

Date: 2/7/2014

Vendor Name: OEMCtrl

Product Name: OEMPrtl Pro

Product Model Number: LGR-OEM

Applications Software Version: <user specified> Firmware Revision: 6.00

BACnet Protocol Revision: 9

Product Description:

The OEMPrtl Pro sets a new standard for multiple equipment protocol conversion. An extremely powerful, high-speed device router & gateway, the OEMPrtl Pro can connect hundreds of control modules to a BACnet/IP backbone. Support for BACnet/IP, BACnet-over-Ethernet, ARC156, MS/TP, BACnet PTP, Modbus, N2, and LonWorks* communications are standard. A wide range of open and proprietary protocol translator drivers allow the OEMPrtl Pro to also serve as a gateway to other manufacturers' equipment. Fully programmable, the OEMPrtl Pro can also execute complex control strategies for high-level system integration and is easily configured using the industry's leading graphical programming tool, EIKON Logic Builder. It can convert between multiple open protocols like; Modbus to BACnet, or from a proprietary protocol to an open protocol to allow for integration with virtually any Building Management System. The OEMPrtl Pro also offers the ability to plug in an optional backlit LCD display/keypad to allow for viewing any of the points in your system.

BACnet Standardized Device Profile (Annex L):

- BACnet Operator Workstation (B-OWS)
- BACnet Advanced Operator Workstation (B-AWS)
- BACnet Operator Display (B-OD)
- BACnet Building Controller (B-BC)
- BACnet Advanced Application Controller (B-AAC)
- BACnet Application Specific Controller (B-ASC)
- BACnet Smart Sensor (B-SS)
- BACnet Smart Actuator (B-SA)

List all BACnet Interoperability Building Blocks Supported (Annex K):

DS-RP-B	AE-N-I-B	SCHED-I-B	T-VMT-I-B	DM-DDB-A
DS-RPM-B	AE-ACK-B	SCHED-E-B	T-ATR-B	DM-DDB-B
DS-WP-B	AE-ASUM-B			DM-DOB-A
DS-WPM-B	AE-INFO-B			DM-DOB-B
DS-COV-A	AE-ESUM-B			DM-DCC-B
DS-COV-B				DM-PT-A
DS-COVU-A				DM-PT-B
DS-COVU-B				DM-TS-B
DS-RP-A				DM-UTC-B
DS-RPM-A				DM-RD-B
DS-WP-A			NM-RC-B	DM-LM-B
DS-WPM-A				DM-BR-B
				DM-R-B

Segmentation Capability:

- Able to transmit segmented messages
- Able to receive segmented messages

Window Size _____1_____

Window Size _____1_____

Standard Object Types Supported :

An object type is supported if it may be present in the device. For each standard Object Type supported provide the following data:

- 1) Whether objects of this type are dynamically creatable using the CreateObject service
- 2) Whether objects of this type are dynamically deletable using the DeleteObject service
- 3) List of the optional properties supported
- 4) List of all properties that are writable where not otherwise required by this standard
- 5) List of all properties that are conditionally writable where not otherwise required by this standard.
- 6) List of proprietary properties and for each its property identifier, datatype, and meaning
- 7) List of any property range restrictions

(List of object types starts on page 4 ...)

Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ANSI/ATA 878.1, EIA-485 ARCNET (Clause 8), baud rate(s) **156k baud** _
- MS/TP master (Clause 9), baud rate(s): **9600, 19200, 38400, 76800** _
- MS/TP slave (Clause 9), baud rate(s): _____
- Point-To-Point, EIA 232 (Clause 10), baud rate(s): **9600, 19200, 38400, 57600, 115200**
- Point-To-Point, modem, (Clause 10), baud rate(s): **9600, 19200, 38400, 57600, 115200**
- LonTalk, (Clause 11), medium: _____
- BACnet/Zigbee (Annex O) _____
- Other: _____

Device Address Binding:

Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.) Yes No

Networking Options:

- Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
Ethernet-UDP/IP, Ethernet-PTP, BACnet/IP-UDP/IP, BACnet/IP-PTP, Ethernet-BACnet/IP, Ethernet-BACnet/IP-UDP/IP, Ethernet-BACnet/IP-PTP, ARCNET-UDP/IP, ARCNET-PTP, Ethernet-ARCNET, Ethernet-ARCNET-UDP/IP, Ethernet-ARCNET-PTP, BACnet/IP-ARCNET, BACnet/IP-ARCNET-UDP/IP, BACnet/IP-ARCNET-PTP, Ethernet-BACnet/IP-ARCNET, Ethernet-BACnet/IP-ARCNET-UDP/IP, Ethernet-BACnet/IP-ARCNET-PTP, MS/TP-UDP/IP, MS/TP-PTP, Ethernet-MS/TP, Ethernet-MS/TP-UDP/IP, Ethernet-MS/TP-PTP, BACnet/IP-MS/TP, BACnet/IP-MS/TP-UDP/IP, BACnet/IP-MS/TP-PTP, Ethernet-BACnet/IP-MS/TP, Ethernet-BACnet/IP-MS/TP-UDP/IP, Ethernet-BACnet/IP-MS/TP-PTP
- Annex H, BACnet Tunneling Router over IP
- BACnet/IP Broadcast Management Device (BBMD)
 - Does the BBMD support registrations by Foreign Devices? Yes No
 - Does the BBMD support network address translation? Yes No

Character Sets Supported:

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

- ANSI X3.4 IBM™/Microsoft™ DBCS ISO 8859-1
- ISO 10646 (UCS-2) ISO 10646 (UCS-4) JIS C 6226

If this product is a communication gateway, describe the types of non-BACnet equipment/networks(s) that the gateway supports: Various protocols, depending on which firmware is loaded.

Network Security Options:

- Non-secure Device – is capable of operating without BACnet Network Security
- Secure Device – is capable of using BACnet Network Security (NS-SD BIBB)
 - Multiple Application-Specific Keys
 - Supports encryption (NS-ED BIBB)
 - Key Server (NS-KS BIBB)

Analog Input (ASVI_CS):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - cov-increment
 - Deadband
 - description
 - device-type
 - event-enable
 - event-time-stamps
 - high-limit
 - limit-enable
 - low-limit
 - notification-class
 - notify-type
 - Reliability
 - Resolution
 - time-delay
4. Writeable properties:
 - cov-increment
 - Deadband
 - description
 - device-type
 - event-enable
 - high-limit
 - limit-enable
 - low-limit
 - notification-class
 - notify-type
 - out-of-service
 - time-delay
 - units
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties:

4168	optional/writable	cs-comb-algorithm
4169	optional/writable	cs-disp-source
4170	optional/writable	cs-sens-enable-arr
4173	optional/	cs-corrected-value-arr
4171	optional	cs-sens-status-arr
4172	optional/writable	cs-sens-calib-arr
7. Range restrictions:

description	limited to 50 octets in length
device-type	limited to 50 octets in length
notification-class	must be valid notification-class
time-delay	0 to 4294967295

Analog Input (RS):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - cov-increment
 - Deadband
 - description
 - device-type
 - event-enable
 - event-time-stamps
 - high-limit
 - limit-enable
 - low-limit
 - max-pres-value
 - min-pres-value
 - notification-class
 - notify-type
 - Reliability
 - Resolution
 - time-delay
 - update-interval
4. Writeable properties:
 - cov-increment
 - Deadband
 - description
 - device-type
 - event-enable
 - high-limit
 - limit-enable
 - low-limit
 - notification-class
 - notify-type
 - out-of-service
 - time-delay
 - Units
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
device-type	limited to 50 octets in length
present-value	limited by min-pres-value and max-pres-value properties
notification-class	must be valid notification-class
time-delay	0 to 4294967295

Analog Value (AVP_CS):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - cov-increment
 - Deadband
 - description
 - event-enable
 - event-time-stamps
 - high-limit
 - limit-enable
 - low-limit
 - notification-class
 - notify-type
 - priority-array
 - Reliability
 - relinquish-default
 - time-delay
4. Writeable properties:
 - cov-increment
 - Deadband
 - description
 - event-enable
 - high-limit
 - limit-enable
 - low-limit
 - notification-class
 - notify-type
 - out-of-service
 - present-value
 - relinquish-default
 - time-delay
 - units
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
present-value	limited by min and max set via the microblock
relinquish-default	limited by min and max set via the microblock
notification-class	must be valid notification-class
time-delay	0 to 4294967295

Analog Value (AVP_CS_Setpoint):

