



BACnet Protocol Implementation Conformance Statement

Date: December, 3 2014
Vendor Name: Unitec Corporation
Product Name: BACnet Gateway Series
Product Model Number: BAQ08V
Applications Software Version: 2.0.0
Firmware Revision: 2.0.0
BACnet Protocol Revision: 1.12

Product Description

This BACnet device, BAQ08V, is designed for the combined use with MELSEC© PLC.

BAQ08V can be directly connected to MELSEC to operate as a generic BACnet Controller.

BACnet Standardized Device Profile

- 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)



BACnet Interoperability Building Blocks Supported

	BIBBs	Designation
Data Sharing	ReadProperty-A	DS-RP-A
	ReadProperty-B	DS-RP-B
	ReadPropertyMultiple-A	DS-RPM-A
	ReadPropertyMultiple-B	DS-RPM-B
	WriteProperty-A	DS-WP-A
	WriteProperty-B	DS-WP-B
	WritePropertyMultiple-A	DS-WPM-A
	WritePropertyMultiple-B	DS-WPM-B
	COV-A	DS-COV-A
	COV-B	DS-COV-B
	COV-Unsolicited-A	DS-COVU-A
	COV-Unsolicited-B	DS-COVU-B
	Alarm and Event	Alarm and Event-Notification-A
Alarm and Event-Notification-Internal-B		AE-N-I-B
Alarm and Event-ACK-B		AE-ACK-B
Alarm and Event-Summary-B		AE-ASUM-B
Alarm and Event-Enrollment Summary-B		AE-ESUM-B
Alarm and Event-Information-B		AE-INFO-B
Scheduling	Internal-B	SCHED-I-B
	External-B	SCHED-E-B
Trending	Viewing and Modifying Trends Internal-B	T-VMT-I-B
	Viewing and Modifying Trends External-B	T-VMT-E-B
	Automated Trend Retrieval-B	T-ATR-B
Device Management	Dynamic Device Binding-A	DM-DDB-A
	Dynamic Device Binding-B	DM-DDB-B
	Dynamic Object Binding-B	DM-DOB-B
	DeviceCommunicationControl-B	DM-DCC-B
	Automatic Network Mapping -A	DM-ANM-A
	TimeSynchronization-A	DM-TS-A
	TimeSynchronization-B	DM-TS-B
	UTCTimeSynchronization-A	DM-UTC-A
	UTCTimeSynchronization-B	DM-UTC-B
	Manual Time Synchronization-A	DM-MTS-A
	ReinitializeDevice-B	DM-RD-B
	Backup and Restore - B	DM-BR-B
	Restart-A	DM-R-A
	Restart-B	DM-R-B
List Manipulation-B	DM-LM-B	
ObjectCreation and Deletion-B	DM-OCD-B	

Segmentation Capability:

- Able to transmit segmented messages Window Size 7
- Able to receive segmented messages Window Size 7



Standard Object Types Supported

Analog Input Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	Acked_Transitions / Notification_Class / Cov_Increment / Deadband / Description / Device_Type / Event_Enable / High_Limit / Limit_Enable / Low_Limit / Notify_Type / Reliability / Resolution / Time_Delay / Update_Interval / Event_Time_Stamps / Profile_Name
Writable Properties	Notification_Class / Cov_Increment / Deadband / Description / Device_Type / Event_Enable / High_Limit / Limit_Enable / Low_Limit / Notify_Type / Object_Name / Out_Of_Service / Time_Delay / Units / Update_Interval / Profile_Name / Power_Factor / Intrinsic_Event_Disable / Unsolicited_COV / COV_Send_Interval
Proprietary Properties	<p>Power_Factor, ID: 9001, Data type: Boolean, Description: Detects High/Low Limits specifically for Power_Factor.</p> <p>Intrinsic_Event_Disable, ID: 9002, Data type: Boolean Description: Disables/Enables transmission of Event notifications.</p> <p>Unsolicited_COV ID: 9003, Data type: Enumerated, Description: Disables/Enables transmission of UnsolicitedCOVnotifications</p> <p>COV_Send_Interval, ID: 9006, Data type: Unsigned, Description: Specifies interval for periodic COV transmission</p>



