeviceType	CharacterString	String	Read Only	No
EventEnable ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word, Short Boolean Boolean Boolean	Read/Write	No
EventState	BACnetEventState ²	DWord, Long	Read Only	No
EventTimeStamps[3]	Array of Timestamp	String	Read Only ³	No
HighLimit	REAL	Float	Read Only	No
LimitEnable ¹ .HighLimitEnable .LowLimitEnable	BACnetLimitEnable	Word, Short Boolean Boolean	Read/Write	No
LowLimit	REAL	Float	Read Only	No
MaxPresValue	REAL	Float	Read Only	No
MinPresValue	REAL	Float	Read Only	No
NotificationClass	Unsigned Integer	DWord, Long	Read Only	No
NotifyType	BACnetNotifyType ²	DWord, Long	Read Only	No
ObjectIdentifier ⁴ .ObjectInstance .ObjectType	BACnetObjectIdentifier	DWord, Long DWord, Long DWord, Long	Read Only ³	No
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ²	DWord, Long	Read Only ³	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
OutOfService	Boolean	Boolean	Read/Write	No
PresentValue	REAL	Float	Read/Write	Yes
ProfileName	CharacterString	String	Read Only	No
Reliability	BACnetReliability ²	DWord, Long	Read Only	No
Resolution	REAL	Float	Read Only	No
StatusFlags ¹	BACnetStatusFlags	Word, Short	Read Only	Yes
.Fault		Boolean		
.InAlarm		Boolean		
.OutOfService		Boolean		
.Overridden		Boolean		
TimeDelay	Unsigned Integer	DWord, Long	Read/Write	No
Units	BACnetEngineeringUnits ²	DWord, Long	Read Only	No
UpdateInterval	Unsigned Integer	DWord, Long	Read/Write	No

Analog Output

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AckedTransitions ¹	BACnetEventTransitionBits	Word, Short	Read Only	No
.ToFault		Boolean		
.ToNormal		Boolean		
.ToOffNormal		Boolean		
COVIncrement	REAL	Float	Read/Write	No
Deadband	REAL	Float	Read/Write	No
Description	CharacterString	String	Read Only	No
DeviceType	CharacterString	String	Read Only	No
EventEnable ¹	BACnetEventTransitionBits	Word, Short	Read/Write	No
.ToFault		Boolean		
.ToNormal		Boolean		
.ToOffNormal		Boolean		
EventState	BACnetEventState ²	DWord, Long	Read Only	No
EventTimestamps[3]	Array of Timestamp	String	Read Only ³	No
HighLimit	REAL	Float	Read Only	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
LimitEnable ¹	BACnetLimitEnable	Word, Short	Read/Write	No
.HighLimitEnable .LowLimitEnable		Boolean Boolean		
LowLimit	REAL	Float	Read Only	No
MaxPresValue	REAL	Float	Read Only	No
MinPresValue	REAL	Float	Read Only	No
NotificationClass	Unsigned Integer	DWord, Long	Read Only	No
NotifyType	BACnetNotifyType ²	DWord, Long	Read Only	No
ObjectIdentifier ⁴	BACnetObjectIdentifier	DWord, Long	Read Only ³	No
.ObjectInstance .ObjectType		DWord, Long DWord, Long		
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ²	DWord, Long	Read Only ³	No
OutOfService	Boolean	Boolean	Read/Write	No
PresentValue	REAL	Float	Read/Write	Yes
PriorityArray[16]	Array of BACnetPriorityArray	String	Read Only ³	No
ProfileName	CharacterString	String	Read Only	No
Reliability	BACnetReliability ²	DWord, Long	Read Only	No
RelinquishDefault	REAL	Float	Read/Write	No
Resolution	REAL	Float	Read Only	No
StatusFlags ¹	BACnetStatusFlags	Word, Short	Read Only	Yes
.Fault .InAlarm .OutOfService .Overridden		Boolean Boolean Boolean Boolean		
TimeDelay	Unsigned Integer	DWord, Long	Read/Write	No
Units	BACnetEngineeringUnits ²	DWord, Long	Read Only	No

Analog Value

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AckedTransitions ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word , Short Boolean Boolean Boolean	Read Only	No
COVIncrement	REAL	Float	Read/Write	No
Deadband	REAL	Float	Read/Write	No
Description	CharacterString	String	Read Only	No
EventEnable ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word , Short Boolean Boolean Boolean	Read/Write	No
EventState	BACnetEventState ²	DWord , Long	Read Only	No
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ³	No
HighLimit	REAL	Float	Read Only	No
LimitEnable ¹ .HighLimitEnable .LowLimitEnable	BACnetLimitEnable	Word , Short Boolean Boolean	Read/Write	No
LowLimit	REAL	Float	Read Only	No
NotificationClass	Unsigned Integer	DWord , Long	Read Only	No
NotifyType	BACnetNotifyType ²	DWord , Long	Read Only	No
ObjectIdentifier ⁴ .ObjectInstance .ObjectType	BACnetObjectIdentifier	DWord , Long DWord , Long DWord , Long	Read Only ³	No
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ²	DWord , Long	Read Only ³	No
OutOfService	Boolean	Boolean	Read/Write	No
PresentValue	REAL	Float	Read/Write	Yes
PriorityArray[16]	Array of	String	Read Only ³	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
	BACnetPriorityArray			
ProfileName	CharacterString	String	Read Only	No
Reliability	BACnetReliability ²	DWord, Long	Read Only	No
RelinquishDefault	REAL	Float	Read/Write	No
StatusFlags ¹	BACnetStatusFlags	Word, Short	Read Only	Yes
.Fault		Boolean		
.InAlarm		Boolean		
.OutOfService		Boolean		
.Overridden		Boolean		
TimeDelay	Unsigned Integer	DWord, Long	Read/Write	No
Units	BACnetEngineeringUnits ²	DWord, Long	Read Only	No