1. Creatable? NO
2. Deletable? NO

3. Optional properties supported:
 - cov-increment
 - description
 - Reliability

4. Writeable properties:
 - cov-increment
 - description
 - out-of-service
 - present-value
 - units

5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties:

4174	Private-edit-range-min	optional
4175	Private-edit-range-max	optional

7. Range restrictions:

description	limited to 50 octets in length
present-value	limited by min and max set via the microblock

Analog Value (AVS_CS_Setpoint):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - cov-increment
 - description
 - Reliability

4. Writeable properties:
 - cov-increment
 - description
 - out-of-service
 - units

5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
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Analog Value (PAR):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - cov-increment
 - Deadband
 - description

- event-enable
- event-time-stamps
- high-limit
- limit-enable
- low-limit
- notification-class
- notify-type
- priority-array
- Reliability
- relinquish-default
- time-delay
- 4. Writeable properties:
 - cov-increment
 - Deadband
 - description
 - event-enable
 - high-limit
 - limit-enable
 - low-limit
 - notification-class
 - notify-type
 - out-of-service
 - present-value
 - relinquish-default
 - time-delay
 - units
- 5. Conditionally writeable properties where not otherwise required by the standard: None
- 6. Proprietary properties: None
- 7. Range restrictions:

description	limited to 50 octets in length
present-value	limited by min-pres-value and max-pres-value properties
relinquish-default	limited by min-pres-value and max-pres-value properties
notification-class	must be valid notification-class
time-delay	0 to 4294967295

Analog Value (PID):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - description
 - reliability
4. Writeable properties:
 - description
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:
 - description
 - limited to 50 octets in length

Analog Value (RS):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - reliability
 - cov-increment
4. Writeable properties:
 - out-of-service
 - present-value
 - units
 - cov-increment
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions: None

Analog Value (STAT):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - cov-increment
 - deadband
 - description
 - event-enable
 - event-time-stamps
 - high-limit
 - limit-enable
 - low-limit
 - notification-class
 - notify-type
 - reliability
 - time-delay
4. Writeable properties:
 - cov-increment
 - deadband
 - description
 - event-enable
 - high-limit
 - limit-enable
 - low-limit
 - notification-class
 - notify-type
 - out-of-service
 - time-delay
 - units
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
notification-class	must be valid notification-class
time-delay	0 to 4294967295

Binary Value (BVP_CS):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - active-text
 - alarm-value
 - change-of-state-count
 - change-of-state-time
 - description

elapsed-active-time
event-enable
event-time-stamps
inactive-text
minimum-off-time
minimum-on-time
notification-class
notify-type
priority-array
reliability
relinquish-default
time-delay
time-of-active-time-reset
time-of-state-count-reset

4. Writeable properties:

active-text
alarm-value
change-of-state-count
description
elapsed-active-time
event-enable
inactive-text
minimum-off-time
minimum-on-time
notification-class
notify-type
out-of-service
present-value
relinquish-default
time-delay

5. Conditionally writeable properties where not otherwise required by the standard: None

6. Proprietary properties: None

7. Range restrictions:

active-text	limited to 50 octets in length
change-of-state-count	0 to 4294967295
description	limited to 50 octets in length
elapsed-active-time	0 to 4294967295
inactive-text	limited to 50 octets in length
minimum-off-time	0 to 4294967295
minimum-on-time	0 to 4294967295
notification-class	must be valid notification-class
time-delay	0 to 4294967295

Binary Value (BVP_CS_Momentary):

1. Creatable? NO
2. Deletable? NO

3. Optional properties supported:
 - acked-transitions
 - active-text
 - alarm-value
 - change-of-state-count
 - change-of-state-time
 - description
 - elapsed-active-time
 - event-enable
 - event-time-stamps
 - inactive-text
 - minimum-off-time
 - minimum-on-time
 - notification-class
 - notify-type
 - priority-array
 - reliability
 - relinquish-default
 - time-delay
 - time-of-active-time-reset
 - time-of-state-count-reset
4. Writeable properties:
 - active-text
 - alarm-value
 - change-of-state-count
 - description
 - elapsed-active-time
 - event-enable
 - inactive-text
 - notification-class
 - notify-type
 - out-of-service
 - present-value
 - relinquish-default
 - time-delay
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties:

