



Product Implementation Conformance Statement b4920

Date: October 29th 2003

Vendor Name: Andover Controls Corporation

Product Name: Continuum

Product Model Number: b4920

Applications Software Version: 4.0 Firmware Revision: 4.0

BACnet Protocol Version: 1 BACnet Protocol Revision: 2

Product Description

b4920 is BACnet protocol controller with 16 universal inputs, 8 analog outputs, and 8 digital outputs, any 2 of which could be configured as a tri-state output. Through the use of expansion modules, it can have both its inputs and outputs expanded beyond these initial I/O counts. In addition, the b4920 performs BACnet routing functions between its BACnet/IP port and its BACnet MS/TP port.

BACnet Standardized Device Profile (Annex L)

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

BACnet Interoperability Building Blocks Supported (BIBBs)

BIBB	Name	BACnet Service	Init	Exec
DS-RP-A	Data Sharing - ReadProperty-A	ReadProperty	X	
DS-RP-B	Data Sharing - ReadProperty-B	ReadProperty		X
DS-RPM-B	Data Sharing - ReadPropertyMultiple-B	ReadPropertyMultiple		X
DS-RPC-B	Data Sharing - ReadPropertyConditional-B	ReadPropertyConditional		X
DS-WP-A	Data Sharing - WriteProperty-A	WriteProperty	X	
DS-WP-B	Data Sharing - WriteProperty-B	WriteProperty		X
DS-WPM-B	Data Sharing - WritePropertyMultiple-B	WritePropertyMultiple		X
DS-COV-A	Data Sharing - COV-A	SubscribeCOV	X	
		ConfirmedCOVNotification		X
		UnconfirmedCOVNotification		X
DS-COV-B	Data Sharing - COV-B	SubscribeCOV		X
		ConfirmedCOVNotification	X	
		UnConfirmedCOVNotification	X	
AE-N-I-B	Alarm and Event-Notification-B	ConfirmedEventNotification	X	
		UnconfirmedEventNotification	X	
AE-ACK-B	Alarm and Event-ACK-B	AcknowledgeAlarm		X
AE-INFO-B	Alarm and Event-Information-B	GetEventInformation		X
DM-DDB-A	Device Management-Dynamic Device Binding-A	Who-Is	X	
		I-Am		X
DM-DDB-B	Device Management-Dynamic Device Binding-B	Who-Is		X
		I-Am	X	
DM-DOB-B	Device Management-Dynamic Object Binding-B	Who-Has		X
		I-Have	X	
DM-DCC-B	Device Management-DeviceCommunicationControl-B	DeviceCommunicationControl		X
DM-TS-B	Device Management-TimeSynchronization-B	TimeSynchronization		X
DM-UTC-B	Device Management-UTCTimeSynchronization-B	UTCTimeSynchronization		X
DM-RD-B	Device Management-ReinitializeDevice-B	ReinitializeDevice		X
DM-OCD-B	Device Management-Object Creation and Deletion-B	CreateObject		X
		DeleteObject		X
NM-RC-B	Network Management-Router Configuration-B	Who-Is-Router-To-Network	X	X
		I-Am-Router-To-Network	X	X
		Initialize-Routing-Table		X
		Initialize-Routing-Table-Ack	X	

Segmentation Capability

X	Segmented requests supported	Window Size: 1
X	Segmented responses supported	Window Size: 1

Standard Object Types Supported

Object Type	Supported	Creatable¹	Deletable¹
Analog Input	X		
Analog Output	X		
Analog Value	X		
Binary Input	X		
Binary Output	X		
Binary Value	X		
Device	X		
Event Enrollment	X	X	X
Multi-state Input	X		
Multi-state Output	X		
Multi-state Value	X		
Notification Class	X	X	X
Program	X		
Schedule	X		

¹ Except for Device, instances of all supported object types can be created, deleted and configured using CyberStation.

Object Types and Properties Supported

(Items in **bold** indicate supported optional properties. Items in *italics* indicate writable properties.)

Analog Input	Analog Output	Analog Value
<p><i>COV_Increment</i> Description¹ <i>Event_State</i> Object_Identifier Object_Name Object_Type Out_Of_Service² <i>Present_Value</i> Status_Flags <i>Units</i></p>	<p><i>COV_Increment</i> Description¹ <i>Event_State</i> Object_Identifier Object_Name Object_Type Out_Of_Service² <i>Present_Value</i> Priority_Array <i>Relinquish_Default</i> Status_Flags <i>Units</i></p>	<p><i>COV_Increment</i> Description¹ <i>Event_State</i> Object_Identifier Object_Name Object_Type Out_Of_Service <i>Present_Value</i> Priority_Array <i>Relinquish_Default</i> Status_Flags <i>Units</i></p>
Binary Input	Binary Output	Binary Value
<p>Description¹ <i>Event_State</i> Object_Identifier Object_Name Object_Type Out_Of_Service² <i>Polarity</i> Present_Value Status_Flags</p>	<p>Description¹ <i>Event_State</i> Object_Identifier Object_Name Object_Type Out_Of_Service² <i>Polarity</i> Present_Value Priority_Array <i>Relinquish_Default</i> Status_Flags</p>	<p>Description¹ <i>Event_State</i> Object_Identifier Object_Name Object_Type Out_Of_Service <i>Present_Value</i> Priority_Array <i>Relinquish_Default</i> Status_Flags</p>

¹ Limited to 32 Characters

² Cannot be set to false if Channel not configured

Object Types and Properties Supported (cont.)