Averaging

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
AttemptedSamples	Unsigned Integer	DWord, Long	Read Only
AverageValue	REAL	Float	Read Only
Description	CharacterString	String	Read Only
MaximumValue	REAL	Float	Read Only
MaximumValueTimestamp	BACnetDateTime	String	Read Only ¹
MinimumValue	REAL	Float	Read Only
MinimumValueTimestamp	BACnetDateTime	String	Read Only ¹
ObjectIdentifier ²	BACnetObjectIdentifier	DWord, Long	Read Only ¹
.ObjectInstance		DWord, Long	
.ObjectType		DWord, Long	
ObjectName	CharacterString	String	Read Only
ObjectType	BACnetObjectType ³	DWord, Long	Read Only ¹
ProfileName	CharacterString	String	Read Only
ValidSamples	Unsigned Integer	DWord, Long	Read Only
VarianceValue	REAL	Float	Read Only
WindowInterval	Unsigned Integer	DWord, Long	Read/Write
WindowSamples	Unsigned Integer	DWord, Long	Read/Write

Binary Input

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AckedTransitions ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word, Short Boolean Boolean Boolean	Read Only	No
ActiveText	CharacterString	String	Read Only	No
AlarmValue	BACnetBinaryPV ²	Boolean	Read/Write	No
ChangeOfStateCount	Unsigned Integer	DWord, Long	Read/Write	No
ChangeOfStateTime	BACnetDateTime	String	Read Only ³	No
Description	CharacterString	String	Read Only	No
DeviceType	CharacterString	String	Read Only	No
ElapsedActiveTime	Unsigned Integer	DWord, Long	Read Only	No
EventEnable ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word, Short Boolean Boolean Boolean	Read/Write	No
EventState	BACnetEventState ²	DWord, Long	Read Only	No
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ³	No
InactiveText	CharacterString	String	Read Only	No
NotificationClass	Unsigned Integer	DWord, Long	Read Only	No
NotifyType	BACnetNotifyType ²	DWord, Long	Read Only	No
ObjectIdentifier ⁴ .ObjectInstance .ObjectType	BACnetObjectIdentifier	DWord, Long DWord, Long DWord, Long	Read Only ³	No
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ²	DWord, Long	Read Only ³	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
OutOfService	Boolean	Boolean	Read/Write	No
Polarity	BACnetPolarity ²	Boolean	Read/Write	No
PresentValue	BACnetBinaryPV ²	Boolean	Read/Write	Yes
ProfileName	CharacterString	String	Read Only	No
Reliability	BACnetReliability ²	DWord, Long	Read Only	No
StatusFlags ¹ .Fault .InAlarm .OutOfService .Overridden	BACnetStatusFlags	Word, Short Boolean Boolean Boolean Boolean	Read Only	Yes
TimeDelay	Unsigned Integer	DWord, Long	Read/Write	No
TimeOfActiveTimeReset	BACnetDateTime	String	Read Only ³	No
TimeOfStateCountReset	BACnetDateTime	String	Read Only ³	No

Binary Output

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AckedTransitions ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word, Short Boolean Boolean Boolean	Read Only	No
ActiveText	CharacterString	String	Read Only	No
ChangeOfStateCount	Unsigned Integer	DWord, Long	Read/Write	No
ChangeOfStateTime	BACnetDateTime	String	Read Only ²	No
Description	CharacterString	String	Read Only	No
DeviceType	CharacterString	String	Read Only	No
ElapsedActiveTime	Unsigned Integer	DWord, Long	Read Only	No
EventEnable ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word, Short Boolean Boolean	Read/Write	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
		Boolean		
EventState	BACnetEventState ³	DWord, Long	Read Only	No
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ²	No
FeedbackValue	BACnetBinaryPV ³	Boolean	Read/Write	No
InactiveText	CharacterString	String	Read Only	No
MinimumOffTime	Unsigned Integer	DWord, Long	Read Only	No
MinimumOnTime	Unsigned Integer	DWord, Long	Read Only	No
NotificationClass	Unsigned Integer	DWord, Long	Read Only	No
NotifyType	BACnetNotifyType ³	DWord, Long	Read Only	No
ObjectIdentifier ⁴	BACnetObjectIdentifier	DWord, Long	Read Only ²	No
.ObjectInstance .ObjectType		DWord, Long DWord, Long		
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ³	DWord, Long	Read Only ²	No
OutOfService	Boolean	Boolean	Read/Write	No
Polarity	BACnetPolarity ³	Boolean	Read/Write	No
PresentValue	BACnetBinaryPV ³	Boolean	Read/Write	Yes
PriorityArray[16]	Array of BACnetPriorityArray	String	Read Only ²	No
ProfileName	CharacterString	String	Read Only	No
Reliability	BACnetReliability ³	DWord, Long	Read Only	No
RelinquishDefault	BACnetBinaryPV ³	Boolean	Read/Write	No
StatusFlags ¹	BACnetStatusFlags	Word, Short	Read Only	Yes
.Fault .InAlarm .OutOfService .Overridden		Boolean Boolean Boolean Boolean		
TimeDelay	Unsigned Integer	DWord, Long	Read/Write	No
TimeOfActiveTimeReset	BACnetDateTime	String	Read Only ²	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
TimeOfStateCountReset	BACnetDateTime	String	Read Only ²	No