4176	optional	cs_momentary_state
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7. Range restrictions:

active-text	limited to 50 octets in length
change-of-state-count	0 to 4294967295
description	limited to 50 octets in length
elapsed-active-time	0 to 4294967295
inactive-text	limited to 50 octets in length
notification-class	must be valid notification-class
time-delay	0 to 4294967295

Binary Value (CLOCK):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - active-text
 - alarm-value
 - change-of-state-count
 - change-of-state-time
 - description
 - elapsed-active-time
 - event-enable
 - event-time-stamps
 - inactive-text
 - minimum-off-time
 - minimum-on-time
 - notification-class
 - notify-type
 - priority-array
 - reliability
 - relinquish-default
 - time-delay
 - time-of-active-time-reset
 - time-of-state-count-reset
4. Writeable properties:
 - active-text
 - alarm-value
 - change-of-state-count
 - description
 - elapsed-active-time
 - event-enable
 - inactive-text
 - minimum-off-time
 - minimum-on-time
 - notification-class
 - notify-type
 - out-of-service
 - present-value
 - relinquish-default
 - time-delay
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

active-text	limited to 50 octets in length
change-of-state-count	0 to 4294967295
description	limited to 50 octets in length
elapsed-active-time	0 to 4294967295
inactive-text	limited to 50 octets in length

minimum-off-time	0 to 4294967295
minimum-on-time	0 to 4294967295
notification-class	must be valid notification-class
time-delay	0 to 4294967295

Binary Value (MODULE ALARM):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - alarm-value
 - description
 - event-enable
 - event-time-stamps
 - notification-class
 - notify-type
 - time-delay
4. Writeable properties:
 - alarm-value
 - event-enable
 - notification-class
 - notify-type
 - out-of-service
 - time-delay
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

notification-class	must be valid notification-class
time-delay	0 to 4294967295

Binary Value (PAR):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - active-text
 - alarm-value
 - change-of-state-count
 - change-of-state-time
 - description
 - elapsed-active-time
 - event-enable
 - event-time-stamps
 - inactive-text
 - minimum-off-time
 - minimum-on-time

- notification-class
- notify-type
- priority-array
- reliability
- relinquish-default
- time-delay
- time-of-active-time-reset
- time-of-state-count-reset
- 4. Writeable properties:
 - active-text
 - alarm-value
 - change-of-state-count
 - description
 - elapsed-active-time
 - event-enable
 - inactive-text
 - minimum-off-time
 - minimum-on-time
 - notification-class
 - notify-type
 - out-of-service
 - present-value
 - relinquish-default
 - time-delay
- 5. Conditionally writeable properties where not otherwise required by the standard: None
- 6. Proprietary properties: None
- 7. Range restrictions:

active-text	limited to 50 octets in length
change-of-state-count	0 to 4294967295
description	limited to 50 octets in length
elapsed-active-time	0 to 4294967295
inactive-text	limited to 50 octets in length
minimum-off-time	0 to 4294967295
minimum-on-time	0 to 4294967295
notification-class	must be valid notification-class
time-delay	0 to 4294967295

Binary Value (STAT):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - active-text
 - alarm-value
 - change-of-state-count
 - change-of-state-time
 - description
 - elapsed-active-time
 - event-enable
 - inactive-text
 - minimum-off-time
 - minimum-on-time
 - notification-class
 - notify-type
 - reliability
 - time-delay
 - time-of-active-time-reset
 - time-of-state-count-reset
 - event-time-stamp
4. Writeable properties:
 - active-text
 - alarm-value
 - change-of-state-count
 - description
 - elapsed-active-time
 - event-enable
 - inactive-text
 - minimum-off-time
 - minimum-on-time
 - notification-class
 - notify-type
 - out-of-service
 - time-delay
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

active-text	limited to 50 octets in length
change-of-state-count	0 to 4294967295
description	limited to 50 octets in length
elapsed-active-time	0 to 4294967295
inactive-text	limited to 50 octets in length
minimum-off-time	0 to 4294967295
minimum-on-time	0 to 4294967295
notification-class	must be valid notification-class
time-delay	0 to 4294967295

Calendar:

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 description
4. Writeable properties:
 date-list
 description
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:
 date-list limited to 30 BACnetCalendarEntrys
 description limited to 50 octets in length

Device:

