VLC Programmable Logic Controller

BACNET PROTOCOL IMPLEMENTATION CONFORMANCE STATEMENT

Date: **April 2, 2005**
Vendor Name: **Alerton**
Product Name: **VLC Programmable Logic Controller**
Product Model Number: **n/a**
Application Software Version: **n/a**
Firmware Revision: **4.01**

Product Description

The Alerton BAC*talk* VLC controllers are high performance programmable logic controllers designed for control of HVAC and industrial equipment. The various VLC models feature different mixes of analog and binary inputs and outputs. VLC applications include air handling units, central plant systems, clean rooms, and fume hoods. The VAV models support pressure-independent control of VAV boxes, and include one or two air velocity sensors. These controllers operate either as a stand-alone controller or as part of a site-wide system on a BACnet MS/TP LAN. All communication is via BACnet standard protocols.

BACnet Standardized Device Profile (Annex L):

☐ BACnet Operator Workstation (B-OWS)
☐ 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 (Annex K):

DS-RP-B   DM-DDB-B
DS-RPM-B   DM-DOB-B
DS-WP-B   DM-DCC-B
DS-WPM-B   DM-TS-B
                 DM-RD-B

Segmentation Capability:

Segmented requests not supported
Segmented responses not supported

Standard Object Types Supported:

Analog Input
Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description
	Reliability
Writable Properties:	n/a
Proprietary Properties:	n/a
Property Range Restrictions:	0.0 – 4092.0, resolution 1.0

Analog Output
Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description
Writable Properties:	Present_Value
Proprietary Properties:	n/a
Property Range Restrictions:	0.0 – 511.875, resolution 0.0625

Analog Value
Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description
Writable Properties:	Present_Value
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

Binary Input
Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description
Writable Properties:	n/a
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

Binary Output
Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description
Writable Properties:	Present_Value
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

Binary Value
Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description
	Priority_Array (BV #40 only)
	Relinquish_Default (BV #40 only)
Writable Properties:	Present_Value
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

Device

Dynamically Creatable:	No	
Dynamically Deletable:	No	
Optional Properties Supported:	Description	
	Location	
	Local_Time	
	Local_Date	
	Daylight_Savings_Status	
Writable Properties:	Object_Name	
	Description	
	Location	
	Local_Time	
	Local_Date	
	Daylight_Savings_Status	
	UTC_Offset	
Proprietary Properties:	n/a	
Property Range Restrictions:	Object_Name	Size: maximum 38 octets[1]
	Description	Size: maximum 38 octets[1]
	Location	Size: maximum 38 octets[1]
	UTC_Offset	Range: -900..+900

File

Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description
Writable Properties:	Archive
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

Program

Dynamically Creatable:	No
Dynamically Deletable:	No
Optional Properties Supported:	Description
Writable Properties:	Program_Change
Proprietary Properties:	n/a
Property Range Restrictions:	n/a

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), coax
☐ ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s):
☑ MS/TP master (Clause 9), baud rate(s): 76.8k, 38.4k, 19.2k, 9600 bps
☐ MS/TP slave (Clause 9), baud rate(s):
☐ Point-To-Point, EIA 232 (Clause 10), baud rate(s):
☐ Point-To-Point, modem (Clause 10), baud rate(s):
☐ LonTalk, (Clause 11), medium:
☐ Other:

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[1] Includes initial character set octet

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 ☑ Not applicable

Networking Options:

☐ Router, Clause 6, routing configurations:
☐ Annex H, BACnet Tunneling Router over IP
☐ BACnet/IP Broadcast Management Device (BBMD)

Character Sets Supported:

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

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

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

n/a_____
_____
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Specifications subject to change without notice.

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