Binary Value

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AckedTransitions ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word , Short Boolean Boolean Boolean	Read Only	No
ActiveText	CharacterString	String	Read Only	No
AlarmValue	BACnetBinaryPV ²	Boolean	Read/Write	No
ChangeOfStateCount	Unsigned Integer	DWord , Long	Read/Write	No
ChangeOfStateTime	BACnetDateTime	String	Read Only ³	No
Description	CharacterString	String	Read Only	No
ElapsedActiveTime	Unsigned Integer	DWord , Long	Read Only	No
EventEnable ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word , Short Boolean Boolean Boolean	Read/Write	No
EventState	BACnetEventState ²	DWord , Long	Read Only	No
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ³	No
InactiveText	CharacterString	String	Read Only	No
MinimumOffTime	Unsigned Integer	DWord , Long	Read Only	No
MinimumOnTime	Unsigned Integer	DWord , Long	Read Only	No
NotificationClass	Unsigned Integer	DWord , Long	Read Only	No
NotifyType	BACnetNotifyType ²	DWord , Long	Read Only	No
ObjectIdentifier ⁴ .ObjectInstance	BACnetObjectIdentifier	DWord , Long	Read Only ³	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
.ObjectType		DWord , Long DWord , Long		
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ²	DWord , Long	Read Only ³	No
OutOfService	Boolean	Boolean	Read/Write	No
PresentValue	BACnetBinaryPV ²	Boolean	Read/Write	Yes
PriorityArray[16]	Array of BACnetPriorityArray	String	Read Only ³	No
ProfileName	CharacterString	String	Read Only	No
Reliability	BACnetReliability ²	DWord , Long	Read Only	No
RelinquishDefault	BACnetBinaryPV ²	Boolean	Read/Write	No
StatusFlags ¹	BACnetStatusFlags	Word , Short	Read Only	Yes
.Fault		Boolean		
.InAlarm		Boolean		
.OutOfService		Boolean		
.Overridden		Boolean		
TimeDelay	Unsigned Integer	DWord , Long	Read/Write	No
TimeOfActiveTimeReset	BACnetDateTime	String	Read Only ³	No
TimeOfStateCountReset	BACnetDateTime	String	Read Only ³	No

Calendar

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
DateList[N]	CalendarEntry	String	Read Only ¹
DateList ²	List of CalendarEntry	String	Read/Write
Description	CharacterString	String	Read Only
ObjectIdentifier ³	BACnetObjectIdentifier	DWord , Long	Read Only ¹
.ObjectInstance		DWord , Long	
.ObjectType		DWord , Long	
ObjectName	CharacterString	String	Read Only
ObjectType	BACnetObjectType ⁴	DWord , Long	Read Only ¹
PresentValue	Boolean	Boolean	Read/Write

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
ProfileName	CharacterString	String	Read Only

Command

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
ActionText[N]	Array of CharacterString	String	Read/Write
AllWritesSuccessful	Boolean	Boolean	Read Only
Description	CharacterString	String	Read Only
InProcess	Boolean	Boolean	Read Only
ObjectIdentifier ¹	BACnetObjectIdentifier	DWord, Long	Read Only ²
.ObjectInstance		DWord, Long	
.ObjectType		DWord, Long	
ObjectName	CharacterString	String	Read Only
ObjectType	BACnetObjectType ³	DWord, Long	Read Only ²
PresentValue	Unsigned Integer	DWord, Long	Read/Write
ProfileName	CharacterString	String	Read Only

Device

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
APDUsegmentTimeout	Unsigned Integer	DWord, Long	Read/Write
APDUTimeout	Unsigned Integer	DWord, Long	Read/Write
ApplicationSoftwareVersion	CharacterString	String	Read Only
BackupFailureTimeout	Unsigned Integer	Word, Short	Read Only
ConfigurationFiles[N]	Array of ObjectIdentifier	DWord, Long	Read Only
DatabaseRevision	Unsigned Integer	DWord, Long	Read Only
DaylightSavingsStatus	Boolean	Boolean	Read Only
Description	CharacterString	String	Read Only
FirmwareRevision	CharacterString	String	Read Only
LastRestoreTime	BACnetDateTime	String	Read Only ¹
LocalDate	Date	String	Read Only ¹
LocalTime	Time	String	Read Only ¹
Location	CharacterString	String	Read Only
MaxAPDUlengthAccepted	Unsigned Integer	DWord, Long	Read/Write
MaxInfoFrames	Unsigned Integer	DWord, Long	Read Only
MaxMaster	Unsigned Integer	DWord, Long	Read Only

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
MaxSegmentsAccepted	Unsigned Integer	DWord , Long	Read Only
ModelName	CharacterString	String	Read Only
NumberOfAPDURetries	Unsigned Integer	DWord , Long	Read/Write
ObjectIdentifier ²	BACnetObjectIdentifier	DWord , Long	Read Only ¹
.ObjectInstance		DWord , Long	
.ObjectType		DWord , Long	
ObjectList[N]	Array of ObjectIdentifier	DWord , Long	Read Only ¹
ObjectName	CharacterString	String	Read Only
ObjectType	BACnetObjectType ³	DWord , Long	Read Only ¹
ProfileName	CharacterString	String	Read Only
ProtocolRevision	Unsigned Integer	DWord , Long	Read Only
ProtocolVersion	Unsigned Integer	DWord , Long	Read Only
SegmentationSupported	BACnetSegmentation ³	DWord , Long	Read Only
SystemStatus	BACnetDeviceStatus ³	DWord , Long	Read/Write
UTCOffset	INTEGER	Long , Word	Read Only
VendorIdentifier	Unsigned Integer	Word , Short	Read Only
VendorName	CharacterString	String	Read Only

Event Enrollment

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
AckedTransitions ¹	BACnetEventTransitionBits	Word , Short	Read Only
.ToFault		Boolean	
.ToNormal		Boolean	
.ToOffNormal		Boolean	
Description	CharacterString	String	Read Only
EventEnable ¹	BACnetEventTransitionBits	Word , Short	Read/Write
.ToFault		Boolean	
.ToNormal		Boolean	
.ToOffNormal		Boolean	
EventState	BACnetEventState ²	DWord , Long	Read Only
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ³
EventType	BACnetEventType ²	DWord , Long	Read Only
IssueConfirmedNotifications	Boolean	Boolean	Read/Write
NotificationClass	Unsigned Integer	Word , Short	Read Only
NotifyType	BACnetNotifyType ²	DWord , Long	Read Only
ObjectIdentifier ⁴	BACnetObjectIdentifier	DWord , Long	Read Only ³
.ObjectInstance		DWord , Long	

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
.ObjectType		DWord, Long	
ObjectName	CharacterString	String	Read Only
ObjectType	BACnetObjectType ²	DWord, Long	Read Only ³
Priority	Unsigned Integer	DWord, Long	Read Only
ProcessIdentifier	Unsigned Integer	DWord, Long	Read/Write
ProfileName	CharacterString	String	Read Only