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - active-cov-subscriptions
 - active-vt-sessions
 - apdu-segment-timeout
 - backup-failure-timeout
 - configuration-files
 - database-revision
 - description
 - last-restore-time
 - list_of_session_keys
 - local_date
 - local_time
 - location
 - max-segments-accepted
 - vt-classes-supported
 - utc-offset
 - max-master
 - max-info-frames
 - last-restart-reason
 - time-of-device-restart
 - restart-notification-recipients
4. Writeable properties:
 - object-identifier
 - object-name
 - location
 - description
 - local-time
 - local-date
 - utc-offset
 - apdu-segment-timeout
 - apdu-timeout
 - number-of-apdu-retries
 - max-master
 - max-info-frames
 - last-restart-reason
 - restart-notification-recipients
 - backup-failure-timeout
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties:

Property no.	Property name	Data Type
4149	auto-identity-scheme	enumerated
4150	auto-identity-base	unsigned
4153	serial-number	char string
4161	array-of-mstp-baud-rates	array of unsigned
4162	test-mode	enumerated
4166	download-id	char string

4167	file-store-size	unsigned
4901	archive-valid-status	enumerated
4902	archive-now-trigger	bool
4920	lonworks-enable-metric-conversion	bool

7. Range restrictions:

description	limited to 50 octets in length
location	limited to 50 octets in length
max-master	1 to 127
object-identifier	must be a valid device identifier
object-name	limited to 50 octets in length
utc-offset	-780 to 780
last-restart-reason	limited to BACnetRestartReason
restart-notification-recipients	0 to 10 BACnetRecipients
auto-identity-scheme	0 or 1
auto-identity-base	0 to 4294967295

File:

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - description
4. Writeable properties:
 - archive
 - description
 - file-type
 - file-size
 - modification-date
 - read-only
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
file-type	limited to 50 octets in length

Loop Object (BACnet PID):

1. Creatable? No
2. Deletable? No
3. Optional properties supported:
 - Description
 - Update_interval
 - Proportional_constant
 - Proportional_constant_units
 - Integral_constant
 - Integral_constant_units
 - Derivative_constant
 - Derivative_constant_units
 - Bias
 - COV_increment
4. Writable properties:
 - Description
 - Update_interval
 - Action
 - Proportional_constant
 - Integral_constant
 - Derivative_constant
 - Bias
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties:
 - Continuous_proportional
 - Deadband
 - Ramp_time
7. Range Restriction:

Property no.	Property name	Property Restrictions	Data Type
4163	Continuous_proportional	Can only be 0 or 1	Boolean
4164	Deadband	Must be >=0	Real
4165	Ramp_time	Must be >=0	Real

Multi-State Value (CLOCK):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - alarm-values
 - description
 - event-enable
 - event-time-stamps
 - fault-values
 - notification-class
 - notify-type
 - priority-array
 - reliability
 - relinquish-default
 - state-text
 - time-delay

4. Writeable properties:
 - alarm-values
 - description
 - event-enable
 - fault-values
 - notification-class
 - notify-type
 - out-of-service
 - present-value
 - relinquish-default
 - time-delay
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
notification-class	must be valid notification-class
present-value	must be valid state
relinquish-default	must be valid state
time-delay	0 to 4294967295

Multi-State Value (MSVP_CS):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - alarm-values
 - description
 - event-enable
 - event-time-stamps
 - fault-values
 - notification-class
 - notify-type
 - priority-array
 - reliability
 - relinquish-default
 - state-text
 - time-delay
4. Writeable properties:
 - alarm-values
 - description
 - event-enable
 - fault-values
 - notification-class
 - notify-type
 - out-of-service
 - present-value
 - relinquish-default

time-delay

5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
notification-class	must be valid notification-class
present-value	must be valid state
relinquish-default	must be valid state
time-delay	0 to 4294967295

Multi-State Value (MSVP_CS_Momentary):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - alarm-values
 - description
 - event-enable
 - event-time-stamps
 - fault-values
 - notification-class
 - notify-type
 - priority-array
 - reliability
 - relinquish-default
 - state-text
 - time-delay
4. Writeable properties:
 - alarm-values
 - description
 - event-enable
 - fault-values
 - notification-class
 - notify-type
 - out-of-service
 - present-value
 - relinquish-default
 - time-delay
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
notification-class	must be valid notification-class
present-value	must be valid state
relinquish-default	must be valid state
time-delay	0 to 4294967295