Analog Output Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	Acked_Transitions / Notification_Class / Cov_Increment / Deadband / Description / Device_Type / Event_Enable / High_Limit / Limit_Enable / Low_Limit / Notify_Type / Reliability / Resolution / Time_Delay / Event_Time_Stamps / Profile_Name
Writable Properties	Notification_Class / Cov_Increment / Deadband / Description / Device_Type / Event_Enable / High_Limit / Limit_Enable / Low_Limit / Notify_Type / Object_Name / Out_Of_Service / Present_Value / Relinquish_Default / Time_Delay / Units / Profile_Name / Power_Factor / Intrinsic_Event_Disable / Unsolicited_COV / COV_Send_Interval
Proprietary Properties	<p>Power_Factor, ID: 9001, Data type: Boolean, Description: Detects High/Low Limits specifically for Power_Factor.</p> <p>Intrinsic_Event_Disable ID: 9002, Data type: Boolean, Description: Disables/Enables transmission of Event notifications.</p> <p>Unsolicited_COV, ID:9003, Data type: Enumerated, Description: Disables/Enables transmission of UnsolicitedCOVnotifications</p> <p>COV_Send_Interval, ID: 9006, Data type: Unsigned, Description: Specifies interval for periodic COV transmission.</p>



Analog Value Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	Acked_Transitions / Notification_Class / Cov_Increment / Deadband / Description / Event_Enable / High_Limit / Limit_Enable / Low_Limit / Notify_Type / Priority_Array / Reliability / Relinquish_Default / Time_Delay / Event_Time_Stamps / Profile_Name
Writable Properties	Notification_Class / Cov_Increment / Deadband / Description / Event_Enable / High_Limit / Limit_Enable / Low_Limit / Notify_Type / Object_Name / Out_Of_Service / Present_Value / Relinquish_Default / Time_Delay / Units / Profile_Name / Power_Factor / Intrinsic_Event_Disable / Unsolicited_COV / Value_Is_Output / COV_Send_Interval
Proprietary Properties	<p>Power_Factor ID: 9001, Data type: Boolean, Description: Detects High/Low Limits specifically for Power_Factor.</p> <p>Intrinsic_Event_Disable ID: 9002, Data type: Boolean, Description: Disables/Enables transmission of Event notifications.</p> <p>Unsolicited_COV ID:9003, Data type: Enumerated, Description: Disables/Enables transmission of UnsolicitedCOVnotifications</p> <p>Value_Is_Output ID: 9004, Data type: Boolean, Description: AV will be regarded as for output object.</p> <p>COV_Send_Interval, ID: 9006, Data type: Unsigned, Description: Specifies interval for periodic COV transmission.</p>



Binary Input Object

Dynamically Creatable

Dynamically Deletable

<p>Optional Properties Supported</p>	<p>Acked_Transitions / Active_Text / Alarm_Value / Change_Of_State_Count / Change_Of_State_Time / Notification_Class / Description / Device_Type / Elapsed_Active_Time / Event_Enable / Inactive_Text / Notify_Type / Reliability / Time_Delay / Time_Of_Active_Time_Reset / Time_Of_State_Count_Reset / Event_Time_Stamps / Profile_Name</p>
<p>Writable Properties</p>	<p>Active_Text / Alarm_Value / Change_Of_State_Count / Notification_Class / Description / Device_Type / Elapsed_Active_Time / Event_Enable / Inactive_Text / Notify_Type / Object_Name / Out_Of_Service / Polarity / Time_Delay / Profile_Name / Intrinsic_Event_Disable / Unsolicited_COV / COV_Send_Interval</p>
<p>Proprietary Properties</p>	<p>Intrinsic_Event_Disable, ID: 9002, Data type: Boolean, Description: Disables/Enables transmission of Event notifications.</p> <p>Unsolicited_COV ID:9003, Data type: Enumerated, Description: Disables/Enables transmission of UnsolicitedCOVnotifications</p> <p>COV_Send_Interval, ID: 9006, Data type: Unsigned, Description: Specifies interval for periodic COV transmission.</p>