File

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
Archive	Boolean	Boolean	Read Only
Description	CharacterString	String	Read Only
FileAccessMethod	BACnetFileAccessMethod ¹	DWord, Long	Read Only
FileSize	Unsigned Integer	DWord, Long	Read Only
FileType	CharacterString	String	Read Only
ModificationDate	BACnetDateTime	String	Read Only ²
ObjectIdentifier ³	BACnetObjectIdentifier	DWord, Long	Read Only ²
.ObjectInstance		DWord, Long	
.ObjectType		DWord, Long	
ObjectName	CharacterString	String	Read Only
ObjectType	BACnetObjectType ¹	DWord, Long	Read Only ²
ProfileName	CharacterString	String	Read Only
ReadOnly	Boolean	Boolean	Read Only
RecordCount	Unsigned Integer	DWord, Long	Read/Write

Group

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
Description	CharacterString	String	Read Only
ObjectIdentifier ¹	BACnetObjectIdentifier	DWord, Long	Read Only ²
.ObjectInstance		DWord, Long	
.ObjectType		DWord, Long	
ObjectName	CharacterString	String	Read Only
ObjectType	BACnetObjectType ³	DWord, Long	Read Only ²
ProfileName	CharacterString	String	Read Only

Life Safety Point

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AcceptedModes	List of BACnetLifeSafetyMode	DWord , Long	Read Only ¹	No
AckedTransitions ² .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word , Short Boolean Boolean Boolean	Read Only	No
AlarmValues	List of BACnetLifeSafetyState	DWord , Long	Read Only ¹	No
Description	CharacterString	String	Read Only	No
DeviceType	CharacterString	String	Read Only	No
DirectReading	REAL	Float	Read Only	No
EventEnable ² .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word , Short Boolean Boolean Boolean	Read/Write	No
EventState	BACnetEventState ³	DWord , Long	Read Only	No
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ¹	No
FaultValues	List of BACnetLifeSafetyState	DWord , Long	Read Only ¹	No
LifeSafetyAlarmValues	List of BACnetLifeSafetyState	DWord , Long	Read Only ¹	No
MaintenanceRequired	BACnetMaintenance ³	DWord , Long	Read/Write	No
Mode	BACnetLifeSafetyMode ³	DWord , Long	Read/Write	No
NotificationClass	Unsigned Integer	DWord , Long	Read Only	No
NotifyType	BACnetNotifyType ³	DWord , Long	Read Only	No
ObjectIdentifier ⁴ .ObjectInstance	BACnetObjectIdentifier	DWord , Long	Read Only ¹	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
.ObjectType		DWord , Long DWord , Long		
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ³	DWord , Long	Read Only ¹	No
OperationExpected	BACnetLifeSafetyOperation ³	DWord , Long	Read Only	No
OutOfService	Boolean	Boolean	Read/Write	No
PresentValue	BACnetLifeSafetyState ³	DWord , Long	Read/Write	Yes
ProfileName	CharacterString	String	Read Only	No
Reliability	BACnetReliability ³	DWord , Long	Read Only	No
Setting	Unsigned Integer	Byte , Char	Read/Write	No
Silenced	BACnetSilencedState ³	DWord , Long	Read Only	No
StatusFlags ² .Fault .InAlarm .OutOfService .Overridden	BACnetStatusFlags	Word , Short Boolean Boolean Boolean Boolean	Read Only	Yes
TimeDelay	Unsigned Integer	DWord , Long	Read/Write	No
TrackingValue	BACnetLifeSafetyState ³	DWord , Long	Read Only	No
Units	BACnetEngineeringUnits ³	DWord , Long	Read Only	No

Life Safety Zone

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AcceptedModes	List of BACnetLifeSafetyMode	DWord , Long	Read Only ¹	No
AckedTransitions ² .ToFault	BACnetEventTransitionBits	Word , Short	Read Only	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
.ToNormal .ToOffNormal		Boolean Boolean Boolean		
AlarmValues	List of BACnetLifeSafetyState	DWord , Long	Read Only ¹	No
Description	CharacterString	String	Read Only	No
DeviceType	CharacterString	String	Read Only	No
EventEnable ² .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word , Short Boolean Boolean Boolean	Read/Write	No
EventState	BACnetEventState ³	DWord , Long	Read Only	No
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ¹	No
FaultValues	List of BACnetLifeSafetyState	DWord , Long	Read Only ¹	No
LifeSafetyAlarmValues	List of BACnetLifeSafetyState	DWord , Long	Read Only ¹	No
MaintenanceRequired	Boolean	Boolean	Read/Write	No
Mode	BACnetLifeSafetyMode ³	DWord , Long	Read/Write	No
NotificationClass	Unsigned Integer	DWord , Long	Read Only	No
NotifyType	BACnetNotifyType ³	DWord , Long	Read Only	No
ObjectIdentifier ⁴ .ObjectInstance .ObjectType	BACnetObjectIdentifier	DWord , Long DWord , Long DWord , Long	Read Only ¹	No
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ³	DWord , Long	Read Only ¹	No
OperationExpected	BACnetLifeSafetyOperation ³	DWord , Long	Read Only	No
OutOfService	Boolean	Boolean	Read/Write	No
PresentValue	BACnetLifeSafetyState ³	DWord , Long	Read/Write	Yes
ProfileName	CharacterString	String	Read Only	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
Reliability	BACnetReliability ³	DWord , Long	Read Only	No
Silenced	BACnetSilencedState ³	DWord , Long	Read Only	No
StatusFlags ² .Fault .InAlarm .OutOfService .Overridden	BACnetStatusFlags	Word , Short Boolean Boolean Boolean Boolean	Read Only	Yes
TimeDelay	Unsigned Integer	DWord , Long	Read/Write	No
TrackingValue	BACnetLifeSafetyState ³	DWord , Long	Read Only	No