Multi-State Value (PAR):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - alarm-values
 - description
 - event-enable
 - event-time-stamps
 - fault-values
 - notification-class
 - notify-type
 - priority-array
 - reliability
 - relinquish-default
 - state-text
 - time-delay
4. Writeable properties:
 - alarm-values
 - description
 - event-enable
 - fault-values
 - notification-class
 - notify-type
 - out-of-service
 - present-value
 - relinquish-default
 - time-delay
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
notification-class	must be valid notification-class
present-value	must be valid state
relinquish-default	must be valid state
time-delay	0 to 4294967295

Multi-State Value (STAT):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - alarm-values
 - description
 - event-enable
 - event-time-stamps
 - fault-values
 - notification-class
 - notify-type
 - reliability
 - state-text
 - time-delay
4. Writeable properties:
 - alarm-values
 - description
 - event-enable
 - fault-values
 - notification-class
 - notify-type
 - out-of-service
 - time-delay
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
notification-class	must be valid notification-class
present-value	must be valid state
time-delay	0 to 4294967295

Notification Class:

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - description
4. Writeable properties:
 - ack-required
 - description
 - priority
 - recipient-list
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions: None
 - description limited to 50 octets in length
 - recipient-list limited to 5 BACnetDestinations

Program:

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - description
 - description-of-halt
 - instance-of
 - program-location
 - reason-for-halt
 - reliability
4. Writeable properties:
 - description
 - program-change
 - program-location
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
program-location	limited to 50 octets in length

Schedule (ENUM):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - description
 - exception-schedule
 - weekly-schedule
4. Writeable properties:
 - description
 - effective-period
 - exception-schedule
 - priority-for-writing
 - weekly-schedule
 - list-of-prop-reference
 - schedule-default
 - reliability
 - out-of-service
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties:
 - schedule-names
7. Range restrictions:

description	limited to 50 octets in length
exception-schedule	limited to 30 BACnetSpecialEvents, each being limited to 6 BACnetTimeValues
present-value	0 to 4294967295
relinquish-default	0 to 4294967295
weekly-schedule	limited to 6 BACnetTimeValues per BACnetDailySchedule
schedule-default	0 to 4294967295
reliability	limited to 4 BACnetReliability
out-of-service	limited to Boolean
(557) schedule-names	limited to 800 octets in length

Schedule (UNS):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - description
 - exception-schedule
 - weekly-schedule
4. Writeable properties:
 - description
 - effective-period
 - exception-schedule
 - priority-for-writing
 - weekly-schedule
 - list-of-prop-reference
 - schedule-default
 - reliability
 - out-of-service
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties:
 - schedule-names
7. Range restrictions:

description	limited to 50 octets in length
exception-schedule	limited to 30 BACnetSpecialEvents, each being limited to 6 BACnetTimeValues
present-value	0 to 4294967295
relinquish-default	0 to 4294967295
weekly-schedule	limited to 6 BACnetTimeValues per BACnetDailySchedule
schedule-default	0 to 4294967295
reliability	limited to 4 BACnetReliability
out-of-service	limited to Boolean
(557) schedule-names	limited to 800 octets in length

Trend-log (COV or polled):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - client-cov-increment
 - cov-resubscription-interval
 - description
 - event-enable
 - event-time-stamps
 - log-device-object-property
 - log-interval
 - notification-class
 - notification-threshold
 - notify-type
 - records-since-notification
 - start-time
 - stop-time
 - last-notify-record
 - align-intervals
 - interval-offset
 - reliability
4. Writeable properties:
 - buffer-size
 - client-cov-increment
 - cov-resubscription-interval
 - Description
 - event-enable
 - log-enable
 - log-interval
 - notification-class
 - notification-threshold
 - notify-type
 - record-count
 - start-time
 - stop-time
 - stop-when-full
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
log-interval	0 to 4294967295
notification-class	must be valid notification-class
notification-threshold	0 to 4294967295
record-count	can only be written to 0
total-record-count	can only be written to 0
reliability	limited to 4 BACnetReliability