Binary Output Object

Dynamically Creatable

Dynamically Deletable

<p>Optional Properties Supported</p>	<p>Acked_Transitions / Active_Text / Change_Of_State_Count / Change_Of_State_Time / Notification_Class / Description / Device_Type / Elapsed_Active_Time / Event_Enable / Feedback_Value / Inactive_Text / Minimum_Off_Time / Minimum_On_Time / Notify_Type / Reliability / Time_Delay / Time_Of_Active_Time_Reset / Time_Of_State_Count_Reset / Event_Time_Stamps / Profile_Name</p>
<p>Writable Properties</p>	<p>Active_Text / Change_Of_State_Count / Notification_Class / Description / Device_Type / Elapsed_Active_Time / Event_Enable / Inactive_Text / Minimum_Off_Time / Minimum_On_Time / Notify_Type / Object_Name / Out_Of_Service / Polarity / Present_Value / Relinquish_Default / Time_Delay / Profile_Name / Intrinsic_Event_Disable / Unsolicited_COV / COV_Send_Interval</p>
<p>Proprietary Properties</p>	<p>Intrinsic_Event_Disable, ID: 9002, Data type: Boolean, Description: Disables/Enables transmission of Event notifications.</p> <p>Unsolicited_COV ID:9003, Data type: Enumerated, Description: Disables/Enables transmission of UnsolicitedCOVnotifications</p> <p>COV_Send_Interval, ID: 9006, Data type: Unsigned, Description: Specifies interval for periodic COV transmission.</p>



Binary Value Object

Dynamically Creatable

Dynamically Deletable

<p>Optional Properties Supported</p>	<p>Acked_Transitions / Active_Text / Alarm_Value / Change_Of_State_Count / Change_Of_State_Time / Notification_Class / Description / Elapsed_Active_Time / Event_Enable / Inactive_Text / Minimum_Off_Time / Minimum_On_Time / Notify_Type / Priority_Array / Relinquish_Default / Reliability / Time_Delay / Time_Of_Active_Time_Reset / Time_Of_State_Count_Reset / Event_Time_Stamps / Profile_Name</p>
<p>Writable Properties</p>	<p>Active_Text / Alarm_Value / Change_Of_State_Count / Notification_Class / Description / Elapsed_Active_Time / Event_Enable / Inactive_Text / Minimum_Off_Time / Minimum_On_Time / Notify_Type / Object_Name / Out_Of_Service / Present_Value / Relinquish_Default / Time_Delay / Profile_Name / Intrinsic_Event_Disable / Unsolicited_COV / Value_Is_Output / COV_Send_Interval</p>
<p>Proprietary Properties</p>	<p>Intrinsic_Event_Disable, ID: 9002, Data type: Boolean, Description: Disables/Enables transmission of Event notifications.</p> <p>Unsolicited_COV ID:9003, Data type: Enumerated, Description: Disables/Enables transmission of UnsolicitedCOVnotifications</p> <p>Value_Is_Output ID: 9004, Data type: Boolean, Description: BV will be regarded as for output object.</p> <p>COV_Send_Interval, ID: 9006, Data type: Unsigned, Description: Specifies interval for periodic COV transmission.</p>