Loop

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AckedTransitions ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word , Short Boolean Boolean Boolean	Read Only	No
Action	BACnetAction ²	DWord , Long	Read Only	No
Bias	REAL	Float	Read/Write	No
ControlledVariableUnits	BACnetEngineeringUnits ²	DWord , Long	Read Only	No
ControlledVariableValue	REAL	Float	Read Only	Yes
COVIncrement	REAL	Float	Read/Write	No
DerivativeConstant	REAL	Float	Read/Write	No
DerivativeConstantUnits	BACnetEngineeringUnits ²	DWord , Long	Read Only	No
Description	CharacterString	String	Read Only	No
ErrorLimit	REAL	Float	Read/Write	No
EventEnable ¹ .ToFault	BACnetEventTransitionBits	Word , Short	Read/Write	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
.ToNormal .ToOffNormal		Boolean Boolean Boolean		
EventState	BACnetEventState ²	DWord, Long	Read Only	No
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ³	No
IntegralConstant	REAL	Float	Read/Write	No
IntegralConstantUnits	BACnetEngineeringUnits ²	DWord, Long	Read Only	No
MaximumOutput	REAL	Float	Read Only	No
MinimumOutput	REAL	Float	Read Only	No
NotificationClass	Unsigned Integer	DWord, Long	Read Only	No
NotifyType	BACnetNotifyType	DWord, Long	Read Only	No
ObjectIdentifier ⁴ .ObjectInstance .ObjectType	BACnetObjectIdentifier	DWord, Long DWord, Long DWord, Long	Read Only ³	No
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ²	DWord, Long	Read Only ³	No
OutOfService	Boolean	Boolean	Read/Write	No
OutputUnits	BACnetEngineeringUnits ²	DWord, Long	Read Only	No
PresentValue	REAL	Float	Read Only	Yes
PriorityForWriting	Unsigned Integer	DWord, Long	Read/Write	No
ProfileName	CharacterString	String	Read Only	No
ProportionalConstant	REAL	Float	Read/Write	No
ProportionalConstantUnits	BACnetEngineeringUnits ²	DWord, Long	Read Only	No
Reliability	BACnetReliability ²	DWord, Long	Read Only	No
Setpoint	REAL	Float	Read/Write	Yes
StatusFlags ¹ .Fault .InAlarm .OutOfService	BACnetStatusFlags	Word, Short Boolean Boolean	Read Only	Yes

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
.Overridden		Boolean Boolean		
TimeDelay	Unsigned Integer	DWord , Long	Read/Write	No
UpdateInterval	Unsigned Integer	DWord , Long	Read/Write	No

Multi-State Input

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AckedTransitions ¹	BACnetEventTransitionBits	Word , Short	Read Only	No
.ToFault		Boolean		
.ToNormal		Boolean		
.ToOffNormal		Boolean		
AlarmValues	List of Unsigned Integers	DWord , Long	Read Only ²	No
Description	CharacterString	String	Read Only	No
DeviceType	CharacterString	String	Read Only	No
EventEnable ¹	BACnetEventTransitionBits	Word , Short	Read/Write	No
.ToFault		Boolean		
.ToNormal		Boolean		
.ToOffNormal		Boolean		
EventState	BACnetEventState ³	DWord , Long	Read Only	No
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ²	No
FaultValues	List of Unsigned Integers	DWord , Long	Read Only ²	No
NotificationClass	Unsigned Integer	DWord , Long	Read Only	No
NotifyType	BACnetNotifyType ³	DWord , Long	Read Only	No
NumberOfStates	Unsigned Integer	DWord , Long	Read Only	No
ObjectIdentifier ⁴	BACnetObjectIdentifier	DWord , Long	Read Only ²	No
.ObjectInstance				

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
.ObjectType		DWord , Long DWord , Long		
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ³	DWord , Long	Read Only ²	No
OutOfService	Boolean	Boolean	Read/Write	No
PresentValue	Unsigned Integer	DWord , Long	Read/Write	Yes
ProfileName	CharacterString	String	Read Only	No
Reliability	BACnetReliability ³	DWord , Long	Read Only	No
StateText[N]	Array of CharacterString	String	Read/Write	No
StatusFlags ¹	BACnetStatusFlags	Word , Short	Read Only	Yes
.Fault		Boolean		
.InAlarm		Boolean		
.OutOfService		Boolean		
.Overridden		Boolean		
TimeDelay	Unsigned Integer	DWord , Long	Read/Write	No

Multi-State Output

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AckedTransitions ¹	BACnetEventTransitionBits	Word , Short	Read Only	No
.ToFault		Boolean		
.ToNormal		Boolean		
.ToOffNormal		Boolean		
Description	CharacterString	String	Read Only	No
DeviceType	CharacterString	String	Read Only	No
EventEnable ¹	BACEventTransitionBits	Word , Short	Read/Write	No
.ToFault		Boolean		
.ToNormal		Boolean		
.ToOffNormal		Boolean		

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
EventState	BACnetEventState ²	DWord, Long	Read Only	No
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ³	No
FeedbackValue	Unsigned Integer	DWord, Long	Read/Write	No
NotificationClass	Unsigned Integer	DWord, Long	Read Only	No
NotifyType	BACnetNotifyType ²	DWord, Long	Read Only	No
NumberOfStates	Unsigned Integer	DWord, Long	Read Only	No
ObjectIdentifier ⁴ .ObjectInstance .ObjectType	BACnetObjectIdentifier	DWord, Long DWord, Long	Read Only ³	No
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ²	DWord, Long	Read Only ³	No
OutOfService	Boolean	Boolean	Read/Write	No
PresentValue	Unsigned Integer	DWord, Long	Read/Write	Yes
PriorityArray[16]	Array of BACnetPriorityArray	String	Read Only ³	No
ProfileName	CharacterString	String	Read Only	No
Reliability	BACnetReliability ²	DWord, Long	Read Only	No
RelinquishDefault	Unsigned Integer	DWord, Long	Read/Write	No
StateText[N]	Array of CharacterString	String	Read/Write	No
StatusFlags ¹ .Fault .InAlarm .OutOfService .Overridden	BACnetStatusFlags	Word, Short Boolean Boolean Boolean Boolean	Read Only	Yes
TimeDelay	Unsigned Integer	DWord, Long	Read/Write	No