Trend-log (of a non-BACnet property, COV or polled):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - client-cov-increment
 - cov-resubscription-interval
 - description
 - event-enable
 - event-time-stamps
 - last-notify-record
 - log-interval
 - notification-class
 - notification-threshold
 - notify-type
 - records-since-notification
 - start-time
 - stop-time
 - align-intervals
 - interval-offset
 - reliability
4. Writeable properties:
 - buffer-size
 - client-cov-increment
 - cov-resubscription-interval
 - description
 - event-enable
 - log-enable
 - log-interval
 - notification-class
 - notification-threshold
 - notify-type
 - record-count
 - start-time
 - stop-time
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
log_interval	0 to 4294967295
notification_class	must be valid notification_class
notification_threshold	0 to 4294967295
record_count	can only be written to 0
logging-type	limited to 3 BACnetLoggingType
align-intervals	limited to Boolean
interval-offset	0 to 4294967295 in hundredths of seconds

trigger	limited to Boolean
reliability	limited to 4 BACnetReliability

Trend-log (of a non-BACnet property, triggered):

1. Creatable? NO
2. Deletable? NO
3. Optional properties supported:
 - acked-transitions
 - client-cov-increment
 - cov-resubscription-interval
 - description
 - event-enable
 - event-time-stamps
 - last-notify-record
 - log-interval
 - notification-class
 - notification-threshold
 - notify-type
 - records-since-notification
 - start-time
 - stop-time
 - reliability
 - trigger
4. Writeable properties:
 - buffer-size
 - client-cov-increment
 - cov-resubscription-interval
 - description
 - event-enable
 - log-enable
 - notification-class
 - notification-threshold
 - notify-type
 - record-count
 - start-time
 - stop-time
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties: None
7. Range restrictions:

description	limited to 50 octets in length
log_interval	0 to 4294967295
notification_class	must be valid notification_class
notification_threshold	0 to 4294967295
record_count	can only be written to 0
logging-type	limited to 3 BACnetLoggingType
align-intervals	limited to Boolean
interval-offset	0 to 4294967295 in hundredths of seconds

trigger
reliability

limited to Boolean
limited to 4 BACnetReliability

Proprietary Object, AirFlow:

1. Creatable? No
2. Deletable? No
3. Optional properties supported:
 - description
 - device-type
 - profile-name
 - tab-tech-name
 - tab-org-name
 - display-name
 - max-cool-flow
 - max-cool-flow-ovr
 - max-heat-flow
 - min-occ-flow
 - min-occ-flow-ovr
 - min-unocc-flow
 - tabs-pars-seal
 - min-aux-heat-flow
 - flow-at-one-inch
 - flow-calibration
 - sens-calibration
 - lock-flags
 - flow-setpt-lock
 - aux-heat-lock
 - damper-lock
 - fan-lock
 - auto-zero
 - tab-mode
 - last-tab-date
 - air-source-obj-id
 - par-prg-dev-id
 - par-prg-obj-id
 - loop-config
 - sens-config
 - damp-config
 - status-flags
 - reliability
 - occupied-mode
 - heat-mode
 - fan-outpt
 - cooling
 - heating
 - aux-heat
 - damper
 - flow-actual
 - flow-setpoint
 - air-flow-obj-id
 - own-prg-obj-id
 - flow-rawpct
 - flow-rawsetpt
 - moves-today

- moves-yesterday
- prop-stat-flags
- units
- ovr-flags
- lock-flags-bool
- prop-stat-flags-bool
- baf-version
- 4. Writable properties:
 - description
 - device-type
 - profile-name
 - tab-tech-name
 - tab-org-name
 - display-name
 - max-cool-flow
 - max-cool-flow-ovr
 - max-heat-flow
 - min-occ-flow
 - min-occ-flow-ovr
 - min-unocc-flow
 - tab-pars-seal
 - min-aux-heat-flow
 - flow-at-one-inch
 - flow-calibration
 - sens-calibration
 - flow-setpt-lock
 - aux-heat-lock
 - damper-lock
 - fan-lock
 - auto-zero
 - tab-mode
 - last-tab-date
 - lock-flags-bool
- 5. Conditionally writeable properties where not otherwise required by the standard: None
- 6. Proprietary properties:
 - max-cool-flow
 - max-heat-flow
 - min-occ-flow
 - min-unocc-flow
 - min-aux-heat-flow
 - flow-at-one-inch
 - flow-calibration
 - sens-calibration
 - aux-heat-lock
 - damper-lock
 - flow-setpt-lock
 - auto-zero
 - tab-mode
 - lock-flags
 - par-prg-dev-id
 - par-prg-obj-id
 - air-source-obj-id
 - occupied-mode