(Items in **bold** indicate supported optional properties. Items in *italics* indicate writable properties.)

Device	Event Enrollment
Active_COV_Subscriptions	Acked_Transitions
APDU_Segment_Timeout	<i>Notification_Class</i>
APDU_Timeout	Description¹
Application_Software_Version	<i>Event_Enable</i>
Database_Revision	<i>Event_Parameters</i>
<i>Daylight_Savings_Status</i>	Event_State ²
Device_Address_Binding	Event_Time_Stamps
Firmware_Revision	<i>Event_Type</i>
Local_Date	<i>Notify_Type</i>
Local_Time	Object_Identifier
Max_APDU_Length_Accepted	<i>Object_Name</i>
Max_Info_Frames	<i>Object_Property_Reference³</i>
Max_Master	Object_Type
Max_Segments_Accepted	
Model_Name	
Number_Of_APDU_Retries	
Object_Identifier	
Object_List	
Object_Name	
Object_Type	
Protocol_Conformance_Class ⁴	
Protocol_Object_Types_Supported	
Protocol_Revision	
Protocol_Services_Supported	
Protocol_Version	
Segmentation_Supported	
System_Status	
<i>UTC_Offset</i>	
Vendor_Identifier	
Vendor_Name	

¹ Limited to 32 Characters

² Limited to Change_Of_State, Change_Of_Value, Floating_Limit, Out_Of_Range

³ Must reference Present_Value of point in same controller

⁴ Obsolete device property (95) implemented for backward compatibility.

Object Types and Properties Supported (cont.)

(Items in **bold** indicate supported optional properties. Items in *italics* indicate writable properties.)

Multi-state Input	Multi-state Output	Multi-state Value
<p><i>Description</i>¹ Event_State Number_Of_States Object_Identifier Object_Name Object_Type Out_Of_Service² Present_Value Status_Flags State_Text³</p>	<p><i>Description</i>¹ Event_State Number_Of_States Object_Identifier Object_Name Object_Type Out_Of_Service² Present_Value Priority_Array Relinquish_Default Status_Flags State_Text³</p>	<p><i>Description</i>¹ Event_State Number_Of_States Object_Identifier Object_Name Object_Type Out_Of_Service Present_Value Priority_Array Relinquish_Default Status_Flags State_Text³</p>
Notification Class	Program	Schedule
<p><i>Ack_Required</i> Notification_Class <i>Description</i>¹ Object_Identifier Object_Name Object_Type Priority Recipient_List⁵</p>	<p><i>Description</i>¹ Object_Identifier Object_Name Object_Type Out_Of_Service Program_Change⁴ Program_State Status_Flags</p>	<p><i>Description</i>¹ Effective_Period List_Of_Object_Property_References Object_Identifier Object_Name Object_Type Present_Value Priority_For_Writing Weekly_Schedule</p>

¹ Limited to 32 Characters

² Cannot be set to false if Channel not configured

³ Cyberstation can configure it to have a State_Text property

⁴ Read_Property always returns Ready

⁵ Any destination that is specified as a MAC address will be treated as broadcast

Data Link Layer Options

X	BACnet IP
	BACnet IP, Foreign Device
	ISO 8802_3, Ethernet
	ANSI/ATA 878.1, 2.5 MB ARCNET
	ANSI/ATA 878.1, RS_485, baud rate(s)_____
X	MS/TP master, baud rate(s)____9600,19200_____
	MS/TP slave, baud rate(s)_____
	Point-To-Point, EIA 232, baud rate(s)_____
	Point-To-Point, modem, baud rate(s)_____
	LonTalk, medium: _____
	Other

Device Address Binding

Static Device Binding Supported Yes No

Networking Options

<input checked="" type="checkbox"/>	Router	List all routing configurations __BACnet IP, MS/TP_____
<input type="checkbox"/>	Annex H, BACnet Tunneling Router over IP	
<input type="checkbox"/>	BACnet/IP Broadcast Management Device (BBMD)	
<input type="checkbox"/>	Support registrations by foreign devices	

Character Sets Supported

<input checked="" type="checkbox"/>	ANSI X3.4	<input checked="" type="checkbox"/>	ISO 8859-1
<input type="checkbox"/>	ISO 10646 (UCS-2)	<input type="checkbox"/>	ISO 10646 (UCS-4)
<input type="checkbox"/>	IBM /Microsoft DBCS	<input type="checkbox"/>	JIS C 6626