Multi-State Value

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
AckedTransitions ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word , Short Boolean Boolean Boolean	Read Only	No
AlarmValues	List of Unsigned Integers	DWord , Long	Read Only ²	No
Description	CharacterString	String	Read Only	No
EventEnable ¹ .ToFault .ToNormal .ToOffNormal	BACnetEventTransitionBits	Word , Short Boolean Boolean Boolean	Read/Write	No
EventState	BACnetEventState ³	DWord , Long	Read Only	No
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ²	No
FaultValues	List of Unsigned Integers	DWord , Long	Read Only ²	No
NotificationClass	Unsigned Integer	DWord , Long	Read Only	No
NotifyType	BACnetNotifyType ³	DWord , Long	Read Only	No
NumberOfStates	Unsigned Integer	DWord , Long	Read Only	No
ObjectIdentifier ⁴ .ObjectInstance .ObjectType	BACnetObjectIdentifier	DWord , Long DWord , Long DWord , Long	Read Only ²	No
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ³	DWord , Long	Read Only ²	No
OutOfService	Boolean	Boolean	Read/Write	No
PresentValue	Unsigned Integer	DWord , Long	Read/Write	Yes
PriorityArray[16]	Array of BACnetPriorityArray	String	Read Only ²	No

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
ProfileName	CharacterString	String	Read Only	No
Reliability	BACnetReliability ³	DWord, Long	Read Only	No
RelinquishDefault	Unsigned Integer	DWord, Long	Read/Write	No
StateText[N]	Array of CharacterString	String	Read/Write	No
StatusFlags ¹	BACnetStatusFlags	Word, Short	Read Only	Yes
.Fault		Boolean		
.InAlarm		Boolean		
.OutOfService		Boolean		
.Overridden		Boolean		
TimeDelay				

Notification Class

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
AckRequired ¹	BACnetEvnetTransitionBits	Word, Short	Read Only
.ToFault		Boolean	
.ToNormal		Boolean	
.ToOffNormal		Boolean	
Description	CharacterString	String	Read Only
NotificationClass	Unsigned Integer	DWord, Long	Read Only
ObjectIdentifier ²	BACnetObjectIdentifier	DWord, Long	Read Only ³
.ObjectInstance		DWord, Long	
.ObjectType		DWord, Long	
ObjectName	CharacterString	String	Read Only
ObjectType	BACnetObjectType ⁴	DWord, Long	Read Only ³
Priority[3]	Array of Unsigned Integers	DWord, Long	Read Only ³
ProfileName	CharacterString	String	Read Only

Program

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
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Property Mnemonic	BACnet Data Type	OPC Data Type	Access
Description	CharacterString	String	Read Only
DescriptionOfHalt	CharacterString	String	Read Only
InstanceOf	CharacterString	String	Read Only
ObjectIdentifier ¹	BACnetObjectIdentifier	DWord, Long	Read Only ²
.ObjectInstance		DWord, Long	
.ObjectType		DWord, Long	
ObjectName	CharacterString	String	Read Only
ObjectType	BACnetObjectType ³	DWord, Long	Read Only ²
OutOfService	Boolean	Boolean	Read/Write
ProfileName	CharacterString	String	Read Only
ProgramChange	BACnetProgramRequest ³	DWord, Long	Read Only
ProgramLocation	CharacterString	String	Read Only
ProgramState	BACnetProgramState ³	DWord, Long	Read Only
ReasonForHalt	BACnetProgramError ³	DWord, Long	Read Only
Reliability	BACnetReliability ³	DWord, Long	Read Only
StatusFlags ⁴	BACnetStatusFlags	Word, Short	Read Only
.Fault		Boolean	
.InAlarm		Boolean	
.OutOfService		Boolean	
.Overridden		Boolean	

Schedule

Property Mnemonic	BACnet Data Type	OPC Data Type	Access	COV
Description	CharacterString	String	Read Only	No
EffectivePeriod	BACnetDateRange	String	Read Only ¹	No
ExceptionSchedule ²	BACnetARRAY[N] of BACnetSpecialEvent	String	Read/Write	No
ObjectIdentifier ³	BACnetObjectIdentifier	DWord, Long	Read Only ¹	No
.ObjectInstance		DWord, Long		
.ObjectType		DWord, Long		
ObjectName	CharacterString	String	Read Only	No
ObjectType	BACnetObjectType ⁴	DWord, Long	Read Only ¹	No

PresentValue	Any	Float	Read/Write	No
PriorityForWriting	Unsigned Integer	DWord, Long	Read/Write	No
ProfileName	CharacterString	String	Read Only	No
ScheduleDefault	Real	Float	Read Only	No
StatusFlags ⁵	BACnetStatusFlags	Word, Short	Read Only ¹	Yes
.InAlarm		Boolean		
.Fault		Boolean		
.Overridden		Boolean		
.OutOfService		Boolean		
Reliability	BACnetReliability	DWord, Long	Read Only ¹	No
OutOfService	Boolean	Boolean	Read/Write	No
WeeklySchedule ⁶	BACnetARRAY[7] of BACnetDailySchedule	String	Read/Write	No

Trend Log

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
AckedTransitions ¹	BACnetEventTansitionBits	Word, Short	Read Only
.ToFault		Boolean	
.ToNormal		Boolean	
.ToOffNormal		Boolean	
BufferSize	Unsigned Integer	DWord, Long	Read Only
COVResubscriptionInterval	Unsigned Integer	DWord, Long	Read/Write
CurrentNotifyTime ²	BACnetDateTime	String	Read Only ³
Description	CharacterString	String	Read Only
EventEnable ¹	BACnetEventTansitionBits	Word, Short	Read/Write
.ToFault		Boolean	
.ToNormal		Boolean	
.ToOffNormal		Boolean	
EventState	BACnetEventState ⁴	DWord, Long	Read Only
EventTimeStamps[3]	Array of TimeStamp	String	Read Only ³
LastNotifyRecord ⁵	Unsigned Integer	DWord, Long	Read Only
LogEnable	Boolean	Boolean	Read/Write
LogInterval	Unsigned Integer	DWord, Long	Read/Write
NotificationClass	Unsigned Integer	DWord, Long	Read Only
NotificationThreshold	Unsigned Integer	DWord, Long	Read Only