heat-mode
 Cooling
 Heating
 aux-heat
 Damper
 flow-actual
 flow-setpoint
 air-flow-obj-id
 loop-config
 sens-config
 damp-config
 flow-rawpct
 flow-rawsetpt
 moves-today
 moves-yesterday
 fan-lock
 fan-outpt
 prop-stat-flags
 tab-tech-name
 tab-org-name
 last-tab-date
 display-name
 own-prg-obj-id
 ovr-flags
 max-cool-flow-ovr
 min-occ-flow-ovr
 tab-pars-seal
 lock-flags-bool
 prop-stat-flags-bool
 baf-version

7. Range Restriction:

Property no.	Property name	Property Restrictions	DataType
4132	tab-tech-name	limited to 50 octets in length	Chrstr
4133	tab-org-name	limited to 50 octets in length	Chrstr
4135	display-name	limited to 50 octets in length	Chrstr
4096	max-cool-flow	Float – Standard Bacnet	Real
4138	max-cool-flow-ovr	Float – Standard Bacnet	Real
4097	max-heat-flow	Float – Standard Bacnet	Real
4098	min-occ-flow	Float – Standard Bacnet	Real
4139	min-occ-flow-ovr	Float – Standard Bacnet	Real
4099	min-unocc-flow	Float – Standard Bacnet	Real
4140	tab-pars-seal	Date/Time – Standard Bacnet	Date/Time
4100	min-aux-heat-flow	Float – Standard Bacnet	Real
4101	flow-at-one-inch	Float – Standard Bacnet	Real
4102	flow-calibration	Float – Standard Bacnet	Real(Array of 4 values)
4103	sens-calibration	Float – Standard Bacnet	Real(Array of 4 values)
4106	flow-setpt-lock	Float – Standard Bacnet	Real
4104	aux-heat-lock	Float – (only goes 0 – 100)	Real
4105	damper-lock	Float – (only goes 0 - 100)	Real
4129	fan-lock	Boolean – Standard Bacnet	Boolean
4107	auto-zero	Boolean – Standard Bacnet	Boolean
4108	tab-mode	0-255 (Only 0 -8 is defined)	Byte
4134	last-tab-date	Date/Time – Standard Bacnet	Date/Time
4141	lock-flags-bool		BitStr

description	limited to 50 octets in length	ChrStr
device-type	limited to 50 octets in length	ChrStr
profile-name	limited to 50 octets in length	ChrStr

Proprietary Object, Network Port:

1. Creatable? No
2. Deletable? No
3. Optional properties supported:
 - ip-multicast-address
 - ip-subnet-mask
 - ip-default-gateway
 - max-master
 - max-info-frames
 - time-sync-interval
4. Writable properties:
 - network-number
 - mac-address
 - ip-multicast-address
 - ip-subnet-mask
 - ip-default-gateway
 - instance-of
 - auto-identity-base
 - auto-identity-scheme
 - network-port-base
 - max-master
 - max-info-frames
 - device-time-sync-mode
 - time-sync-interval
5. Conditionally writeable properties where not otherwise required by the standard: None
6. Proprietary properties:
 - network-type
 - network-number
 - mac-address
 - ip-multicast-address
 - ip-subnet-mask
 - ip-default-gateway
 - auto-identity-base
 - auto-identity-scheme
 - network-port-base
 - device-time-sync-mode

7. Range Restriction:

Property no.	Property name	Property Restrictions	Data Type
624	network-type		Unsigned
622	network-number	0 – 65535	Unsigned
621	mac-address	limited to 6 octets in length	Chrstr
607	ip-multicast-address	limited to 4 octets in length	Chrstr
608	ip-subnet-mask	limited to 4 octets in length	Chrstr
601	ip-default-gateway	limited to 4 octets in length	Chrstr
4150	auto-identity-base	0 - 4294967295	Unsigned
4149	auto-identity-scheme	0 - 255	Enum
600	network-port-base		Chrstr
660	device-time-sync-mode	0 - 2	Enum