Multi-state Input Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	Acked_Transitions / Alarm_Values / Notification_Class / Description / Device_Type / Event_Enable / Falut_Values / Notify_Type / Reliability / State_Text / Time_Delay / Event_Time_Stamps / Profile_Name
Writable Properties	Alarm_Values / Notification_Class / Description / Device_Type / Event_Enable / Falut_Values / Notify_Type / Number_Of_States / Object_Name / Out_Of_Service / State_Text / Time_Delay / Profile_Name / Intrinsic_Event_Disable / Unsolicited_COV / COV_Send_Interval
Proprietary Properties	<p>Intrinsic_Event_Disable, ID: 9002, Data type: Boolean, Description: Disables/Enables transmission of Event notifications.</p> <p>Unsolicited_COV ID:9003, Data type: Enumerated, Description: Disables/Enables transmission of UnsolicitedCOVnotifications</p> <p>COV_Send_Interval, ID: 9006, Data type: Unsigned, Description: Specifies interval for periodic COV transmission.</p>



Multi-state Output Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	Acked_Transitions / Notification_Class / Description / Device_Type / Event_Enable / Feedback_Value / Notify_Type / Reliability / State_Text / Time_Delay / Event_Time_Stamps / Profile_Name
Writable Properties	Notification_Class / Description / Device_Type / Event_Enable / Notify_Type / Number_Of_States / Object_Name / Out_Of_Service / Present_Value / RelinquishDefault / State_Text / Time_Delay / Profile_Name / Intrinsic_Event_Disable / Unsolicited_COV / COV_Send_Interval
Proprietary Properties	<p>Intrinsic_Event_Disable, ID: 9002, Data type: Boolean, Description: Disables/Enables transmission of Event notifications.</p> <p>Unsolicited_COV ID:9003, Data type: Enumerated, Description: Disables/Enables transmission of UnsolicitedCOVnotifications</p> <p>COV_Send_Interval, ID: 9006, Data type: Unsigned, Description: Specifies interval for periodic COV transmission.</p>



Multi-state Value Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	Acked_Transitions / Alarm_Values / Notification_Class / Description / Event_Enable / Fault_Values / Notify_Type / Priority_Array / Reliability / Relinquish_Default / State_Text / Time_Delay / Event_Time_Stamps / Profile_Name
Writable Properties	Alarm_Values / Notification_Class / Description / Event_Enable / Fault_Values / Notify_Type / Number_Of_States / Object_Name / Out_Of_Service / Present_Value / Relinquish_Default / State_Text / Time_Delay / Profile_Name / Intrinsic_Event_Disable / Unsolicited_COV / Value_Is_Output / COV_Send_Interval
Proprietary Properties	<p>Intrinsic_Event_Disable, ID: 9002, Data type: Boolean, Description: Disables/Enables transmission of Event notifications.</p> <p>Unsolicited_COV ID:9003, Data type: Enumerated, Description: Disables/Enables transmission of UnsolicitedCOVnotifications</p> <p>Value_Is_Output ID: 9004, Data type: Boolean, Description: MV will be regarded as for output object.</p> <p>COV_Send_Interval, ID: 9006, Data type: Unsigned, Description: Specifies interval for periodic COV transmission.</p>



Accumulator Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	Acked_Transitions / Notification_Class / Description / Device_Type / Event_Enable / High_limit / Limit_Monitoring_Interval / Low_limit / Notify_Type / Reliability / Time_Delay / Event_Time_Stamps / Profile_Name / Limit_Enable / Logging_Object / Prescale / Pulse-Rate / Value_Before_Change / Value_Set / Value_Change_Time / Logging_Record
Writable Properties	Notification_Class / Description / Device_Type / Event_Enable / High_limit / Low_Limit / Max_Pres_Value / Limit_Monitoring_Interval / Notify_Type / Object_Name / Out_Of_Service / Time_Delay / Profile_Name / Limit_Enable / Logging_Object / Prescale / Pulse-Rate / Scale / Value_Set / Intrinsic_Event_Disable / Unsolicited_COV / COV_Send_Interval / Units
Proprietary Properties	Intrinsic_Event_Disable, ID: 9002, Data type: Boolean, Description: Disables/Enables transmission of Event notifications.