Property Mnemonic	BACnet Data Type	OPC Data Type	Access
NotifyType	BACnetNotifyType ⁴	DWord , Long	Read Only
ObjectIdentifier ⁶	BACnetObjectIdentifier	DWord , Long	Read Only ³
.ObjectInstance		DWord , Long	
.ObjectType		DWord , Long	
ObjectName	CharacterString	String	Read Only
ObjectType	BACnetObjectType ⁴	DWord , Long	Read Only ³
PreviousNotifyTime ²	BACnetDateTime	String	Read Only ³
ProfileName	CharacterString	String	Read Only
RecordCount	Unsigned Integer	DWord , Long	Read/Write
RecordsSinceNotification	Unsigned Integer	DWord , Long	Read Only
StartTime	BACnetDateTime	String	Read Only ³
StopTime	BACnetDateTime	String	Read Only ³
StopWhenFull	Boolean	Boolean	Read/Write
TotalRecordCount	Unsigned Integer	DWord , Long	Read Only

Enumerators

BACnetAction

Value	Action
0	Direct
1	Reverse

BACnetBackupState

Value	Event Type
0	Idle
1	Preparing for backup
2	Preparing for restore
3	Performing a backup
4	Performing a restore
5	Backup failure
6	Restore failure

BACnetBinaryPV

Value	Binary Present Value
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Value	Binary Present Value
0	Inactive
1	Active

BACnetDeviceStatus

Value	Device Status
0	Operational
1	Operational-Read Only
2	Download-required
3	Download-in-progress
4	Non-operational
5	Backup-in-progress

BACnetEngineeringUnits

Acceleration

Value	Unit
166	Meters-per-second-per-second

Area

Value	Unit
0	Square-meters
1	Square-feet
115	Square-inches
116	Square-centimeters

Currency

Value	Unit
105	Currency1
106	Currency2
107	Currency3
108	Currency4
109	Currency5
110	Currency6
111	Currency7

Value	Unit
112	Currency8
113	Currency9
114	Currency10

Electrical

Value	Unit
2	Milliamperes
3	Amperes
4	Ohms
5	Volts
6	Kilo-volts
7	Mega-volts
8	Volt-amperes
9	Kilo-volt-amperes
10	Mega-volt-amperes
11	Volt-amperes-reactive
12	Kilo-volt-amperes-reactive
13	Mega-volt-amperes-reactive
14	Degrees-phase
15	Power-factor
122	Kilohms
123	Megohms
124	Millivolts
145	Milliohms
167	Amperes-per-meter
168	Amperes-per-square-meter
169	Ampere-square-meters
170	Farads
171	Henrys
172	Ohm-meters
173	Siemens
174	Siemens-per-meter
175	Teslas
176	Volts-per-degree-Kelvin
177	Volts-per-meter
178	Webers

Energy

Value	Unit
16	Joules
17	Kilojoules
18	Watt-hours
19	Kilowatt-hours
20	BTUs
21	Therms
22	Ton-hours
125	Kilojoules-per-kilogram
126	Megajoules
146	Megawatt-hours
147	Kilo-BTUs
148	Mega-BTUs

Enthalpy

Value	Unit
23	Joules-per-kilogram-dry-air
24	BTUs-per-pound-dry-air
117	BTUs-per-pound
149	Kilojoules-per-kilogram-dry-air
150	Megajoules-per-kilogram-dry-air

Entropy

Value	Unit
127	Joules-per-degree-Kelvin
128	Joules-per-kilogram-degree-Kelvin
151	Kilojoules-per-degree-Kelvin
152	Megajoules-per-degree-Kelvin

Force

Value	Unit
153	Newton

Frequency

Value	Unit
25	Cycles-per-hour

Value	Unit
26	Cycles-per-minute
27	Hertz
129	Kilohertz
130	Megahertz
131	Per-hour

Humidity

Value	Unit
28	Grams-of-water-per-kilogram-dry-air
29	Percent-relative-humidity

Length

Value	Unit
30	Millimeters
31	Meters
32	Inches
33	Feet
118	Centimeters

Light

Value	Unit
34	Watts-per-square-foot
35	Watts-per-square-meter
36	Lumens
37	Luxes
38	Foot-candles
179	Candelas
180	Candelas-per-square-meter

Mass

Value	Unit
39	Kilograms
40	Pounds-mass
41	Tons

Mass Flow

Value	Unit
42	Kilograms-per-second
43	Kilograms-per-minute
44	Kilograms-per-hour
45	Pounds-mass-per-minute
46	Pounds-mass-per-hour
119	Pounds-mass-per-second
154	Grams-per-second
155	Grams-per-minute
156	Tons-per-hour

Power

Value	Unit
47	Watts
48	Kilowatts
49	Megawatts
50	BTUs-per-hour
51	Horsepower
52	Tons-refrigeration
132	Milliwatts
157	Kilo-BTUs-per-hour

Pressure

Value	Unit
53	Pascals
54	Kilopascals
55	Bars
56	Pounds-force-per-square-inch
57	Centimeters-of-water
58	Inches-of-water
59	Millimeters-of-mercury
60	Centimeters-of-mercury
61	Inches-of-mercury
133	Hectopascals
134	Millibars

Temperature

Value	Unit
62	Degrees-Celsius
63	Degrees-Kelvin
64	Degrees-Fahrenheit
65	Degree-days-Celsius
66	Degree-days-Fahrenheit
120	Delta-Degrees-Fahrenheit
121	Delta-Degrees-Kelvin
181	Kelvins-per-hour
182	Kelvins-per-minute

Time

Value	Unit
67	Years
68	Months
69	Weeks
70	Days
71	Hours
72	Minutes
73	Seconds
158	Hundredths-seconds
159	Milliseconds

Torque

Value	Unit
160	Newton-meters

Velocity

Value	Unit
74	Meters-per-second
75	Kilometers-per-hour
76	Feet-per-second
77	Feet-per-minute
78	Miles-per-hour
161	Millimeters-per-second
162	Millimeters-per-minute

Value	Unit
163	Meters-per-minute
164	Meters-per-hour

Volume

Value	Unit
79	Cubic-feet
80	Cubic-meters
81	Imperial-gallons
82	Liters
83	Us-gallons

Volumetric Flow

Value	Unit
84	Cubic-feet-per-minute
85	Cubic-meters-per-second
86	Imperial-gallons-per-minute
87	Liters-per-second
88	Liters-per-minute
89	Us-gallons-per-minute
135	Cubic-meters-per-hour
136	Liters-per-hour
142	Cubic-feet-per-second
165	Cubic-meters-per-minute

Other

Value	Unit
90	Degrees-angular
91	Degrees-Celsius-per-hour
92	Degrees-Celsius-per-minute
93	Degrees-Fahrenheit-per-hour
94	Degrees-Fahrenheit-per-minute
95	No-units
96	Parts-per-million
97	Parts-per-billion
98	Percent
99	Percent-per-second

Value	Unit
100	Per-minute
101	Per-second
102	Psi-per-Degree-Fahrenheit
103	Radians
104	Revolutions-per-minute
137	Kilowatt-hours-per-square-meter
138	Kilowatt-hours-per-square-foot
139	Megajoules-per-square-meter
140	Megajoules-per-square-foot
141	Watts-per-square-meter-Degree-Kelvin
143	Percent-obscuration-per-foot
144	Percent-obscuration-per-meter
183	Joule-seconds
185	Square-meters-per-Newton
186	Kilogram-per-cubic-meter
187	Newton-seconds
188	Newtons-per-meter
189	Watts-per-meter-per-degree-Kelvin

BACnetEventState

Value	Event State
0	Normal
1	Fault
2	Off-normal
3	High-limit
4	Low-limit
5	Life-safety-alarm

BACnetEventType

Value	Event Type
0	Change-of-bitstring
1	Change-of-state
2	Change-of-value
3	Command-failure
4	Floating-limit
5	Out-of-range
6	Complex-event-type

Value	Event Type
7	Deprecated
8	Change-of-life-safety
9	Extended
10	Buffer-ready
11	Unsigned-range
12	Reserved for future addenda
13	Access-event
14	Double-out-of-range
15	Signed-out-of-range
16	Unsigned-out-of-range
17	Change-of-characterstring
18	Change-of-status-flags
19	Change-of-reliability
20	None

BACnetFileAccessMethod

Value	Access Method
0	Record-access
1	Stream-access

BACnetLifeSafetyMode

Value	Life Safety Mode
0	Off
1	On
2	Test
3	Manned
4	Unmanned
5	Armed
6	Disarmed
7	Pre-armed
8	Slow
9	Fast
10	Disconnected
11	Enabled
12	Disabled
13	Automatic-release-disabled
14	Default

BACnetLifeSafetyOperation

Value	Life Safety Operation
0	None
1	Silence
2	Silence-audible
3	Silence-visible
4	Reset
5	Reset-alarm
6	Reset-fault
7	Unsilence
8	Unsilence-audible
9	Unsilence-visual

BACnetLifeSafetyState

Value	Life Safety State
0	Quiet
1	Pre-alarm
2	Alarm
3	Fault
4	Fault-pre-alarm
5	Fault-alarm
6	Not-ready
7	Active
8	Tamper
9	Test-alarm
10	Test-active
11	Test-fault
12	Test-fault-alarm
13	Holdup
14	Duress
15	Tamper-alarm
16	Abnormal
17	Emergency-power
18	Delayed
19	Blocked
20	Local-alarm
21	General-alarm
22	Supervisory

Value	Life Safety State
23	Test-supervisory

BACnetMaintenance

Value	Maintenance
0	None
1	Periodic-test
2	Need-service-operational
3	Need-service-inoperative

BACnetNotifyType

Value	Notify Type
0	Alarm
1	Event
2	Ack-notification

BACnetObjectType

Value	Object Type
0	Analog-input
1	Analog-output
2	Analog-value
3	Binary-input
4	Binary-output
5	Binary-value
6	Calendar
7	Command
8	Device
9	Event-enrollment
10	File
11	Group
12	Loop
13	Multi-state-input
14	Multi-state-output
15	Notification-class
16	Program

Value	Object Type
17	Schedule
18	Averaging
19	Multi-state-value
20	Trend-log
21	Life-safety-point
22	Life-safety-zone
23	Accumulator

BACnetPolarity

Value	Polarity
0	Normal
1	Reverse

BACnetProgramError

Value	Program Error
0	Normal
1	Load-failed
2	Internal
3	Program
4	Other

BACnetProgramRequest

Value	Program Request
0	Ready
1	Load
2	Run
3	Halt
4	Restart
5	Unload

BACnetProgramState

Value	Program State
0	Idle
1	Loading
2	Running
3	Waiting
4	Halted
5	Unloading

BACnetReliability

Value	Reliability
0	No-fault-detected
1	No-sensor
2	Over-range
3	Under-range
4	Open-loop
5	Shorted-loop
6	No-output
7	Unreliable-other
8	Process-error
9	Multi-state-fault
10	Configuration-error
12	Communication-failure
13	Member-fault
14	Monitored-object-fault
15	Tripped

BACnetSegmentation

Value	Segmentation
0	Segmented-both
1	Segmented-transmit
2	Segmented-receive
3	No-segmentation

BACnetSilencedState

Value	Silenced State
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Value	Silenced State
0	Unsilenced
1	Audible-silenced
2	Visible-silenced
3	All-silenced

BACnetVTClass

Value	VT Class
0	Default-terminal
1	ANSI-x3-64
2	Dec-vt52
3	Dec-vt100
4	Dec-vt220
5	Hp-700-94
6	IBM-3130

Section 6 – Troubleshoot

The status of the driver execution can be observed through the diagnostic tools, which are:

- Trace window
- Property Watch
- Module Information

Revision History

Revision	Version	Description	Date
A	1.0.0.0	Initial Revision	Sep, 2019