Calendar Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	Description / Profile_Name
Writable Properties	Date_List / Description / Object_Name / Profile_Name
Proprietary Properties	Not Applicable



Notification Class Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	Description / Profile_Name
Writable Properties	Description / Object_Name / Priority Recipient_List / Profile_Name
Proprietary Properties	Not Applicable



Schedule Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	Description / Exception_Schedule / Weekly_Schedule / Profile_Name
Writable Properties	Description / Effective_Period / Weekly_Schedule / Exception_Schedule / Object_Name / Out_Of_Service / Priority_For_Writing / List_Of_Object_Property_References / Profile_Name / Schedule_Default / Schedule_Output_Disable / Schedule_Expand / Schedule_Default_Disable
Proprietary Properties	<p>Schedule_Output_Disable ID: 9011, Data type: Boolean, Description: Prohibits Schedule manipulation.</p> <p>Schedule_Expand ID: 9012, Data type: Boolean, Description: Disables/Enables automatic ExceptionSchedule enrollment.</p> <p>Schedule_Default_Disable ID: 9014, Data type: Boolean, Description: Disables/Enables Schedule Default property.</p>

Trend Log Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	Acked_Transitions / Notification_Class / Description / Event_Enable / Notify_Type / Client_COV_Increment / Event_Time_Stamps / Log_DeviceObjectProperty / Log_Interval / Notification_Threshold / Records_Since_Notification / Start_Time / Stop_Time / Profile_Name / Last_Notify_Record / COV_Resubscription_Interval / Align_Intervals / Interval_Offset / Trigger / Reliability
Writable Properties	Notification_Class / Description / Event_Enable / Notify_Type / Object_Name / Client_COV_Increment / Log_DeviceObjectProperty / Enable / Log_Interval / Notification_Threshold / Records_Since_Notification / Record_Count / Start_Time / Stop_Time / Profile_Name / Logging_Type / Align_Intervals / Interval_Offset / Trigger
Proprietary Properties	Not Applicable



Device Object

Dynamically Creatable

Dynamically Deletable

Optional Properties Supported	APDU_Segment_Timeout / Daylight_Savings_Status / Description / Local_Date / Local_Time / Location / Max_Info_Frames / Max_Master Time_Synchronization_Recipients / UTC_Offset / Configuration_Files / Last_Restore_Time / Backup_Failure_Timeout / Max_Segments_Accepted / Active_COV_Subscriptions / Profile_Name / Last_Restart_Reason / Restart_Notification_Recipients / UTC_Time_Synchronization_Recipients / Time_Synchronization_Interval / Align_Interval / Interval_Offset / Time_of_Device_Restart / Backup_Preparation_Time / Restore_Preparation_Time / Restore_Completion_Time / Backup_And_Restore_State
Writable Properties	APDU_Segment_Timeout / Description / Location / Max_Info_Frames / Max_Master / Time_Synchronization_Recipients / UTC_Offset / Backup_Failure_Timeout / Max_Segments_Accepted / Profile_Name / Last_Restart_Reason / Restart_Notification_Recipients / UTC_Time_Synchronization_Recipients / Time_Synchronization_Interval / Align_Interval / Interval_Offset / Time_of_Device_Restart /
Proprietary Properties	Not Applicable

Data Link Layer Options

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ATA 878.1, EIA-485 ARCNET (Clause 8), baud rate(s): _____
- MS/TP master (Clause 9), baud rate(s): _____
- MS/TP slave (Clause 9), baud rate(s): _____
- Point-To-Point, EIA 232 (Clause 10), baud rates(s): _____
- Point-To-Point, modem (Clause 10), baud rates(s): _____
- 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.
- 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

- ISO 10646(UTF-8) IBM™/Microsoft™ DBCS ISO 8859-1
- ISO 10646(UCS-2) ISO 10646(UCS-4) JIS X 0208

If this product is a communication gateway, describe the types of non-BACnet equipment/network(s) that the gateway supports:

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)